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United States Senate
COMMITTEE ON FINANCE
WASHINGTON, DC 20510–6200

October 17, 2019

VIA ELECTRONIC TRANSMISSION

Pamela M. Sutton-Wallace, MPH
Acting Executive Vice President for Health Affairs, UVA Health System
Chief Executive Officer, UVA Medical Center
P.O. Box 800809
Charlottesville, Virginia 22908-0809

Dear Ms. Sutton-Wallace:

The United States Senate Committee on Finance has exclusive jurisdiction within the United States Senate over matters of federal taxation, and as its chairman I am committed to making sure the United States' tax laws are administered to fairly and effectively. As part of that commitment, it is my job to make sure that entities exempt from tax are fulfilling their tax-exempt purposes. In 2015, I investigated reports that the Mosaic Life Care hospital system in Missouri and Kansas was suing low-income patients to force them to pay their hospital bills even when those patients were eligible for financial assistance and discounted treatments.[1] As a result of that investigation, Mosaic Life Care established a three-month debt forgiveness period in which patients could apply or re-apply for financial assistance, forgave the debt of 5,070 patients, and hired more employees to help low-income patients apply for financial assistance.[2]

As you are surely aware, the UVA Health System is exempt from tax, as a part of the University of Virginia, by way of 26 U.S.C. §501(c)(3).[3] That section of the tax code requires

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[1] *See* Letter from Sen. Charles E. Grassley to Dr. Mark Laney, President and CEO of Mosaic Life Care (Jan. 16, 2015), *available at* https://www.documentcloud.org/documents/1503959-grassley-letter-2015-01-16-ceg-to-mosaic.html.

[2] Press Release, Sen. Charles E. Grassley, Grassley Releases Results of Inquiry into Missouri Tax-exempt Hospital; Confirms Debt Forgiveness of $16.9 Million for 5,070 Patients (May 24, 2016), *available at* https://www.grassley.senate.gov/news/news-releases/grassley-releases-results-inquiry-missouri-tax-exempt-hospital-confirms-debt.

[3] *See* Letter from Kim D. Bailey, Operations Manager, Internal Revenue Service, to Rector & Visitors of the University of Virginia (Aug. 21, 2014), *available at* https://taxcompliance.virginia.edu/system/files/public/va_irs_determin_letter.pdf; *see also* University of Virginia, 2017-18 Financial Report, at 26, *available at* https://www2.virginia.edu/financialreport/UVAFInancialReport2018.pdf.

tax-exempt hospitals to (1) meet community health needs assessments requirements, (2) maintain financial assistance policies, (3) limit amounts charged for medically necessary care provided to individuals eligible for financial assistance, and (4) refrain from extraordinary collection actions against patients before making reasonable efforts to determine if those patients are eligible for financial assistance.[4] Unfortunately, I have seen a variety of news reports lately discussing what appear to be relentless debt-collection efforts by tax-exempt hospitals, including UVA Health System. These efforts raise questions about how UVA Health System and other tax-exempt hospitals are complying with these requirements.

Specifically, according to a recent article by *Kaiser Health News*, an article that was reprinted in *The Washington Post*,

> *Over six years ending in June 2018, [UVA Health System] and its doctors sued former patients more than 36,000 times for over $106 million, seizing wages and bank accounts, putting liens on property and homes and forcing families into bankruptcy.... UVA sued patients for as little as $13.91 and as much as $1 million during most of that period, until July 2017, when it restricted lawsuits to those owing more than $1,000.*
>
> *Every year, the health system sued about 100 of its own employees who also happened to be patients. It garnished thousands of paychecks, largely from workers at lower-pay employers such as Walmart, where UVA took wages more than 800 times.*
>
> *Under a Virginia program designed to help state and local governments collect debt, it also seized $22 million in state tax refunds to patients with outstanding medical bills in the last six fiscal years — most of it without court judgments, said health system spokesman Eric Swensen.*
>
> *Over many years, it filed thousands of property liens from Albemarle County all the way to Georgia.*
>
> *Beyond its recovery of debts, UVA hit some former patients with an additional 15 percent for legal costs, plus 6 percent interest on their unpaid bills, which over the course of years can add up to more than the original bill.*
>
> *The health system also has the most restrictive eligibility guidelines for financial assistance to patients of any major hospital system in Virginia, interviews and written policies show. Savings of only $4,000 in a retirement account can disqualify a family from aid, even if its income is barely above poverty level.*[5]

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[4] 26 U.S.C. §501(r) (2019).

[5] Jay Hancock and Elizabeth Lucas, *'UVA has ruined us': Health system sues thousands of patients, seizing paychecks and putting liens on homes*, THE WASHINGTON POST, September 9, 2019, *at* https://www.washingtonpost.com/health/uva-has-ruined-us-health-system-sues-thousands-of-patients-seizing-paychecks-and-putting-liens-on-homes/2019/09/09/5eb23306-c807-11e9-be05-f76ac4ec618c_story.html; *see also* https://khn.org/news/uva-health-system-sues-patients-virginia-courts-garnishment-liens-bankruptcy/.

I have the following questions about some of the facts alleged in this article:

1. Since the beginning of 2014, how much money has UVA Health System collected from patients (including individuals responsible for making payments on behalf of patients) whose bills were more than 30 days past due? How many of these patients (including individuals responsible for making payments on behalf of patients) were eligible for financial assistance?

2. Since the beginning of 2014, how much charitable care has UVA Health System provided in each of those years? Please provide a breakdown of charitable care, including the methodology for calculating charitable care and what programs and services are included in that calculation, as well as the amounts allocated for each category.

3. What is UVA Health System's process for notifying patients about their outstanding balances prior to those balances being transferred to a third party for debt collection and/or prior to judicial remedies being sought regarding those balances? If there is a policy for notifying patients about such outstanding balances, please provide a copy of that policy.

4. What is UVA Health System's policy for transferring outstanding balances to a third party for debt collection? Please provide a copy of that policy.

5. What is UVA Health System's policy on seeking judicial remedies to enforce the payment of outstanding balances? In your response, please include a discussion of how UVA Health System enforces balances that have been reduced to judgment, including but not limited to, how UVA Health System prioritizes lien enforcement, garnishment, and other collection remedies. Please provide a copy of that policy.

6. What is UVA Health System's financial assistance policy? Please provide a copy of that policy. Since the beginning of 2014, what percentage of patients who received medically necessary care from UVA Health System and did not have health insurance were eligible for financial assistance?

7. What efforts does UVA Health System make to determine whether patients are eligible for financial assistance before taking extraordinary collection actions, as defined by 26 U.S.C. §501(r) and its supporting regulations, against patients (including individuals responsible for making payments on behalf of patients)? If there is a written policy for determining whether patients are eligible for financial assistance before taking extraordinary collection actions against them, please provide a copy of that policy.

8. What efforts does UVA Health System make to inform patients (including individuals responsible for making payments on behalf of patients) of the availability of financial assistance before taking extraordinary collection actions? If there is a written policy for informing patients of the availability of financial assistance before taking extraordinary collection actions against them, please provide a copy of that policy.

9. Since the beginning of 2014, has UVA Health System ever reevaluated and/or rescinded a patient's financial assistance determination? If so, how many times has UVA Health System reevaluated such a determination, and what were the reasons for such determination(s)?

10. The article above reports that UVA Health System once filed a lawsuit over a debt in the amount of $13.91 but has since raised its litigation threshold in July 2017 to debts over $1,000.[6] Are these facts correct, and if so, what was the rationale used to determine that $1,000 threshold? What is the policy for collecting debts that are less than $1,000?

11. What is the rationale for using a basis of earning less than 200 percent of federal poverty guidelines and owning less than $3,000 in assets, not including a home, for determining whether or not to deny financial assistance to patients?

12. What, if any, procedures are in place to determine that delinquent debts of any amount are accurate prior to UVA Health System taking any steps to collect those debts?

13. Does UVA Health System conduct a Community Health Needs Assessment (CHNA)? If so, please provide copies of each CHNA that UVA Health System has conducted.

In addition to having concerns about UVA Health System's financial-assistance and debt-collection practices, I am also concerned about how patients' hospital bills get so high in the first place. According to that same *Kaiser Health News* article discussed above,

> *Patients also have trouble because like many U.S. hospitals, UVA bills people lacking coverage at rates far higher than what insurance companies pay on behalf of their members. Such bills often have little connection to the cost of care, experts say. Insurers obtain huge discounts off hospital sticker prices — 70 percent on average in UVA's case, according to documents it files with Medicare.*
>
> *UVA offers uninsured patients 20 percent off to start and another 15 to 20 percent if they pay promptly, Swensen said. Few are able to do that. Patients are subject to collections and lawsuits if they do not pay, or arrange to do so, within four months, he said.*

[6] *Id.*

The $164,000 billed to [Heather] Waldron for intestinal surgery was more than twice what a commercial insurer would have paid for her care, according to benefits firm WellRithms, which analyzed bills for Kaiser Health News using cost reports UVA files with the government. Charges on her bill included $2,000 for a $20 feeding tube.[7]

I have the following additional questions about UVA Health System's billing practices:

14. UVA Health System appears to list "Prices of Common Procedures & Services" on the internet. However, those prices "DO NOT include doctor fees, anesthesia, supplies and medications...."[8] Prior to receiving services from UVA Health System, whether medically necessary or otherwise, how do patients know what the final costs of those services are going to be, whether such patients are covered by health insurance or not?

15. Is the article above correct that UVA Health System charges, on average, insurance companies 70 percent less than what it charges uninsured individuals for the same services, what the article refers to as "sticker prices"? If so, how are such amounts determined?

16. Is the article above correct that UVA offers uninsured patients "20 percent off to start and another 15 to 20 percent if they pay promptly"? If so, how are such discounts determined?

17. Is the article above correct that UVA Health System might have billed any given patient $2,000 for a feeding tube worth approximately $20? If so, how is that possible? Please note this question does not ask for patient-specific information, but rather, what such a product might have recently been billed to any given patient.

18. Under the Internal Revenue Code, tax-exempt hospitals are prohibited from billing patients without health insurance, and who are otherwise eligible for financial assistance, more than what individuals who have insurance are billed for medically necessary care.[9] How does UVA Health System ensure that it complies with this requirement? Since the beginning of 2014, what percentage of patients who received medically necessary care from UVA Health System and did not have health insurance were billed at rates commensurate with this requirement in the tax code?

19. I understand UVA Health System's latest standard price list, sometimes known as a "Charge Description Master" or simply a "chargemaster," is available on UVA Health System's website here: https://uvahealth.com/sites/default/files/2019-

[7] *Id.*
[8] UVA Health System, Prices of Common Procedures & Services, *at* https://uvahealth.com/services/billing-insurance/common-prices.
[9] 26 U.S.C. §501(r)(5) (2019).

07/uvaprices.category.19-20csv.csv. Is this document indeed UVA Health System's most up-to-date standard price list?

a. What do the prices on this document represent?

b. How are these prices determined?

c. How do the prices that UVA Health System negotiates with insurance companies compare to these prices? If there is a fixed ratio for determining the prices UVA Health System negotiates with and/or charges insurance companies as compared to these prices in the standard price list, what is that ratio? If there is another method for determining the prices UVA Health System negotiates with and/or charges insurance companies as compared to these prices in the standard price list, what is that other method?

d. Who pays these prices?

    i. How do these prices relate to hospital bills that a patient might receive if he or she is covered by health insurance that considers UVA Health System "out-of-network"?

    ii. How do these prices relate to hospital bills that a patient might receive if he or she does not have health insurance?

e. For patients who might incur these costs (or some pre-determined fraction of them), how does UVA Health System explain to patients seeking care that is not medically necessary that these are the costs they might incur (or some pre-determined fraction of them)?

f. For patients who might incur these costs (or some pre-determined fraction of them), how does UVA Health System explain to patients who require medically necessary and immediate care, and might not be in a position to understand costs they would incur as a result of that care, that these are the costs they might incur (or some pre-determined fraction of them)?

g. The standard price list appears to list a cost of $5.12 for "LOSARTAN 50 MG TABS" and a cost of $0.86 for "LOSARTAN 25 MG TABS."

    i. Are these listings references to single doses of the popular blood-pressure medication commonly known as "losartan potassium," or simply "losartan," the former as a single 50-milligram dose and the latter as a single 25-milligram dose?

    ii. Would a patient who ends up paying the prices listed on this standard price list and required a 50-milligram dose of losartan

ultimately pay $5.12 for that dose? Or would that patient pay $0.86 twice, namely for two 25-milligram doses totaling $1.72. If the former, why?

h. The standard price list appears to list a cost of $9,548.00 for a "NAIL 10 X 210 MM ANKLE LOCKING," which appears to fall under the category of "Supplies" and have a "Charge Code" of 92000052.

   i. What is this supply?

   ii. Why does this supply cost $9,548.00?

i. The standard price list appears to list a cost of $7,918.59 for a "SCREW 7.5 X 50MM DR MAS SOLERA," which appears to fall under the category of "Supplies" and have a "Charge Code" of 92000052.

   i. What is this supply?

   ii. Why does this supply cost $7,918.59?

j. What listing, if any, on the standard price list reflects the intestinal surgery discussed in *Kaiser Health News* article listed and quoted above?

k. What listing, if any, on the standard price list reflects the feeding tube discussed in *Kaiser Health News* article listed and quoted above?

Please answer the above questions on a question-by-question basis, indicating which questions you are answering, no later than November 19, 2019. Should you have questions, please contact John Schoenecker or Quinton Brady of my Committee staff at (202) 224-4515. Thank you for your attention to this important mater.

Sincerely,

Charles E. Grassley
Chairman
Senate Committee on Finance

November 19, 2019

VIA ELECTRONIC TRANSMISSION

The Honorable Charles E. Grassley
Chairman, Senate Committee on Finance
United States Senate
Washington, DC 20510

Re: Your letter of October 17, 2019

Dear Chairman Grassley:

Thank you for your letter of October 17, 2019 regarding the financial assistance to patients provided by the University of Virginia Medical Center. I am serving as the Interim Chief Executive Officer of the University of Virginia Medical Center and on behalf of the Medical Center, we appreciate the opportunity to engage with you on this important issue and welcome the opportunity to outline for you and your staff the steps we are taking to provide such assistance to our patients. We share your commitment to ensuring that all of our patients have access to excellent care at a reasonable cost. We work hard to manifest that commitment every day, as described below.

Before responding to the specific questions and requests for information set forth in your October 17 letter, we thought it would be helpful to provide some background on the University of Virginia Medical Center, provisions of federal and state law that impact our approach to this important issue, and recent steps we have taken to increase financial assistance to patients.

I. Legal Structure and Patient Care Provided by UVA

The University of Virginia Medical Center (the "Medical Center") is an agency of the Commonwealth of Virginia and a component of the University of Virginia ("UVA"). UVA is a body corporate under Section 23.1-2200 *et seq*. of the *Code of Virginia* and is governed by the Rector and Board of Visitors under state law. The Board of Visitors is "under the control of the [Virginia] General Assembly." *Id*. UVA and the Medical Center are on a state fiscal year (FY) of July 1 – June 30, and data responses herein are on a fiscal year basis unless otherwise noted.

The Medical Center, along with the University of Virginia School of Medicine and its related faculty practice plan, the University of Virginia Physicians Group, comprise an academic medical center. Collectively and individually they are often referred to for marketing purposes as the "UVA Health System" or "UVA Health." While those terms are used anecdotally to refer to the interrelated health care organizations associated with the University of Virginia, there is no

legal entity called the "UVA Health System." The responses herein are consequently submitted on behalf of the University of Virginia Medical Center.

The mission of the Medical Center and related School of Medicine and faculty practice plan is to provide excellence, innovation and superlative quality in the care of patients, the training of health professionals, and the creation and sharing of health knowledge within a culture that promotes, equity, diversity, and inclusiveness. The Medical Center includes the University Hospital, multiple outpatient clinics and facilities, and ancillary health care services such as, *inter alia,* a 24/7 outpatient pharmacy, the Emily Couric Cancer Center, and a long term acute care hospital all located in Charlottesville, as well as dialysis centers in Lynchburg, Alta Vista and Amherst, Virginia. The University Hospital is a tertiary, quaternary hospital and Level I Trauma Center.

Today there are approximately 940 clinical faculty at the Medical Center, and over 800 Housestaff (physician residents and fellows). We serve patients from every region of Virginia, and our goal is that all Virginians are able to receive their healthcare without leaving the Commonwealth. In all that we do, we work to benefit human health and improve the quality of life in the Commonwealth of Virginia and beyond. For four years in a row, the Medical Center has been ranked the #1 hospital in Virginia by *U.S. News & World Report*.

In FY 19 (July 1, 2018- June 30, 2019) there were approximately 29,240 inpatient discharges, over 890,000 outpatient visits and over 64,200 emergency room visits to the Medical Center. We provided care to over 225,000 Virginia residents. Critical patient care services provided by the Medical Center include: the region's most advanced neonatal intensive care unit (also nationally ranked by *U.S. News & World Report*); the only comprehensive transplant center in Virginia for adult and pediatric solid organs (heart, lung, kidney, liver, and pancreas); a comprehensive stroke center (approximately 3 percent of hospitals across the country achieve this highest recognition); advanced cardiac programs in imaging and valve replacement; and one of the largest academic dialysis programs in the country to treat those diagnosed with chronic kidney failure. Given the range of specialized and innovative services offered, our patients, including the indigent, tend to be sicker and have more complex conditions than at other hospitals in the Commonwealth. In an effort to keep patients out of the hospital and in locations closer to home, we also provide telehealth and remote monitoring services, ranging from emergency care to chronic disease management across the continuum from pre-natal care to end of life via partnerships with over 150 sites across the Commonwealth, including hospitals, clinics, health centers, community service boards, health departments, medical practices, dialysis facilities, correctional facilities, PACE programs, rural schools, and skilled nursing facilities.

II. Indigent Care

Some portion of the patient admissions, treatment, and discharges described above involved patients without insurance or other means to pay for the care provided. The Medical Center

provided in excess of $282,000,000 in indigent care in FY 19, as shown by the map titled *UVA Medical Center and Affiliates by Virginia Health Planning Districts, FY2019, Indigent Care (IC) and Medicaid (M),* attached hereto as **Exhibit 1**. Approximately 18,575 patients who completed our financial applications in FY 19 were designated indigent or medically indigent, in full or in part, based on State Eligibility Guidelines discussed below.

As one of two state safety net health care institutions in Virginia, the Medical Center is subject to the state Eligibility Guidelines for Health Care Services at the State University Teaching Hospitals promulgated by the Virginia Department of Medical Assistance Services as required by the Virginia General Assembly (the "Guidelines"), which are attached hereto as **Exhibit 2**. The Guidelines define "indigent" and "medically indigent patients." Indigent patients are those individuals whose income is at or below 100% of the federal poverty level ("FPL").[1] Medically indigent means the "lack of adequate health care insurance benefits available to the individual or family under a federal, state, local or private health care program and/or the lack of financial resources available to the individual or family unit to obtain necessary medical services." Medically indigent patients' income fall in the range of 101% to 200% of the FPL. The Guidelines further provide that indigent patients will not owe the University Teaching Hospitals any balance, whereas medically indigent patients may owe some amount depending on pay scale and family size. The Medical Center has adhered to these Guidelines for years as more particularly described below.

In addition to income requirements, the Guidelines contain asset criteria that patients must meet in order to obtain indigent or medically indigent support. The threshold for financial assets is quite low: $2,000 for one person and $3,000 for two persons, plus an additional $100 for each additional person. Certain assets are excluded from the calculation, but the exclusions are very limited (e.g., a home and lot not to exceed 3.99 acres and one motor vehicle). The Guidelines require the Medical Center to ascertain both the income level as well as the financial assets of the patient in order to determine indigency or medical indigency. For example, a family of three who falls in the 101% to 200% range of the FPL in annual income, but has assets greater than $3,100, will not qualify as indigent or medically indigent under the state criteria.

III. Federal and State Law Governing Debt Collection

The Medical Center is both a tax-exempt organization and a state agency. Each of those characteristics triggers legal obligations with which we must comply. On occasion, those obligations conflict and require judgment as to how they should be reconciled. We must, for example, provide care to patients regardless of their ability to pay. We must also, however, take appropriate steps to collect all financial obligations owed to the Commonwealth, which includes outstanding medical bills incurred by our patients. We have worked hard through the years to

[1] Currently the range is $12,490 annual income for an individual up to $43,430 annual income for a family of eight.

apply these various provisions of law objectively and pursue the dual goals of indigent care and debt collection with appropriate balance, empathy, and fairness.

A. Internal Revenue Code, 26 U.S.C. § 501(r)

Your October 17 letter presumes that the provisions of Section 501(r) of the Internal Revenue Code apply to the Medical Center. We do not believe the applicability of that section is clear. In order to be subject to Section 501(r), UVA must, among other things, meet the definition of a "hospital organization" as used in the statute. The implementing regulations define a hospital organization as one that "operates one or more hospital facilities." 26 CFR § 1.501(r) – 1(b)(18). A hospital facility, in turn, is defined, in part, as "a facility that is required by a state to be licensed, registered or similarly recognized as a hospital." 26 CFR § 1.501(r)-1(b)(17). Therefore, in order to be a hospital organization, the Medical Center must be required by the Commonwealth of Virginia to be licensed, registered or similarly recognized as a hospital. Virginia Code § 32.1-124 expressly exempts from licensing requirements a "hospital…owned or operated by an agency of the Commonwealth." As the University of Virginia is an agency of the Commonwealth, the Medical Center is not a "hospital organization" as defined in the federal regulations. This view is informed by two separate opinions we sought and received from outside counsel, both of which conclude that the absence of a state licensure requirement makes Section 501(r) inapplicable.

Even though the Medical Center is likely not subject to 501(r), we acknowledge the obligation to comply with the federal policy regarding tax-exempt hospitals and, as detailed herein, have made changes to our processes to ensure that more focused consideration is given to the repayment ability of our patients. We understand that the intent of that section is to require nonprofit hospitals to provide relief to indigent patients. We have thus attempted to provide financial assistance to patients before taking extraordinary collection actions, as required by Section 501(r). Those steps are outlined below and, we believe bring us into compliance with the policy underpinnings of Section 501(r) regardless of its applicability.

B. Virginia Debt Collection Act, Va. Code § 2.2-4800, et seq.

As a state agency, the Medical Center is subject to the state Virginia Debt Collection Act, Va. Code § 2.2-4800, et seq. That statute states that "it shall be the policy of the Commonwealth that all state agencies and institution shall take all appropriate and cost-effective actions to aggressively collect all accounts receivable."

Further, Va. Code § 2.2-4806(A) provides:

> Each state agency and institution shall take all appropriate and cost-effective actions to aggressively collect its accounts receivable. Each agency and institution shall utilize, but not be limited to, the following collection techniques, according to the policies and procedures required by the Department of Accounts and the Division: (i) credit reporting bureaus, (ii) collection agencies, (iii) garnishments, liens and judgements, (iv)

administrative offset, and (v) participation in the Treasury Offset Program of the United States under 31 U.S.C. § 3716.

Thus, the Virginia Debt Collection Act creates a legal obligation for the Medical Center to "aggressively" collect accounts receivable. While it qualifies that obligation by indicating that collection efforts should be both "appropriate" and "cost-effective," it creates a broadly applicable requirement that all state agencies pursue accounts payable to the Commonwealth. We have attempted to comply with that requirement by using the methods of collection outlined in the statute.

Virginia law also requires the Medical Center to pursue liens, offsets to tax returns, set-offs from insurance recoveries, and other means of collecting unpaid obligations to the Commonwealth. Virginia Code § 8.01-66.9 provides that agencies of the Commonwealth shall have a lien on the claim of an injured person for any funds which may be due him from insurance moneys received for medical services under the injured party's insurance coverage.

The Virginia Setoff Debt Collection Act requires the Medical Center to set off amounts owed the agency by a taxpayer against the taxpayer's income tax refund. Va. Code §58.1-521(B) specifically provides that "…all claimant agencies shall submit, for collection under the procedure established by this article, all delinquent debts which they are owed." A notice and hearing process is provided in the Act. As an agency of the Commonwealth of Virginia, the Medical Center does not have discretion to decide when to use this Setoff Debt procedure, as compliance is required.[2]

C. Balancing Approach

The Medical Center's Patient Financial Services unit has been tasked with reconciling the apparent tension between Virginia's state debt collection obligations and the expectations for nonprofit hospitals set out in Section 501(r). We have attempted to "aggressively collect accounts receivable" consistent with Section 2.2-4806(A) while simultaneously providing "financial assistance before taking extraordinary collection actions" as provided in Section 501(r).

Based upon the opinions of our outside counsel and our internal analyses of legal obligations, we determined that the Virginia debt collection mandates outweigh the uncertain application of 501(r) to a facility that was exempted from licensing requirements by state law. That said, we recognize that lawsuits, property liens, and wage garnishments can be not only disruptive but devastating. The Medical Center is trying to balance its fiduciary

[2] The Office of the State Comptroller has promulgated a Debt Collection Manual that governs the collection of debts owed to all state agencies, including the Medical Center. Volume No. 1, Policies and Procedures, Section No. 20500 addresses the management of Accounts Receivable.

responsibility to collect state debts against the reality that low-income people without insurance who do not meet the state Guidelines nonetheless need some assistance. Accordingly, the Medical Center goes beyond the state criteria with respect to the determination of indigency or medical indigency and has already announced significant changes to our billing and collection practices described more fully below. As you consider the financial assistance policies and practices described in the responses that follow, it is important to understand the conflicting rules and obligations that influence those efforts.

IV. Changes to Medical Center Billing and Collection Practices

As a medical center associated with a public university, our mission is to provide excellent care to anyone who needs it. In practice, this means we treat a comparatively higher number of patients who cannot pay. As noted above, we are legally required, as a state agency, to collect money owed to the state. We continually strive to achieve a balance between these conflicting priorities and provide direct financial assistance in many forms to our patients who are unable to pay their medical bills. To that end, we have made recent changes to our discount policy and modified our billing and collection process, as outlined below.

A. Discounts

On September 13, 2019, the Medical Center announced some significant changes to our billing and collection practices in the Medical Center. These changes will reduce medical bills for our low-income patients and those without insurance. They will also reduce our reliance on the legal system for the collection of debts, enabling us to focus our efforts on workable repayment plans.

The changes in billing are as follows:

1. For patients between 0-100% of FPL and who meet the current state asset test, we currently write off 100% of the charges. Patients who fail to meet the asset test currently only receive a 20% discount. (The state-approved asset threshold for a family of four is $3,200). Moving forward, we are going beyond state reimbursement rules and providing additional relief. Patients at or below 100% of the FPL who have less than $50,000 in assets will have their bills written off entirely. It is worth noting that a home on up to 3.99 acres of land and one motor vehicle are not included in the calculation of assets, regardless of value.

2. For patients between 101-200% of the FPL, in the past we have used a sliding scale for billing based on the state Guidelines, depending on income. (200% of the FPL is roughly $25,000 for an individual and $51,500 for a family of four). Going forward, patients in this income bracket who have less than $50,000 in assets will also have their bills written off entirely.

3. For patients between 201-300% of the FPL, in the past we have written off 20% of charges if patients are not insured. (300% of the FPL is roughly $37,000 for an individual and $77,250 for a family of four). Going forward, we will write off 60% of the charges for those within this income bracket who have less than $50,000 in assets.

4. For patients between 301-400% of the FPL, in the past we have written off 20% of charges if patients are not insured. (400% of FPL is roughly $50,000 for an individual and $103,000 for a family of four). Moving forward, we will write off 50% of the charges for those within this income bracket who have less than $50,000 in assets.

5. For patients who are not insured and who are over 400% of FPL, in the past we have written off 20% of their charges. Moving forward, we will write off 40% of their charges. We will do the same for those below 400% of FPL who have assets over $50,000.

6. For patients who are not insured, we have increased the uninsured discount from 20% to 40%. This has already been implemented and reduced the outstanding debt for these patients.

With the exception of #6 above, these changes will require adjustments to the Medical Center's billing system and will therefore officially go into effect on January 1, 2020. In the interim, we are committed to working with any patient who currently has an outstanding balance or debt that he or she is struggling to pay. We have communicated that if a patient needs assistance in this regard to call the Medical Center, and we will work with the patient to determine the best solution.[3]

B. Debt Collection

In addition to providing the discounts listed above, the Medical Center has changed its approach to pursuing outstanding accounts receivable. We have specifically changed the criteria for pursuing judgments and other legal means to collect these unpaid debts, as follows:

- We have taken steps to dismiss debt collection actions pending in general district and circuit court so that cases can be reassessed based on the policies announced on September 13. As detailed in those policy changes, cases generally are being dismissed for patients who make less than 400% of the federal poverty level or owe less than $1,000 and provide the Medical Center with all requested financial information.

- We have revised payment plans for many patients, including reducing minimum payments and extending payment schedules. There has been a significant increase in the number of patients establishing new payment plans or working with us to modify their payment plans.

[3] For additional information, see https://news.virginia.edu/content/medical-center-announces-changes-billing-and-collection-practices.

- We have not filed any new cases seeking judgments for unpaid medical bills, to ensure that legal action does not occur for patients meeting the new criteria.

To ensure community support for these changes and to inform additional changes to our billing and collections process, the Medical Center has formed a 16-person Advisory Council consisting of internal and external stakeholders to examine best practices at other institutions, identify areas of additional improvement, and propose solutions. The Council will also discuss ways the Medical Center can consistently share information about billing policy and practice updates and gather perspectives from diverse community stakeholders. The Council membership includes community leaders from social services, the faith-based community, schools and healthcare, along with UVA students and employees. A list of members can be found at https://news.virginia.edu/content/uva-health-establishes-billing-and-collection-practices-advisory-council-0.

In the coming weeks and months, we will be examining additional ways that the Medical Center can improve our billing and collection system. We will also monitor the changes that we are putting into place and make adjustments as needed. We hope that we can use this experience not simply to improve our own practices and policies but to help lead others to do the same. We believe the changes are a strong first step toward finding a better balance, so that the humane values and compassion that drive our medical care also guide how we treat our patients once they leave the Medical Center.

RESPONSES TO QUESTIONS

1. Since the beginning of 2014, how much money has UVA Health System collected from patients (including individuals responsible for making payments on behalf of patients) whose bills were more than 30 days past due? How many of these patients (including individuals responsible for making payments on behalf of patients) were eligible for financial assistance?

Response: The Medical Center has collected $81.4M from guarantors on accounts more than 30 days delinquent for the period FY 2014 through FY 2019 (i.e., July 1, 2014 – June 30, 2019). $4.02M of the $81.4M was collected from guarantors who had been verified as eligible for some sliding scale financial assistance adjustment under the state Guidelines then in effect. 9,044 patients were verified as eligible for financial assistance.

2. Since the beginning of 2014, how much charitable care has UVA Health System provided in each of those years? Please provide a breakdown of charitable care, including the methodology for calculating charitable care and what programs and services are included in that calculation, as well as the amounts allocated for each category.

Response: As discussed in the introduction above, as an agency of the Commonwealth of Virginia the Medical Center has consistently followed the Eligibility Guidelines for Health Care Services at the State University Teaching Hospitals (defined above as the "Guidelines") approved by the Virginia Department of Medical Assistance ("DMAS") as required by Virginia law. The Guidelines have been the charity care policy for the Medical Center. The Guidelines were first developed in the mid 1980's and to our knowledge have been updated only to change the FPL as the federal government has updated the FPL numbers. Attached are the FY 20 Guidelines, which describe the income and asset requirements, as well as the procedures the Medical Center is to follow.

As explained in the introductory section above, the Guidelines define "indigent" and "medically indigent patients." Indigent patients are those individuals whose income is at or below 100% of the federal poverty level ("FPL"). Currently the range is $12,490 annual income for an individual up to $43,430 annual income for a family of eight. Medically indigent means the "lack of adequate health care insurance benefits available to the individual or family under a federal, state, local or private health care program and/or the lack of financial resources available to the individual or family unit to obtain necessary medical services." Medically indigent patients' income fall in the range of 101% to 200% of the FPL. The Guidelines further provide that indigent patients will not owe the University Teaching Hospitals any balance, whereas medically indigent patients may owe some amount depending on pay scale and family size.

In addition to income requirements, the Guidelines contain asset criteria that patients must meet in order to obtain indigent or medically indigent support. The threshold for financial assets is quite low: $2000 for one person and $3000 for two persons, plus an additional $100 for each additional person. Certain assets are excluded from the calculation, but the exclusions are very limited (e.g., a home and lot not to exceed 3.99 acres and one vehicle). The Guidelines require the Medical Center to ascertain both the income level as well as the financial assets of the patient in order to determine indigency or medical indigency. For example, a family of three who falls in the 101% to 200% range of the FPL in annual income, but has assets greater than $3100, would not qualify under the state criteria.

Effective January 1, 2020, as described above in the introduction and shown in the table below, the Medical Center policy will enable patients under 200% FPL and assets less than $50,000 to qualify for 100% charity write offs. In addition the Medical Center will provide discounted care to all patients falling between 201 - 400% FPL and who have assets less than $50,000. Please see also our responses to question 5 below.

Financial Assistance & Collection Policy Changes for UVA Medical Center (as of 1/1/20)

I. Financial Assistance/Charity Care Changes:

Federal Poverty Level (FPL)	Old	New
0 – 100%	Write off 100% of charges when patient meets FPL & State asset test. If assets disqualify the patient receives 20% discount and we pursue collection.	Write off 100% of charges, UVA will expand asset test to $50,000 (State asset guidelines are for individuals at $2,000)
101 – 200%	Write offs based on sliding scale tied to FPL (per Indigent care guidelines), leaving a patient balance that is due (asset test required).	Write off 100% of charges, UVA will expand asset test to $50,000 (State asset guidelines are for individuals at $2,000)
201 – 300%	Write off 20% of charges if uninsured	Write off 60% of charges. UVA asset test applies to $50,000
301 – 400%	Write off 20% of charges if uninsured	Write off 50% of charges. UVA asset test applies to $50,000

II. Uninsured Discount:

> 400%	Write off 20% of charges	Write off 40% of charges for uninsured discounts for non-indigent and non-charity, and for patients in the 0-400% FPL who are over asset requirement.

III. Collection Policy Change:

< 400%	Suits issued > 200% but only on balances >$1,000	Legal action only when FPL >400% and balances > $1,000

IV. Poverty Guidelines (Federal Poverty Levels (FPL)

Size of Family	100%	200%	300%	400%
1	12,490	24,980	37,470	49,960
4	25,750	51,500	77,250	103,000
8	43,430	86,860	130,290	173,720

The Medical Center has provided the following amounts of indigent care/charity care since FY 2014:

FY 2014 = $259,028,275

FY 2015 = $269,573,071

FY 2016 = $303,984,468

FY 2017 = $307,202,615

FY 2018 = $322,110,289

FY 2019 = $282,550,144*

***The FY 19 audit is currently underway by the Virginia Auditor of Public Accounts ("APA"). Therefore, FY 19 is an unaudited amount but no adjustments are expected. The decrease in indigent care write offs dropped from FY 18 due to Medicaid expansion, which was implemented in Virginia as of January 1, 2019. A significant number of patients that were between 101- 138% of the FPL now qualify for Medicaid.**

3. What is the UVA Health System's process for notifying patients about their outstanding balances prior to those balances being transferred to a third party for debt collection and/or prior to judicial remedies being sought regarding those balances? If there is a policy for notifying patients about such outstanding balances, please provide a copy of that policy.

Response: The Medical Center sends statements on a 28-day cycle with a minimum of four (4) statements to commercial insured and uninsured patients and, in accordance with CMS requirements (see 42 CFR § 413.89 and PRM-I §§306-324), five (5) statements to governmentally insured patients identifying the outstanding balance and due date for payment. Statements are sent in intervals of 28 days with increasingly stronger language. Samples of these letters are attached.

All statements include contact information such as phone numbers and websites through which patients may resolve their accounts through payment plans and financial assistance. Patients may also set up statement notification via MyChart, our online secure patient portal, through which patients can manage payments, payment plans and communications with customer service representatives to assist with their accounts.

4. What is the UVA Health System's policy for transferring outstanding balances to a third party for debt collection? Please provide a copy of that policy.

Response: Please see response in 5 below.

5. What is the UVA Health System' policy on seeking judicial remedies to enforce the payment of outstanding balances? In your response, please include a discussion of how UVA Health System enforces balances that have been reduced to judgment, including but not limited to, how UVA Health System prioritizes lien enforcement, garnishment, and other collection remedies. Please provide a copy of that policy.

   Response: We have worked hard to revise our practices to better address the needs of patients who require financial assistance. Beginning January 1, 2020, in furtherance of this commitment, new criteria will be used to determine financial

assistance. Our response to these questions will outline our current procedures, and then discuss our new program.

Historical Procedure

Accounts are not considered delinquent until at least 100 days have passed since the amount was first billed, the required number of statements have been sent and no payment or payment arrangements have been made. Once this period has ended, if the account balance is less than $1000, the account is forwarded to a collection agency for further action.

If the account balance is greater than $1000, the account is reviewed internally by analysts to confirm that the patient cannot be assisted by other means. This detailed analysis includes:

- **Confirmation of patient address**
- **Confirmation of correct insurance billing and payment**
- **Review of financial assistance eligibility**
- **Review of whether the account is subject to other third party responsibility**
- **Verification of guarantor employment status and wages through online inquiry access into the Virginia Employment Commission (VEC) database**
- **Review of account history notes to insure no patient balance dispute**
- **Determination if the patient is in bankruptcy or deceased**
- **Review of existing payment plans to determine if his balance could be added**

If, following this extensive review, the analysis concludes the account is appropriate for a judicial remedy, the next step depends on the amount owed on the account. If the amount owed is $15,000 or less, we follow a standard process whereby the patient first receives a complaint letter (pre-suit). Two weeks later, a warrant in debt is issued unless the patient has paid or the balance has been resolved with a payment plan or a financial assistance approval. Warrants in debt are heard by the court approximately six weeks after issuance. During that time, the patient is still able to contact us to set up a payment plan or resolve the balance. Once the court has entered judgment on the warrant in debt, unless the patient has paid or the balance has been resolved with a payment plan or a financial assistance approval, a garnishment summons will be issued. Accounts that are over $1000 after the extensive review described above and do not meet the criteria for judicial action are sent to a collection agency. Delinquent accounts in excess of $15,000 are forwarded to the Office of the Attorney General of Virginia or an outside law firm for further action.

Liens on real estate are sought only on balances greater than $15,000 when a judgment has been obtained by either our outside counsel or the Office of the Attorney General. Please note, however, that under Virginia law, once a judgment has been entered against an individual, a lien automatically attaches to any property owned by the defendant in the jurisdiction in which the judgment is entered. Even though a lien attaches, the Medical Center does not initiate sales of primary residences.

These procedures are set forth in Policies FIN7003-2, FIN7009, FIN7010, FIN7028-2, attached hereto as Exhibit 3.

New Procedures

On September 13, 2019, the Medical Center announced some significant changes to our billing and collection practices in the Medical Center. These changes will reduce medical bills for our low-income patients and those without insurance. They will also reduce our reliance on the legal system for the collection of debts, enabling us to focus our efforts on workable repayment plans.

The changes in billing are as follows:

1. **For patients between 0-100% of FPL and who do not meet the current state asset test, we are going beyond state reimbursement rules and providing additional relief. Patients at or below the FPL who have less than $50,000 in assets will have their bills written off entirely.**

2. **For patients between 101-200% of the FPL who have less than $50,000 in assets, we will also write off their bills entirely.**

3. **For patients between 201-300% of the FPL who have less than $50,000 in assets, we will write off 60% of their bill.**

4. **For patients between 301-400% of the FPL who have less than $50,000 in assets, we will write off 50% of the bill.**

5. **For patients who are uninsured and who are over 400% of FPL, we will write off 40% of their bill. We will do the same for those below 400% of FPL who have assets over $50,000.**

6. **For patients who are uninsured, we have increased the uninsured discount from 20% to 40%. This has already been implemented and reduced the outstanding debt for these patients.**

With the exception of the increased uninsured discount (#6), these changes will require adjustments to the Medical Center's billing system and will therefore officially go into effect on January 1, 2020. That said, we are committed to working with anyone who currently has an outstanding balance or debt that he or she is struggling to pay. We have communicated that if a patient needs assistance in this regard to call the Medical Center at 434-297-5393, and we will work with the patient to determine the best solution. The announcement with the above information can be found at https://news.virginia.edu/content/medical-center-announces-changes-billing-and-collection-practices).

Further, the Medical Center has already instituted a number of changes in advance of the January 1 effective date, including:

- **We have taken steps to dismiss debt collection actions pending in General District and Circuit Court so that cases can be reassessed based on the policies announced on September 13. As detailed in those policy changes, cases generally are being dismissed for patients who make less than 400% of the federal poverty level or owe less than $1,000 and provide the Medical Center with all requested financial information.**

- **We have revised payment plans for many patients, including reducing minimum payments and extending payment schedules. There has been a significant increase in the number of patients establishing new payment plans or working with us to modify their payment plans.**

- **We have not filed any new cases seeking judgments for unpaid medical bills, to ensure that legal action does not occur for patients meeting the new criteria.**

For ease of reference, the table contained in our response to question 2 summarizes the changes made to our financial assistance plans.

6. What is UVA Health System's financial assistance policy? Please provide a copy of that policy. Since the beginning of 2014, what percentage of patients who received medically necessary care from UVA Health System and did not have health insurance were eligible for financial assistance?

Response: The Medical Center financial assistance policy is to identify and assist uninsured and/or underinsured patients free of charge in obtaining governmental (e.g., Medicaid) and/or non-governmental financial assistance to help cover their expenses for necessary medical care. These efforts are multi-faceted, staffed appropriately, well-documented and monitored, include both vendor and hospital employee assistance, and have been of enormous benefit to our patients.

Efforts to inform patients of the availability of financial assistance begin at the point of appointment scheduling. We use 3rd party software to evaluate all patients for potential eligibility for financial assistance. The information we receive is translated into FPL values that are used to send letters and financial assistance applications (see attached letter and application) to patients during the scheduling process, or at the time of service for unscheduled or emergent patients. Since July 1, 2017 through September 30, 2019, the automated letter mailing process has proactively mailed 151,000 letters and applications to patients, with 69,709 patients returning applications for processing.

In addition, with the implementation of expanded Medicaid in Virginia effective January 1, 2019, our organization opted into Hospital Presumptive Eligibility (HPE). HPE permits hospital employees to directly enroll eligible patients into expanded Medicaid coverage which enables the Medical Center to provide the eligible patient with temporary Medicaid coverage for the current month of the screening through the end of the following month. This has been enormously advantageous for our uninsured patients with 573 patients receiving HPE Medicaid coverage through those efforts alone. We utilize worklists from scheduled appointments to reach out to uninsured and potentially eligible patients prior to service to assist them with either the Medicaid process or our financial assistance application. Additionally, financial counselling team members are in multiple locations to assist patients in person as needed.

Another component of our financial assistance efforts is that since 2002, the Medical Center has on-site assistance (8 full time employees (FTEs) including a manager) from a Medicaid eligibility vendor, which assists patients free of charge in obtaining disability and Medicaid coverage, including expanded Medicaid. The Medical Center pays all the costs of this program, which are in excess of $1.5M yearly. The efforts of this vendor have helped 16,397 patients convert $1.4B in uninsured patient balances into coverage through Medicaid. The Medical Center also shares with Albemarle County the cost of an on-site hospital based Medicaid Unit (9 FTEs including a manager) that processes/approves Medicaid applications and enrolls approved patients for coverage. The Medical Center employs a team of 19 staff members and our leadership oversees all the associated activities in these processes, including the on-site vendors, and the intake, processing and approval of all financial assistance applications. The Medical Center also has signage in our clinics and the Emergency Department informing patients about our financial assistance program as well as how to obtain an estimate of out of pocket costs. (See Exhibit 4 - "Thank you for choosing UVa for your care.") There is a team and software in place to provide patients with their estimated out of pocket costs upon request. Each patient statement we send has our financial assistance guidelines printed on them along with links to our website.[4] and a toll free number. (See Exhibit 5 - Page 2

[4] For additional information, see https://uvahealth.com/services/billing-insurance/financial-assistance-information

from our patient statements). The Medical Center website has a financial assistance calculator, our eligibility criteria, how to obtain an estimate of the cost of a service, and a printable application, along with other links for assistance. These efforts are in compliance with Code of Virginia § 32.1-137.01 and § 32.1-137.05 and are more particularly described in Medical Center Patient Financial Services Policies L7031, L7033 and L7035 which are attached hereto as Exhibit 6.

Since Fiscal Year 2014, 54% of our uninsured patients were validated as eligible to receive financial assistance utilizing the policies and procedures described above. As a result of the above described processes, all of which are overseen and funded by the Medical Center, our community has benefited from enrollment in Medicaid programs along with our financial assistance.

As described in Section IIIA above, we do not believe the applicability of Section 501(r) to the Medical Center is clear. The Medical Center is a state agency and clearly bound by the provisions of the Virginia Debt Collection Act, Va. Code §2.2-4800 et seq., which requires all state agencies to "aggressively collect" all obligations to the Commonwealth using particular methods described in the statute. The Medical Center's Patient Financial Services unit has been tasked with reconciling the apparent tension between Virginia's state debt collection obligations and the expectations for nonprofit hospitals set out in 501(r). We have attempted to "aggressively collect accounts receivable" consistent with Va. Code Section § 2.2-4806(A) while simultaneously providing "financial assistance before taking extraordinary collection actions" as provided in Section 501(r). Regardless of this conflict in the law governing our billing and collections process, we acknowledge the obligation to comply with the federal policy regarding tax-exempt hospitals. We believe the processes in support of our financial assistance efforts, detailed above, bring us into compliance with the policy underpinnings of Section 501(r) regardless of its applicability.

7. What efforts does UVA Health System make to determine whether patients are eligible for financial assistance before taking extraordinary collection actions, as defined by 26 U.S.C. 501(r) and its supporting regulations, against patients (including individuals responsible for making payments on behalf of patients)? If there is a written policy for determining whether patients are eligible for financial assistance before taking extraordinary collection actions against them, please provide a copy of that policy.

Response: Please see response in 6 above.

8. What efforts does UVA Health System make to inform patients (including individuals responsible for making payments on behalf of patients) of the availability of financial assistance before taking extraordinary collection actions? If there is a written policy for

informing patients of the availability of financial assistance before taking extraordinary collection actions against them, please provide a copy of that policy.

Response: Please see response in 6 above.

9. Since the beginning of 2014 has UVA Health System ever reevaluated and/or rescinded a patient's financial assistance determination? If so, how many times has UVA Health System reevaluated such a determination, and what were the reasons for such determination(s)?

Response: This is a rare occurrence and the reasons are (i) errors made in the decision that are found during a quality review, (ii) misrepresentation(s) made by the patient or guarantor on the application, or (iii) failure of the patient or guarantor to disclose relevant financial data. We are unable to determine a number associated with this type of denial.

10. The article above reports that UVA Health System once filed a lawsuit over a debt in the mount of $13.91 but has since raised its litigation threshold in July 2017 to debts over $1,000. Are these facts correct, and if so, what was the rationale use to determine that $1,000 threshold? What is the policy for collecting debt that are less than $1,000?

Response: The Medical Center is not aware of filing a lawsuit in the amount of $13.91, and it would be inconsistent with Medical Center policy. Effective July 1, 2017 the Medical Center raised the threshold for litigation to $1000 in an effort to reduce our reliance on the legal system for the collection of debts. The policy for collecting debts for less than $1000 is to send to a collection agency.

11. What is the rationale for using a basis of earning less than 200 percent of federal poverty guidelines and owning less than $3000 in assets, not including a home, for determining whether or not to deny financial assistance to patients?

Response: As indicated in the introductory section and in our response to Question 2 above, the state Guidelines set forth the income and asset criteria to be followed by the state teaching hospitals, which includes the Medical Center. See Guidelines (Exhibit 2).

12. What, if any procedures are in place to determine that delinquent debts of any amount are accurate prior to UVA Health System taking any steps to collect those debts?

Response: The Medical Center has regular monitoring procedures in place to help support the accuracy of patient charges. These multi-step monitoring activities include reviewing duplicate charges, monitoring quantities and dollars outside of expected thresholds, daily revenue tracking, as well as Epic Revenue Guardian checks, which

uses "if/then" iterative logic to identify potential charging issues. Charges are typically generated through clinical documentation activity generated from the Epic Electronic medical record (EMR). In addition, any charging accuracy question is thoroughly reviewed by a team skilled in medical record review and charge validation.

13. Does UVA Health System conduct a Community Health Needs Assessment (CHNA)? If so, please provide copies of each CHNA that UVA Health System has conducted.

Response: The Medical Center firmly believes in the importance of assessing the priorities of our community's health needs. As such, the Medical Center is an active participant and core leader in a collaborative effort to conduct a community health needs assessment (CHNA) of the area that we serve, defined by the Commonwealth's Thomas Jefferson Health District, (one of 35 health districts under the Virginia Department of Health), which includes residents living in the City of Charlottesville and counties of Albemarle, Fluvanna, Greene, Louisa, and Nelson. This collaborative process is based on the National Association of County and City Health Officials' (NACCHO) Mobilizing for Action through Planning and Partnerships (MAPP) strategic framework. Since 2007, organizations, including the Medical Center, coalitions, and community members have used the MAPP framework to prioritize public health issues of the Thomas Jefferson Health District and identify resources to address them. Four MAPP2Health Reports have been published: 2008, 2012, 2016 and 2019. The 2012, 2016, and 2019 can be found at http://www.vdh.virginia.gov/thomas-jefferson/plan-mapp2health/. The 2008 assessment, not available online, is attached hereto as Exhibit 7.

The 2019 MAPP2Health Report builds on the work of the 2016 MAPP process and focuses on health equity across four priorities:

- **Promote healthy eating and active living**
- **Address mental health and substance use**
- **Reduce health disparities and improve access to care**
- **Foster a healthy and connected community for all ages**

The 2019 MAPP2Health Report includes an overview of the health district, community health data, best practices by MAPP priority, results from qualitative photovoice projects identifying community assets, recommendations from the Diabetes Steering Committee to address disparities in diabetes outcomes for people of color, and a community plan for improving health equity.

One strategy the Medical Center will use to promote healthy eating and active living is to increase access opportunities to physical activity for community members who have been disenfranchised and/or are currently under-resourced by promoting the

Charlottesville Walks with Heart program at the Piedmont Family YMCA. Another strategy the Medical Center will use to address mental health and substance abuse is to increase access to and utilization of mental health and substance use disorder services by incorporating additional integrated care facilities at the Medical Center. A strategy we will employ to reduce health disparities and improve access to care, including increasing access to primary care among the most vulnerable district residents who do not currently have a primary care medical home, is collaborating with the Charlottesville Free Clinic and federal qualified health center Central Virginia Health Services, Inc. The Medical Center will work to foster a healthy and connected community for all ages by utilizing technology to facilitate efficient and accurate referrals between patients and their identified health-related social need. Specifically, the Medical Center purchased a technology-based case management platform to enhance communication between the Medical Center and community partners to solve the shared challenge of having up-to-date information about resources, referral processes and eligibility criteria. The Medical Center will also advance health equity in each MAPP2Health priority by awarding grants to community partner and organizations, totaling $250,000 annually over the next five years.[5]

14. UVA Health System appears to list "Prices of Common Procedures & Services" on the internet. However, those prices "DO NOT include doctor fees, anesthesia, supplies and medications…." Prior to receiving services from UVA Health System, whether medically necessary or otherwise, how do patients know what the final costs of those services are going to be, whether such patients are covered by health insurance or not?

Response: Effective January 1, 2019, the Medical Center posted all hospital and physician charges on our website, as well as a list of commonly requested price estimates. We understand this information may be confusing to patients, and we encourage patients to contact our Price Estimate Team for a personalized out of pocket estimate. This estimate includes physician fees, anesthesia, supplies and medications. The Medical Center has been providing price estimates to both insured and uninsured patients for over twelve years and prior to regulatory requirements requiring the same. Additionally, the Medical Center has approached the issue of price transparency with the intent and effort to provide accurate and full disclosure to our patients.

15. Is the article above correct that UVA Health System charges, on average, insurance companies 70 percent less than what it charges uninsured individuals for the same services, what the article refers to as "sticker prices"? If so, how are such amounts determined?

[5] For additional information, see https://uvahealth.com/services/community-relations/grant-recipients

Response: Please see response in 16 below

16. Is the article above correct that UVA offers uninsured patients "20 percent off to start and another 15 to 20 percent if they pay promptly"? If so, how are such discounts determined?

Response: We have combined our responses for questions 15 and 16. In response to question 15, the article is incorrect as the Medical Center charges the same price (charge) to all patients whether insured or uninsured. Uninsured patients receive either a charity discount or an uninsured discount. The discounts are not combined. The charity discounts are provided to applicable patients based upon verified FPL and assets. In recognition of our opportunity to better serve our financially disadvantaged patients, we have significantly modified the charity discounts provided to patients, as well as the amount of the uninsured discount. The amount of the uninsured discounts has been determined by review of historic commercial contracted rates. Please note the table included in response to Question 2 sets forth this information.

17. Is the article above correct that UVA Health System might have billed any given patient $2,000 for a feeding tube worth approximately $20? If so, how is that possible? Please note this question does not ask for patient-specific information, but rather, what such a product might have recently been billed to any given patient.

Response: We were unable to substantiate the $2,000 total cited for the feeding tube. Types of feeding tubes vary depending upon a patient's medical condition. Throughout a patient's stay they may need numerous feeding tubes and may require modifications as their clinical condition changes. Patients may receive simplistic feeding tube options (e.g., nasogastric) or other more complex tubes requiring the assistance of surgery, endoscopy or fluoroscopy. Patients may have one type of tube (e.g., gastrostomy tube bringing nutrition directly into the stomach) and subsequently require an additional tube (jejunostomy) which extends into the small intestine for feeding.

18. Under the Internal Revenue Code, tax-exempt hospitals are prohibited from billing patients without health insurance, and who are otherwise eligible for financial assistance, more than what individuals who have insurance are billed for medically necessary care. How does UVA Health System ensure that it complies with this requirement? Since the beginning of 2014, what percentage of patients who received medically necessary care from UVA Health System and did not have health insurance were billed at rates commensurate with this requirement in the tax code?

Response: As set forth in the response to questions 6, 7 and 8, the Medical Center is likely not subject to the requirements of 501(r). We are, however, charging insured and uninsured patients the same price for the same service. Furthermore, as a practical

matter, an extremely high percentage of those uninsured patients eligible for financial assistance under the Medical Center's current policy are eligible for 100% assistance, and are expected to pay nothing more than a $6.00 co-pay.

19. I understand UVA Health System's latest standard price list, sometimes known as a "Charge Description Master" or simply a "chargemaster," is available on UVA Health System's website here: https://uvahealth.com/sites/default/files/2019-07uvaprices.category.19-20csv.csv. Is this document indeed UVA Health System's most up-to-date standard price list?

Response: Yes. Charges are up to date as of July 1, 2019 with the exception of the pharmaceuticals and supplies which were updated on January 1, 2019. All Medical Center charges will be updated again on January 1, 2020. Physician charges will be updated again on July 1, 2020.

a. What do the prices on this document represent?

Response: All items and services provided by the hospital along with associated physician charges.

b. How are these prices determined?

Response: Medical Center charges are determined based upon a number of considerations including payor contracts, CMS MEDPAR comparative hospital charge data, our costs, and local/regional market sensitivities. Pharmacy charges are set using wholesale acquisition cost plus a markup, while operating room supply and implant charges are set using actual purchase cost plus mark up.

c. How do the prices that UVA Health System negotiates with insurance companies compare to these prices? If there is a fixed ratio for determining the prices UVA health negotiates with and /or charges insurance companies as compared to these prices in the standard price list, what is the ratio? If there is another method for determining the prices UVA Health System negotiates with and /or charges insurance companies as compared to these prices in the standard price list, what is that other method?

Response: Our charges (prices) are the same regardless of payer. Negotiated contractual rates vary based on market share and competitive factors associated with each contracted insurance plan. Reimbursement methodologies vary by payer, and may include, but are not limited to, MS-DRG case rates, per diems, discounts off billed charges, other types of case rates (including bundles), multiple fee

schedules, Ambulatory Payment Classifications (APCs), quality incentives and various forms of outlier and inlier protection.

d. Who pays these prices?

Response: The Medical Center's charges are the same across all payors. What is paid is based upon the contracted, regulated or discounted rates as per each payor contract and/or discounts that may apply to self pay patients or balances after self pay. The only payor who might pay full charge are out of network and non-covered services if not negotiated in advance.

For the vast majority of commercial inpatient services the Medical Center is paid case rates. If billed charges exceed a negotiated threshold, the Medical Center is paid a negotiated percentage of those charges exceeding the threshold (also known as an outlier reimbursement). For commercial outpatient services not paid on the basis of a fee schedule or case rate, the default is a negotiated percentage of billed charges. With many commercial insurers the Medical Center is paid the lessor of a negotiated fee schedule/case rate or our billed charges. For our services billed as self pay the Medical Center is paid at a percentage of billed charges.

i. How do these prices relate to hospital bills that a patient might receive if he or she is covered by health insurance that considers UVA Health System "out of network"?

Response: Elective "out of network" cases are handled via a pre-service agreement that establishes rates comparable to those paid by in network and contracted payers. For those services provided on an emergent basis for which there is no opportunity to negotiate a service agreement up front, we typically work with the payer after the fact to arrive at an equitable reimbursement rate.

ii. How do these processes relate to hospital bills that a patient might receive if he or she does not have health insurances?

Response: Uninsured patients are charged the charge master (list price), and charity/indigent and/or uninsured discounts are applied as applicable and described previously.

e. For patients who might incur these costs (or some pre-determined fraction of them), how does UVA Health System explain to patients seeking care that is not medically necessary that these are costs they might incur (or some pre-determined fraction of them)?

Response: Patients may receive estimates of charges and out of pocket expenses through our estimate support team at this website: https://uvahealth.com/services/billing-insurance/request-price-estimate or by calling 434-242-7283.

We also comply with Virginia Code § 32.1-137.05, with signage in patient waiting areas. See appended document "Thank you for choosing UVA for your care."

f. For patients who might incur these costs (or some pre-determined fraction of them), how does UVA Health System explain to patients who require medically necessary and immediate care, and might not be in a position to understand costs they would incur as a result of that care, that these are the costs they might incur (or some pre-determined fraction of them)?

Response: Please see response to 19.e. Regarding patients' need for immediate medical attention, especially in an emergency, the federal statute Emergency Medical Treatment and Labor Act (EMTALA) requires us to stabilize and treat patients, regardless of their insurance status or ability to pay.
Further, we have trained financial services team members who assist with financial services and questions. Please see response to Question 6. These team members are located across UVA Health grounds in clinics and waiting areas as well as with visits to patients rooms to support financial assistance discussion and other financial discussions related to the care patients receive.

g. The standard price list appears to list a cost of $5.12 for "LOSARTAN 50MG TABS" and a cost of $0.86 for "LOSARTAN 25MG TABS".

i. Are these listings references to single doses of the popular blood pressure medication commonly known as "losartan potassium", or simply "losartan", the former as a single 50-milligram dose and the latter as a single 25-milligram dose?

Response: Yes. The price posted is the average price on billed charges from July 1, 2017 to June 30, 2018.

ii. Would a patient who ends up paying the prices listed on this standard price list and required a 50-milligram dose of losartan ultimately pay $5.12 for that dose? Or would that patient pay $0.86 twice, namely for two 25-milligram doses totaling $1.72. If the former, why?

Response: The decision of who gets 25 mg + 25 mg vs 50 mg is primarily based on the availability of the medication (due to shortages noted below), and where we are actively stocking the medication. We only use the 2 x 25 mg tablets if it is the only thing available, or if it will be safer for patient care (e.g., closer to the patient, less likely for errors out of Pyxis (medication dispensing) machine on an inpatient unit than directly out of the pharmacy in a baggy). Our active inventory is influenced by a number of factors such as what is available for purchase and whether we have the item in stock. For this particular medication there are 8 manufacturers for the 25 mg dose and 10 for the 50 mg from which we can purchase with variable cost ranges (25 mg dose cost ranged from $.09 to $.60 and the 50 mg dose cost ranged from $.06 to $3.71). Beginning mid 2018 this medication was subject to an FDA recall due to not meeting the FDA safety standards (www.fda.gov). In August 2019 there were rising numbers of discontinued losartan doses. As of October 23, 2019 there are numerous manufacturers with tablets on back order. Such recalls impact costs to hospitals significantly.

h. The standard price list appears to list a cost of $9,548.00 for a "NAIL 10X210MM ANKLE LOCKING", which appears to fall under the category of "Supplies" and have a "Charge Code" of 92000052.

    i. What is this supply?

Response: The Phoenix Ankle Arthrodesis Nail System is indicated for tibiotalocalcaneal arthrodesis (fusion). Specific indications include:

1. Avascular necrosis of the talus
2. Failed total ankle arthroplasty
3. Trauma (malunited tibial pilon fracture)
4. Severe deformity or instability as a result of talipes quinovarus, cerebral vascular accident, paralysis or other neuromuscular disease
5. Revision ankle arthrodesis
6. Neuroarthropathy
7. Rheumatoid arthritis
8. Osteoarthritis
9. Pseudoarthrosis
10. Post-traumatic arthrosis
11. Previously infected arthrosis
12. Charcot foot
13. Severe endstage degenerative arthritis
14. Severe defects after tumor resection
15. Pantalar arthrodesis

ii. Why does this supply cost $9,548.00?

Response: This nail system (images below) is a special order with costs that vary over time.





i. The standard price list appears to list a cost of $7,918.59 for a "SCREW 7.5X50MM DR MAS SOLERA" which appears to fall under the category of "Supplies" and have a "Charge Code" of 92000052.

i. What is this supply?

Response: The CD HORIZON® SOLERA™ System is the first platform technology that enables surgeons to confidently and efficiently treat their patients by using high strength, low profile multi-axial screws.

ii. Why does this supply cost $7,918.59?

Response: This system is a special order with costs that vary over time.



Small profile implant with a Cobalt Chrome head and a dual lead OSTEOGRIP® thread form

j. What listing, if any, on the standard price list reflects the intestinal surgery discussed in *Kaiser Health News* article listed and quoted above?

Response: The privacy rule of the Health Insurance Portability and Accountability Act (HIPAA), Virginia law, and our own Medical Center policies prevent us from providing information regarding the specific patient discussed in the article. In general, however, a standard price list item would not provide a patient with all costs associated with the encounter, as each patient presents unique challenges and needs. For example, it would not take into account whether the surgery was a standalone procedure, or part of a lengthy, complicated inpatient hospitalization. This is a common occurrence and why the we advise patients to inquire with us in order that we may provide them a comprehensive list of all included services and supplies for procedures for a total cost estimate, as well as review their coverage to provide accurate estimates of their out of pocket expenses for the procedures received.

k. What listing, if any, on the standard price list reflects the feeding tube discussed in the *Kaiser Health News* article listed and quoted above?

Response: Same response as to Question 19.j.

At UVA Medical Center we strive to treat all patients with fairness, dignity, and compassion. To the extent we fall short from time to time, we are prepared to acknowledge our mistakes and work to do better. We believe we are doing so now with respect to the changes to the Medical Center's billing and collection policies and practices set forth in detail in our responses. As noted in the introduction, we are balancing the interests of the Commonwealth of Virigina in collecting debts owed to the state government with the policy behind Section 501(r) and federal expectations of nonprofit hospitals, hopefully for the betterment of our patients.

On behalf of the UVA Medical Center, please accept my thanks to you for your commitment to health care programs that assist low income individuals and for your years of service and leadership to the nation. We would be glad to discuss these specific matters with you and your staff. Please contact us if you are interested in pursuing that discussion.

Sincerely,

Chris A. Ghaemmaghami
Interim Chief Executive Officer

cc: Senator Mark R. Warner
Senator Timothy M. Kaine
President James T. Ryan

TABLE OF CONTENTS – EXHIBITS

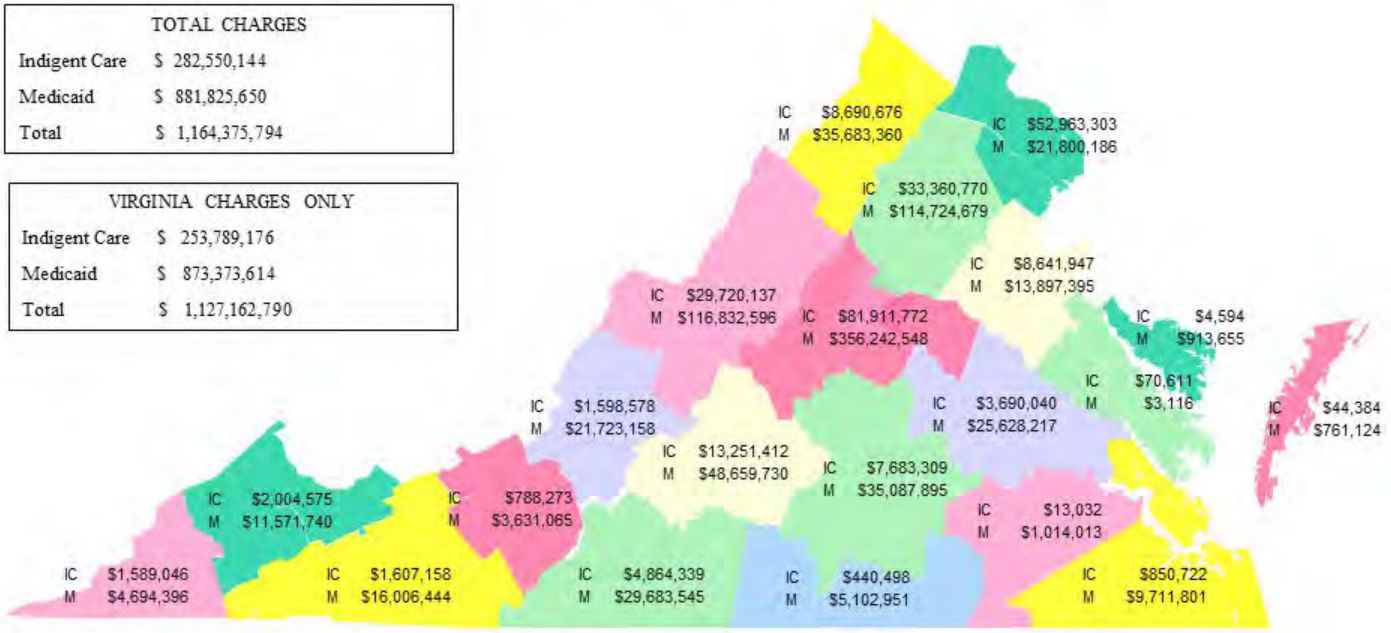
Exhibit No.	Attachment
1	**UVA Medical Center and Affiliates by Virginia Health Planning Districts, FY2019, Indigent Care (IC) and Medicaid (M)** *In File 1 of 3
2	**Eligibility Guidelines for Health Care Services at the State University Teaching Hospitals** *In File 1 of 3
3	**Policy FIN7003-2** **Policy FIN7009** **Policy FIN7010** **Policy FIN7028-2** *In File 1 of 3
4	**Thank You for Choosing UVa for Your Care** *In File 1 of 3
5	**Patient Statements** *In File 1 of 3
6	**Policy L7031** **Policy L7033** **Policy L7035** *In File 1 of 3
7	**2008 MAPP2Health Report** *In Files 2 and 3 of 3

*Split into 3 files due to size

UVA Medical Center and Affiliates
by Virginia Health Planning Districts, FY2019
Indigent Care (IC) and Medicaid (M)

TOTAL CHARGES	
Indigent Care	$ 282,550,144
Medicaid	$ 881,825,650
Total	$ 1,164,375,794

VIRGINIA CHARGES ONLY	
Indigent Care	$ 253,789,176
Medicaid	$ 873,373,614
Total	$ 1,127,162,790



Numbers are for Medical Center Consolidated and include Community Medicine, Outreach, Imaging, Renal, HOPE, TCH
Produced by UVA Finance

UVAHealth

EXHIBIT 1



EXHIBIT 2

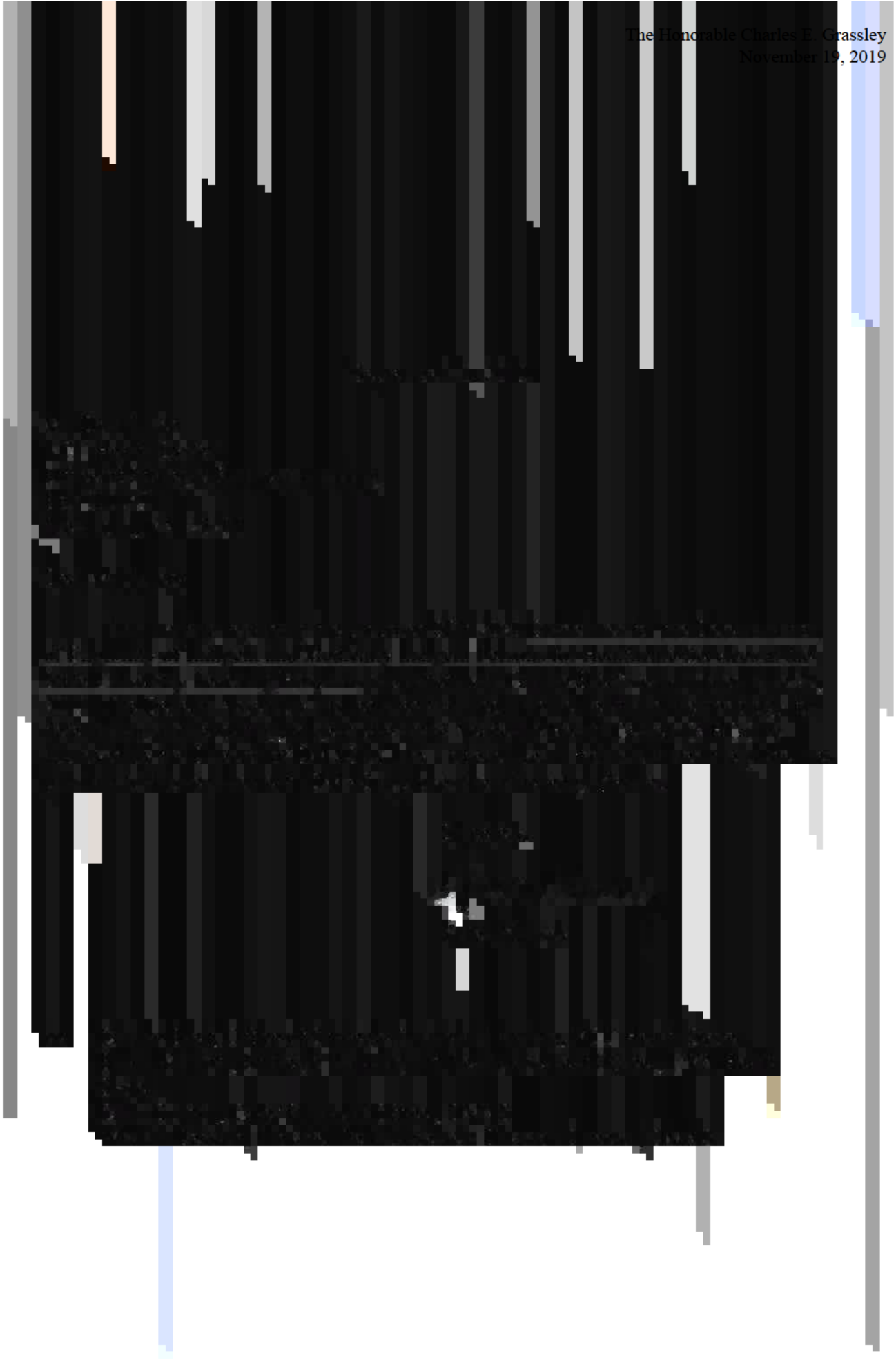
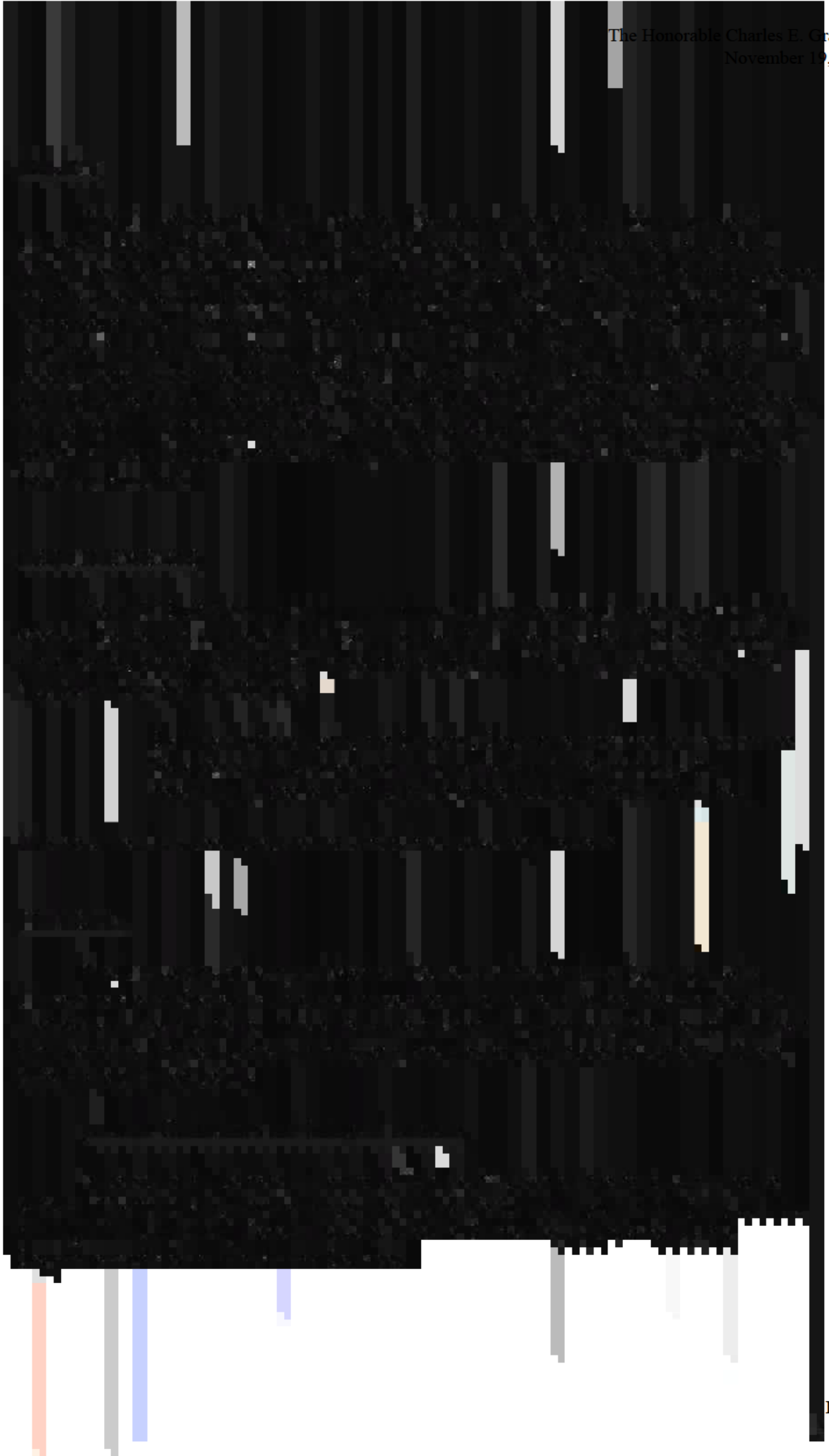


EXHIBIT 2



EXHIBIT 2



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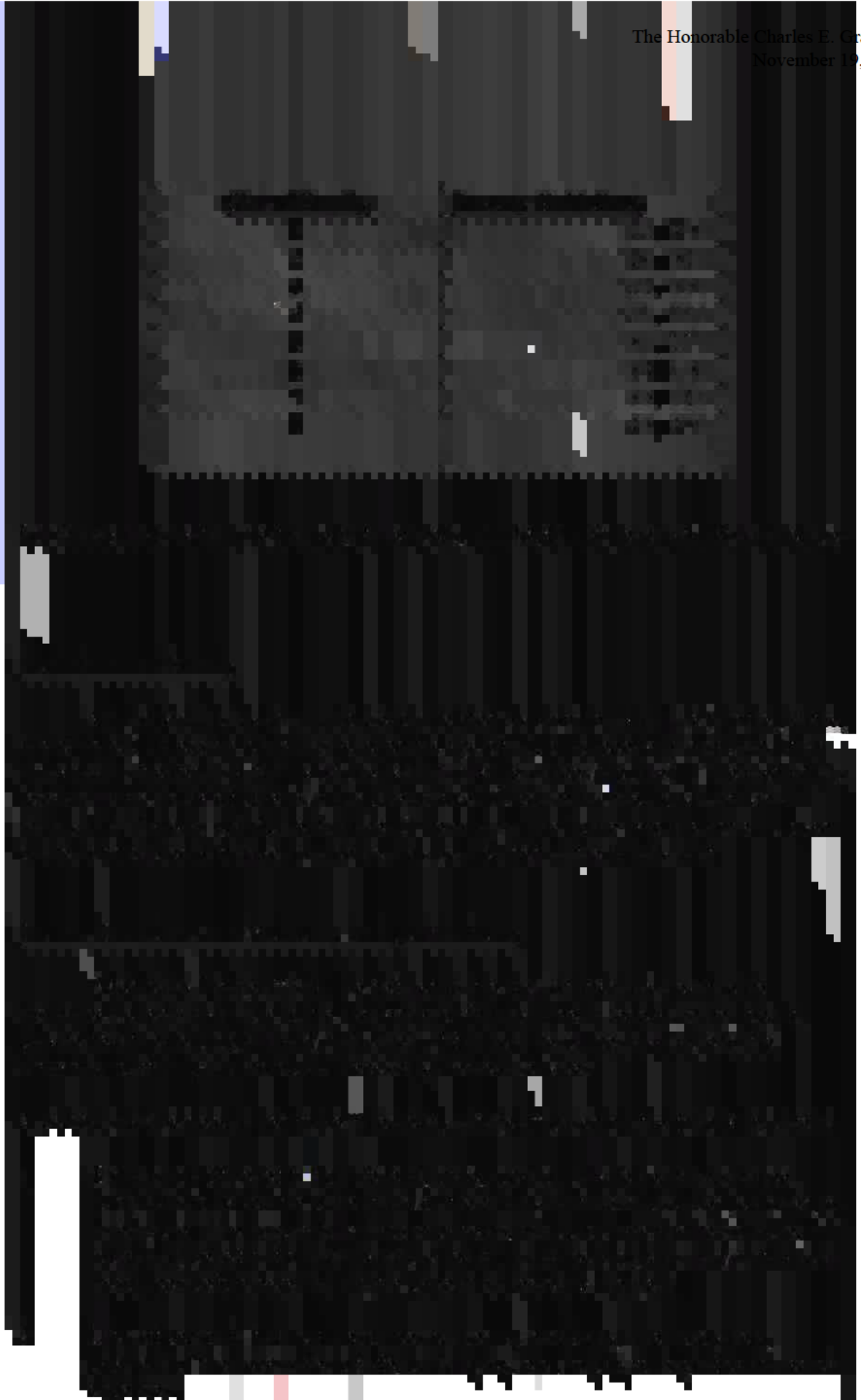

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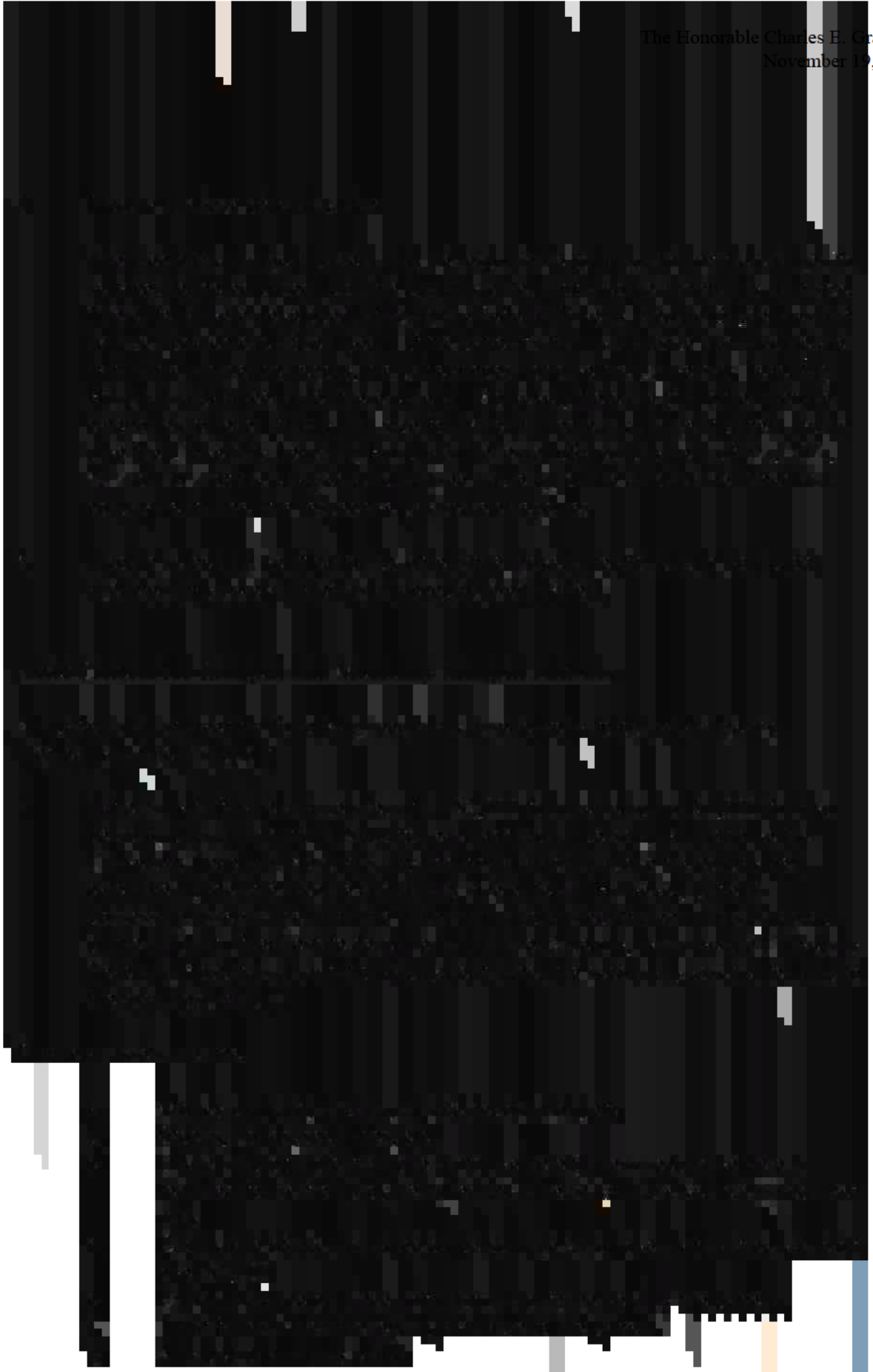

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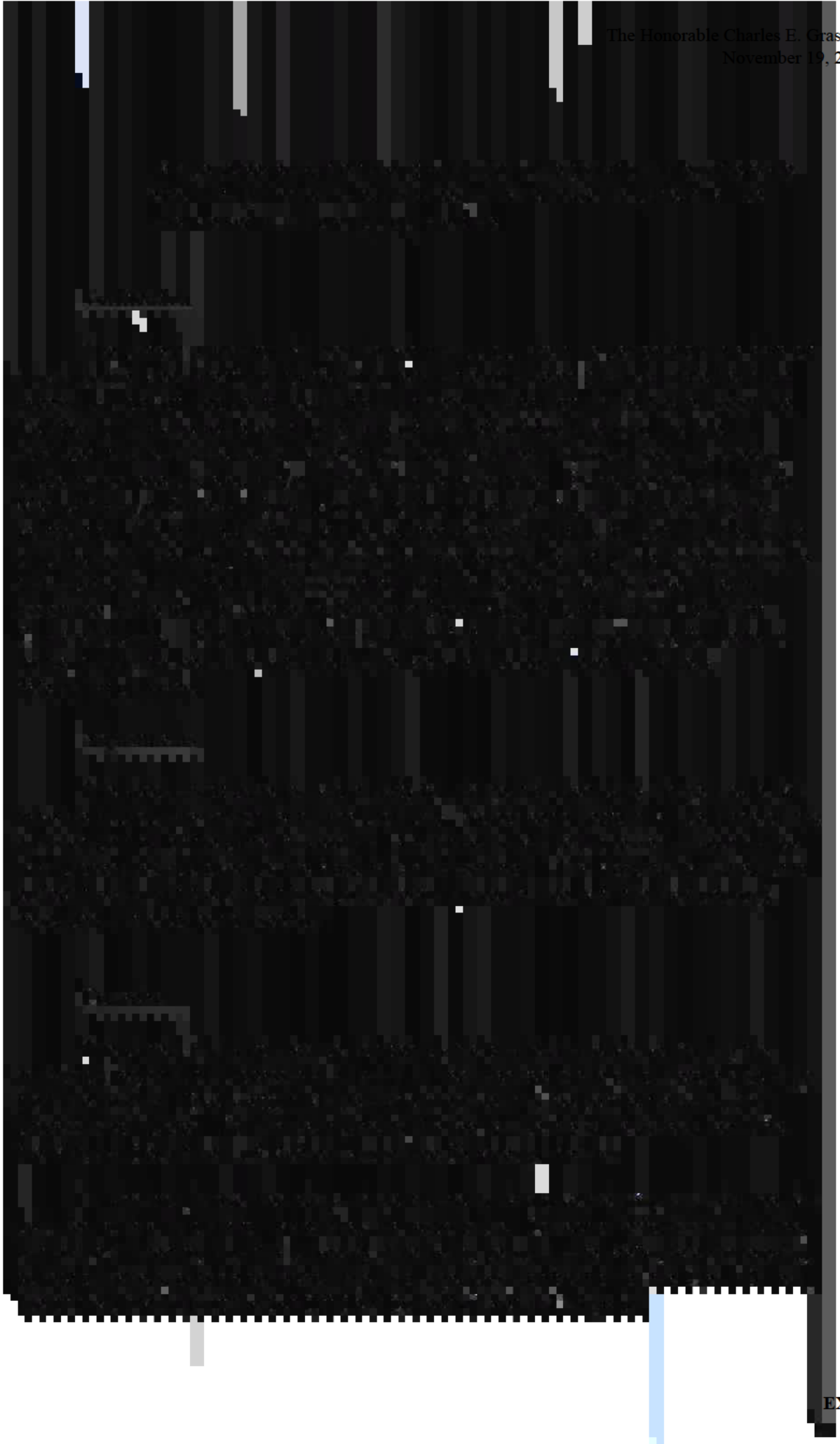

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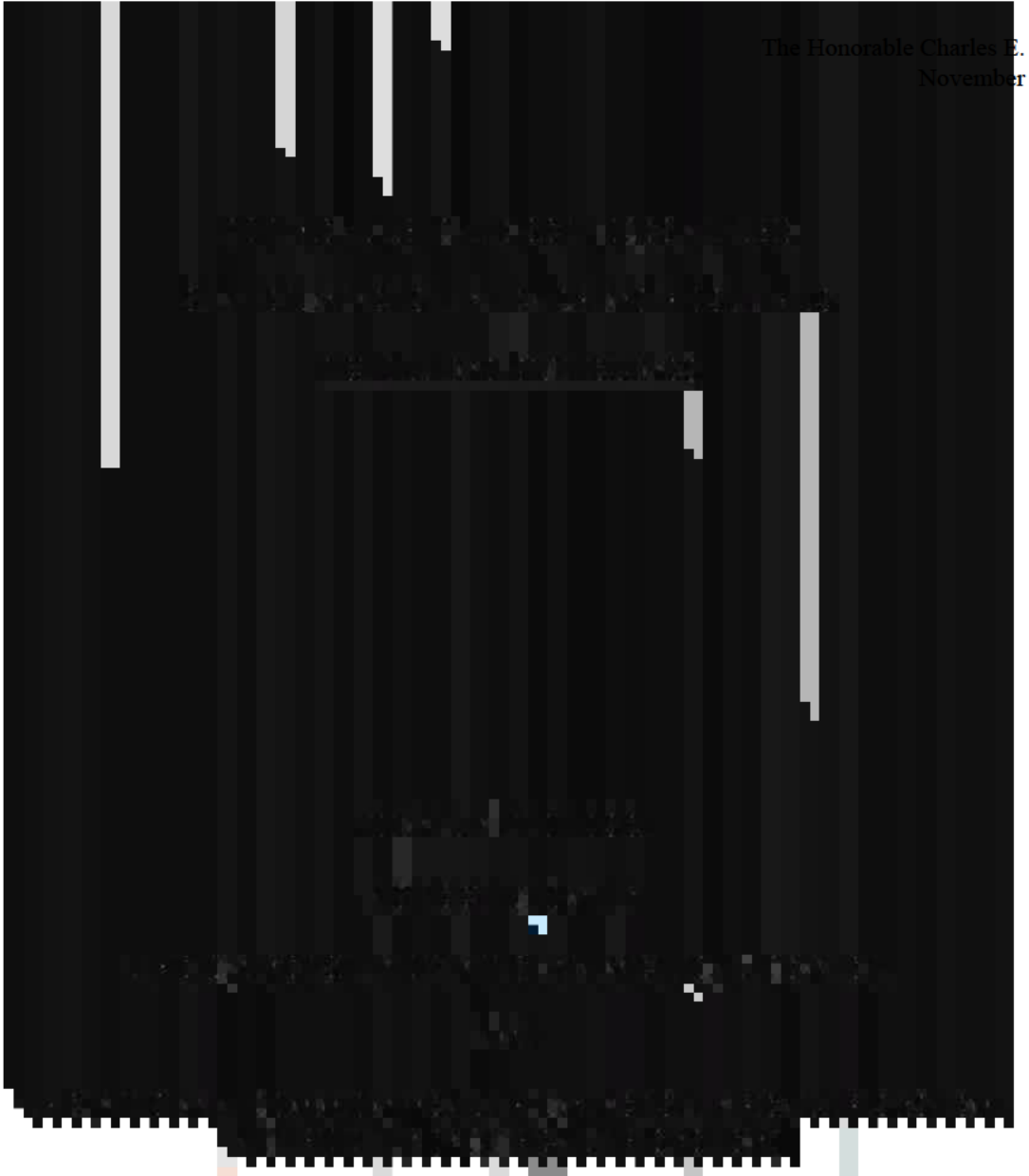

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EXHIBIT 2



EXHIBIT 2

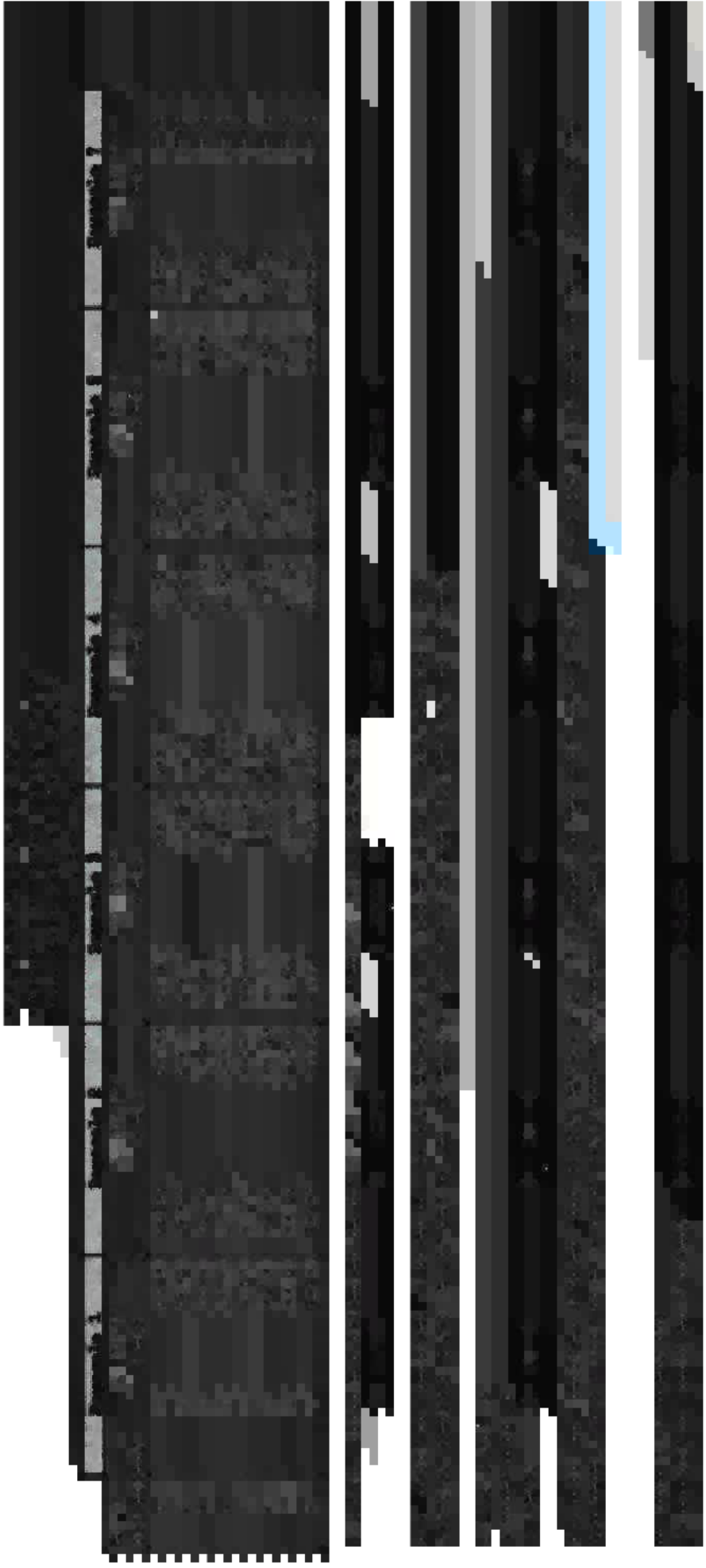

EXHIBIT 2

UNIVERSITY of VIRGINIA HEALTH SYSTEM

MEDICAL CENTER POLICY AND PROCEDURE NO. **FIN7003-2**
SUBJECT: Referral of Accounts for Collection Activity- EPIC
EFFECTIVE DATE: 07/01/17 ***REVIEWED***: 04/19/19

POLICY:

It is the policy of the University of Virginia Health Systems Patient Financial Services to comply with Virginia Department of Accounts guidance as well as the Virginia Debt Collection Act in pursuing delinquent patient responsibility balances through issuance of legal process or transfer to collection agencies. Once it is determined that the Department must enforce the collection of an account, there are two options available. The account can either be sent to a collection agency via an activity code or referred to internal collections via Work queue.

PROCEDURES:

1. *Procedure Responsibilities:* Account Representative

1.1. The account balance due must be $1,000.00 or greater.

1.2. The debtor(s) must have annual wages greater than or equal to 200% of current range 1 guideline or other indications of means to pay (e.g. auto liability, personal injury, etc.) or unable to verify income.
   1.2.1. For accounts $15,000 or greater the debtor must satisfy 1.2 and/or own real and personal property and/or be self-employed.
   1.2.2. The address where the debtor resides should be verified prior to referral. If a physical address cannot be verified and/or out of state and they meet service will be processed via the Secretary of the Commonwealth.

1.3. If the debtor's address cannot be verified, but his/her place of employment can be verified, then the account should be referred.

1.4. An account should be referred even though the debtor is unemployed and owns no real property, *if he/she has insurance coverage but has failed or refused to sign*:
   1.4.1. Billing forms, including but not limited to evidence of other insurance, coordination of benefits, or subrogation

1.5. If a debtor has died, the account should be referred based on the following:
   1.5.1. If the surviving spouse meets the income guidelines of 1.2
   1.5.2. If no surviving spouse prior to referral a search for estate and executor as well as a property search must have been completed.

1.6. If the debtor is a student at the University of Virginia, the account should be referred so that a hold may be placed on his/her grade transcripts. The account will be removed from internal collections.

UNIVERSITY of VIRGINIA HEALTH SYSTEM

MEDICAL CENTER POLICY AND PROCEDURE NO. **FIN7003-2**
SUBJECT: Referral of Accounts for Collection Activity- EPIC
EFFECTIVE DATE: 07/01/17 ***REVIEWED***: 04/19/19

2. Accounts that do not meet the above criteria will be referred to collection agencies according to the following guidelines:
   2.1. Accounts with pay scale of 1-5 or 8 with financial class of self-pay transfer to collection agency based on alpha split.
   2.2. Accounts with no pay scale or pay scale 7 with income less than 200% of the current range 1 guideline or a pay scale 1-5 verified transfer to a collection agency based on alpha split.

3. Accounts that meet the personal property or income level, and have a balance greater than $15,000 or have a personal injury lien that has not been advanced within the past 24 months will be referred to outside counsel.
   3.1. An account activity code will be used to add a billing indicator to determine if account goes to AGO or Outside Counsel.

4. If the account qualifies for internal collection, a billing indicator will used to move the account to the Pre-suit work queue.

Approved By: _____ Date Approved: 4/19/19
Brent McGhee, Administrator

UNIVERSITY of VIRGINIA HEALTH SYSTEM

MEDICAL CENTER POLICY AND PROCEDURE NO. **FIN7009**
SUBJECT: Issuing Suit
EFFECTIVE DATE: 06/12/01 ***REVIEWED***: 06/01/03; 10/09/15 (Revised), 05/03/19 (Revised)

POLICY:

In accordance with Code of Virginia 2.2-4806, it is the policy of the University of Virginia Health Systems Patient Financial Services to utilize legal process as a means of collection. Once an account transferred to Judicial Affairs as a Financial Class 5 (Siemens legacy) or is sent to UVA Internal Work queue (Epic) and is deemed suit-worthy (e.g. assets, garnishable wages, etc.), a Warrant in Debt will then be prepared. Collections' Department Staff are given specific guidelines and training that authorizes them to sign warrants and initiate suit.

PROCEDURES:

1. ***Procedure Responsibilities*** Account Representative, Judicial Affairs
   1.1. Will key into the warrant data base (or will verify data that has been uploaded electronically into Warrant Database) all pertinent data, which shall include the defendant's name, address, county or city in which they live, amount of debt, date of interest, social security number, and a court date for the defendant to appear.
   1.2. The Pre-Suit letter will be sent 2 weeks prior to the warrant issue date.
   1.3. This warrant is prepared in duplicate and forwarded, 30 days prior to the court date, to the Albemarle County General District Court where it will be served by the local sheriff's department.
   1.4. The account representative will send notice via mail prior to the court date, notifyingthe defendant of the court date.
   1.5. On the court date, the account is reviewed and the balance is confirmed for judgement, dismissed if paid, or continued as necessary on the court docket.

Approved By: _____ Date Approved: 5/3/19
Brent McGhee, Administrator

EXHIBIT 3

UNIVERSITY of VIRGINIA HEALTH SYSTEM

MEDICAL CENTER POLICY AND PROCEDURE NO. **FIN7010**
SUBJECT: Garnishment after a Judgment
EFFECTIVE DATE: 04/24/01 ***REVIEWED***: 02/04/04, 02/19/16; 05/03/19 (Revised)

POLICY:

In accordance with Code of Virginia 2.2-4806, it is the policy of the University of Virginia Health System Patient Financial Services to issue garnishments after a judgment has been granted when satisfactory repayment arrangements have not been made or previous arrangements have been defaulted upon.

PROCEDURES:

1. ***Procedure Responsibilities*** Resolution Specialist

1.1. A garnishment will be issued on accounts where judgement has been entered and no satisfactory payment arrangements have been made or adhered to by the patient.

Subject	Responsibility	Action
Identification of accounts to be garnished	Account representative	Once a judgement has been granted, and an abstract of the judgment has been received from the court and no satisfactory payment arrangements have been made, a summons in garnishment can be processed.
Employment check	Account Representative	VEC, financial assistance , or the front end is checked to determine the place of employment
Wage requirements	Account Representative	Judgements granted prior to 2016, garnishable wages are 3800.00 for the current reporting quarter for a single employer. Judgements granted 2016 and beyond must be 200% of the current range 1 guidelines.
Bankruptcy Verification	Account Representative	Verify possible filings for each debtor in PACERS. Note: If date of service is after bankruptcy file date it is not included in bankruptcy. If either debtor is currently under chapter 13 and a

		standard discharge has not been filed cannot proceed with garnishment. Note: Chapter 7 only prevents filer from being garnished unless filed jointly.
Employer notification	Account Representative	The employer needs to be called to confirm that the responsible party is still employed if not current in VEC
State Corporation Commission For Registered Agents on Certain Employers	Account Representative	Cross reference with employer name in VEC and Virginia State Corporation Commission. However, local addresses may be used based on employer.
Interest calculation	Account Representative	Calculate the interest to be added to the account balance. Generally interest will be calculated from the last day of the month the Letter 96 was sent to guarantor. Note: When processing a garnishment re-issue, interest is not recalculated if at any point in time a payment has been received from a previous garnishment. However, interest may be recalculated if garnishment returned by no fault of Medical Center.
Send garnishment to Albemarle County General District Court	Account Representative	After updating the Wide Database send garnishment packet to the court along with a self addressed stamped envelope to the responsible party's home address.
Secretary of the Commonwealth	Account Representative	One week after garnishment issue receive SOCs from court. (Patient has PO Box address, home address is out of state, employer/RA address is out of state or PO Box)

MEDICAL CENTER POLICY AND PROCEDURE NO. **FIN7010**
SUBJECT: Garnishment after a Judgment
EFFECTIVE DATE: 04/24/01 ***REVIEWED***: 02/04/04, 02/19/16; 05/03/19 (Revised)

Processing SOCs	Account Representative	Blue envelope is mailed, complete SOC paperwork, sign, notarize, and stamp. Four copies are made (1 for file, 3 attached behind original including the garnishment summons). Add signature required card (green card) with return address stamped and UVAL number. Blue urgent envelope is addressed to garnishee/employer. (all placed in folder addressed to SOC)
Receipt of payment	Account Representative	Once payment is in from the court, checks will then be notated as inpatient or outpatient and corresponding account number. Interest is added to account if account has been paid in full or if current payments will result in a credit, however, balance is still owed because of interest accrued. Docket is scanned and saved and checks are then sent to cash management for processing.
Garnishment re-issues	Account Representative	Apply any received funds toward balance due and update WIDE before re-issue.

Garnishment No Response	Account Representative	Once No Response has been received from court, document is reviewed to determine method of service. Follow due diligence by following-up with employers. Garnishment docket is reviewed for responses (not found, not enough disposable earning, current garnishment, no longer employed, deceased) and follow through with appropriate action for each docket notation.
Paid in full	Account Representative	For all balances paid in full, a Judgment satisfaction needs to be sent to the court so that the Court records accurately reflect the judgment as paid in full. Note: if a garnishment is paid in full prior to return date and garnishment disposition needs to be sent to court and copied/signed and sent to employer.

Approved By: _____ Date Approved: 5/3/19

Brent McGhee, Administrator

UNIVERSITY of VIRGINIA HEALTH SYSTEM

MEDICAL CENTER POLICY AND PROCEDURE NO. **FIN7028-*2***
SUBJECT: *Referral of Accounts to the Attorney General's Office*
EFFECTIVE DATE*: 03/23/04* ***Revised***: 4/29/04; 02/26/16, 05/24/19

POLICY:

It is the policy of the University of Virginia Health Systems, Patient Financial Services to utilize the services of the Attorney General's Office for a subset of our collection business for high dollar bad debt accounts from Epic. Accounts sent to the Attorney General's office are considered "owned" by them until collected or returned as uncollectible.

PROCEDURES:

1. Procedure Responsibilities – Resolution Specialist

1.1. Will send accounts to the Attorney General's Office according to the following guidelines:
- 1.1.1. Account(s) over $15,000.00 that meet one or more of the following requirements:
  - 1.1.1.1. Garnishable wages that are 200% of the current range 1 guidelines
  - 1.1.1.2. Debtor(s) are self-employed
  - 1.1.1.3. Out of state residency
  - 1.1.1.4. Debtor(s) has real estate
  - 1.1.1.5. Debtor(s) has $10,000+ in a bank account
  - 1.1.1.6. Unable to confirm debtor(s) employment
  - 1.1.1.7. Patient has prevented insurance payment by not updating COB, accident report, etc.
  - 1.1.1.8. If payment can be expected from a third party payor (including liability, workers comp, etc.)
- 1.1.2. Requested trials from the in-house Motion for Default Judgment hearings in Albemarle General District Court

2. Procedure Responsibilities- Resolution Specialist

2.1. Will combine all eligible accounts for debtor(s)
2.2. Print the following documents and maintain proceeding order:
- 2.2.1. AGO referral sheet with all inputted information
- 2.2.2. Account Facesheet
- 2.2.3. Interactive Facesheet
- 2.2.4. Itemized bills for all combined accounts
- 2.2.5. Account History tab (ensure all related/important notes are on display prior to printing)
- 2.2.6. Conditions of admissions if applicable from OnBase or Epic (including accident report if applicable)
- 2.2.7. LTS, photo ID and insurance card from Epic media (if available and related to DOS)
- 2.2.8. Discharge summary for all applicable dates from Epics notes (if available)
- 2.2.9. If current, print financial screening application from OnBase or if screening was declined or not current print screen from verifications site in Siemens

UNIVERSITY of VIRGINIA HEALTH SYSTEM

MEDICAL CENTER POLICY AND PROCEDURE NO. **FIN7028**
SUBJECT: *Referral of Accounts to the Attorney General's Office*
EFFECTIVE DATE: *03/23/04* ***Revised***: 4/29/04; 02/26/16, 05/24/19

2.2.10. If debtor(s) did apply for financial screening all pages for screening are to be printed
2.2.11. Any supported documents for 2.2.10 from OnBase
2.2.12. Any insurance correspondence for any related dates of service
2.2.13. Any attorney, workers comp, or patient correspondence
2.2.14. VEC, DMV (customer information page), IRMS for all debtors

2.3. Update bad debt agency to AGO (account activity 112)
2.4. Remove AGO Required billing indicator (account activity 237)
2.5. Notate account with reason for AGO referral (account activity 136)
2.5.1. If sent for Trial include the following information:
2.5.1.1. Trial Date and Time
2.5.1.2. Bill of Particulars Due Date
2.5.1.3. Grounds of Defense Due Date
2.6. Packet is to be scanned in and secure emailed to the following email addresses:
2.6.1. [redacted]
2.6.2. [redacted]
2.6.3. [redacted]
2.7. Forward email to [redacted] to be scanned into OnBase.

Approved By: _____ Date Approved: 5/29/19
Brent McGhee, Administrator

EXHIBIT 3

Thank you for choosing UVA for your care.

We're committed to providing the financial information you need to make healthcare decisions you feel good about.

Financial Assistance

If you lack financial resources or have exhausted your health insurance benefits, you may be eligible for assistance from UVA and/or Medicaid. Find out if you qualify by visiting our website at uvahealth.com/finasst or call 434.924.8718 or 866.320.9659. A completed application (available on-line) is also required. The application will request verification of income and assets.

Price Estimates

You have the right to request an estimate of your out-of-pocket costs for procedures, tests and services. Visit forms.uvahealth.com/price-estimate/, email UVAHSPRICE@virginia.edu or call 434.243.7283 to request an estimate.

Notice to Insured Patients

The services you receive today from healthcare providers will be billed separately from the facility related charges, and some of the services may not be provided by an in-network provider. The provider group that provides care at our facility is the following: UVA Physicians Group. We recommend that you consult with your insurance company to make sure that this provider group is in-network. In the event that this provider group is out of network, you may have additional financial responsibility beyond your normal cost sharing for services provided by a provider who is not in network.

The Honorable Charles E. Grassley
November 19, 2019

UNIVERSITY of VIRGINIA HEALTH SYSTEM

Statement of Services

For balances after 7/1/2017

Statement Date: 01/07/19
Patient Name: [redacted]
Guarantor Account Number:
Medical Record Number:

Account Summary

Previous Statement Amount:	$110.00
New Services:	$19,686.15
Insurance Payments:	$0.00
Insurance Adjustments:	$0.00
Patient Payments:	$0.00
Other Adjustments:	$-3,937.23
Account Balance:	$15,748.92
Amount Due by January 25, 2019	**$15,748.92**

MyChart or Pay Online:
View clinical information, review your statement, make payments, and more! Visit us at:
http://mychartuva.com
Activation code: [redacted]

Pay by Phone: (434) 297-5416
Automated account inquiry and bill payment system is available 24 hours a day 7 days a week.

Pay by Mail
Complete the form below and return in the enclosed envelope.

Billing questions? (434) 297-5416
Our office hours are 8 am to 5 pm Monday through Friday.

Financial Assistance: (844) 377-0846
If you lack financial resources, you may be eligible for financial assistance.

Important Information

Thank you for selecting University of Virginia for your health care needs. According to our records, you are responsible for the amount indicated. If you would like to speak with our UVA Health System Patient Billing Office please call (434) 297-5416.

Please detach this coupon and return with your payment in the enclosed envelope. Make checks payable to UVA Health System.

UNIVERSITY of VIRGINIA HEALTH SYSTEM

PO Box 743977 Atlanta, GA 30374-3977

☐ Check here if address or insurance information has changed and fill in the information on the back.

IF PAYING BY CREDIT CARD PLEASE FILL OUT BELOW

☐ VISA ☐ MasterCard ☐ DISCOVER ☐ AMERICAN EXPRESS

CARD NUMBER: AMOUNT:

SIGNATURE: EXP DATE:

CARD HOLDER:

GUARANTOR ACCT NUMBER	AMOUNT DUE	DUE DATE	PAYMENT AMOUNT
[redacted]	**$15,748.92**	**01/25/19**	**$**

EXHIBIT 5

9990000000085692301252019000015748923

This billing statement represents hospital and physician charges for UVA Health System.

Financial Assistance:
If you lack financial resources, you may be eligible for financial assistance. To inquire about our program, you can visit our website at **uvahealth.com/finassist** or call **(434) 924-8718 or (866) 320-9659**. A completed application is required, including documentation of all assets. Below are the current eligibility criteria for a household of up to five members.

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2	Less than $32,921	And	Less than $3,000.00
3	Less than $41,561	And	Less than $3,100.00
4	Less than $50,201	And	Less than $3,200.00
5	Less than $58,841	And	Less than $3,300.00

Affordable Care Act:
If you are without health insurance coverage, you are likely eligible to obtain coverage through the Health Insurance Marketplace. The statewide number is **(888) 392-5132** (toll free) and the web site is: **www.enroll-virginia.com** If your income is below the amount in the chart above financial help may be available to lower the cost of insurance.

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IF ANY OF THE FOLLOWING HAS CHANGED SINCE YOUR LAST STATEMENT, PLEASE INDICATE....

ABOUT YOU:	**ABOUT YOUR INSURANCE:** Will this replace or supplement existing coverage? (Circle One)
Your Name:	Policy Holder:
Address:	Date of Birth:
City/State/Zip:	**Insurance Name:**
Home Telephone:	Insurance Address:
Work Telephone:	City/State/Zip:
Employer's Name:	Telephone Number:
Employer's Telephone Number:	**Policy Information:**
Employer's Address:	Effective Date: Group Number:
City/State/Zip:	Policy Number:
	Employer Name:

EXHIBIT 5

Statement Date: 01/07/19
Patient Name: [redacted]
Responsible Party: [redacted]
Guarantor Account Number: [redacted]

Summary of Charges

New Services:

Date	Description	Charges	Insurance Pmts/Adjs	Patient Pmts/Adjs	Patient Balance
Hospital Services for [redacted] at UVA Medical Center For Admission/Encounter 01/03/19 - 01/03/19				Account # [redacted]	
	Pharmacy	$837.15			
	LABORATORY - GENERAL CLASSIFICATION	$902.00			
	CT SCAN - GENERAL CLASSIFICATION	$11,139.00			
	EMERGENCY ROOM - GENERAL CLASSIFICATION	$2,808.00			
	MAGNETIC RESONANCE TECHNOLOGY (MRT) - GENERAL CLASSIFICATION	$3,758.00			
	EKG/ECG (ELECTROCARDIOGRAM) - GENERAL CLASSIFICATION	$242.00			
01/06/19	DISCOUNT (SELF-PAY, UNINSURED)			-$3,937.23	
	Your Amount Due				**$15,748.92**

Total Amount Due by January 25, 2019: **$15,748.92.**

EXHIBIT 5

The Honorable Charles E. Grassley
November 19, 2019

UNIVERSITY of VIRGINIA HEALTH SYSTEM

Statement of Services

For balances after 7/1/2017

Statement Date: 02/04/19
Patient Name: [redacted]
Guarantor Account Number:
Medical Record Number:

Account Summary

Previous Statement Amount:	$15,748.92
New Services:	$2,055.00
Insurance Payments:	$0.00
Insurance Adjustments:	$0.00
Patient Payments:	$0.00
Other Adjustments:	$-451.00
Account Balance:	$17,352.92
Amount Due by February 22, 2019	**$17,352.92**

MyChart or Pay Online:
View clinical information, review your statement, make payments, and more! Visit us at:
http://mychartuva.com
Activation code: [redacted]

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UNIVERSITY of VIRGINIA HEALTH SYSTEM

PO Box 743977 Atlanta, GA 30374-3977

☐ Check here if address or insurance information has changed and fill in the information on the back.

IF PAYING BY CREDIT CARD PLEASE FILL OUT BELOW

☐ VISA ☐ MasterCard ☐ DISCOVER ☐ AMERICAN EXPRESS

CARD NUMBER: AMOUNT:

SIGNATURE: EXP DATE:

CARD HOLDER:

GUARANTOR ACCT NUMBER	AMOUNT DUE	DUE DATE	PAYMENT AMOUNT
[redacted]	**$17,352.92**	**02/22/19**	**$**

EXHIBIT 5

9990000000085692302222019000017352922

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4	Less than $50,201	And	Less than $3,200.00
5	Less than $58,841	And	Less than $3,300.00

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ABOUT YOU:	**ABOUT YOUR INSURANCE:** Will this replace or supplement existing coverage? (Circle One)
Your Name:	Policy Holder:
Address:	Date of Birth:
City/State/Zip:	**Insurance Name:**
Home Telephone:	Insurance Address:
Work Telephone:	City/State/Zip:
Employer's Name:	Telephone Number:
Employer's Telephone Number:	**Policy Information:**
Employer's Address:	Effective Date: Group Number:
City/State/Zip:	Policy Number:
	Employer Name:

EXHIBIT 5

Statement Date: 02/04/19
Patient Name: [redacted]
Responsible Party: [redacted]
Guarantor Account Number: [redacted]

Summary of Charges

New Services:

Date	Description	Charges	Insurance Pmts/Adjs	Patient Pmts/Adjs	Patient Balance
Physician Services for [redacted] by [redacted]				Account # [redacted]	
01/03/19	CT ANGIO,HEAD COMBO,INCL IMAGE PROCESS	$314.00			
01/03/19	CT ANGIO,NECK COMBO,INCL IMAGE PROCESS	$314.00			
01/03/19	MRI BRAIN	$257.00			
01/03/19	EMERGENCY DEPARTMENT VISIT MODERATE SEVERITY	$156.00			
01/03/19	CRITICAL CARE, E/M 30-74 MINUTES	$814.00			
01/03/19	CEREBRAL PERFUS ANALYSIS, CT W/CONTRAST	$200.00			
01/08/19	SELF PAY DISCOUNT			-$186.00	
01/10/19	SELF PAY DISCOUNT			-$39.00	
01/15/19	PB RESIDENT ADJUSTMENT			-$156.00	
01/17/19	SELF PAY DISCOUNT			-$70.00	
	Your Amount Due				**$1,604.00**

Previously Billed:

Date	Description	Charges	Insurance Pmts/Adjs	Patient Pmts/Adjs	Patient Balance
Hospital Services for [redacted] at UVA Medical Center For Admission/Encounter 01/03/19 - 01/03/19				Account # [redacted]	
	Balance Forward	**$19,686.15**		**-$3,937.23**	**$15,748.92**
	Your Amount Due				**$15,748.92**

Total Amount Due by February 22, 2019: **$17,352.92.**

EXHIBIT 5

The Honorable Charles E. Grassley
November 19, 2019

UNIVERSITY of VIRGINIA HEALTH SYSTEM

Statement of Services

For balances after 7/1/2017

Statement Date: 03/04/19
Patient Name: [redacted]
Guarantor Account Number:
Medical Record Number:

Account Summary

Previous Statement Amount:	$17,352.92
New Services:	$814.00
Insurance Payments:	$0.00
Insurance Adjustments:	$0.00
Patient Payments:	$0.00
Other Adjustments:	$-39.00
Account Balance:	$18,127.92
Amount Due by March 22, 2019	**$18,127.92**

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PO Box 743977 Atlanta, GA 30374-3977

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IF PAYING BY CREDIT CARD PLEASE FILL OUT BELOW

☐ VISA ☐ MasterCard ☐ DISCOVER ☐ AMERICAN EXPRESS

CARD NUMBER: AMOUNT:

SIGNATURE: EXP DATE:

CARD HOLDER:

GUARANTOR ACCT NUMBER	AMOUNT DUE	DUE DATE	PAYMENT AMOUNT
[redacted]	**$18,127.92**	**03/22/19**	**$**

EXHIBIT 5

9990000000085692303222019000018127929

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Financial Assistance:
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5	Less than $58,841	And	Less than $3,300.00

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ABOUT YOU:	**ABOUT YOUR INSURANCE:** Will this replace or supplement existing coverage? (Circle One)
Your Name:	Policy Holder:
Address:	Date of Birth:
City/State/Zip:	**Insurance Name:**
Home Telephone:	Insurance Address:
Work Telephone:	City/State/Zip:
Employer's Name:	Telephone Number:
Employer's Telephone Number:	**Policy Information:**
Employer's Address:	Effective Date: Group Number:
City/State/Zip:	Policy Number:
	Employer Name:

EXHIBIT 5

Statement Date: 03/04/19
Patient Name: [redacted]
Responsible Party: [redacted]
Guarantor Account Number: [redacted]

Summary of Charges

Previously Billed:

Date	Description	Charges	Insurance Pmts/Adjs	Patient Pmts/Adjs	Patient Balance
Physician Services for [redacted] by [redacted]				Account # [redacted]	
	Balance Forward	**$2,055.00**		**-$451.00**	**$1,604.00**
01/03/19	CRITICAL CARE, E/M 30-74 MINUTES	$814.00			
02/13/19	SELF PAY DISCOUNT			-$39.00	
	Your Amount Due				**$2,379.00**

This balance is now delinquent. Please pay in full.

Date	Description	Charges	Insurance Pmts/Adjs	Patient Pmts/Adjs	Patient Balance
Hospital Services for [redacted] at UVA Medical Center For Admission/Encounter 01/03/19 - 01/03/19				Account # [redacted]	
	Balance Forward	**$19,686.15**		**-$3,937.23**	**$15,748.92**
	Your Amount Due				**$15,748.92**

Total Amount Due by March 22, 2019: **$18,127.92.**

EXHIBIT 5

The Honorable Charles E. Grassley
November 19, 2019

UNIVERSITY of VIRGINIA HEALTH SYSTEM

Statement of Services

For balances after 7/1/2017

Statement Date: 04/01/19
Patient Name: [redacted]
Guarantor Account Number:
Medical Record Number:

Account Summary

Previous Statement Amount:	$18,127.92
New Services:	$0.00
Insurance Payments:	$0.00
Insurance Adjustments:	$0.00
Patient Payments:	$0.00
Other Adjustments:	$0.00
Account Balance:	$18,127.92
Amount Due by April 19, 2019	**$18,127.92**

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☐ VISA ☐ MasterCard ☐ DISCOVER ☐ AMERICAN EXPRESS

CARD NUMBER: AMOUNT:

SIGNATURE: EXP DATE:

CARD HOLDER:

GUARANTOR ACCT NUMBER	AMOUNT DUE	DUE DATE	PAYMENT AMOUNT
856923	$18,127.92	04/19/19	$

EXHIBIT 5

9990000000085692304192019000018127927

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Work Telephone:	City/State/Zip:
Employer's Name:	Telephone Number:
Employer's Telephone Number:	**Policy Information:**
Employer's Address:	Effective Date: Group Number:
City/State/Zip:	Policy Number:
	Employer Name:

EXHIBIT 5

Statement Date: 04/01/19
Patient Name: [redacted]
Responsible Party: [redacted]
Guarantor Account Number: [redacted]

Summary of Charges

This balance is now delinquent. Please pay in full.

Date	Description	Charges	Insurance Pmts/Adjs	Patient Pmts/Adjs	Patient Balance
Physician Services for [redacted] by [redacted]				Account #[redacted]	
	Balance Forward	**$2,869.00**		**-$490.00**	**$2,379.00**
	Your Amount Due				**$2,379.00**

Final notice: You must call or make payment to avoid formal collection activity.

Date	Description	Charges	Insurance Pmts/Adjs	Patient Pmts/Adjs	Patient Balance
Hospital Services for [redacted] at UVA Medical Center For Admission/Encounter 01/03/19 - 01/03/19				Account #[redacted]	
	Balance Forward	**$19,686.15**		**-$3,937.23**	**$15,748.92**
	Your Amount Due				**$15,748.92**

Total Amount Due by April 19, 2019: **$18,127.92.**

EXHIBIT 5

The Honorable Charles E. Grassley
November 19, 2019

UNIVERSITY of VIRGINIA HEALTH SYSTEM

Statement of Services

For balances after 7/1/2017

Statement Date: 04/29/19
Patient Name: [redacted]
Guarantor Account Number:
Medical Record Number:

Account Summary

Previous Statement Amount:	$18,127.92
New Services:	$0.00
Insurance Payments:	$0.00
Insurance Adjustments:	$0.00
Patient Payments:	$0.00
Other Adjustments:	$0.00
Account Balance:	$2,379.00
Amount Due by May 17, 2019	**$2,379.00**

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CARD NUMBER: AMOUNT:

SIGNATURE: EXP DATE:

CARD HOLDER:

GUARANTOR ACCT NUMBER	AMOUNT DUE	DUE DATE	PAYMENT AMOUNT
[redacted]	$2,379.00	05/17/19	$

EXHIBIT 5

9990000000008569230517201900000237900 8

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Address:	Date of Birth:
City/State/Zip:	**Insurance Name:**
Home Telephone:	Insurance Address:
Work Telephone:	City/State/Zip:
Employer's Name:	Telephone Number:
Employer's Telephone Number:	**Policy Information:**
Employer's Address:	Effective Date: Group Number:
City/State/Zip:	Policy Number:
	Employer Name:

EXHIBIT 5

Statement Date: 04/29/19
Patient Name: [redacted]
Responsible Party: [redacted]
Guarantor Account Number: [redacted]

Summary of Charges

Final notice: You must call or make payment to avoid formal collection activity.

Date	Description	Charges	Insurance Pmts/Adjs	Patient Pmts/Adjs	Patient Balance
Physician Services for [redacted] by [redacted]				Account # [redacted]	
	Balance Forward	**$2,869.00**	**$0.00**	**-$490.00**	**$2,379.00**
	Your Amount Due				**$2,379.00**

Total Amount Due by May 17, 2019: **$2,379.00.**

EXHIBIT 5

UNIVERSITY of VIRGINIA HEALTH SYSTEM

PATIENT FINANCIAL SERVICES

MEDICAL CENTER POLICY AND PROCEDURE NO. L7031
SUBJECT*: Governmental and Non-Governmental Financial Assistance*
EFFECTIVE DATE*:* July 1, 2002 ***DATE REVISED****: 10/04/2006, 11/09/09*
Reviewed, no revisions 12/03/2018

POLICY:

It is the policy of the University of Virginia Health System, Patient Financial Services to assist uninsured and/or underinsured patients free of charge in obtaining governmental and/or non-governmental financial assistance to help cover their expenses for necessary medical care.

PROCEDURES:

1. **Governmental Assistance Program–** Administrative Manager
    a. Assure appropriate staffing and cost effective processes are in place to identify and assist potentially eligible patients (inpatients and targeted outpatient areas) with obtaining governmental assistance through one of the following programs. This assistance will be provided at no charge to patients, irrespective of whether any vendors we have partnered with charge us for the same:
        i. Medicaid
        ii. Victims of Crime
    b. Maintain records and/or databases of patients assessed through the processes and analyze data for additional cost effective opportunities to assist or facilitate the processes.

2. **Non-Governmental Financial Assistance Program-**Administrative Manager
    a. Assure yearly approval by the Virginia Department of Medical Assistance Services (DMAS) and implementation of the *Guidelines for the Determination of Eligibility of Indigent and Medically Indigent Persons for Healthcare Services at the State University Teaching Hospitals.*
    b. Assure appropriate staffing and cost effective processes are in place to efficiently and thoroughly assess patients' eligibility for assistance under these guidelines.
    c. Assure communication of any updates to these guidelines, which have both income and asset requirements, to Patient Access in order to permit changes to the initial eligibility screening conducted during the course of registering/scheduling potentially eligible patients.
    d. Maintain records, including imaged documentation, sufficient to comply with State and Federal auditing requirements.
3. **Questions-**Financial Verification Customer Service Unit
    a. Questions from staff members or patients regarding potential eligibility for financial assistance, or pending applications, should be directed to the Financial Verification Customer Service Unit at 1-866-320-9659 (toll free) or locally (434) 924-8718.

Approved By: _____ Date Approved: 12/3/2018

Brent McGhee, Administrator

MEDICAL CENTER POLICY AND PROCEDURE NO. L7033
***SUBJECT**: Automated FPL Mini-Screening Process*
***EFFECTIVE DATE**:07/01/17* ***DATE REVISED**:*

POLICY:

It is the policy of the University of Virginia Health System, Patient Financial Services to initiate patient financial assistance eligibility by using a third party vendor to determine household income and size in accordance with the Federal Poverty Guidelines.

PROCEDURES:

1. Procedure Responsibilities University of Virginia Health System, Patient Financial Services

1.1 Initiation of FPL Mini-Screening

1.1.1 Registration of a patient is initiated
1.1.2 File is created for patient and batched in EPIC based upon:

1.1.2.1 No FPL value
1.1.2.2 The existing value has expired

1.1.3 Batched file is automatically sent to third-party vendor for processing once daily

2. Procedure Responsibilities Third-Party Vendor

2.1 Third-party Vendor will determine household income and size

2.1.1 Household income and size will be translated to a range 1-5 or 7

2.2 Third-party Vendor will submit results to Epic for FPL table update

2.3.1 Table will not update if an existing, non-expired FPL value is present

3. Procedure Responsibilities University of Virginia Health System, Patient Financial Services

3.1 For values that meet the FPL guidelines, a batch file will be sent to the mail vendor

4. Procedure Responsibilities Third-Party mail vendor

4.1 Letters and financial assistance applications will automatically be sent to the patient's address on file

Approved By: _____ Date Approved: 7/1/17

Brent McGhee, Administrator

EXHIBIT 6

UNIVERSITY of VIRGINIA HEALTH SYSTEM

MEDICAL CENTER POLICY AND PROCEDURE NO. **L7035**
SUBJECT: Hospital Presumptive Eligibility (HPE)
EFFECTIVE DATE: 03/25/2019 ***DATE REVISED:***

Standard Operating Procedure

Title:	Hospital Presumptive Eligibility (HPE)	Validated/ Reviewed:	
Department:	PFS	Date Validated/ Reviewed:	
Created By:	Bret Stearns	Updated By:	
Date :	March 25, 2019	Last Date Updated:	

Purpose: The UVA Medical Center has been approved to conduct presumptive Medicaid screenings for identified patients giving those patients temporary Medicaid coverage for the current month through the end of the following month.

Criteria: Patients must be between the ages of 19-64 and have total household income less than or equal to 138% of the Federal Poverty Line. The presumptive screening must be conducted by a Hospital employee.

Procedure: Criteria has been implemented into two EPIC work queues, 17541 and 17557. Patients are identified via an outside vendor (Experian) to determine their FPL%. If the value from Experian is less than 138% of FPL and the patient is pure self-pay (i.e. no other insurance/coverage) or has effective Financial Assistance coverage loaded on the account, the patients future accounts/appointments are inputted into the Work queues for presumptive screening by a Hospital representative (Financial Counselor and/or PFS Customer Resolution Specialist).

I. The representative will identify a patient in the Work queue and proceed with the following pre-work
   a. Gather the patients demographics
   b. Review Financial Assistance screening/application if applicable
   c. Review patients last quarter wages (if applicable) via the Virginia Employment Commission (VEC) database

II. The representative will contact the patient
   a. If the patient is not available, a message is left for the patient with the direct number of the representative to return the call.
   b. If the patient is not interested in the screening, the representative will notate the guarantor with the "Denied/NQ" guarantor status.

III. If the patient is agreeable moving forward with the screening, the representative will proceed to the Medicaid HPE portal and complete the questions on the portal.

IV. Once all information is entered, DMAS via the HPE portal will provide an Interim Approval or Denial Notice.

V. If the patient is approved, the representative will proceed in providing the patient with 'next step' information:
   a. Patient will receive a formal letter and Medicaid card from DMAS in coming weeks.
   b. Patient will be contacted by Change Healthcare (UVA vendor) to complete the full Medicaid application and patient must cooperate with Change Healthcare in obtaining all necessary information for the Medicaid application.

VI. After the patient has been provided all pertinent information, the representative will proceed to create a HPE Medicaid Case and Tracker for the patient via the Financial Assistance module located in the EPIC. The tracker is maintained until approval or denial has been obtained for the patient. The portal is updated by the gov serv representative that acts as a 'gatekeeper' for the Medical Centers governmental services processes.

Approved By: _____ Date Approved: 3/25/19

Brent McGhee, Administrator

EXHIBIT 6

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Exhibit No.	Attachment
1	**UVA Medical Center and Affiliates by Virginia Health Planning Districts, FY2019, Indigent Care (IC) and Medicaid (M)** *In File 1 of 3
2	**Eligibility Guidelines for Health Care Services at the State University Teaching Hospitals** *In File 1 of 3
3	**Policy FIN7003-2** **Policy FIN7009** **Policy FIN7010** **Policy FIN7028-2** *In File 1 of 3
4	**Thank You for Choosing UVa for Your Care** *In File 1 of 3
5	**Patient Statements** *In File 1 of 3
6	**Policy L7031** **Policy L7033** **Policy L7035** *In File 1 of 3
7	**2008 MAPP2Health Report** *In Files 2 and 3 of 3

*Split into 3 files due to size

MAPP

City of Charlottesville – Albemarle County

Mobilizing for Action through Planning and Partnerships

Community Health Status Assessment

A Compilation of Data that Reflects the Community's Health

Technical Report

2008

Thomas Jefferson HEALTH DISTRICT
Serving: Albemarle Charlottesville Fluvanna Greene Louisa Nelson

EXHIBIT 7

City of Charlottesville – Albemarle County

Mobilizing for Action through Planning and Partnerships

Community Health Status Assessment

A Compilation of Data that Reflects the Community's Health

Technical Report

2008

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Executive Summary

Community health assessment plays a fundamental role in developing and evaluating policies for improving the health of the public. A complex system of components affect public health, including, but not limited to, behavioral modification to change personal health status; health care accessibility; the environment; and service delivery by an assortment of private, not-for-profit, and governmental agencies.

Public health planning has evolved from traditional needs assessment and program planning to a more comprehensive community approach. Mobilizing for Action through Planning and Partnerships (MAPP) is a strategic planning tool for improving health developed by the National Association of County and City Health Officials (NACCHO) and the Centers for Disease Control and Prevention (CDC). It provides a framework for local communities to prioritize local health issues, identify resources, and mobilize partners to take integrated action toward addressing needs.

In the spring of 2007, the Charlottesville/Albemarle Health Department adopted the MAPP method to assess the health status and develop a strategic plan that addresses priority health needs of the City of Charlottesville and Albemarle County. A steering committee with representatives from local agencies and organizations that impact the overall health of the community was convened to oversee the process. Effective community health response requires collective action, which in turn depends on meaningful partnership and knowledge of available resources. By emphasizing participatory planning, MAPP provides both of these.

MAPP - Mobilizing for Action through Planning and Partnership

Several phases comprise the MAPP process: partnership development, visioning, assessment, identifying priority issues, formulating goals and strategies, and taking action. Four aspects of the community are assessed: community health status, community themes and strengths, the local public health system, and forces of change. The MAPP model, shown in Figure 1, provides a schematic of the process. This report presents the quantitative data collected in the Community Health Status Assessment. Qualitative data collected in the MAPP process will be reported separately.



Figure 1. MAPP Model

The Community Health Status Assessment

The purpose of the Community Health Status Assessment is to answer three main questions:

1. Who comprises the community, and what do the community members bring to the table?
2. What are the strengths and risk factors in the community that contribute to health?
3. What is the status of health in the community?

Quantitative data from the following thirteen categories were compiled from various existing sources to address these questions:

- Demographics
- Socioeconomics
- Health Resource Availability
- Quality of Life
- Environmental Health
- Behavioral Risk Factors
- Maternal and Child Health
- Causes of Death
- Cancer
- Injury
- Infectious Disease
- Ambulatory Care Sensitive Conditions
- Mental Health

Indicators were selected primarily because they are recommended by MAPP. Collected data were disseminated to the MAPP steering committee via a series of oral presentations during which input was sought regarding clarifications to the data. Supplementary data were collected if available when the steering committee felt they would provide more depth or clarity to an issue.

Data are reported at the City and County level. Additionally, where possible, they are stratified by age, race or census block. Looking at data at these levels allows for the identification of unique issues to facilitate targeted interventions. For some indicators, the number of events is too small to report at a locality level so data from either the combined City-County area or the Thomas Jefferson Health District (TJHD), which includes the City of Charlottesville and Albemarle, Fluvanna, Greene, Louisa and Nelson Counties, are included. When local data are not available, state or national data are included. Additionally, data for TJHD, other areas of the state, the Commonwealth of Virginia, and/or the United States are frequently reported for reference.

Where applicable, Healthy People 2010 benchmarks are referenced. Healthy People 2010 is a set of objectives for the nation's health that were developed by the U.S. Department of Health and Human Services through a broad national consultation process. These benchmarks (or targets) were developed with the foundation of the best scientific knowledge and are intended for use in public health program evaluation over time with the ultimate goal of assisting local, state, and federal agencies in improving the health of the nation.

Demographics

The Thomas Jefferson Planning District (PD 10) experienced the fifth highest population growth in the Commonwealth between 2000 and 2004. Although the City's population size has remained consistent, the County has contributed to this growth with a 33 percent increase in its population over the last decade and a half. However, high ranking is heavily influenced by marked changes in the populations of the surrounding counties: Fluvanna (99 percent increase), Greene (69 percent increase), and Louisa (48 percent increase). In 2000, PD 10 was a net importer of workers, with more people commuting in than out. The largest concentration of jobs is in Charlottesville and Albemarle. Many residents of the contiguous counties commute to the City-County area to work, shop, recreate, and obtain services, which contributes to community health issues.

The County has the largest population among the Thomas Jefferson Health District (TJHD) localities with over 90,000 residents. The City and other counties follow distantly with populations ranging from 15,000 to 40,000. The City population is younger than that of the County with the UVA student body contributing significantly to the 18 24 year old population. The area has seen the majority of its population growth among residents 45 years of age and older. There has also been a significant influx of immigrants and refugees from many different countries, presenting both unique opportunities and challenges as they transition into the community. Persons managing disabilities often have transportation and healthcare needs to be considered in health services planning, and there are a number of census blocks in both the Charlottesville Urban Ring as well as in the outlying areas of the County that have 20 percent or more of the residents reporting disabilities.

Socioeconomics

Median household incomes have remained stable in the last five years. The County median household income is greater than that of Virginia and the U.S., and is 77 percent greater than that of the City. Both the City and County benefit from a low unemployment rate, less than five percent, although there was a substantial rise in the City between 2003 and 2004.

Greater than 80 percent of City residents and 90 percent of County residents live above the federal poverty level (FPL), which is currently set at $10,210 annually for an individual and $20,650 annually for a family of four. Children are the most affected group by age of persons living in poverty. In the 2000 Census of Population and Housing, among City residents, 9,950 individuals were living below 100 percent of the FPL, 1,383 of whom were children and 302 of whom were elderly. In the County, 5,232 persons were estimated to live below 100 percent of the FPL. Of those, 1,262 were children and 430 were elderly. While about 10 percent of City households receive assistance through food stamps, over 50 percent of City schoolchildren qualify for free or reduced-cost lunch programs.

Health Resource Availability

Published estimates show that while most area residents have health insurance, nearly 17,000 persons living in the City and County 2,600 of whom are children may not be insured. Nearly 60 percent of the County uninsured persons and about 35 percent of City uninsured persons live in households with income greater than 200 percent of the federal poverty level (FPL). In Virginia, the proportion of residents who are uninsured differs markedly by age group. While 98 percent of persons older than 65 years have insurance, over 16 percent of adults aged 18 to 64 years do not. The U.S. Administration on Aging reports that, despite having health insurance, in 2005 older Americans spent 12.4 percent of their total expenditures on health and the Agency for Healthcare Research and Quality reports that in 1999 Medicare beneficiaries spent 19 percent of their income on health related expenses.

Both FAMIS and Medicaid enrollment are rising in the City, which may be a reflection in local enrollment efforts and/or an increase in need corresponding to increases in the number of area children living below 200 percent of poverty over the last several years.

The City and the County appear to have sufficient numbers of primary care physicians, more than half of whom accept Medicaid. National workforce issues, especially among nurses and pharmacists, may have future impact on healthcare delivery.

Public insurance for preventive and restorative dental care is available for children, and there are sources of care for Medicaid and FAMIS enrolled children as well as uninsured low-income children. There is a

need, however, for outreach to increase the number of children enrolled in Medicaid that receive services. In contrast, there is no public insurance for preventive and restorative dental care for adults, and there is a significant gap in dental care provision for uninsured low-income adults in the area.

Quality of Life

In both the City and County, the majority of residents report that this area is a good or excellent place to live. Although the majority of residents drive alone to work in both the City and County, over a quarter of City residents carpool or walk to work. Overall, the area has ample public access to park space.

High ratings as a quality place to live have contributed to growth resulting in an extremely tight housing market. The impact of scarce housing is most severe for those seeking lower-cost housing. In 2005 the median percent of income paid to a mortgage was 24.1 percent compared to the national median of 20 percent. Scarcity of affordable housing in the urban core leads many people with special needs to live in rural counties, restricting access to services. There has been a pattern of people moving out of Charlottesville and Albemarle to the surrounding counties, with Fluvanna County receiving the most people. The cost of living is higher in the Charlottesville MSA than in Richmond, Roanoke and Hampton Roads.

The crime rate in the County has been consistent over time and was the same in 2006 as in 2000. The rate in the City was the same in 2006 as in 1999 but fluctuated during that period. Homicide rates decreased in both the City and County from 2000 through 2005. The rate of domestic assault arrests decreased significantly in the City between 1997 and 2006 and in the County between 1998 and 2006. The City's rate of victims of child maltreatment has decreased since fiscal year 2002-04 and is similar to the rate in the Commonwealth overall. While the rate in the County has crept up slightly, it is substantially lower than that of Virginia.

Environmental Health

The area enjoys particularly good outdoor air quality, with 100 percent of monitored days falling in a desirable category. The EPA estimates that radon is the second leading cause of lung cancer and recommends that all homeowners test for radon. EPA categorizes counties into risk zones using five factors to determine radon potential: indoor radon measurements; geology; aerial radioactivity; soil permeability; and, foundation type. The City and County fall within Zone 2 or "moderate potential for elevated indoor radon levels (two to four pCi/L)." In contrast to outdoor air quality, less than half of the Rivanna Basin monitored sites, the water source for the City and County, received biological health scores of "very good" or "good" from 2003 to 2005. Positively, though, less than one percent of housing units in the area are without plumbing and all residents of the City and 38 percent of the County have public water, which is tested on a regular basis to ensure that it meets all EPA standards. Efforts have been made to increase blood lead level testing in children and very few children in the area have been found to have elevated levels.

Behavioral Risk Factors

Because tobacco use is associated with numerous health disorders, reducing smoking is one of the top public health priorities. The prevalence of smoking in the U.S. declined among men by 57 percent in 1955 to 23 percent in 2005 and among women from 34 percent in 1965 to 18 percent in 2005. The Healthy People 2010 target is for less than 12 percent of Americans to smoke. While in TJHD 20 percent of surveyed residents reported smoking in 2002-04, public health experts state that establishing programs designed to keep young people from starting to smoke and to help smokers quit can continue the significant progress in moving communities, and the nation as a whole, towards this goal. There do not appear to be racial disparities in the proportion of current smokers in Virginia; however, disparities do appear among income levels. Targeted

interventions for persons with lower incomes may be beneficial.

Like tobacco, obesity is major risk factor for chronic disease. In addition to health education and regulatory initiatives, creating opportunities to access nutritious foods and physical activity at work, in school, and in the community can be effective approaches to addressing this public health issue. The percent of adults who are obese by self-reported height and weight decreased in TJHD between 1997-99 and 2002-04 to less than 20 percent, approaching the Healthy People 2010 target of 15 percent. These data contrast with trends in measured obesity indicators of children in the City and County, in which percentages of overweight or obese children increased between 2003 and 2007 and exceed the Healthy People 2010 target.

Alcohol abuse is associated with liver and kidney disease, a number of types of cancer, pregnancy complications and birth defects. The National Survey on Drug Use and Health states that young adults in Virginia are more likely to abuse alcohol or illicit drugs than other age groups, with binge drinking being the most common substance abuse problem.

Preventive health care can lead to early detection and intervention of a number of diseases and can improve longevity and quality of life as well as reduce healthcare spending. Because of access to care and the nature of the health insurance, health maintenance organization (HMO) members may serve as an upper estimate for those seeking out and receiving preventive health care services. Among HMO members in Virginia, 69 percent receive breast cancer screening, 82 percent receive cervical cancer screening and 28 percent receive colorectal cancer screening. The area is doing fairly well with regard to select screening and prevention activities, based on local BRFSS results. Over 70 percent of women aged 40 years or older in TJHD reported receiving mammograms within two years of when surveys were conducted, which exceeds the Healthy People 2010 target, and around 50 percent of men aged forty years or older reported receiving at least one PSA test. Although the area does not quite meet the target for flu vaccination among its elderly population, the proportion of adults reported visiting a dentist at least once in the previous year exceeds the Healthy People 2010 target.

Maternal and Child Health

Infant mortality is an indicator used to compare the health and well-being of populations across countries as well as within countries. Surprising to many Americans, the U.S. has one of the highest infant mortality rates among the industrialized countries. This is due to disparities among different groups of the population. Within the U.S., African-Americans and American Indians have higher infant mortality rates than other groups, and although infant mortality rates have been falling for all groups, differences between groups have persisted. The City consistently has had a higher rate when compared to both Virginia and the U.S. The County has experienced lower rates, although they rose throughout the last decade. When examining infant mortality stratified by race, we see the same phenomenon in the City and County as is seen in the nation: African-American babies die more frequently than their white counterparts. In our area that rate has also been rising. The mortality rate within the first 28 days of life, the neonatal death rate, declined substantially in the City during the later half of the 1990s; the rate for the County meets the Healthy People 2010 target.

Risk factors for poor health outcomes in infants include low birth weight and lack of adequate prenatal care. Poor circumstances during pregnancy can lead to less than optimal fetal development. These risks can be reduced by improved preventive health care before the first pregnancy and adequate pre- and postnatal care for mothers and babies. As pointed out by the World Health Organization (WHO), a good start in life means supporting mothers and young children: the health benefits of early development and education last a life time. About eight percent of babies in the area are born at an unhealthy low birth weight. Sixty percent of women in the City and County receive the recommended number of 10 or more prenatal visits, leaving room

to increase visits for pregnant mothers with the hope of improving both maternal and infant health.

Babies born to teen mothers are more likely to be born prematurely and at low birth weight. These children are at greater risk of child maltreatment and of living in poverty. Girls born to teen mothers are more likely to become teen mothers than girls born to older mothers. According to the WHO, the greater the length of time that people live in disadvantaged circumstances, the more likely they are to suffer from a range of health problems. The County consistently meets the Healthy People 2010 target for the teen pregnancy rate among females ages 15 to 17 years; however, the City's overall teen pregnancy rate (ages 10-19 years) appears to be climbing in recent years.

Public health studies have shown a correlation between maternal education and infant health as well as improvements in infant health when maternal educational status improves. In the U.S., babies born to mothers with less than a high school education are at greater risk of living in poverty. The proportion of births to mothers in the area with less than a high school education was about the same is 2005 as 2002; it is nearly 20 percent in the City, higher than Virginia as a whole.

Causes of Death

Within TJHD, overall race and age-adjusted mortality declined between 2001 and 2004 for both whites and African-Americans; however, the rate among African-American residents is higher than that of white residents and higher than African-Americans in Virginia.

Cardiovascular disease, cancer, chronic lower respiratory disease, and unintentional injuries are the leading causes of death at the local, state and national level. Tobacco, poor diet, physical inactivity and alcohol consumption are significant behavioral factors that lead to premature death. Although they remain the top three causes of mortality, deaths due to heart disease, cancer, and stroke have declined since 1999 in the County and City. Rates are higher among non-white residents compared to white residents for heart disease and stroke. Strategies that can be employed to reduce cardiovascular disease include reducing tobacco use, lowering blood cholesterol levels, increasing physical activity, reducing obesity, controlling hypertension and diabetes, and improving social and psychological circumstances to reduce long-term stress. The mortality rate from chronic lower respiratory disease (chronic obstructive pulmonary disease and asthma) has risen in the City, while remaining steady in the County and Virginia; it is higher among white residents compared to non-white residents. Reducing tobacco use is an important strategy in reducing lower respiratory disease.

Intentional injury is an important cause of mortality among 15 to 54 year olds. Homicide is among the five leading causes of death from persons aged one to 34 years in Virginia and is among the two leading causes of death (first among 15 to 35 year olds) among African-Americans in this age group. Suicide is among the five leading causes of death for persons aged 15 to 54 years in Virginia. Deaths attributable to HIV infection particularly affect African-Americans in the 35 to 54 year old age group, ranking it among the five leading causes of death.

Cancer

Breast and prostate cancer are the types of cancer that occur most often in women and men, respectively, but lung cancer causes the highest percentage of cancer deaths for both genders. Cancers (breast, prostate, and colon) for which screening tests are available tend to be diagnosed at an earlier stage than those without screening tests, resulting in improved survival. Although the incidence of most cancers has remained relatively consistent in Charlottesville and Albemarle, deaths attributable to these cancers have declined in TJHD. Cancer screening can lead to early diagnosis, which leads to improved survival.

Injury

Unintentional injury is the fifth leading cause of death in Virginia, and the leading cause among children aged one to 18 years old. Unintentional injury mortality is most often related to motor vehicle crashes, whereas unintentional injury hospitalizations are most often associated with falls.

The percentage of motor vehicle crashes involving alcohol is less than 10 percent in the City and County, while the percentage of fatal crashes involving alcohol is much higher, over 15 percent and nearly 40 percent, respectively. Use of child restraints in four Virginia cities, including Charlottesville, has risen over the last decade, and seat belt use among front seat passengers in Virginia has nearly reached the national average.

Falls are the second leading cause of unintentional-injury-related death and the leading cause of unintentional-injury-related hospitalization. Virginia's death rate from falls is more than twice the Healthy People 2010 target. The elderly are most susceptible to fall-related injuries requiring hospitalization and often resulting in death. These injuries are costly to treat, and the federal government is the payer of the majority of these medical costs.

The death rate from unintentional poisoning is lower in Charlottesville-Albemarle than Virginia, likely a result of having two hospitals and the Blue Ridge Poison Center in the community. Children under six years of age comprise nearly half of calls related to unintentional poisoning.

Intentional injuries also significantly contribute to morbidity and mortality, with suicide and/or homicide ranking in the top ten causes of death among one to 64 year olds. Contrary to popular perception, suicides often account for more deaths than homicides, which is the case in both the County and City.

Infectious Disease

Among reportable infectious diseases, gonorrhea and Chlamydia, both sexually-transmitted infections, are the most common, and the incidence of Chlamydia and gonorrhea is greater in teens than the overall population. Rates are higher in the City, due in large part to it being a younger population.

The City has experienced higher rates of HIV and AIDS than Virginia, though the incidence (i.e., new cases) of AIDS has slowed markedly in the last couple of years. The prevalence of HIV and AIDS in both the City and County is slowly increasing, likely indicating improvements in treatment and survival. A disproportionate percent of HIV/AIDS cases occur among black and Hispanic persons, requiring targeted prevention efforts.

Salmonella, Giardia, Campylobacter, and E. coli 0157:H7 infections, which can all be transmitted through food and/or water, are all of concern for TJHD because of recent increases or a greater mean annual incidence. Proper hygiene and food handling techniques can help stem the spread of these infections.

Ambulatory Care Sensitive Conditions

Ambulatory care sensitive events are hospitalizations that can be prevented through good outpatient care because early intervention can prevent complications and more severe disease. If few sentinel events, such as hospitalization for diabetes, asthma, or hypertension, occur, the primary care system is likely functioning well. The prevalence of diabetes and hypertension have increased in Virginia. The rate of hospitalization for diabetes is slightly higher in TJHD than in Virginia while the rates of hospitalization for asthma and COPD are lower.

Mental Health

There is a lack of readily available data regarding the incidence of psychological disease locally; however, according to the National Survey on Drug Use and Health, in 2004-05 roughly 10 percent of Virginia adolescents and young adults suffered a major depressive event, and one-fifth suffered psychological distress. The percentage of persons older than 26 who suffered similar episodes is a bit lower. In most cases, patients with mental health issues can receive appropriate care in an outpatient setting; however, hospitalization is sometimes necessary. According to local hospital discharge data, psychosis requiring hospitalization increased in the City between 1998 and 2005 and is higher than the state rate. The County rate appears to have decreased slightly during this time period. Depressive, psychotic/schizophrenic, and bipolar disorders account for more than 40 percent of Region Ten diagnosed disorders, and the majority of Region Ten services are delivered in an outpatient setting.

Next Steps

The City-County community is growing, evolving and presenting new challenges to achieving and maintaining health. We are fortunate to have some resources that are not always available in other communities - two major hospitals, an ample supply of physicians, a free clinic, and a not-for-profit children's dental clinic. In addition, the constant influx of new people and ideas has helped to develop a cache of other traditional and non-traditional sources of health care and education.

In many cases, we have been able to make substantial improvements in our community's health through new programs, campaigns, laws, and other mechanisms. Despite the many successes, this community still struggles with issues that affect the quality of health - and in turn, the quality of life. It is to these areas that we must turn our focus; we must actively reevaluate our preconceptions, and collaboratively brainstorm new solutions to these problems, while continuing to hold onto the gains where we have been successful.

The process of collecting quantitative data for MAPP began in the spring of 2007 with a review of previously collected data, moving forward to augment what was available with what was desirable. In one year's time the Charlottesville/Albemarle Health Department, in collaboration with the MAPP steering committee and many community partners, was able to pull together data from a variety of sources to present a comprehensive picture of where the health of our community stands today.

The process does not end with this report. The steering committee will continue to analyze these data and, combined with the results of the other MAPP assessments, use them as a basis to develop a strategic plan to advise where the community could work together to advance the health of the City and County. It is our hope that the data will help direct resources to areas where benefits to the collective health of our community can be maximized.

EXHIBIT 7

Improving the Public's Health

Community health assessment plays a fundamental role in developing and evaluating policies for improving the health of the public. A complex system of components affect public health, including, but not limited to, behavioral modification to change personal health status; health care accessibility; the environment; and service delivery by an assortment of private, not-for-profit, and governmental agencies.

Public health planning has evolved from traditional needs assessment and program planning to a more comprehensive community approach. Mobilizing for Action through Planning and Partnerships (MAPP) is a strategic planning tool for improving health developed by the National Association of County and City Health Officials (NACCHO) and the Centers for Disease Control and Prevention (CDC). It provides a framework for local communities to prioritize local health issues, identify resources, and mobilize partners to take integrated action toward addressing needs.

In 2007, the Charlottesville/Albemarle Health Department adopted the MAPP method to assess health status and develop a strategic plan that addresses priority health needs in the City of Charlottesville and Albemarle County. A steering committee with representatives from local agencies and organizations that impact the overall health of the community was convened to oversee the process. Effective community health response requires collective action, which in turn depends on meaningful partnership and knowledge of available resources. By emphasizing participatory planning, MAPP provides both.

MAPP - *Mobilizing for Action through Planning and Partnership*

Several phases comprise the MAPP process: partnership development, visioning, assessment, identifying priority issues, formulating goals and strategies, and taking action. Four aspects of the community are assessed: community health status, community themes and strengths, the local public health system, and forces of change. The MAPP model, shown in Figure 1, provides a schematic of the process. This report presents the quantitative data collected in the Community Health Status Assessment. Qualitative data collected in the MAPP process will be reported separately.



Figure 1. MAPP Model

The Community Health Status Assessment

The purpose of the Community Health Status Assessment is to answer three main questions:

1. Who comprises the community, and what do the community members bring to the table?
2. What are the strengths and risk factors in the community that contribute to health?
3. What is the status of health in the community?

Quantitative data from the following thirteen categories were compiled from various existing sources to address these questions:

- Demographics
- Socioeconomics
- Health Resource Availability
- Quality of Life
- Environmental Health
- Behavioral Risk Factors
- Maternal and Child Health
- Causes of Death
- Cancer
- Injury
- Infectious Disease
- Ambulatory Care Sensitive Conditions
- Mental Health

Indicators were selected primarily because they are recommended by MAPP. Collected data were disseminated to the MAPP steering committee via a series of oral presentations during which input was sought regarding clarifications to the data. Supplementary data were collected if available when the steering committee felt they would provide more depth or clarity to an issue.

A Note about the Data

Data are reported at the City and County level. Additionally, in some instances, they are stratified by age, race or census block. Looking at data at these levels allows for the identification of unique issues to facilitate targeted interventions. For some indicators, the number of events is too small to report at a locality level so data from either the combined City-County area or the Thomas Jefferson Health District (TJHD), which includes the City of Charlottesville and Albemarle, Fluvanna, Greene, Louisa and Nelson Counties, are included. When local data are not available, state or national data are included. Additionally, data for TJHD, Virginia, and/or the United States are frequently reported for reference. Where applicable, Healthy People 2010 benchmarks are referenced. Healthy People 2010 is a set of objectives for the nation's health that were developed by the U.S. Department of Health and Human Services through a broad national consultation process. These benchmarks (or targets) were developed with the foundation of the best scientific knowledge and are intended for use in public health program evaluation over time with the ultimate goal of assisting local, state, and federal agencies in improving the health of the nation.

Section One

Section One includes information to answer the question: Who comprises the community, and what do the community members bring to the table?

Indicators include:

- **Demographics**
  - Population Estimates and Growth
  - Age and Sex Distribution of Population
  - Racial and Ethnic Composition of Population
  - Persons with Disabilities
- **Socioeconomics**
  - Median Household Income
  - Persons Living in Poverty
  - Unemployment Rate
- **Health Resource Availability**
  - Sources of Health Insurance
  - Health Insurance Coverage
  - Government Sponsored Health Insurance
  - Availability of Healthcare Personnel and Services
    - Physicians
    - Nurses
    - Pharmacists
    - Emergency Care
    - Dental Care
    - Mental Health Services
    - Free Clinic
    - Health Department

Demographics

Population Estimates and Growth

According to the Weldon Cooper Center at the University of Virginia (UVA), the Thomas Jefferson Planning District (PD 10), comprised of the City of Charlottesville and the Counties of Albemarle, Fluvanna, Greene, Louisa, and Nelson, experienced the fifth highest growth among Virginia planning districts between 2000 and 2005, as shown in Figure 2.

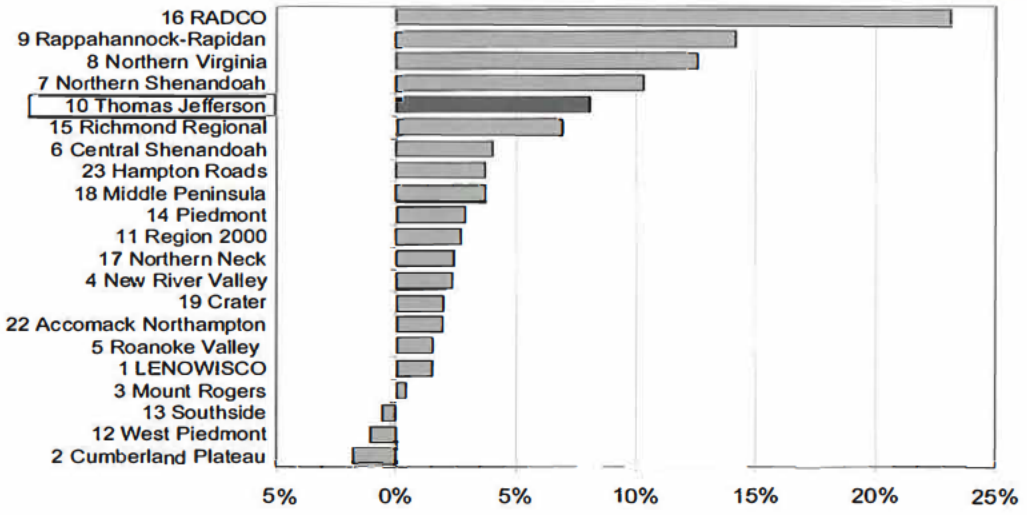


Figure 2. Growth rate by planning district (in growth rate order, Virginia), 2000 – 2005. Source: Weldon Cooper Center for Public Service, University of Virginia.

As shown in Figure 3, while the percent change in population between 1990 and 2005 was staggering in Fluvanna (99 percent), Greene (69 percent), and Louisa (48 percent) Counties, Albemarle County also experienced exceptional growth with an increase of 33 percent. In contrast, the City maintained a consistently sized population.

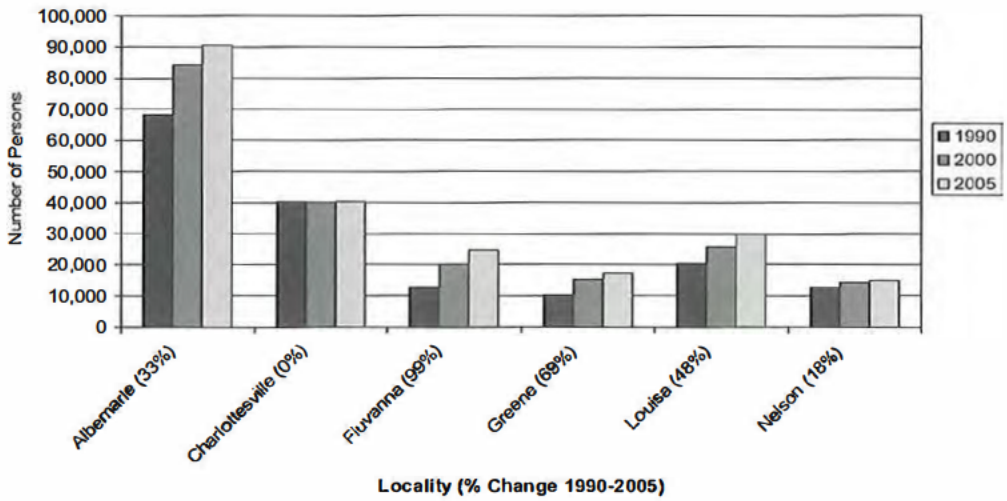


Figure 3. Population estimates for the Thomas Jefferson Health District by locality, 1990, 2000, and 2005. Source: U.S. Census Bureau.

In 2000, when the full census was completed, there was a disproportionately large change in the population between 1999 and 2000, shown in Table 1. This suggests that annual population estimates between the 1990 and 2000 census were under-estimates, reflecting greater than expected growth.

	Albemarle County	City of Charlottesville
2005-2006	-0.3%	1.5%
2004-2005	-0.8%	1.9%
2003-2004	0.2%	1.6%
2002-2003	-0.7%	1.4%
2001-2002	0.9%	0.8%
2000-2001	1.5%	1.3%
1999-2000	8.7%	5.6%
1998-1999	-0.5%	0.9%
1997-1998	-2.2%	2.3%
1996-1997	0.6%	0.9%
1995-1996	-0.5%	1.6%

Table 1. Annual percent changes in population estimates, Albemarle County and City of Charlottesville, 1995 1996 through 2005 – 2006. Source: U.S. Census Bureau.

The State of Housing Report of the Thomas Jefferson Planning District, published in 2008 by the Thomas Jefferson Planning District Commission states that in 2000, PD 10 was a net importer of workers, with more people commuting into PD10 than commuting out. The largest concentration of jobs is in Charlottesville and Albemarle. UVA is the largest employer and attracts over 1,500 employees from as far as 60 miles one-way. Many employees choose to live in areas further outside the urban core from which they work due to affordability, which leads to factors such as higher commuting costs and less quality time spent at home.

Age and Sex Distribution of Population

Figure 4 shows the age and sex distributions for the County and City. Since the 1950 U.S. Census, college students are counted as residents of the area in which they live while attending college, rather than their permanent residence. Thus, UVA students living in University housing are included in the County population, and students living off campus are included in the City or County population based on their residence. The population of the City is more influenced by the presence of UVA students than is the population of the County.

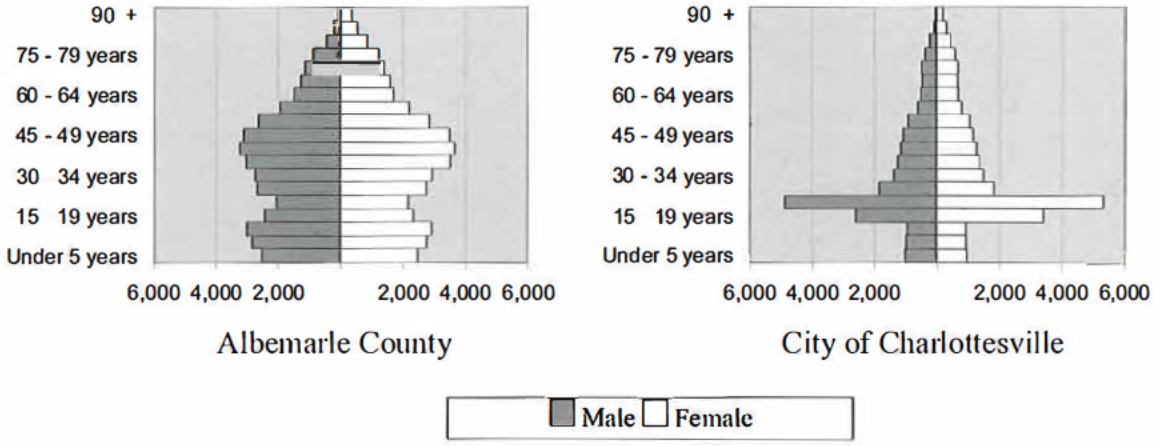


Figure 4. Population estimates by age and gender, Albemarle County and City of Charlottesville, 2000. Source: United Way Community Profile developed by Steve Nock, University of Virginia.

The magnitude of the effect of UVA students on the area's population of persons aged 18 24 years is shown in Table 2.

	Number
All Persons Age 18-24, Albemarle and Charlottesville	21,705
UVA Students (undergraduate and graduate)	19,786
Number of Students Living in UVA Housing	6,750

Table 2. Numbers of University of Virginia students (2007-08) compared to all persons aged 18 – 24 years of age residing in Albemarle County and the City of Charlottesville (2005 Population Estimate). Source: Weldon Cooper Center for Public Service, University of Virginia.

In addition to the area's growth, the populations of the County and City are aging. Between 1990 and 2005 in the City, the 45 64 year old age group experienced growth while other age groups experienced slight declines. In the County, the 45 – 64 year old group also experienced the greatest increase, nearly doubling in size (Figure 5).

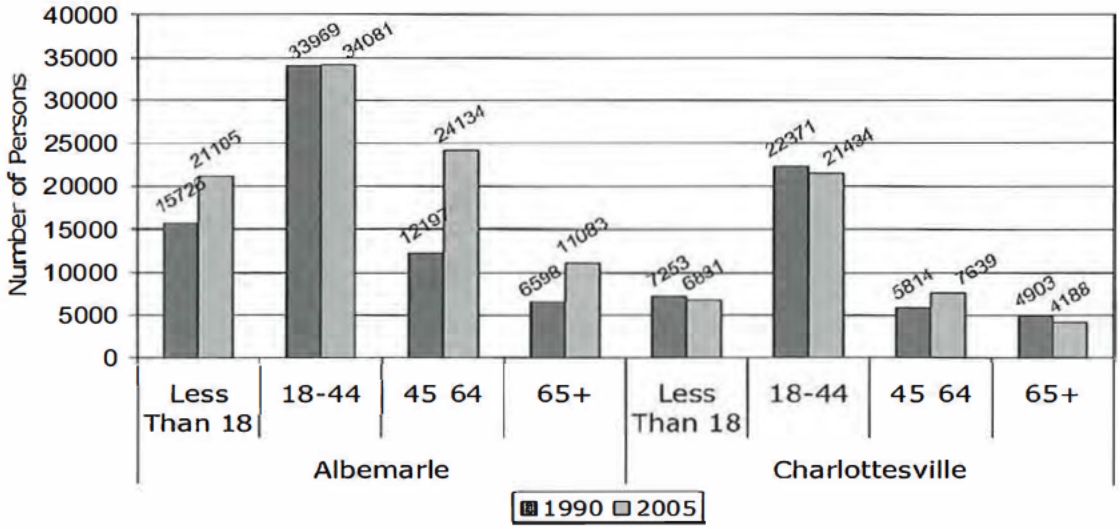


Figure 5. Population estimates by age, Albemarle County and City of Charlottesville, 1990 and 2005. Sources: U.S. Census Bureau; Weldon Cooper Center for Public Service, University of Virginia.

Racial and Ethnic Composition of Population

The racial and ethnic composition of both the County and City are shown in Figure 6. The proportion of African-Americans in the City is twice that of the County, while the proportion of Asian, Hispanic, and "Other" (American Indian, Alaska Native, Native Hawaiian, other Pacific Islander, or two or more races) residents is largely the same in both localities.

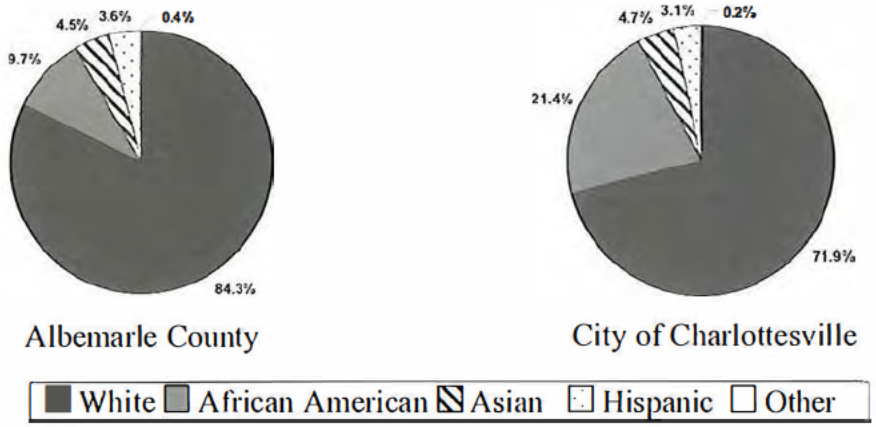


Figure 6. Racial and ethnic composition, Albemarle County and City of Charlottesville, 2005. Source: U.S. Census Bureau.

The proportion of the City's African-American and white populations is consistent with the Commonwealth's, as shown in Table 3.

	White		Black	
	Number	Percent	Number	Percent
Albemarle County	76,501	84%	8,770	10%
City of Charlottesville	29,073	72%	8,640	21%
Commonwealth of Virginia	--	74%	--	20%
United States	--	80%	--	13%

Table 3. Percent of population by race, Albemarle County, City of Charlottesville, Virginia, and the U.S., 2005. Source: U.S. Census Bureau.

While the proportion of African-American residents in the County and City remained unchanged between 1990 and 2005, the proportion of white residents declined, as shown in Table 4, reflecting a change to a more diverse population as persons of other races and ethnicities move to the area.

		Percent of Population			
		1980	1990	2000	2005
Albemarle County	Black	11 %	10 %	10 %	10 %
	White	87 %	86 %	85 %	84 %
City of Charlottesville	Black	18 %	21 %	22 %	21 %
	White	81 %	76 %	70 %	72 %

Table 4. Percent of population by race, Albemarle County and City of Charlottesville, 1980, 1990, 2000, and 2005. Source: U.S. Census Bureau.

The number of Hispanic persons residing in both the County and the City increased between 2000 and 2005, but the most significant increase, 60 percent, occurred in the County (Figure 7).

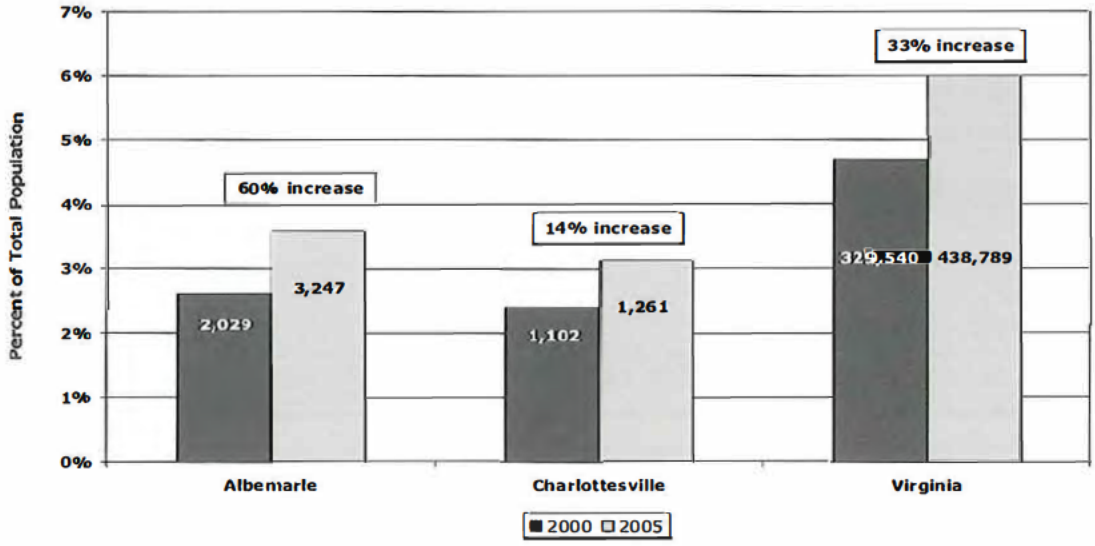


Figure 7. Hispanic population estimates, Albemarle County, City of Charlottesville and Virginia, 2000 and 2005. Sources: U.S. Census Bureau; Weldon Cooper Center for Public Service, University of Virginia.

Charlottesville is also home to a branch of the International Rescue Committee (IRC), a resettlement agency that brings an average of 150 refugees to the area each year. In fiscal year 2007, the IRC resettled 176 refugees here from Afghanistan, Burma, Burundi, Congo, Ethiopia, Iraq, Liberia, North Korea, Russia, Rwanda and Sudan.[1]

The influx of immigrants and refugees from countries with many different cultures and languages presents both unique opportunities and challenges for schools, human service agencies, and health providers as these groups transition into the community. Both localities had substantial increases in the number of enrolled students with limited English proficiency (LEP) between 2001 and 2006, with Charlottesville's number tripling (Figure 8).

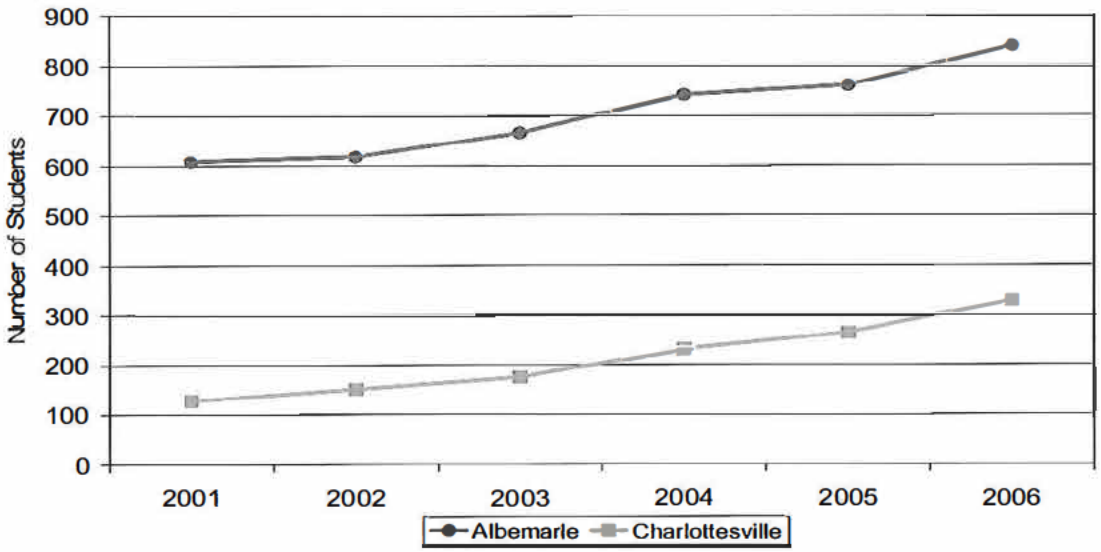


Figure 8. Limited English proficient student enrollment, Albemarle County and City of Charlottesville, 2001 - 2006. Source: Virginia Department of Education.

Persons with Disabilities

Persons managing disabilities often have transportation and other needs that affect access to care. There are a number of census blocks in the Charlottesville Urban Ring and outlying areas of the County that have 20 percent or more of the residents reporting disabilities. Figures 9 and 10 show the distribution of people meeting one of three characteristics: age five years or older with a sensory, physical, mental or self-care disability; age 16 years or older with difficulty going outside the home alone to shop or visit a doctor's office; age 16 64 years with an employment disability.

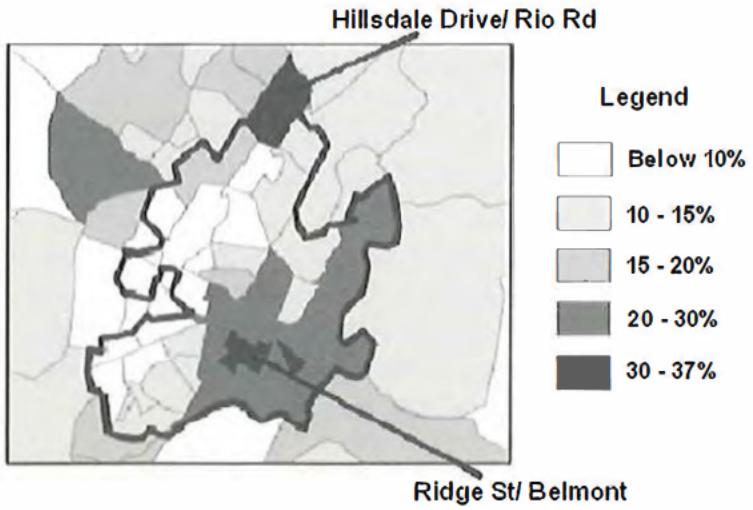


Figure 9. Percent of the population reporting disabilities by census block group, Charlottesville Urban Ring, 2000. Sources: U.S. Census Table P. 42; Thomas Jefferson Planning District Commission.

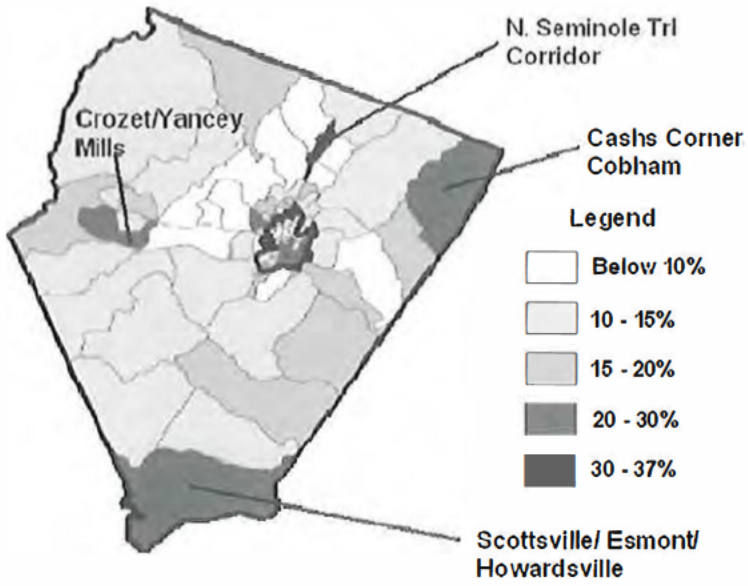


Figure 10. Percent of the population reporting disabilities by census block group, Albemarle County, 2000. Sources: U.S. Census Table P. 42; Thomas Jefferson Planning District Commission.

DEMOGRAPHICS SUMMARY

The Thomas Jefferson Planning District (PD 10) experienced the fifth highest population growth in the Commonwealth between 2000 and 2004. Although the City's population size has remained consistent, the County has contributed to this growth with a 33 percent increase in its population over the last decade and a half. However, high ranking is heavily influenced by marked changes in the populations of the surrounding counties: Fluvanna (99 percent increase), Greene (69 percent increase), and Louisa (48 percent increase). In 2000, PD 10 was a net importer of workers, with more people commuting in than out. The largest concentration of jobs is in Charlottesville and Albemarle. Many residents of the contiguous counties commute to the City-County area to work, shop, recreate, and obtain services, which contributes to community health issues.

The County has the largest population among the Thomas Jefferson Health District (TJHD) localities with over 90,000 residents. The City and other counties follow distantly with populations ranging from 15,000 to 40,000. The City population is younger than that of the County with the UVA student body contributing significantly to the 18 24 year old population. The area has seen the majority of its population growth among residents 45 years of age and older. There has also been a significant influx of immigrants and refugees from many different countries, presenting both unique opportunities and challenges as they transition into the community. Persons managing disabilities often have transportation and healthcare needs to be considered in health services planning, and there are a number of census blocks in both the Charlottesville Urban Ring as well as in the outlying areas of the County that have 20 percent or more of the residents reporting disabilities.

Socioeconomics

Median Household Income

The median household income in the County exceeded $50,000 annually from 2000 through 2004 and is greater than in Virginia and the U.S. The median household income among City residents was slightly more than $30,000 annually. These trends in median household income are shown in Figure 11.

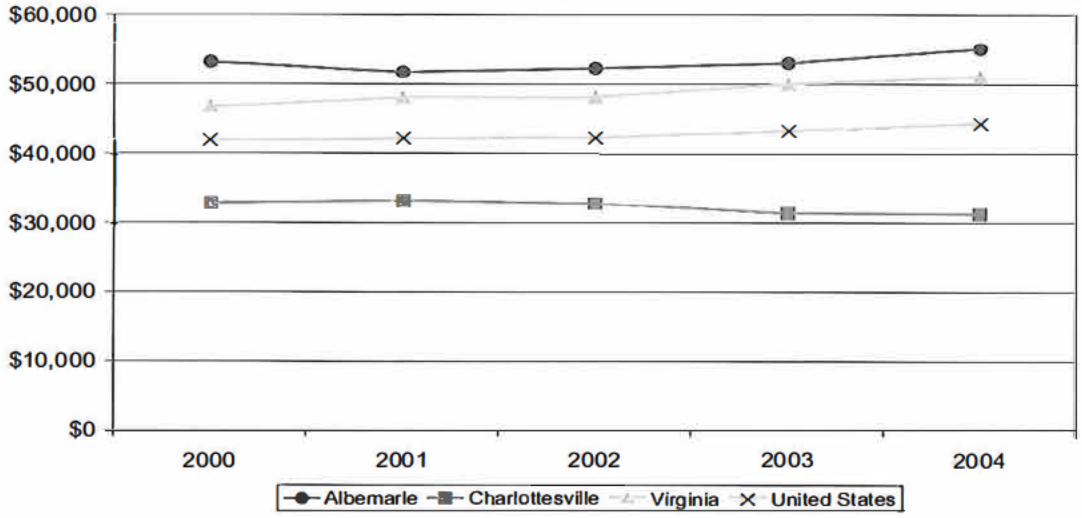


Figure 11. Median household income, Albemarle County, City of Charlottesville, Virginia, and the U.S., 2000 2004. Source: U.S. Census Bureau.

Persons Living in Poverty

Federal poverty guidelines are recalculated yearly but were set at $10,210 for an individual and $20,650 for a family of four in 2007.[2] Using computer models, the U.S. Census Bureau generates Small Area Income and Poverty Estimates, yearly intercensal estimates of the number and percentage of persons below 100 percent of poverty. Greater than 80 percent of City residents and 90 percent of County residents live above the federal poverty level (FPL). The percent of persons below 100 percent of poverty in the City was the same in 2004 as 2000; however, in comparison, it exceeds the Virginia and U.S. percentages. While lower than the City, the County percentage increased between 2000 and 2004, as shown in Figure 12.

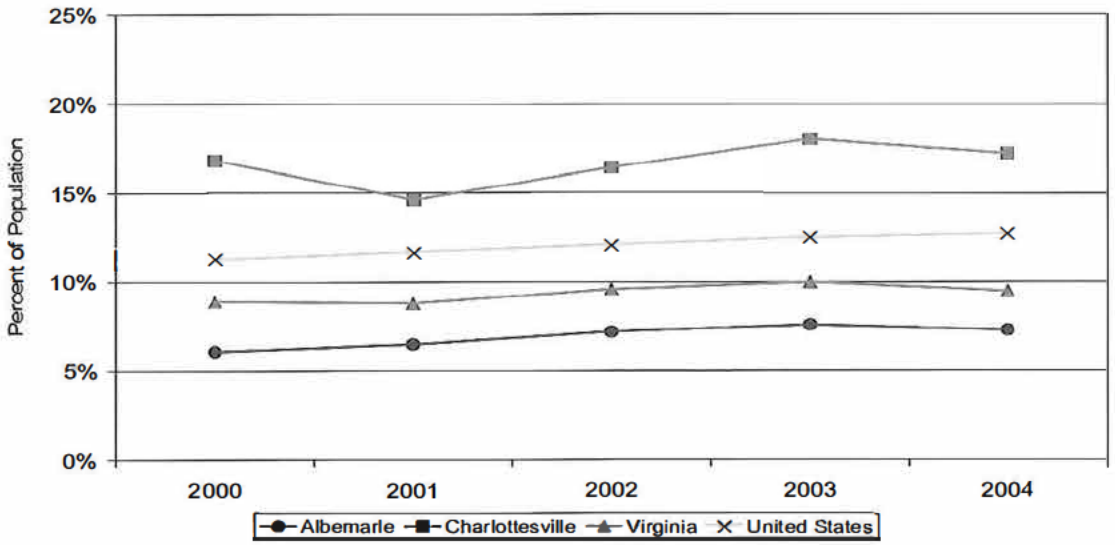


Figure 12. Percent of persons below 100 percent poverty, Albemarle County, City of Charlottesville, Virginia, and the U.S., 2000 2004. Source: Small Area Income and Poverty Estimates, U.S. Census Bureau.

Looking at actual numbers may contribute to efforts to close the gap between those in poverty and those not, as it provides some magnitude of the issue. In the 2000 Census of Population and Housing, among City residents, 9,950 individuals were living below 100 percent of the FPL, 1,383 of whom were children and 302 of whom were elderly. In the County, 5,232 persons were estimated to live below 100 percent of the FPL. Of those, 1,262 were children and 430 were elderly. When persons living below 200 percent of poverty are included, the City and County numbers increase to 17,165 and 15,285, respectively. The UVA student body affects the estimates of percent of persons below poverty for 18 to 24 year olds in both the County and City. However, because the proportion of students compared to the total population is greater in the City, the effect is far more magnified there. Because UVA students are included as residents, the number of persons actually struggling to manage poverty conditions is overestimated. In 2004, the U.S. Census Bureau performed a special retabulation of 2000 census poverty data. Adjustments were made to exclude students along with active duty military, and persons living in group quarters. This adjustment reduces the number of persons 18 to 24 years of age living below the FPL by an estimated 17 percent in the County and 50 percent in the City. While this adjustment would lessen the effect on the 18 24 year old age group, Figure 13 suggests that young adults, elderly females and children are most affected by poverty, especially in the City.

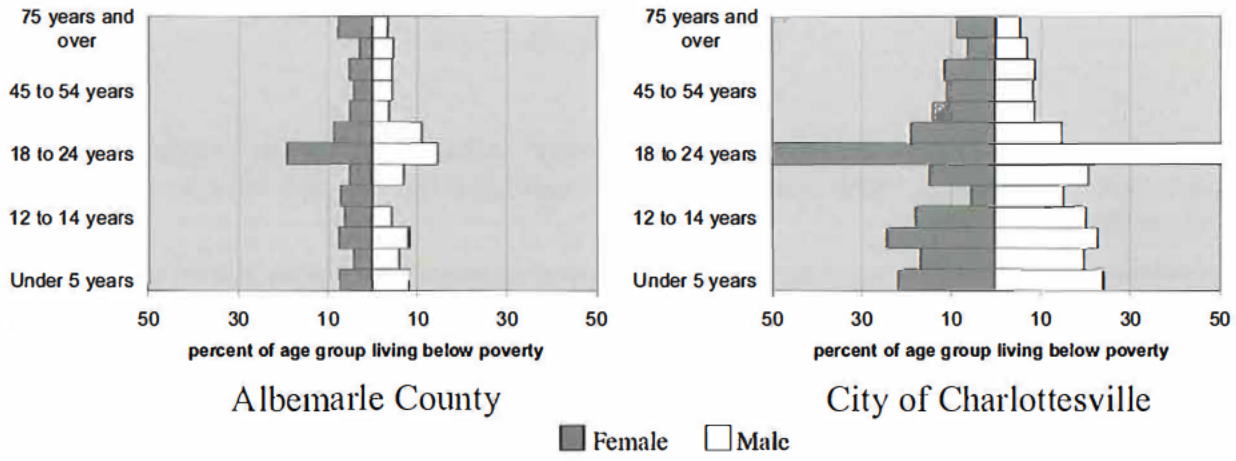


Figure 13. Percent below poverty by age and sex, Albemarle County and City of Charlottesville, 2000. Source: United Way Community Profile developed by Steve Nock, University of Virginia.

A greater proportion of children live in poverty in the City than in Virginia as a whole, and this has been consistent over time (Figures 14 and 15). The proportion of children receiving free and reduced priced meals under the National School Lunch Program is another indicator of their socioeconomic status. Children are eligible for free school meals if their family's household income is less than 130 percent of the FPL and for reduced-price meals if their household income is between 130 and 185 percent of the FPL. According to the Virginia Department of Education, 20 percent of County children and 53 percent of City children qualified for free or reduced price lunches during school year 2006-2007.

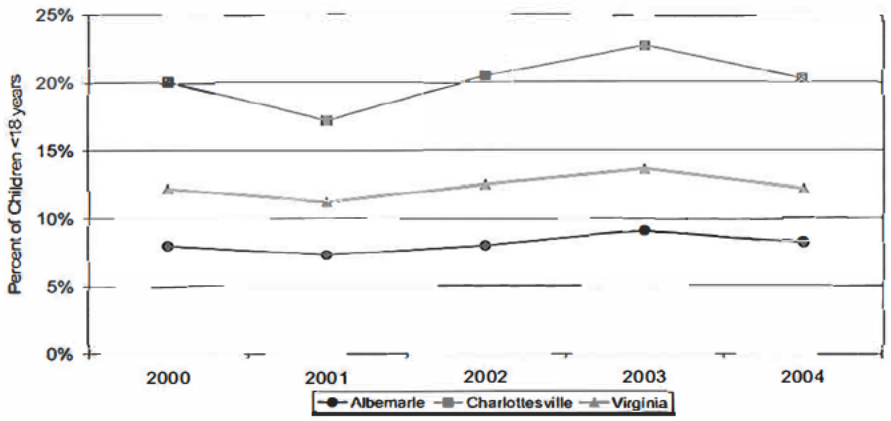


Figure 14. Percent of children below 100 percent poverty, Albemarle County, City of Charlottesville and Virginia, 2000 – 2004. Source: Small Area Income and Poverty Estimates, U.S. Census Bureau.

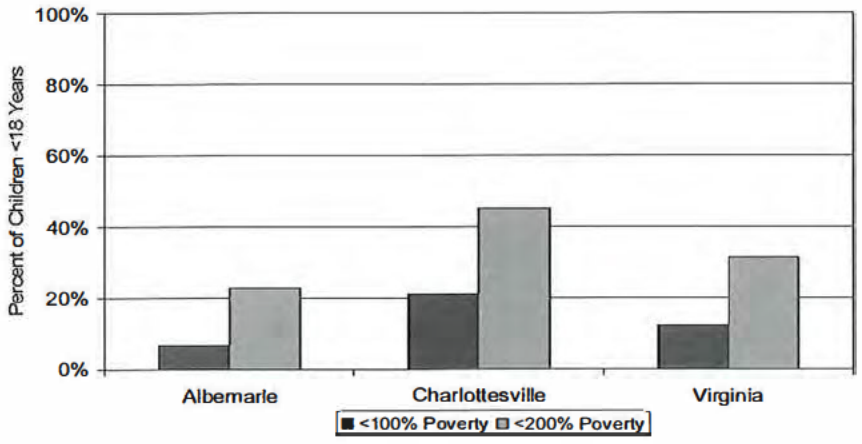


Figure 15. Percent of children below 100 percent and 200 percent poverty, Albemarle County, City of Charlottesville and Virginia, 2000. Source: U.S. Census Bureau.

Like children, the elderly generally are not a part of the workforce and are, therefore, potentially more vulnerable to economic hardship. Figure 16 shows, however, that lower proportions of City and County residents older than 65 years of age live in poverty than Virginia as a whole.

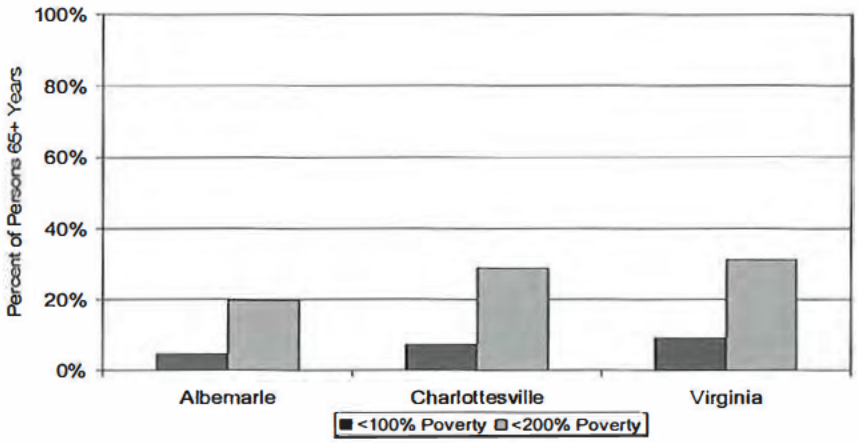


Figure 16. Percent of persons over 65 years of age living below 100 percent and 200 percent of poverty, Albemarle County, City of Charlottesville and Virginia, 2000. Source: U.S. Census Bureau.

The number of households receiving food stamps increased between 2001 and 2006 in both the City and County. Food stamp qualification is based on household size and income level, with those at about 120 percent of the FPL qualifying for this assistance. The number of households receiving food stamps is shown in Figure 17. For reference, there were 19,749 total households in the City and 37,974 total households in the County in 2000, according to the U.S. Census estimates.

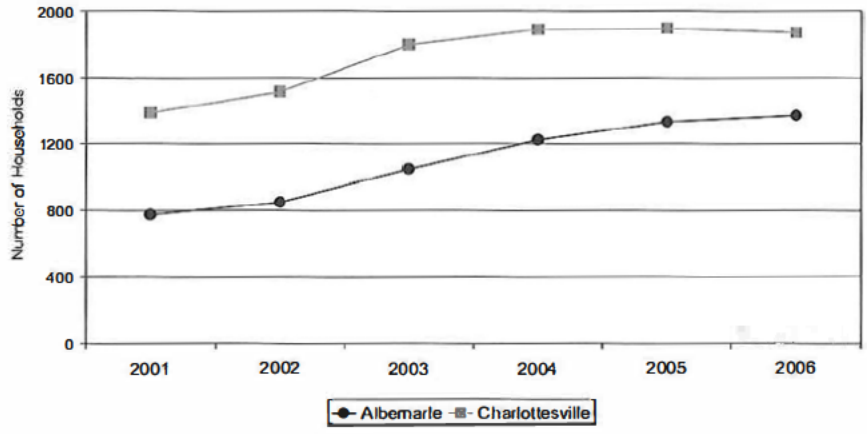


Figure 17. Households receiving food stamps, Albemarle County and City of Charlottesville, 2001 – 2006. Source: Virginia Department of Social Services.

Social Determinants of Health by the World Health Organization states that good health involves reducing levels of educational failure, reducing insecurity and unemployment and improving housing standards. Improving the public's health requires closing the gap on poverty. To facilitate planning for targeted interventions in the areas of most need, the maps shown in Figures 18 and 19 depict the percent of households by census block group with family income below $35,000 annually.

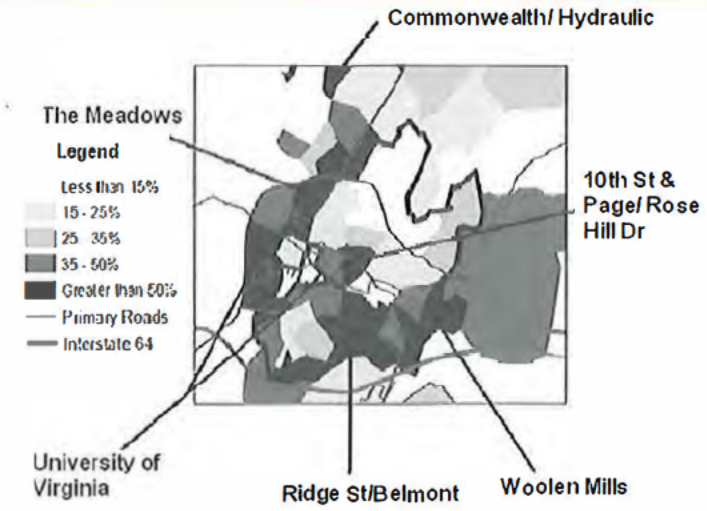


Figure 18. Percent of households by census block group with family income less than $35,000 annually, Charlottesville Urban Ring, 2000. Sources: U.S. Census Bureau; Thomas Jefferson Planning District Commission.

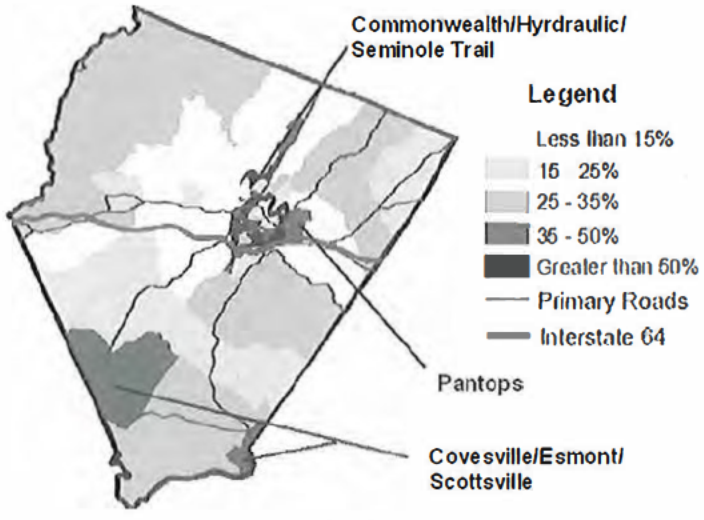


Figure 19. Percent of households by census block group with family income less than $35,000 annually, Albemarle County, 2000. Sources: U.S. Census Bureau; Thomas Jefferson Planning District Commission.

Unemployment Rate

Both the City and County benefit from a low unemployment rate, less than five percent, although there was a substantial rise in the City between 2003 and 2004, in which the rate exceeded that of Virginia as a whole (Figure 20).

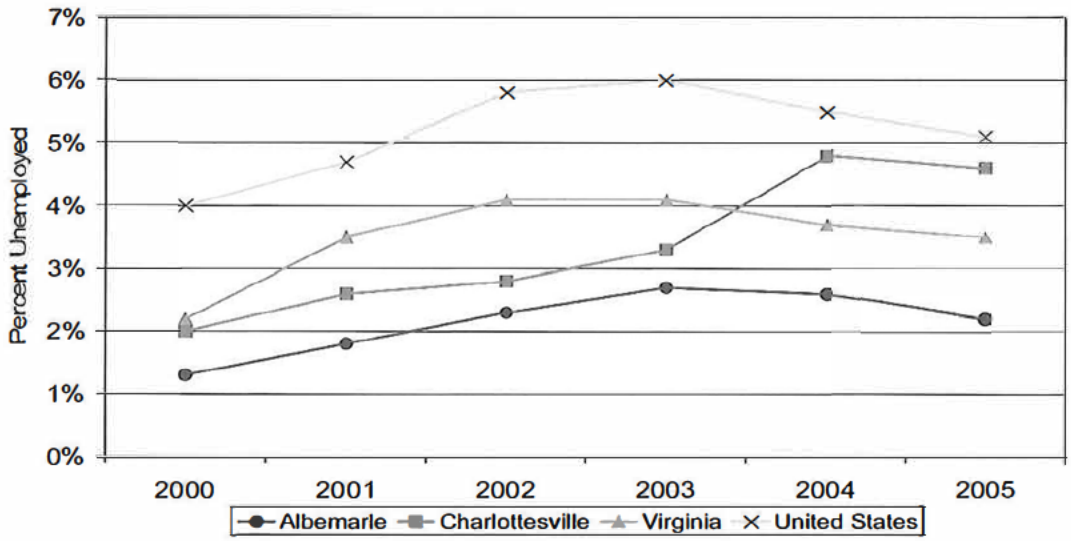


Figure 20. Unemployment rate, Albemarle County, City of Charlottesville, Virginia, and the U.S., 2000 – 2005. Sources: Virginia Unemployment Commission; U.S. Bureau of Economic Analysis, U.S. Department of Commerce; Bureau of Labor Statistics, U.S. Department of Labor.

SOCIOECONOMICS SUMMARY

Median household incomes have remained stable in the last five years. The County median household income is greater than that of Virginia and the U.S., and is 77 percent greater than that of the City. Both the City and County benefit from a low unemployment rate, less than five percent, although there was a substantial rise in the City between 2003 and 2004.

Greater than 80 percent of City residents and 90 percent of County residents live above the federal poverty level (FPL), which is currently set at $10,210 annually for an individual and $20,650 annually for a family of four. Children are the most affected group by age of persons living in poverty. In the 2000 Census of Population and Housing, among City residents, 9,950 individuals were living below 100 percent of the FPL, 1,383 of whom were children and 302 of whom were elderly. In the County, 5,232 persons were estimated to live below 100 percent of the FPL. Of those, 1,262 were children and 430 were elderly. While about 10 percent of City households receive assistance through food stamps, over 50 percent of City schoolchildren qualify for free or reduced-cost lunch programs.

Health Resource Availability

Sources of Health Insurance

Access to healthcare is largely affected by whether the consumer has health insurance coverage. Sources of health insurance include private coverage provided or subsidized by employers; private policies purchased by individuals; and government provided or subsidized coverage through Medicaid, the Children's Health Insurance Program (SCHIP), and Medicare.

Medicaid is administered by individual state governments. To receive benefits, recipients have to meet categorical, income and resource criteria as established by each state. In Virginia, Medically Indigent (MI) Medicaid is available to residents with household income up to 133 percent of the FPL who are either children less than 19 years of age (FAMIS Plus) or pregnant women. Plan First provides family planning services and supplies to qualifying men and women who earn up to 133 percent of the FPL.

FAMIS (Family Access to Medical Insurance Security), Virginia's SCHIP Program, is available for uninsured children living in households with income between 133 and 200 percent of the FPL. FAMIS Moms is available for uninsured pregnant women with household incomes between 133 and 185 percent of the FPL.

Medicare, a federal program, is available for those aged 65 and older, certain disabled individuals and people with end-stage renal disease.

Medically Indigent Medicaid for Aged, Blind and Disabled Medicare beneficiaries provides partial benefits for qualifying individuals* with incomes up to 135 percent of the FPL and full benefits for those with incomes up to 80 percent of the FPL. Additionally, qualified disabled working Medicare beneficiaries with incomes up to 200 percent of the FPL are eligible for payment of Medicare Part A premiums by the Medicaid program.

Figure 21 shows the source of health insurance by percentage for Virginians. A greater proportion of Virginians receive health insurance through their employer than in the U.S. as a whole. Smaller proportions receive Medicaid or are uninsured compared to the U.S.

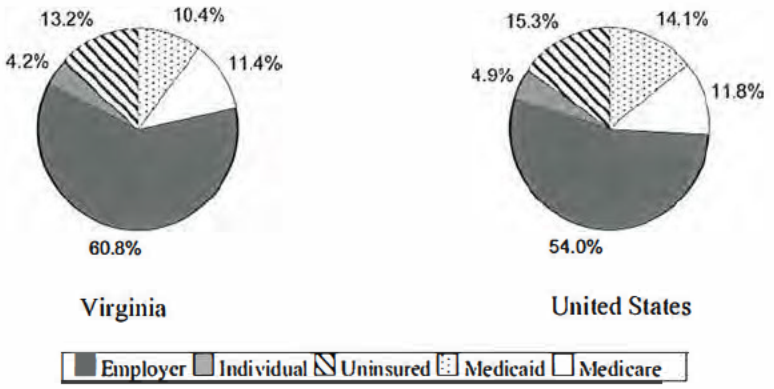


Figure 21. Source of health insurance, Virginia and the U.S., 2004 – 2005. Source: Kaiser Family Foundation.

*The Social Security Administration (SSA) defines a disability for an individual 18 years of age or older as the inability to do any substantial gainful activity (work) because of a severe medically determinable physical or mental impairment that has lasted or is expected to last for a continuous period of not less than 12 months or until death.

Health Insurance Coverage

The majority of residents in the area have health insurance; however, an estimated 12 percent of County and 16 percent of City residents do not (Figure 22). Because these are synthetic estimates*, caution should be exercised when attempting to make conclusions from these data.

The *2004 Virginia Health Insurance and Access Survey* includes data from telephone interviews with over 4,000 randomly selected households in Virginia during which respondents were queried about their insurance status and access to health care.[3] These data showed that households disproportionately lacking insurance were those with persons aged 19 24 years old, single marital status, income below 150 percent of the FPL, less than a 12th grade education, and/or persons classified as unemployed, self-employed, seasonally employed, or temporarily employed. When questioned about government sponsored health insurance programs, 65 percent of uninsured respondents had never requested nor received information about them, but 88 percent of those respondents reported they would be willing to enroll in such a program were it offered to them. Among respondents who were both uninsured and employed, 65 percent reported lacking coverage because it was not offered by their employer or was too expensive.

According to respondents of the survey, 41 percent of those uninsured, 11 percent of those with public insurance, and seven percent of those with private insurance were forced to forego care because of cost. Despite having coverage, half of those with public insurance and one-third of those with private insurance were concerned that they would no longer be able to afford their insurance, medical care, and prescription drugs.

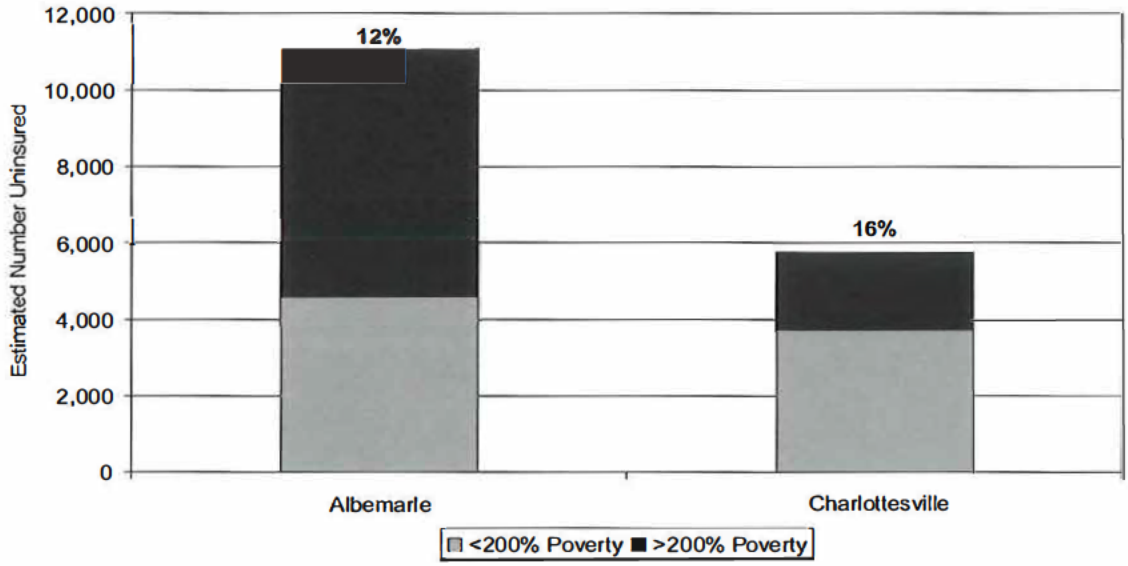


Figure 22. Estimated number of uninsured residents by poverty status, Albemarle County and City of Charlottesville, 2005. Source: Virginia Atlas of Community Health, Virginia Center for Healthy Communities.

According to U.S. Census data, as seen in Figure 23, the proportion of Virginia residents that are uninsured is not uniformly distributed across age groups. Adults aged 18 64 years old are the most likely to be uninsured.

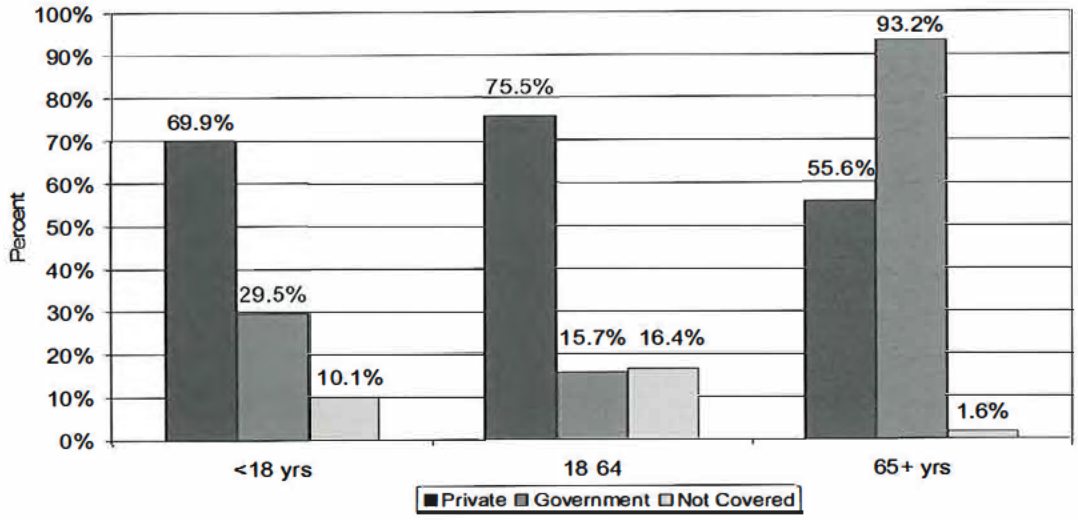


Figure 23. Health insurance coverage by age group, Virginia, 2006. Source: Current Population Survey, 2006 Annual Social and Economic Supplement, U.S. Census Bureau.

As shown in Figure 24, the Community Health Resource Center estimates that eight percent of children in the County and 10 percent of children in the City are uninsured.**

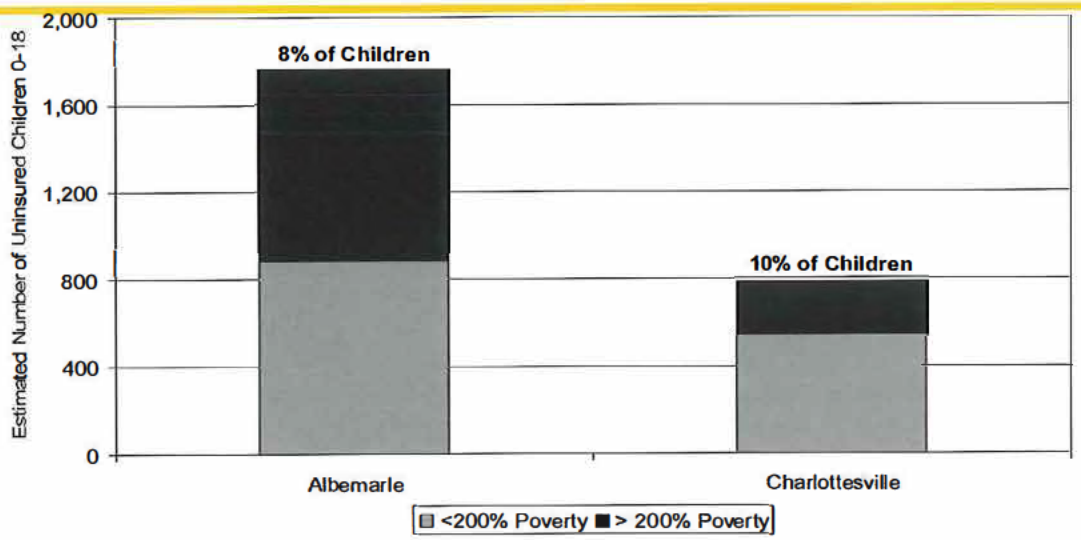


Figure 24. Estimated number of uninsured children, Albemarle County and City of Charlottesville, 2006. Source: Community Health Resource Center, Inc.

* Estimates were obtained from the Virginia Atlas of Community Health, which noted that "[T]hese uninsured estimates were derived by applying income-specific uninsured rate estimates to population estimates at the city, county, and zip code level. Uninsured rate estimates were calculated using multiple national and state surveys to derive an estimated uninsured rate for people above and below 200 percent of poverty. Population estimates for each income group were derived by applying 200-percent-of-poverty rates from the 2000 Census to total population estimates for 2005. The uninsured rate estimates were then applied to the population estimates to derive an estimated number of uninsured individuals above and below 200 percent of poverty in 2005. This method is obviously subject to error, and CHRC [Community Health Resource Center, Inc.] does not guarantee the accuracy of the estimates. Estimates should be used for program and policy planning only, and should not be used to compare uninsured rates across geographic areas."

** "...estimates were produced by Community Health Resource Center, Inc. in March 2007 as a public service to the Virginia Health Care Foundation. The estimates were produced using synthetic estimation methods and are intended for planning purposes."

Government Sponsored Health Insurance

While local data are not available, Figure 25 depicts fiscal year 2004 Medicaid enrollment and spending by recipient group for both Virginia and the U.S. While children represent the largest group of enrollees state and nationwide, Medicaid spending is largest among those with disabilities and the elderly.

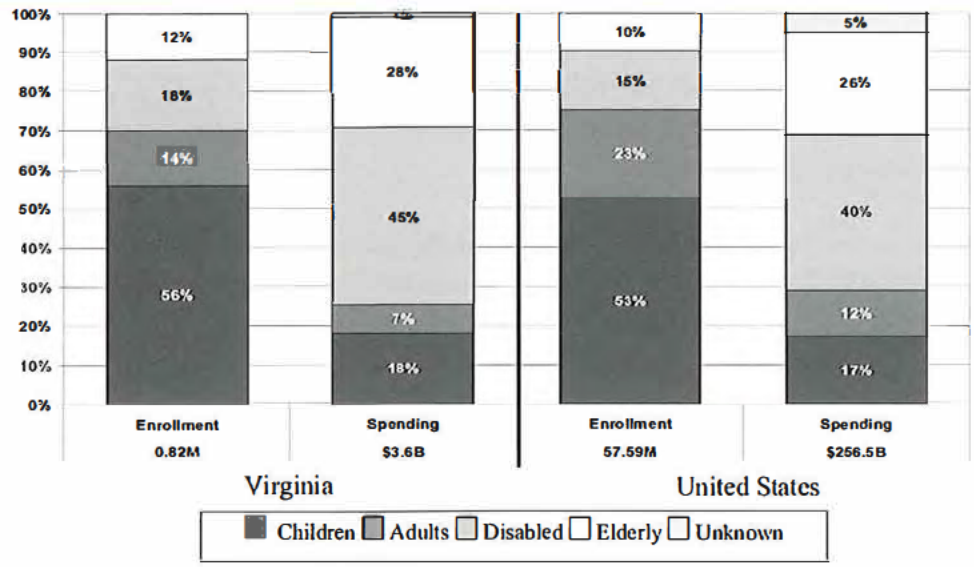


Figure 25. Medicaid enrollment and spending by recipient group, Virginia and the U.S., fiscal year 2004. Source: Kaiser Family Foundation.

Figure 26 shows the rate of Medicaid participation in the County and City from 2002 through 2006. The rate in the City increased by about 50 percent during that period.

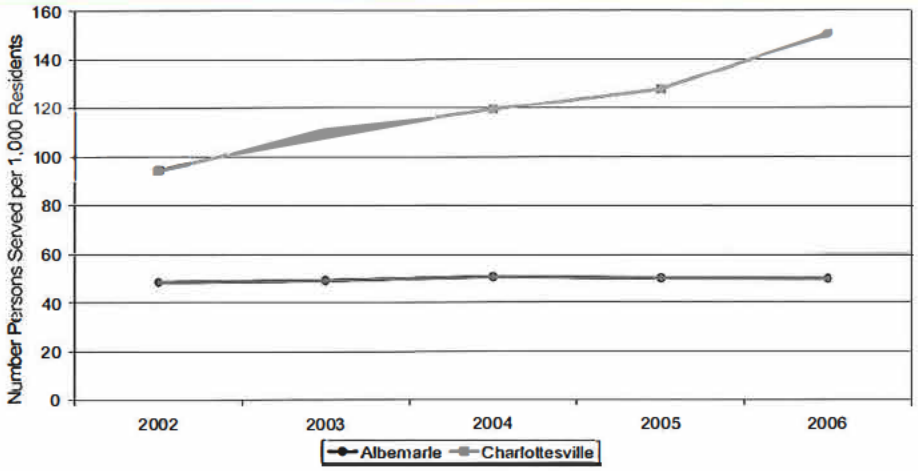


Figure 26. Medicaid participation rate, Albemarle County and City of Charlottesville, 2002 – 2006. Sources: Albemarle County Department of Social Services; Charlottesville Department of Social Services.

Closing the gap on uninsured children who are eligible for public insurance has been a community priority for several years. Through a grant from the Virginia Health Care Foundation, the Thomas Jefferson Area United Way coordinated a program between November 1999 and June 2006 to identify and enroll eligible children into FAMIS and FAMIS Plus. During that period, the program enrolled 1,224 children in the County and 1,058 in the City. By the time the program was discontinued in June 2006, over 95 percent of eligible children were estimated to have been enrolled (Figure 27). In July 2006, however, the federal government instituted additional documentation requirements for FAMIS; subsequent statewide enrollment dropped significantly. Despite substantial recruitment efforts, it is likely that there are eligible children who are uninsured. As stated in the Virginia Department of Medical Assistance Services' *Quarterly Report on the Status of the FAMIS, Second Quarter 2007*, "Every day there are new children born or moving into the Commonwealth who are uninsured and, like most states, there is a continuing erosion of the employer-sponsored insurance market. The result is that the number of uninsured children in Virginia is a dynamic and constantly changing landscape." An on-going effort to identify and enroll eligible children is likely needed to address this gap.

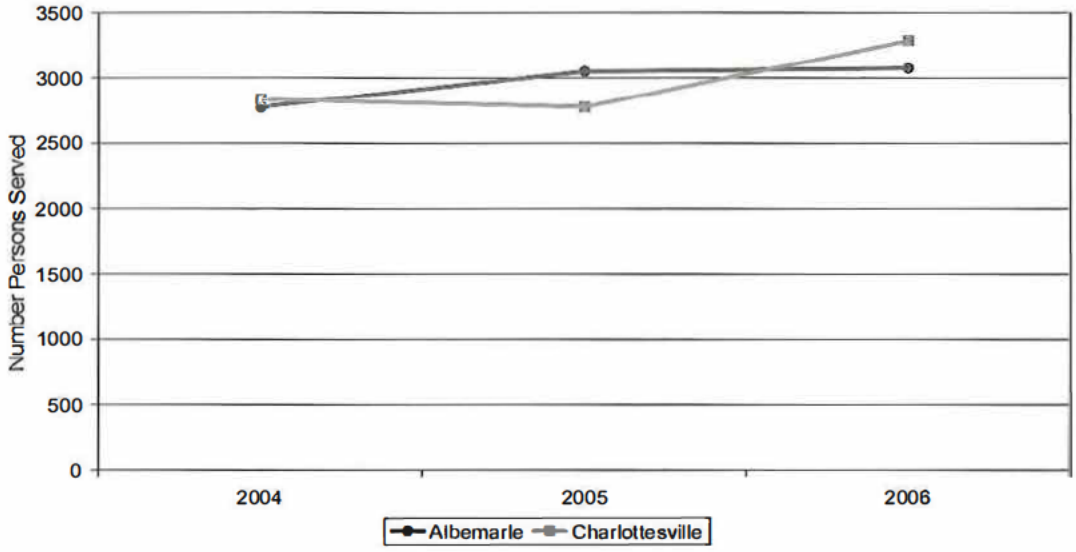


Figure 27. Children enrolled in FAMIS and FAMIS Plus, Albemarle County and City of Charlottesville, 2004 – 2006. Source: Virginia Coalition for Children's Health (http://www.signupnowva.org/ coal.asp), Virginia Smiles for Children Participation Report, Doral Dental of Virginia.

Availability of Healthcare Personnel and Services

Physicians

While the federal criterion for defining a Health Professional Shortage Area is 3,000 persons per primary care physician, other states, such as Wisconsin and Illinois prefer a more conservative ratio of 2,400 patients per primary care physician. According to the U.S. Census Bureau, there are about 1,321 persons per primary care physician in the U.S. overall.

Both Virginia and TJHD surpass this ratio with 1,220 persons per primary care physician (981 when resident physicians are included) and 1,192 (558 when resident physicians are included), respectively.[4] The number of primary care physicians associated with Martha Jefferson Hospital and the UVA Health System, the two area hospitals, is shown in Table 5. These data suggest that the current number is sufficient to meet the number of residents in the area.

		Internal Medicine	Pediatrics	Family Medicine	Obstetrics/ Gynecology
Martha Jefferson Hospital	Practices	19	5	23	9
	Attending Physicians	37	21	43	14
University of Virginia Health System	Practices	5	3	5	2
	Attending Physicians	23	12	23	8
	Resident Physicians	105	38	24	20

Table 5. Number of primary care practices, attending physicians, and resident physicians associated with TJHD hospitals, July 3, 2007. Sources: UVA Physician Directory; Martha Jefferson Hospital Physician Directory.

The proportion of providers that accept Medicaid is another important indicator to consider. In TJHD, 14.4 primary care physicians per 1,000 Medicaid participants report accepting Medicaid as payment, compared to Virginia, which has an overall rate of 5.4. These data were obtained from self report by each practice. They do not reflect the number of Medicaid patients served per practice, nor whether practices are continuing to accept new Medicaid patients. The number and proportion of primary care physicians in TJHD accepting Medicaid is shown in Table 6 by specialty.

Medical Specialty	Internal Medicine	Pediatrics	Family Medicine	Obstetrics/ Gynecology
Total Number of Physicians	174	67	96	45
Physicians Accepting Medicaid	84 (48 %)	46 (69 %)	64 (67 %)	27 (60 %)

Table 6. Number of primary care physicians reporting to accept Medicaid in TJHD, July 3, 2007. Sources: Virginia Board of Medicine Practitioner Information Database; UVA Physician Directory; Martha Jefferson Hospital Physician Directory.

Additionally, the proportion of primary care practices in which Spanish is spoken is an important factor in the healthcare system's capacity to serve the area's growing Hispanic population. According to the Practitioner Profile maintained by Virginia Board of Medicine, as of July 2007, 14 percent of internal medicine physicians and 21 percent of other primary care (i.e., pediatric, family medicine, obstetrics/ gynecology) physicians in TJHD worked in offices where Spanish was spoken by at least one employee.

Nurses

Availability of nurses is a critical factor affecting healthcare capacity. Local data are not available; however, according to the U.S. Health Resources and Services Administration (HRSA), the demand for registered nurses (RN) is projected to increase by 43 percent between 2000 and 2010 in the Commonwealth. The State Council for Higher Education for Virginia estimates that by 2020 one in three patients in Virginia will not have a nurse to care for them unless there are increases in enrollment in nursing education programs.[5]

Nationally, the nursing shortage is attributed to two major factors: the increasing elderly population and the shrinking workforce. Between 2001 and 2030, the number of Americans 65 years of age and older is projected to increase by 30 million persons causing the ratio of potential caregivers to elderly persons to decrease by 40 percent.[6] At the same time, the workforce of nurses is aging. In Virginia, the average age of working RNs was 45 years old in 2004, and nationally, only eight percent of working RNs were under 30.[7]

The nursing profession has challenges in meeting the educational demands of a larger workforce. The number of qualified applicants to nursing programs in the Commonwealth exceeds the number of students the current infrastructure can train.[8] In an American Association of Colleges of Nursing survey, nearly three-quarters of nursing schools reported faculty shortages as a reason for not accepting all qualified applicants into entry-level nursing programs. Nursing schools are not immune to the aging workforce; in 2002, the average age of Virginia nursing school faculty was 53 years old.[9] With nurses retiring and enrollment failing to compensate, the number of nurses in the workforce needed to meet the healthcare demands will likely fall short.

Pharmacists

Local data are not available, but according to the 2006 Pharmacy Staffing Survey commissioned by the American Society of Health System Pharmacists and conducted among member pharmacy directors, the national pharmacist vacancy rate increased for the second year in a row, reaching seven percent. The average turnover rate in 2006 was nine percent for pharmacists and 12.4 percent for technicians; neither rate changed significantly since 2002. Vacancy rates and turnover rates for pharmacists did not differ significantly between small, medium, and large hospital settings. The average length of time required to fill a vacant pharmacist position was approximately six months, roughly the same as in 2002.

Emergency Care

Utilization of the emergency department (ED) is viewed as an important barometer of access to ambulatory medical care in a community. Patients are not encouraged to seek their primary care in the ED because it is both costly and an inefficient pattern of utilization.[10] In the U.S., about 10 percent of all ambulatory medical care visits occur in EDs.[11]

While local data are not available, nationally, one-fifth of adults in the U.S. made one or more ED visits within the prior 12 months, and eight percent of adults made two or more such visits in 2004.[12] In 2004, more than 30 percent of visits to the ED in the U.S. were classified as non-urgent or semi-urgent (Figure 28).

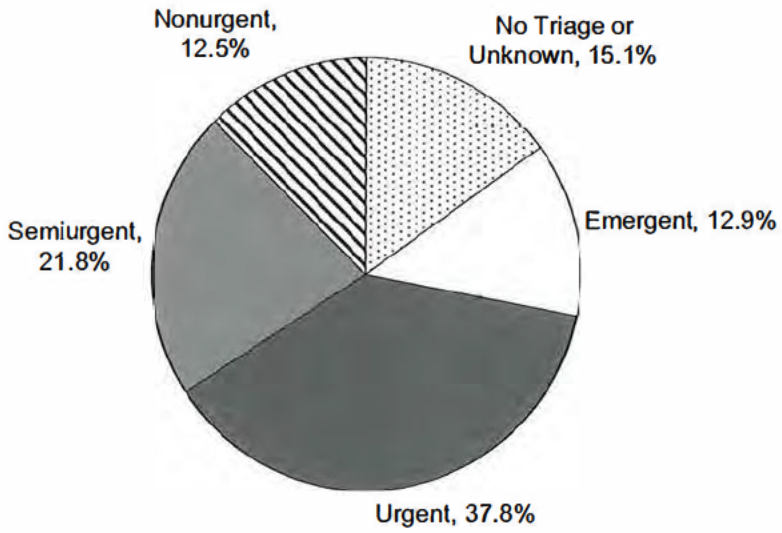


Figure 28. Emergency department visits by immediacy, U.S., 2004. Source: 2004 National Hospital Ambulatory Medical Care Survey, National Center for Health Statistics, Centers for Disease Control and Prevention.

Nationally, patients who utilize the ED are not equitably distributed when classified by type of insurance. Patients with private insurance are the least likely to utilize the ED (Figure 29). The 2004 Virginia Health Insurance and Access Survey showed that Virginian respondents with public insurance were twice as likely, and the uninsured were five times as likely, to utilize the ED as their regular source of care when compared to respondents with private insurance coverage.

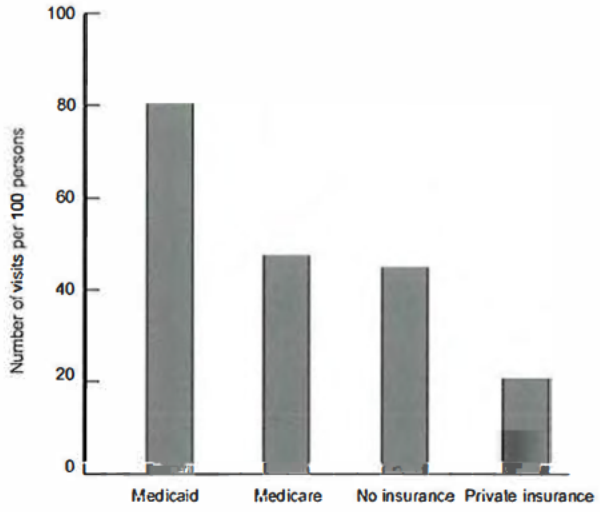


Figure 29. Emergency department visits by type of insurance, U.S., 2004. Source: National Hospital Ambulatory Medical Care Survey, National Center for Health Statistics, Centers for Disease Control and Prevention.

In TJHD, 18 to 44 year olds comprise the largest group of patients by age seeking care in the EDs at both Martha Jefferson Hospital and the UVA Health System (Figure 30).

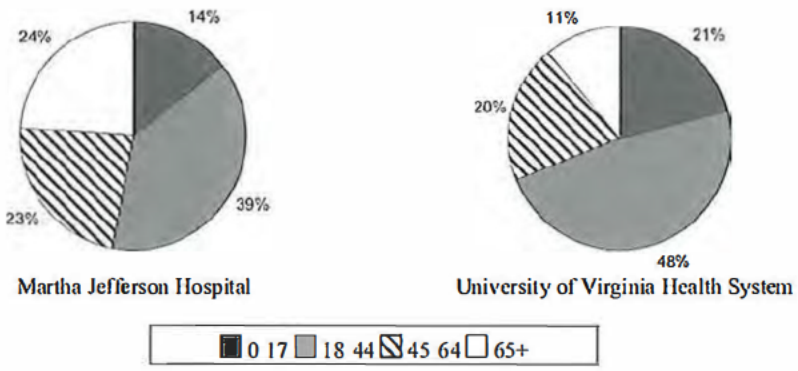


Figure 30. Thomas Jefferson Health District emergency department visits by hospital and age, March 2006 – February 2007. Sources: Office of Planning and Market Research, University of Virginia Health System; Martha Jefferson Hospital.

Residents from the County and the City comprise the majority of patients seen in the EDs at both Martha Jefferson Hospital and the UVA Health System (Figure 31) as compared to patients from other localities within TJHD.

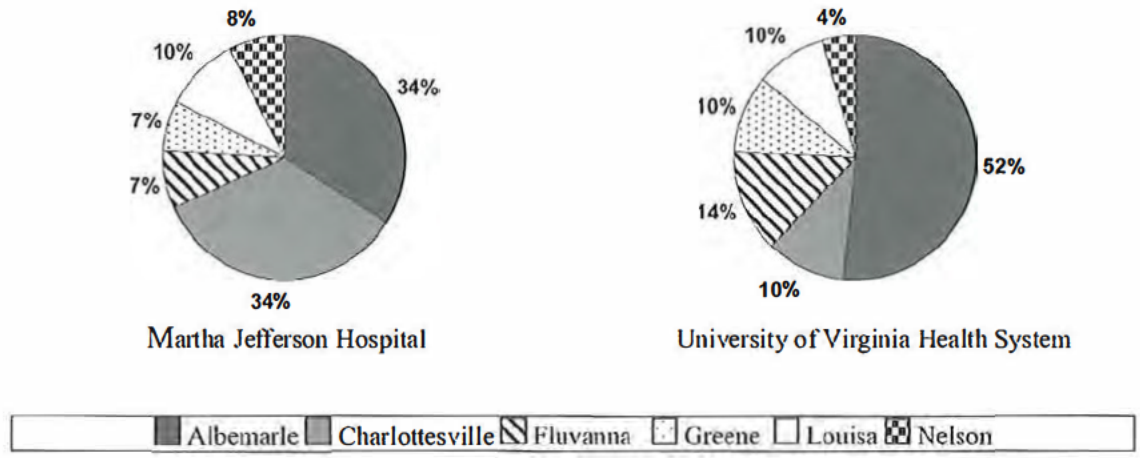


Figure 31. Thomas Jefferson Health District emergency department visits by hospital and locality, March 2006 February 2007. Sources: Office of Planning and Market Research, University of Virginia Health System; Martha Jefferson Hospital.

Dental Care

According to the Charlottesville/Albemarle Dental Society and the Virginia Department of Medical Assistance Services, 88 dentists practice general dentistry in the City and County. As shown in Section Two, CDC's Behavioral Risk Factor Surveillance System (BRFSS) data show that in 2002-04 almost eighty percent of adults residing in TJHD who were surveyed had visited a dentist in the past year.

Sixteen of the 88 dentists reported participating in the Medicaid Smiles for Children program, which provides coverage for diagnostic, preventive, restorative, and surgical procedures as well as orthodontia for children enrolled in Medicaid, FAMIS, and FAMIS Plus. Only five of these practitioners, however, were currently accepting new Medicaid patients when their offices were contacted by the Charlottesville/ Albemarle Health Department in the fall of 2007. Figure 32 shows that less than a third of enrolled children received dental services through the Smiles for Children program in fiscal year 2006 in the County and City.

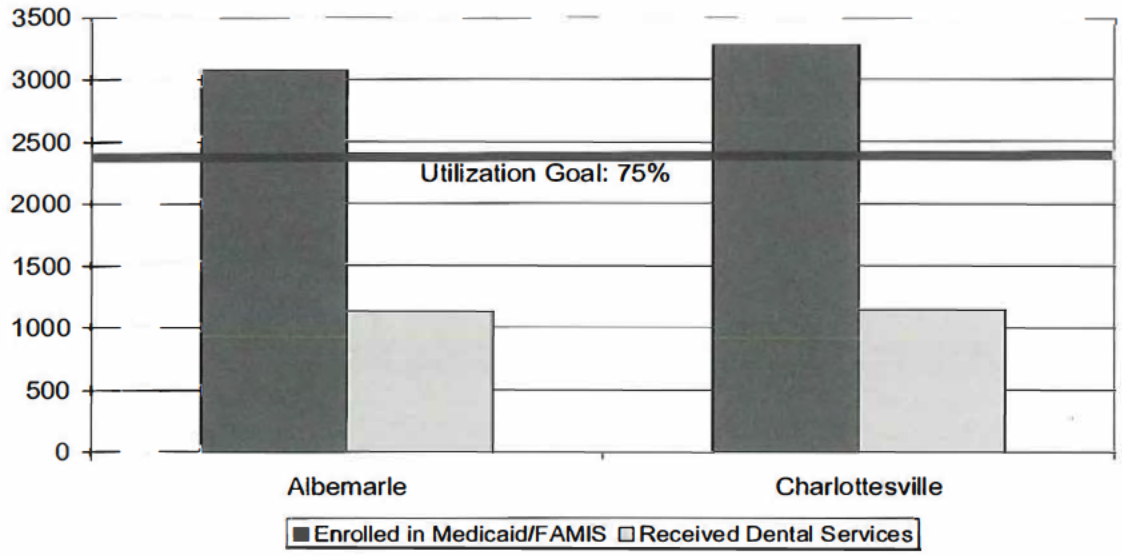


Figure 32. Utilization of Smiles for Children services, Virginia, fiscal year 2006. Source: Virginia Smiles for Children Pediatric Dental Participation Report: 7/1/05 to 6/30/06, Doral Dental of Virginia.

Between fiscal years 1996 and 2006, the Charlottesville/Albemarle Health Department provided dental care at no cost to an average of 624 children per year who qualified for the free or reduced lunch program. In fiscal year 2007, about 37 percent of the children seen were not enrolled in Medicaid or FAMIS. In September 2006, the Charlottesville Area Dental Access program began to provide free preventive and restorative dental care to children on Medicaid or FAMIS. In its first year, it provided services to 1,354 children.

While Medicaid covers dental services for children, it provides extremely limited dental coverage for Medicaid participants aged 21 years and older. It pays for medically-authorized oral surgery services performed by a participating Medicaid dentist; however, items and services in connection with the care, treatment, filling, removal, or replacement of teeth or structures directly supporting the teeth are not covered.

In 2007, a community dental program for low-income adults in the City and County was established through a collaborative effort between the Charlottesville Free Clinic (CFC), Monticello Area Community Action Agency (MACAA), and the Charlottesville/Albemarle Dental Society. On an availability basis, 33 area volunteer dentists provide restorative dental care in their private offices to uninsured adults with incomes below 200 percent of the FPL. According to the CFC, between March 1, 2007 and February 28, 2008, 775 adults applied to the program, 310 from the County and 275 from the City. During that period, 40 received care; the rest remained on a waiting list. For emergency dental needs, primarily extractions, patients are seen by volunteer dentists at the CFC. As of February 28, 2008, 427 patients had received care; 270 remained on a waiting list.

Mental Health Services

Especially since the Virginia Tech tragedy in 2007, greater attention has been focused on the need for communities to identify and successfully treat persons with mental health problems. Over $12,000,000 in public funding was spent on mental health services in the County and City during fiscal year 2005 (Figure 33). Figure 34 shows that state funding accounted for the vast majority of these services followed distantly by federal, local, and other sources.

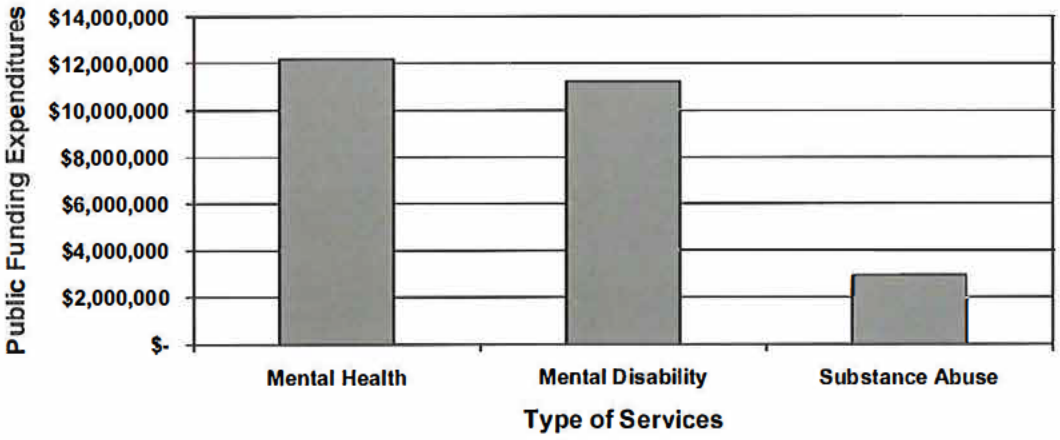


Figure 33. Public funding expenditures for mental health, mental disability, and substance abuse services, Albemarle County and City of Charlottesville, fiscal year 2005. Source: Human Service Investments for the City of Charlottesville and Albemarle County, FY 2004-2005, Charlottesville-Albemarle Commission on Children and Families.

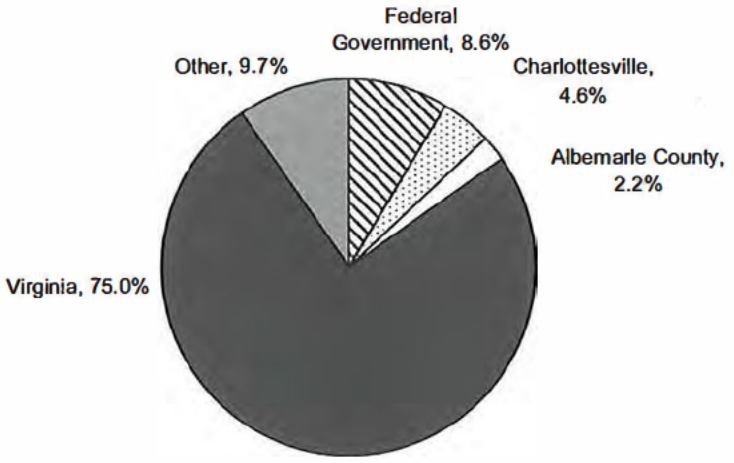


Figure 34. Funding sources for mental health, mental disability, and substance abuse services, Albemarle County and City of Charlottesville, fiscal years 2004 and 2005. Source: Human Service Investments for the City of Charlottesville and Albemarle County, FY 2004 – 2005, Charlottesville-Albemarle Commission on Children and Families.

Established through the efforts of locality leaders in PD 10, Region Ten Community Services Board (Region Ten) is an agency of local government that provides mental health, mental retardation, and substance abuse services to area residents. Across Virginia, 40 such community service boards act independently to provide these services. Region Ten works in partnership with the State Department of Mental Health, Mental Retardation Services, and Substance Abuse Services with offices and facilities in the City and Albemarle, Fluvanna, Greene, Louisa, and Nelson Counties. Programming is available to all children, adults, and families living in these communities; about 600 employees serve about 5,500 clients. As shown in Figure 35, the greatest percentage of clients served in fiscal year 2007 was from the City.

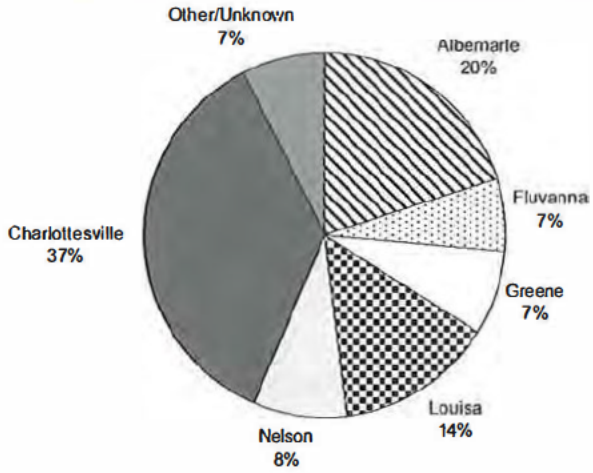


Figure 35. Region Ten Community Service Board consumers by locality, fiscal year 2007. Source: Region Ten, 2007.

In fiscal year 2005, the majority of Region Ten consumers were 23 to 64 years of age (Figure 36). Very few consumers were greater than 65 years of age, but nearly a quarter of consumers were aged from birth to 17 years.

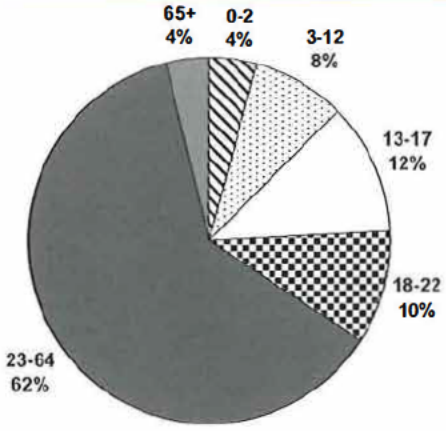


Figure 36. Age distribution for Region Ten Community Service Board consumers, fiscal year 2005. Source: Region Ten Annual Report, 2006, Region Ten.

Two-thirds of Region Ten consumers were white (66 percent) and nearly a third were African-American (29 percent), as shown in Figure 37.

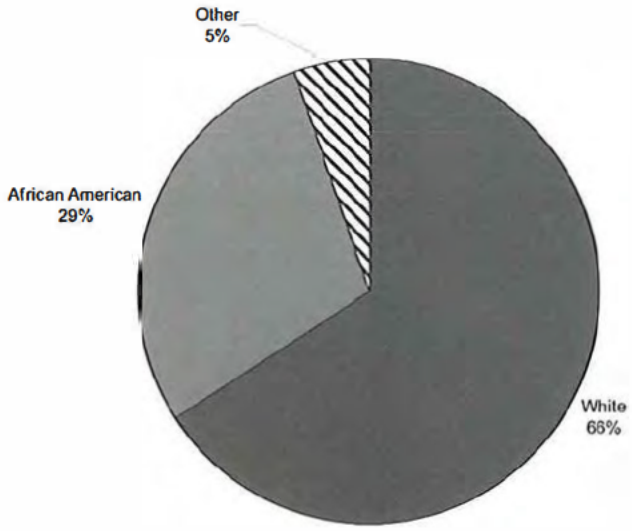


Figure 37. Race distribution for Region Ten Community Service Board consumers, fiscal year 2005. Source: Region Ten Annual Report, 2006, Region Ten.

Figure 38 shows the services most commonly provided by Region Ten to its City and County clients during fiscal year 2007. Outpatient and case management accounted for more than half of services provided.

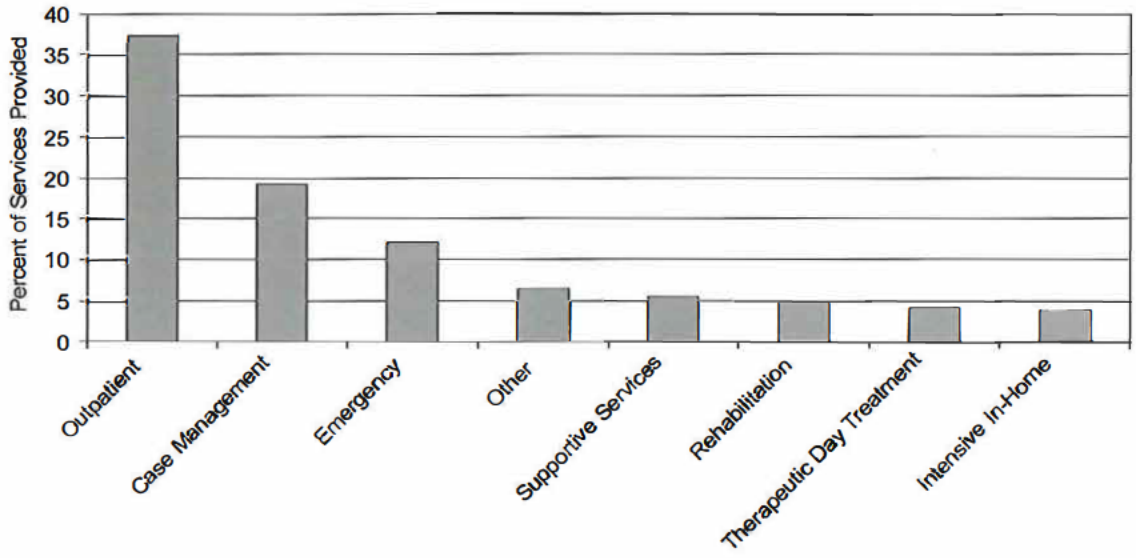


Figure 38. Most common type of services provided by the Region Ten Community Service Board, Albemarle County and City of Charlottesville, fiscal year 2007. Source: Region Ten.

Free Clinic

The area is served by the Charlottesville Free Clinic (CFC), which offers medical, dental and mental health services to residents without health insurance. In fiscal year 2007, the clinic saw 1,418 patients, 44 percent of whom reside in the City and 34 percent of whom reside in the County. The income for the majority (57 percent) of patients utilizing CFC services falls between 100 and 200 percent of poverty; whereas, equal proportions (19 percent) of patients have income less than 100 percent of poverty and greater than 200 percent of poverty. Patients seen at the CFC are largely employed (74 percent), did not graduate from high school (73 percent), and/or are white (57 percent). African-Americans comprise 20 percent of the patient population, with Hispanics and Asians comprising an additional 15 and four percent, respectively. Nearly half of patients (45 percent) report a marital status of single.

In fiscal year 2007, CFC provided 4,313 patient visits classified as primary care (66 percent), specialty (17 percent), mental health (10 percent), and dental (7 percent). Had the CFC not been available to these patients, 38 percent report they would have utilized the ED, 23 percent would have sought care from a private doctor, a UVA clinic, or the health department, and 28 percent would have refrained from seeing any provider. (Source: Charlottesville Free Clinic)

Health Department

The City and County local health departments operate in a combined facility under a cooperative agreement with the state health department, the Virginia Department of Health (VDH). They are part of the Thomas Jefferson Health District (TJHD). The health department provides services that promote personal and community health and prevent disease. Clinical services include family planning, sexually transmitted disease screening/treatment, immunizations and dental care for children. Health promotion initiatives include such programs as WIC (Women, Infant and Children's Nutrition Program), Jefferson Area CHIP (in collaboration with MACAA), and the Childhood Obesity Task Force. Communicable disease prevention efforts include infectious disease surveillance and investigation, environmental health programs to prevent food and water borne illness and emergency preparedness.

The Charlottesville/Albemarle Health Department is funded through matching funds from each of the localities and the Commonwealth. Additionally, each locality contributes unmatched funding for children's dental and home visiting services; revenue is earned through collection of fees; and, the Charlottesville/Albemarle Health Department has a number of grants. Per capita total funding excluding grants in fiscal year 2008 is $20.84 in the County and $41.92 in the City, compared to an average of $35.52 for all Virginia local health departments. As shown in Figure 39, when looking at state and local contributions for mandated public health programs only, per capita funding is $16.62 in the County and $34.19 in the City, and total funding per person living in poverty is $246.51 in the County and $199.25 in the City.

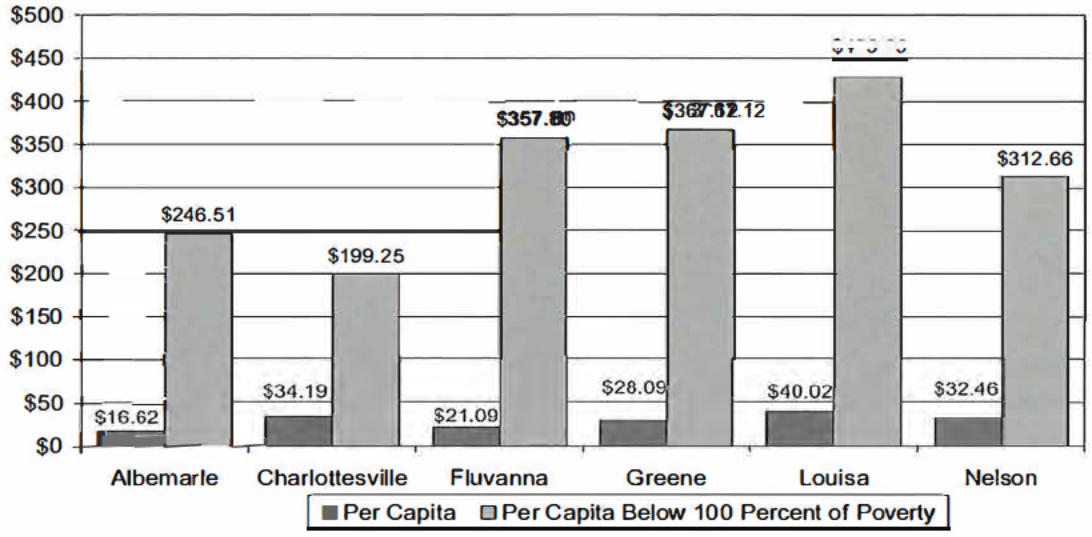


Figure 39. Budgeted spending for mandated* public health programs per capita and per capita below 100 percent of poverty, by locality, Thomas Jefferson Health District (TJHD), fiscal year 2008. (*Programs mandated by Code, CDC, or grant. Does not include programs provided by locality contracts) Source: TJHD.

HEALTH RESOURCE AVAILABILITY SUMMARY

Published estimates show that while most area residents have health insurance, nearly 17,000 persons living in the City and County may not, 2,600 of whom are children. Nearly 60 percent of the County uninsured persons and about 35 percent of City uninsured persons live in households with income greater than 200 percent of the federal poverty level (FPL). In Virginia, the proportion of residents who are uninsured differs markedly by age group. While 98 percent of persons older than 65 years have insurance, over 16 percent of adults aged 18 to 64 years do not. The U.S. Administration on Aging reports that, despite having health insurance, in 2005 older Americans spent 12.4 percent of their total expenditures on health and the Agency for Healthcare Research and Quality reports that in 1999 Medicare beneficiaries spent 19% of their income on health related expenses.

Both FAMIS and Medicaid enrollment are rising in the City, which may be a reflection in local enrollment efforts and/or an increase in need corresponding to increases in the number of area children living below 200 percent of poverty over the last several years.

The City and the County appear to have sufficient numbers of primary care physicians, more than half of whom accept Medicaid. National workforce issues, especially among nurses and pharmacists, may have future impact on healthcare delivery.

Public insurance for preventive and restorative dental care is available for children, and there are sources of care for Medicaid and FAMIS enrolled children as well as uninsured low-income children. There is a need, however, for outreach to increase the number of children enrolled in Medicaid that receive services. In contrast, there is no public insurance for preventive and restorative dental care for adults, and there is a significant gap in dental care provision for uninsured low-income adults in the area.

Section Two

In Section Two, data were collected to answer the question: What are the strengths and risk factors in the community that contribute to health?

Indicators include:

- **Quality of Life**
  - Overall Quality of Life
  - Housing
  - Cost of Living
  - Traffic
  - Green Space
  - Crime
  - Child Abuse
- **Environmental Health**
  - Air Quality
  - Water Quality
  - Elevated Blood Lead Levels in Children
- **Behavioral Risk Factors**
  - Tobacco Use
  - Obesity
  - Alcohol
  - Preventive Health Care

Quality of Life

Overall Quality of Life

Healthy People 2010 defines quality of life as "a general sense of happiness and satisfaction with our lives and environment....including health, recreation, culture, rights, values, beliefs, aspirations, and the conditions that support a life containing these elements." To describe a community's quality of life, we rely on surveys as well as specific measurable indicators to provide a picture of how well the community supports health and well-being.

According to a survey conducted by JABA among 684 residents in the City and County, about 80 percent of respondents in both localities reported they felt the overall quality of life in the area was good or excellent for all residents. Fewer respondents (about 60 percent) felt the quality of life in the area was good or excellent for residents over 64 years of age (Figure 40).

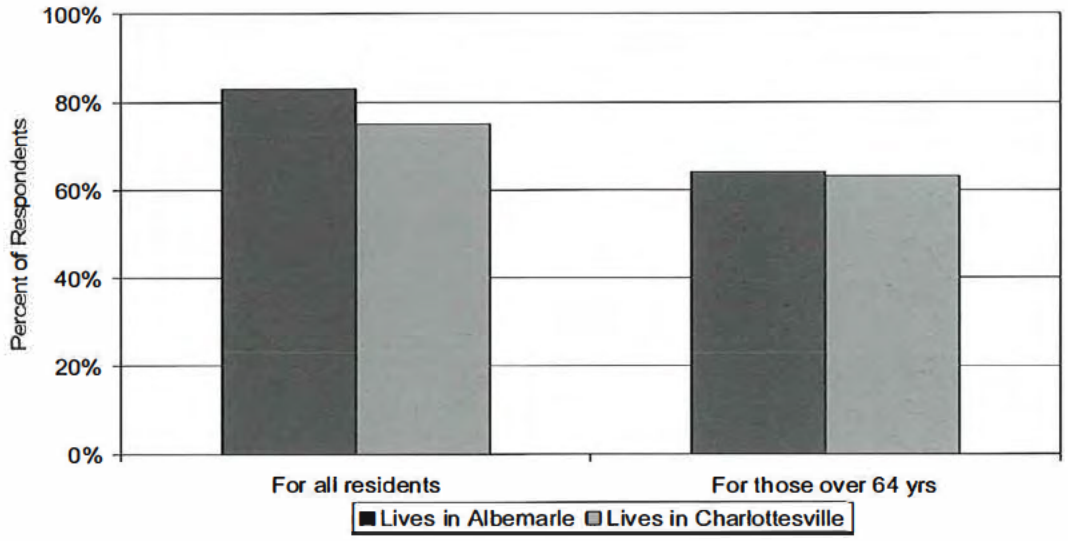


Figure 40. Percent of respondents reporting good or excellent overall quality of life for all residents and for residents over 64 years of age, Albemarle County and City of Charlottesville, 2007. Source: JABA survey.

In separate surveys commissioned by the City and County and conducted by the UVA Center for Survey Research in 2006, residents were asked to rate their locality as a place to live on a scale of one to 10, where one equated with the worst place to live and 10 equated with the best place to live. County residents reported a mean rating of 8.0; respondents who were married, older, owned their homes, or were Hispanic were most likely to give a high rating. City residents reported a similar mean rating of 7.7; neighborhoods in the South and South Central districts reported slightly lower mean ratings of 7.4 and 7.3 respectively.

Housing

According to the *State of Housing Report of the Thomas Jefferson Planning District*, published in 2007 by the Thomas Jefferson Planning District Commission, the housing market for PD 10 is extremely tight, with an owner vacancy rate in 2000 of only 1.5 percent. The report states that while housing production has kept pace with job creation, new housing has largely been at the high end of the market. The median house value for the Charlottesville MSA was $225,500 in 2005, ranking second in the state amongst all MSAs. When looking at median monthly owner costs for owners with a mortgage, it costs as much to live in this MSA as the Washington D.C. Metro area MSA. In 2005, the median percent of income paid to a mortgage was 24.1 percent compared to the national median of 20 percent.

The impact of scarce housing is most severe for those seeking lower-cost owner housing. The report states that approximately 21 percent of the total of 4,100 housing units for sale in PD 10 (1,100 units) were affordable to someone making less than $62,286, the median family income for the MSA. Lower-priced home sales were concentrated primarily in Louisa County, with nearly one half of all home sales falling below $200,000. In Albemarle and Nelson Counties, nearly 75 percent of all homes sold cost over $200,000.

The report also states that there is a severe deficit of rental housing in the area for low-income renter households. Additionally, in a January 2006 point-in-time survey by the Commission, 173 people were identified to be living in shelters, transitional housing, or were unsheltered. A scarcity of affordable housing in the urban core also leads many people with special needs to live in rural counties, restricting access to services. By age group, persons over 65 years old are especially vulnerable to this issue as they have a high rate of disabilities.

Within PD 10, there is a distinct pattern of people moving out of Charlottesville and Albemarle and into the surrounding counties, with Fluvanna County receiving the most people. Finally, out-migration to Augusta County, Waynesboro and Buckingham County is significant and growing. These patterns suggest that the cost of housing is a factor in out-migration.

Cost of Living

The ACCRA Cost of Living Index is calculated by the Council for Community and Economic Research to enable comparison of the cost of living among cities. The amount in each category is calculated by measuring the cost of a select group of goods and services, and then a ratio of an area's price for an item is indexed to the average price of that item nationwide. Table 7 compares salary and the cost of groceries and healthcare in the Charlottesville MSA to Hampton Roads, Richmond, Northern Virginia and Roanoke. For the first quarter of 2007, the Charlottesville MSA was estimated to offer lower salaries than Richmond or Northern Virginia, while the cost of groceries and healthcare was higher than Richmond, Hampton Roads and Roanoke.

Geographic Area	Comparable Salary	Cost of Groceries	Cost of Healthcare
Charlottesville MSA	$ 21,000	100%	100%
Hampton Roads	$ 20,518	87%	89%
Richmond	$ 21,133	87%	95%
Northern Virginia	$ 27,480	102%	102%
Roanoke	$ 17,812	82%	87%

Table 7. Cost of living in Charlottesville MSA compared to other geographic areas in the Commonwealth of Virginia, First Quarter 2007. Source: cnn.money.com.

Traffic

Communities that experience population growth often face increases in traffic, which impacts safety as well as perceived quality of life. Traffic congestion can be addressed through availability of public transportation, promotion of carpooling, and ensuring designated areas for walking or cycling. Although the majority of residents of the City and County drive to work alone, 10 percent or more carpool. In addition, 17 percent of City residents walk to work (Figure 41).

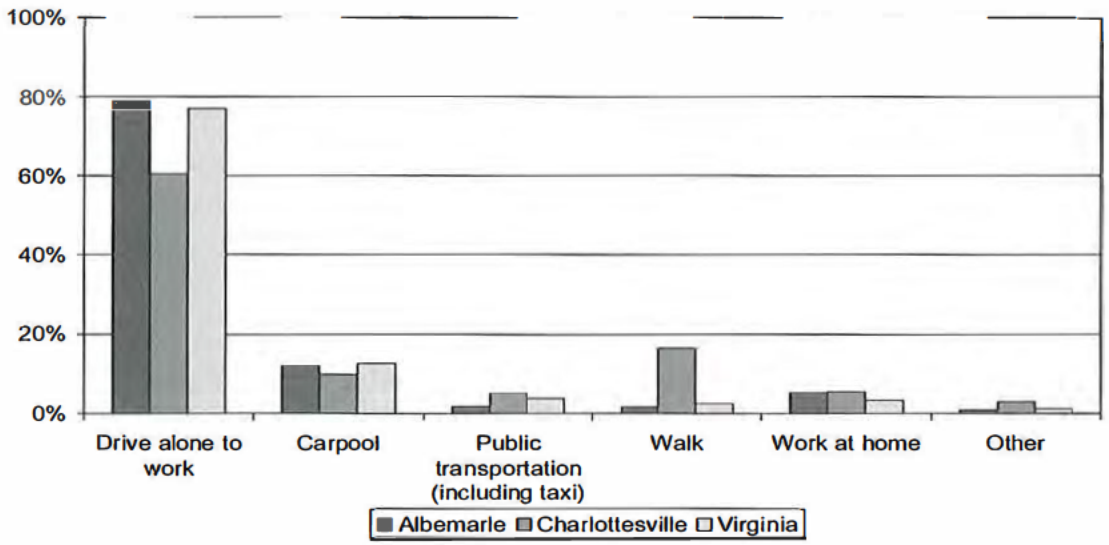


Figure 41. Mode of transportation to work, Albemarle County, City of Charlottesville and Virginia, 2000. Source: U.S. Census Bureau, 2000 Census of Population and Housing, Profile of Selected Social Characteristics, 2000: Commuting to Work.

Green Space

Increasingly, available green space is considered an important quality of life indicator by the public. Table 8 shows the inventory of parks in the County and City in 2005. Table 9 shows a comparison of the local inventory to national recommendations. Although the area lacks the amount of neighborhood and community parks recommended by national standards, the County and City exceed recommended school and regional levels.

	Park Space (acres)				
	Neighborhood	School	Community	Regional	Total
Albemarle plus Schools	0	750	115	2,040	2,905
Charlottesville plus Schools	54	143	117	402	717
Total	54	893	232	2,442	3,622

Table 8. Public park inventory, Albemarle County and City of Charlottesville, 2005. Source: Facility Standards and Gaps for City and County Combined, City of Charlottesville Parks and Recreation Needs Assessment, November 2005.

	Park Space (acres / 1000)				
	Neighborhood	School	Community	Regional	Total
Current Service Level	0.4	7	2	20	29
National Guideline	2	1	3	10	15

Table 9. Current service level based on total inventory and nationally recommended guidelines for service level for parks, Albemarle County and City of Charlottesville, 2005. Source: Facility Standards and Gaps for City and County Combined, City of Charlottesville Parks and Recreation Needs Assessment, November 2005.

Crime

Crime incident report rates are one indicator of public safety. Because rates are influenced by such factors as population size, stability and density, economic conditions and reporting patterns, caution is advised in making inferences from the data. The County crime rate has been consistent over time and was the same in 2006 as 2000. Compared to other Virginia counties, it is lower than Henrico and higher than Roanoke (Figure 42).

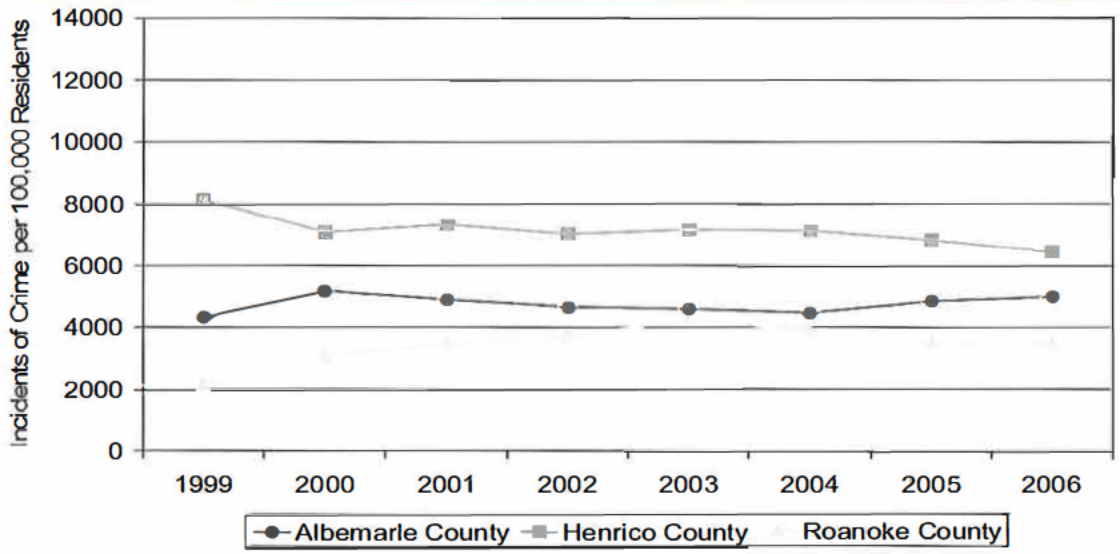


Figure 42. Reported crime incidents per 100,000 residents, Albemarle, Henrico and Roanoke Counties, 1999 2006. Source: Crime in Virginia, Virginia Uniform Crime Reporting Program, Department of State Police.

The crime rate in the City was the same in 2006 as in 1999 but fluctuated during that period. Compared to other Virginia urban areas, the City rate is similar to Lynchburg and Danville, but higher than Harrisonburg (Figure 43).

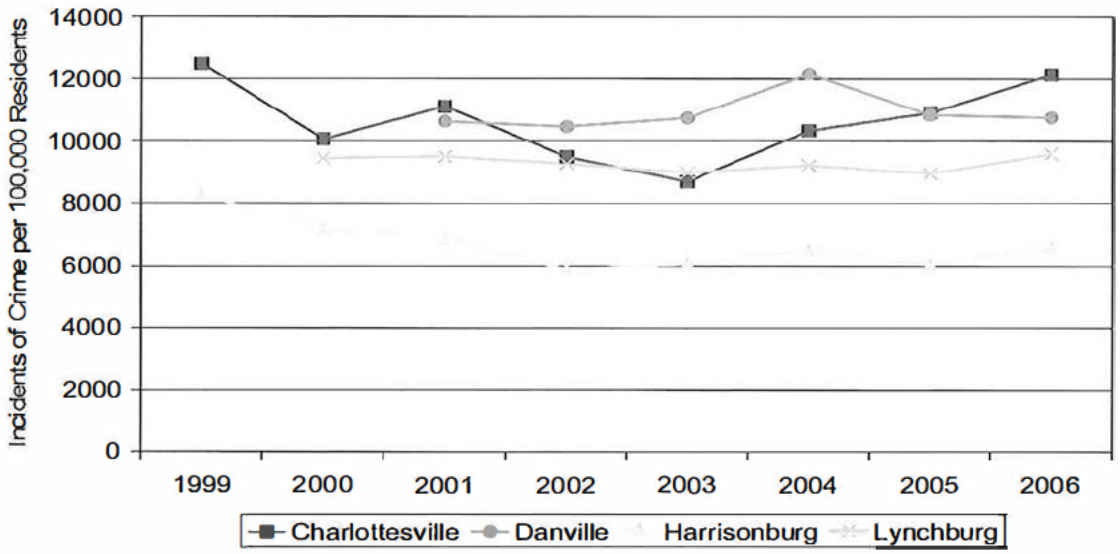


Figure 43. Reported crime incidents per 100,000 residents, Cities of Charlottesville, Danville, Harrisonburg, and Lynchburg, 1999 – 2006. (Note: Lynchburg PD began collecting comparable data in 1999, and Danville PD in 2000.) Source: Crime in Virginia, Virginia Uniform Crime Reporting Program, Department of State Police.

The rate of drug arrests was about the same in the City in 2004-06 as 2000-02 but is higher than Virginia as a whole. The County rate has crept up slightly since 2002-04 but is lower than Virginia (Figure 44).

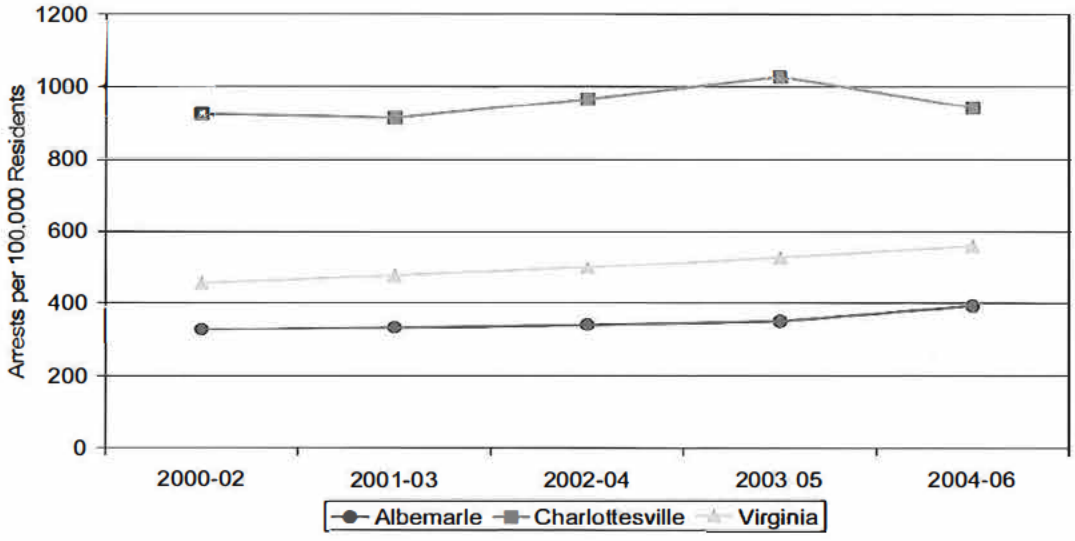


Figure 44. Three-year mean arrests for drug offenses per 100,000 residents, Albemarle County, City of Charlottesville and Virginia, 2000 – 2006. Source: Crime in Virginia, Virginia Uniform Crime Reporting Program, Department of State Police.

The City has seen a steady increase in the rate of DUI arrests since 1999-2000, but in 2004-05, the rate was lower than 2003-2004. The County rate decreased steadily between 1999-2000 to 2001-02, but increased from 2001-02 to 2004-05 (Figure 45).

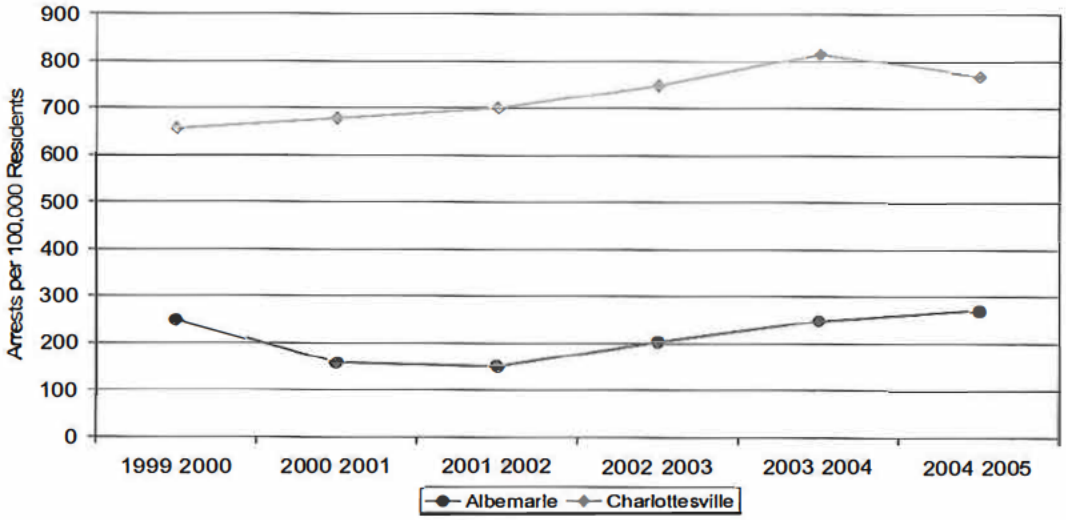


Figure 45. Two-year mean arrests for driving under the influence per 100,000 residents, Albemarle County, City of Charlottesville and Virginia, 1999 - 2006. Source: Crime in Virginia Annual Report, Virginia Department of State Police.

Homicide rates decreased in both the City and County from 2000 through 2005 (Figure 46).

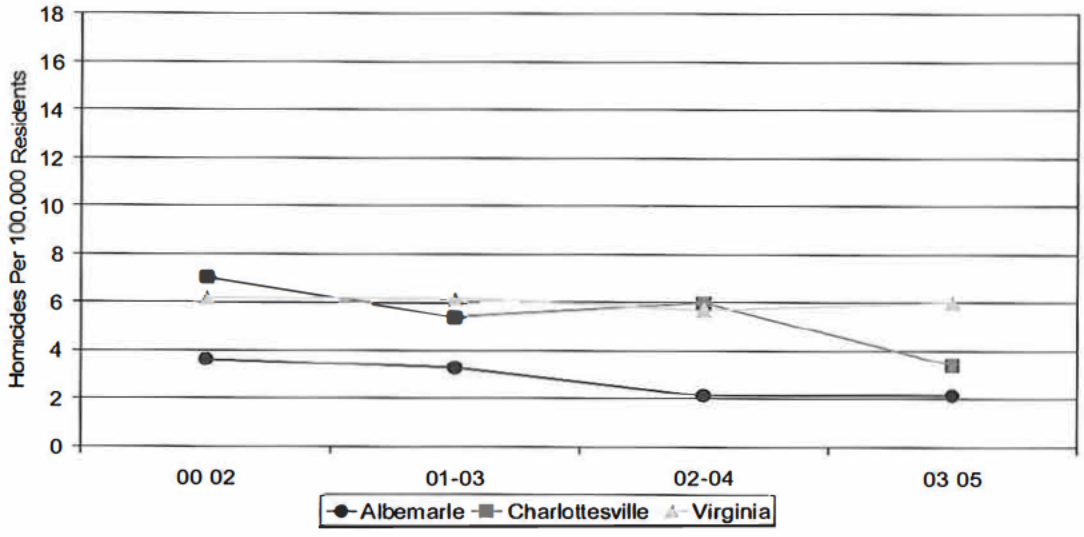


Figure 46. Three-year mean rates of homicide per 100,000 residents, Albemarle County, City of Charlottesville and Virginia, 2000 – 2005. Source: Center for Health Statistics, Virginia Department of Health.

The rate of domestic assault arrests decreased significantly in the City between 1997 and 2006 and in the County between 1998 and 2006 (Figure 47).

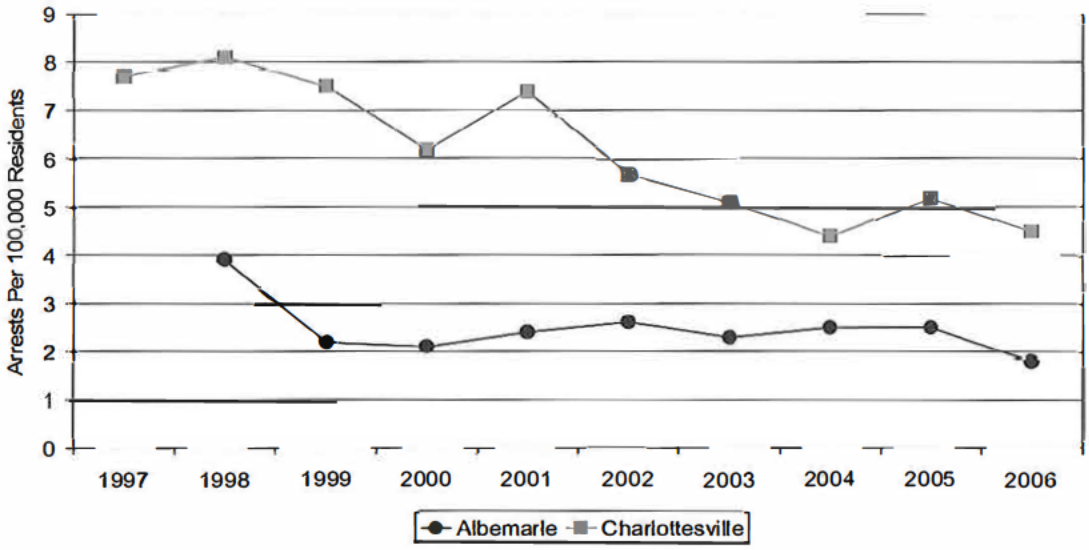


Figure 47. Arrests for domestic assault per 100,000 residents, Albemarle County and City of Charlottesville, 2000 - 2003. (Note: Data were not collected for Albemarle County prior to 1998.) Sources: Stepping Stones, Charlottesville/Albemarle Commission on Children and Families, 2007; Charlottesville and Albemarle Police Departments.

Child Abuse

The City's rate of victims of child maltreatment has decreased since fiscal year 2002-04 and is similar to the rate in Virginia overall. While the rate in the County has crept up slightly, it is substantially lower than that of Virginia (Figure 48).

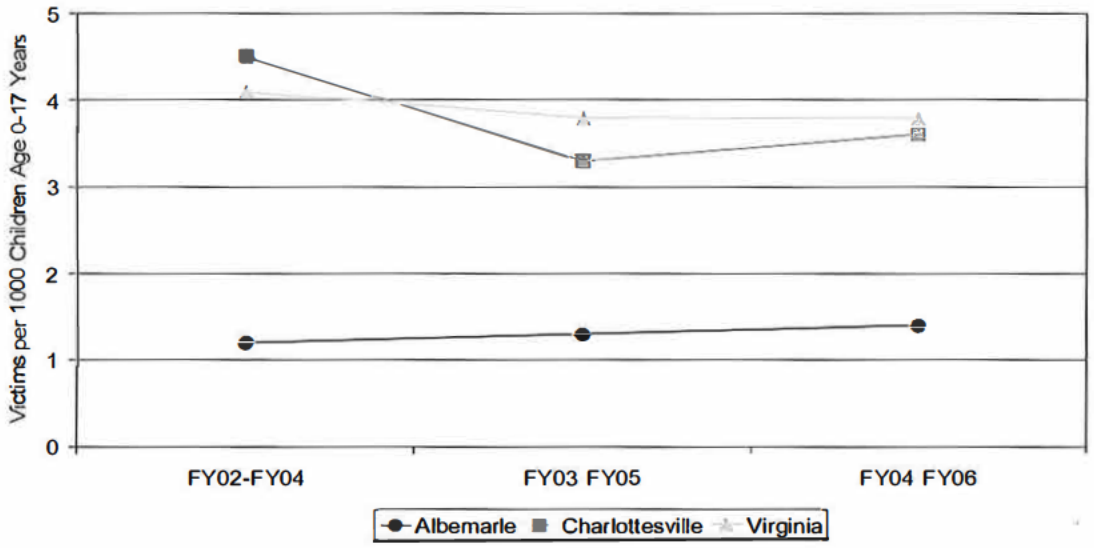


Figure 48. Three-year mean rates of victims of new and subsequent episodes of child maltreatment per 1,000 children 0 – 17 years of age, Albemarle County, City of Charlottesville and Virginia, fiscal years 2002 - 2006. Source: Online Automated Services Information System, Virginia Department of Social Services.

Founded reports are those for which a review of the facts shows by a preponderance of the evidence that child maltreatment has occurred. Only a small proportion of reports for maltreatment qualify for a finding and, of those, less than eight percent turn out to be founded in both the County and City. The percent decreased in the City between fiscal year 2002-04 and 2004-06 and increased in the County (Figure 49).

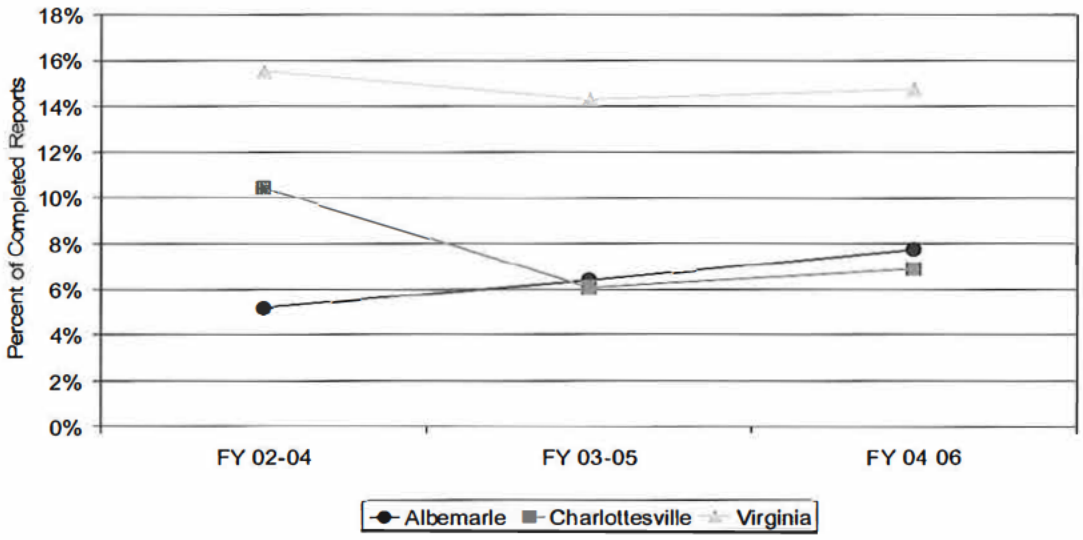


Figure 49. Percent of child maltreatment completed reports that were founded, Albemarle County, City of Charlottesville and Virginia, fiscal years 2002 2006. Source: Online Automated Services Information System, Virginia Department of Social Services.

QUALITY OF LIFE SUMMARY

In both the City and County, the majority of residents report that this area is a good or excellent place to live. Although the majority of residents drive alone to work in both the City and County, over a quarter of City residents carpool or walk to work. Overall, the area has ample public access to park space.

High ratings as a quality place to live have contributed to growth resulting in an extremely tight housing market. The impact of scarce housing is most severe for those seeking lower-cost housing. In 2005 the median percent of income paid to a mortgage was 24.1 percent compared to the national median of 20 percent. Scarcity of affordable housing in the urban core leads many people with special needs to live in rural counties, restricting access to services. There has been a pattern of people moving out of Charlottesville and Albemarle to the surrounding counties, with Fluvanna County receiving the most people. The cost of living is higher in the Charlottesville MSA than in Richmond, Roanoke and Hampton Roads.

The crime rate in the County has been consistent over time and was the same in 2006 as in 2000. The rate in the City was the same in 2006 as in 1999 but fluctuated during that period. Homicide rates decreased in both the City and County from 2000 through 2005. The rate of domestic assault arrests decreased significantly in the City between 1997 and 2006 and in the County between 1998 and 2006. The City's rate of victims of child maltreatment has decreased since fiscal year 2002-04 and is similar to the rate in Virginia overall. While the rate in the County has crept up slightly, it is substantially lower than that of Virginia.

Environmental Health

Environmental quality can affect the health of the community, but little data are available at state and local levels. With this in mind, data are presented that help provide a picture of the air we breathe, water sources and environmental risk factors associated with housing.

Air Quality

Table 10 shows a snapshot of air quality in the Charlottesville area in 2006, suggesting that the area enjoys particularly good air quality, with 100% of monitored days falling in a desirable category.

	Air Quality Rating (Number of days at each rating)				Total Number of Days Monitored
	Good (%)	Moderate (%)	Unhealthy for Sensitive Groups (%)	Unhealthy for Anyone (%)	
Charlottesville	58 (100)	0	0	0	58
Fairfax	241 (66)	112 (31)	10 (3)	2 (1)	365
Henrico	236 (66)	115 (49)	4 (1)	0	355
Virginia Beach	240 (72)	91 (27)	1 (0)	0	332

Table 10. Air quality index report, City of Charlottesville, Henrico, Fairfax, and Virginia Beach, 2006. Source: Environmental Protection Agency, (www.epa.gov/air/data/monaqi.html?st~va~virginia).

Another characteristic of the environment with potential human health impact is radon. Radon is an odorless gas released by elements naturally found in rock and soil. The EPA estimates that it is the second leading cause of lung cancer and is responsible for about 21,000 lung cancer deaths in the U.S. every year. For smokers the risk of lung cancer is significant due to the synergistic effects of radon and smoking. Lung cancer is the only known effect on human health from exposure to radon in air. Outdoor radon exposure is generally of little consequence, but concern lies in the build up of radon indoors, which is influenced by several factors, including the soil surrounding the house and the house's construction. EPA agency categorizes counties into risk zones using five factors to determine radon potential: indoor radon measurements; geology; aerial radioactivity; soil permeability; and, foundation type. The City and County fall within Zone 2 or "moderate potential for elevated indoor radon levels (two to four pCi/L)." The EPA, CDC, the Surgeon General, the American Lung Association, the American Medical Association recommend radon testing for all homes.

Water Quality

The Rivanna River and its tributaries are the source of drinking water and waste treatment capability as well as recreation and wildlife habitats for the area. Because a large portion of the basin's rivers and streams are impacted by human activities, there is the potential for contamination. StreamWatch, a partnership composed of Albemarle and Fluvanna counties, the Nature Conservancy, the Thomas Jefferson Planning District Commission, the Thomas Jefferson Soil and Water Conservation District, the Rivanna Conservation Society, and the Rivanna Water and Sewer Authority, monitors these waters. As reported in *A Summary of the StreamWatch 2006 Report*, approximately half of Rivanna basin tributary streams are biologically healthy, with a rich variety of aquatic organisms. The other half are biologically impaired according to the standard set by Virginia. During testing conducted from 2003 to 2005, only 13 percent of monitored sites received biological health scores of "very good"; 33 percent were "good" but the largest numbers were "fair" (42 percent). Twelve percent were "poor" or "very poor" (Figure 50). The report states that though streams in fair health fail to meet the state standard, many may have a reasonable chance to regain a "passing" status. The Rivanna Basin is typical for Virginia. According to the Virginia Department of Environmental Quality (DEQ), about 50 percent of randomly sampled Virginia streams are impaired for aquatic life.

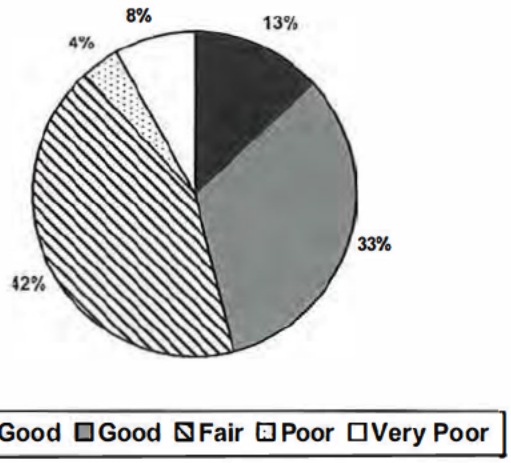


Figure 50. Biological Health Scores of Monitoring Sites in Rivanna Basin, 2006. Source: StreamWatch.

According to the U.S. Census Bureau and the Rivanna Water and Sewer Authority greater than 99 percent of housing units in both the City (0.4 percent) and County (0.9 percent) have indoor plumbing. In addition, all residents of the City and 38 percent of the County have public water, which is tested regularly to ensure that it meets all EPA standards. County residents that have approved private wells must meet certain construction criteria and have the water tested for coliform bacteria to receive a permit to operate the well. These homeowners are responsible for monitoring their well water.

Elevated Blood Lead Levels in Children

Lead exposure, particularly in children, is another area of concern when assessing the safety of the environment. The primary source of lead exposure is dust from lead-based paint in homes built before 1978. Lead interferes with normal brain development and is associated with learning disabilities and behavioral disorders. VDH identified areas in Virginia at risk for lead exposure as those with more than 27 percent of homes built before 1950 and/or those with an increased prevalence of children with elevated blood levels (EBLL). In this area they include: City and County zip codes 22901 and 22903, Covesville (22931), Keswick (22947), Esmont (22937), North Garden (22959), Greenwood (22943), and Scottsville (22590). Figure 51 shows the number of children in the County and City who were tested for EBLL from 2002 to 2006, as well as the percentage of tests that were positive. While the number of children tested (lines) has risen substantially, the number of positive tests (bars) has not.

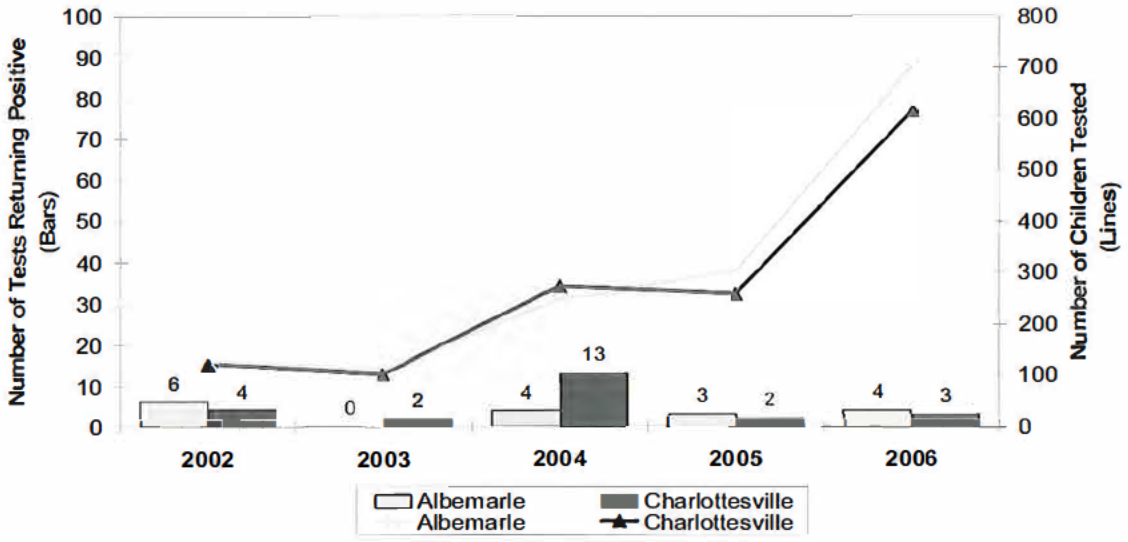


Figure 51. Proportion of children <72 months tested for elevated blood levels, and percentage of tests returned positive, Albemarle County and City of Charlottesville, 2002-2006. Source: Lead Safe Virginia, Virginia Department of Health.

ENVIRONMENTAL HEALTH SUMMARY

The area enjoys particularly good outdoor air quality, with 100 percent of monitored days falling in a desirable category. The EPA estimates that radon is the second leading cause of lung cancer and recommends that all homeowners test for radon. EPA categorizes counties into risk zones using five factors to determine radon potential: indoor radon measurements; geology; aerial radioactivity; soil permeability; and, foundation type. The City and County fall within Zone 2 or "moderate potential for elevated indoor radon levels (two to four pCi/L)." In contrast to outdoor air quality, less than half of the Rivanna Basin monitored sites, the water source for the City and County, received biological health scores of "very good" or "good" from 2003 to 2005. Positively, though, less than one percent of housing units in the area are without plumbing and all residents of the City and 38 percent of the County have public water, which is tested on a regular basis to ensure that it meets all EPA standards. Efforts have been made to increase blood lead level testing in children, and very few children in the area have been found to have elevated levels.

TABLE OF CONTENTS – EXHIBITS

Exhibit No.	Attachment
1	**UVA Medical Center and Affiliates by Virginia Health Planning Districts, FY2019, Indigent Care (IC) and Medicaid (M)** *In File 1 of 3
2	**Eligibility Guidelines for Health Care Services at the State University Teaching Hospitals** *In File 1 of 3
3	**Policy FIN7003-2** **Policy FIN7009** **Policy FIN7010** **Policy FIN7028-2** *In File 1 of 3
4	**Thank You for Choosing UVa for Your Care** *In File 1 of 3
5	**Patient Statements** *In File 1 of 3
6	**Policy L7031** **Policy L7033** **Policy L7035** *In File 1 of 3
7	**2008 MAPP2Health Report** *In Files 2 and 3 of 3

*Split into 3 files due to size

Behavioral Risk Factors

Since 1988, VDH has participated in CDC's Behavioral Risk Factor Surveillance System (BRFSS), a monthly randomized telephone health survey conducted by state health departments across the U.S. It includes standardized questions about health-related behaviors of adults. Statewide BRFSS results are periodically stratified and reported by health district. Most of the local data available in this category come from this study and results for TJHD are presented with the following caveats:

- Only about 300 phone interviews were conducted over three-year intervals for the entire health district
- The BRFSS survey is only administered to adults in households where there is a landline phone; consequently, adults from lower socio-economic households where there is no phone and young adults who rely solely on cell phones could be underrepresented
- All results are based on self reporting; therefore, there is no way of validating responses (e.g., height and weight)

Tobacco Use

Reducing smoking is one of the top priorities of public health. Tobacco use is associated with numerous health disorders, including cardiovascular disease, multiple types of cancer, respiratory disease, and poor birth outcomes. As a result of extensive public health efforts, including health education, advances in tobacco cessation treatment, counter-marketing, regulation, and litigation, the prevalence of smoking in the U.S. declined among men by 57 percent in 1955 to 23 percent in 2005 and among women from 34 percent in 1965 to 18 percent in 2005.[13] The Healthy People 2010 target is 12 percent for the proportion of Americans that smoke. While in TJHD 20 percent of surveyed residents reported smoking in 2002-04 (Figure 52), public health experts state that establishing programs designed to keep young people from starting to smoke and to help smokers quit can move communities, and the nation as a whole, towards this goal.[14]

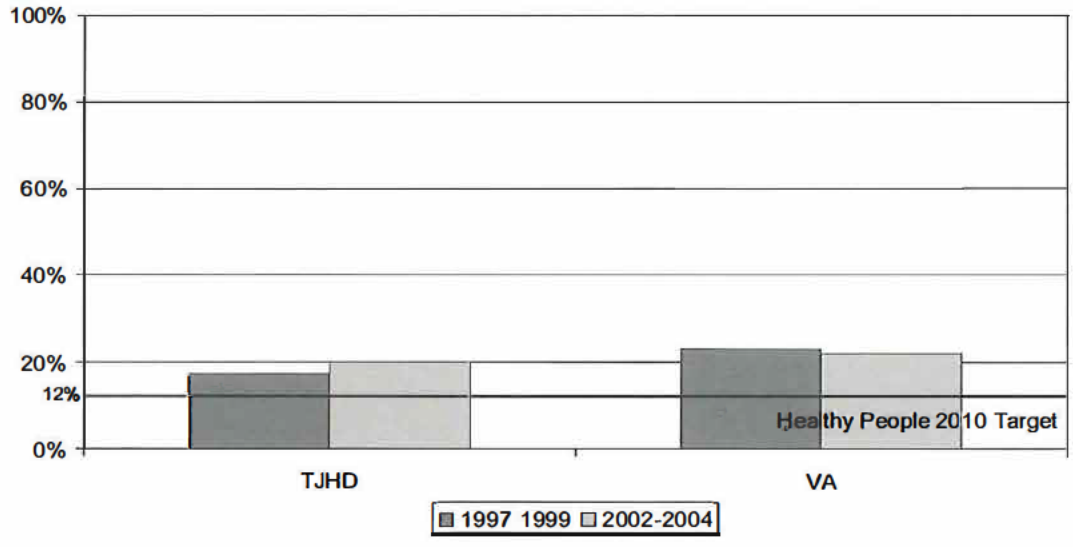


Figure 52. Adults who report smoking, Thomas Jefferson Health District (TJHD) and Virginia, 1997 1999 and 2002 2004. Source: Behavioral Risk Factor Surveillance Surveys, 1997-1999, 2002-2004, Survey and Evaluation Research Laboratory, Virginia Commonwealth University.

Disparities do not appear to exist in Virginia when comparing percentages of current smokers by race (Figure 53). Programs to prevent tobacco use and to promote smoking cessation may be more effective if they are culturally sensitive; however, programs targeted to all racial groups appear to be indicated. When examining current smokers stratified by income level, however, disparities do exist in Virginia (Figure 54). As income decreases, the percent of current smokers increases. Smoking prevention and cessation programs targeted at lower income persons may also be needed to close this gap.

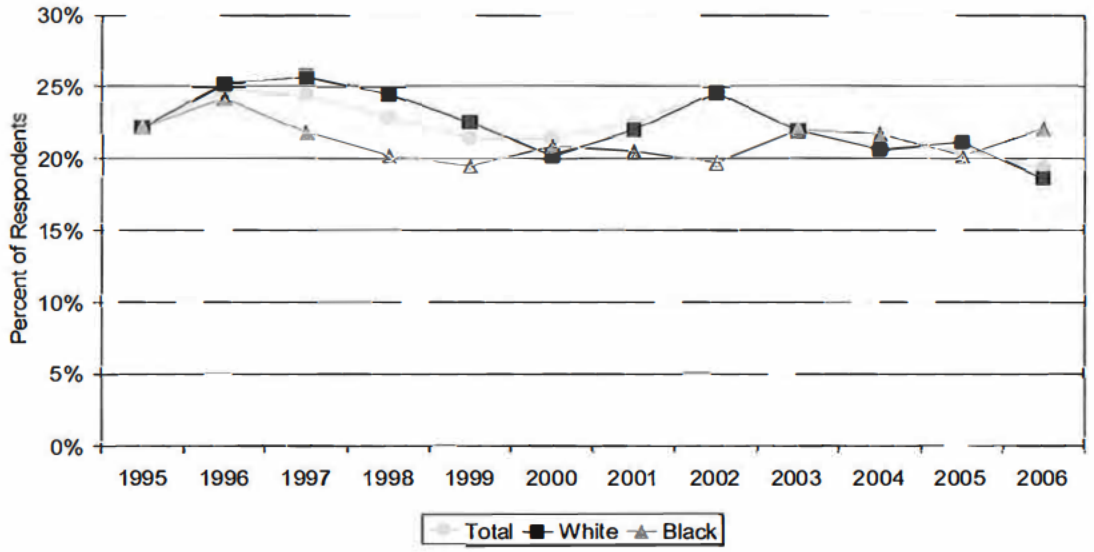


Figure 53. Current smokers by race, Virginia, 1999 – 2006. Source: Behavioral Risk Factor Surveillance System, Centers for Disease Control and Prevention.

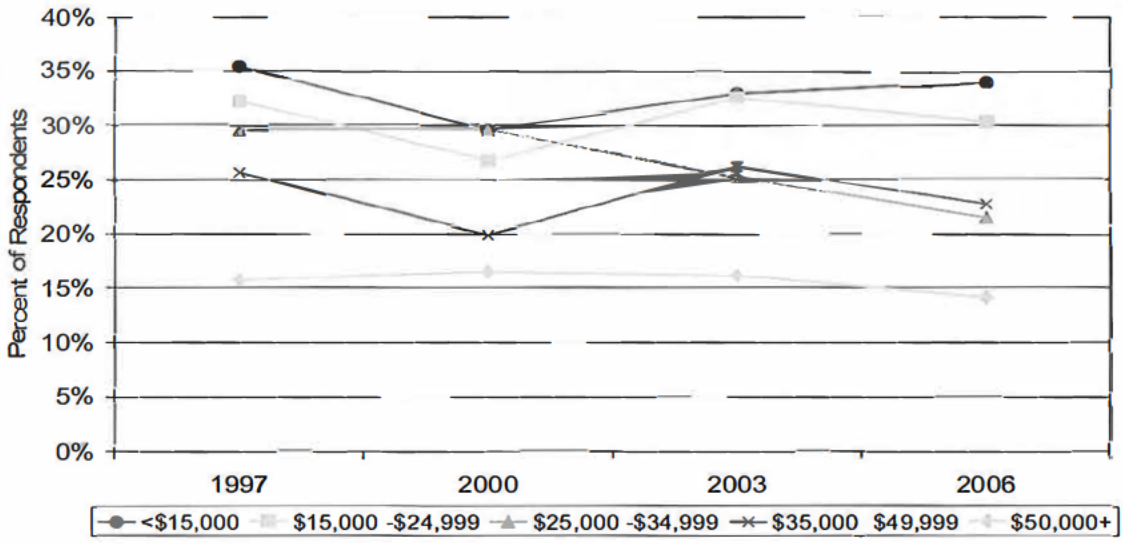


Figure 54. Current smokers by income, Virginia, 1997, 2000, 2003, and 2006. Source: Behavioral Risk Factor Surveillance System, Centers for Disease Control and Prevention.

Obesity

Like tobacco, obesity is major risk factor for chronic disease. In addition to health education and regulatory initiatives, creating opportunities to access nutritious foods and physical activity at work, in school, and in the community can be effective approaches to addressing this public health issue.[15] The percent of adults who are obese by self-reported height and weight decreased in TJHD between 1997-99 and 2002-04 to less than 20 percent, approaching the Healthy People 2010 target of 15 percent (Figure 55).

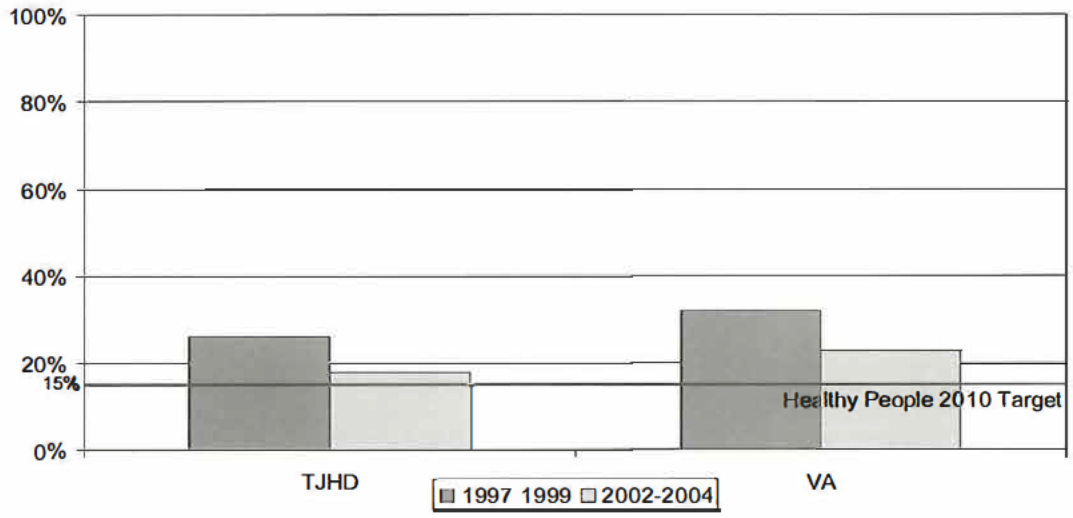


Figure 55. Percent of adults who are obese based on self-reported height and weight, Thomas Jefferson Health District (TJHD) and Virginia, 1997 – 1999 and 2002 – 2004. Source: Behavioral Risk Factor Surveillance Surveys, 1997-1999, 2002-2004, Survey and Evaluation Research Laboratory, Virginia Commonwealth University.

These data contrast with trends in measured obesity indicators of children in the City and County, in which percentages of overweight or obese children increased over time, although the proportion of students who are obese decreased slightly between 2003 and 2007. Height and weight measurements collected in area public schools were used to calculate Body Mass Index (BMI) and results indicated that over 20 percent of Albemarle and Charlottesville fifth graders in 2007 were obese. This exceeds the Healthy People 2010 target of five percent by four times (Figure 56 and 57).

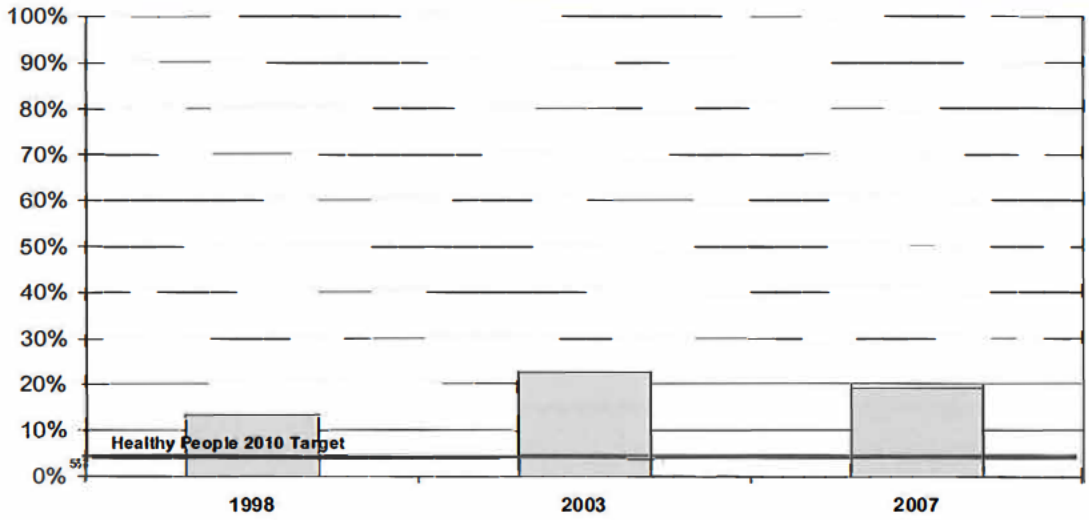


Figure 56. Obesity prevalence among fifth graders,* Albemarle County and City of Charlottesville, 1998, 2003, 2007. Source: Thomas Jefferson Health District; Childhood Obesity Task Force.

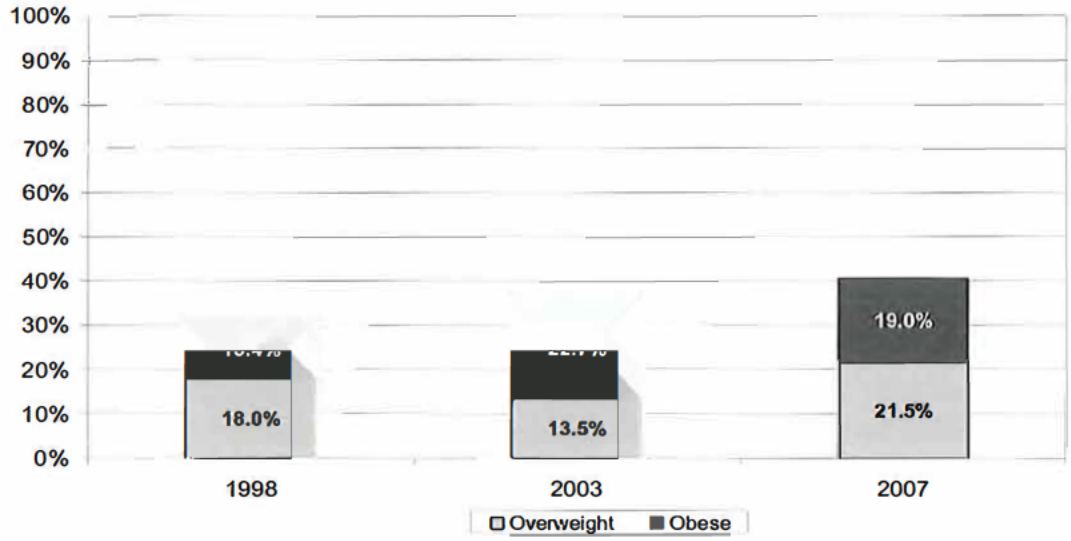


Figure 57. Overweight and obesity prevalence among fifth graders,* Albemarle County and City of Charlottesville, 1998, 2003, 2007. Source: Thomas Jefferson Health District; Childhood Obesity Task Force.

***Body Mass Index (BMI) categories for children: *Overweight*: BMI ≥ 85th percentile to < 95th percentile for age and sex; *Obese*: BMI ≥ 95th percentile for age and sex**

Alcohol

Alcohol abuse is associated with liver and kidney disease, a number of types of cancer, pregnancy complications and birth defects. Table 11 shows that according to the *National Survey on Drug Use and Health*, young adults in Virginia are more likely to abuse alcohol or illicit drugs than other age groups, with binge drinking being the most common substance abuse problem. The drinking age in Virginia is 21 years old and the majority of adolescents and teens do not report alcohol abuse; however, 14 percent of adolescents and teens and nearly half of 18 to 25 year olds reported binge alcohol use in the past month in this 2004-05 survey.

Age In Years	12-17	18-25	26+
Past Month Binge Alcohol Use	14%	44%	21%
Alcohol Dependence or Abuse in Past Year	5%	18%	6%
Needing But Not Receiving Treatment for Alcohol Use	5%	17%	6%
Illicit Drug Use Past Month	8%	18%	5%
Illicit Drug Dependence	2%	6%	1%
Needing but not Receiving Treatment for Illicit Drug Use	4%	7%	1%

Table 11. Estimates of number of substance abuse problems, 2004 2005, Virginia. Source: National Survey on Drug Use and Health, Substance Abuse and Mental Health Services Administration.

Preventive Health Care

Preventive health care can lead to early detection and intervention of a number of diseases and can improve longevity and quality of life as well as reduce healthcare spending. Because of access to care and the nature of the health insurance, health maintenance organization (HMO) members may serve as an upper estimate for those seeking out and receiving preventive health care services. Table 12 shows that among HMO members in Virginia, 69 percent receive breast cancer screening, 82 percent receive cervical cancer screening and 28 percent receive colorectal cancer screening.

	HMO Members (percent)	
	Virginia	U.S.
Receive recommended breast cancer screening	69 %	69 %
Receive recommended cervical cancer screening	82 %	81 %
Receive recommended colorectal cancer screening	58 %	55 %

Table 12. Percent of HMO members (excludes Medicare and Medicaid HMO members) by select ambulatory care sensitive condition indicators, Virginia and the U.S., 2006. Source: Virginia Health Information; National Committee for Quality Assurance.

Based on BRFSS responses, 80 percent of women in TJHD reported receiving a mammogram within the past two years when surveyed in 2002-04, a level exceeding the Healthy People 2010 target (Figure 58).

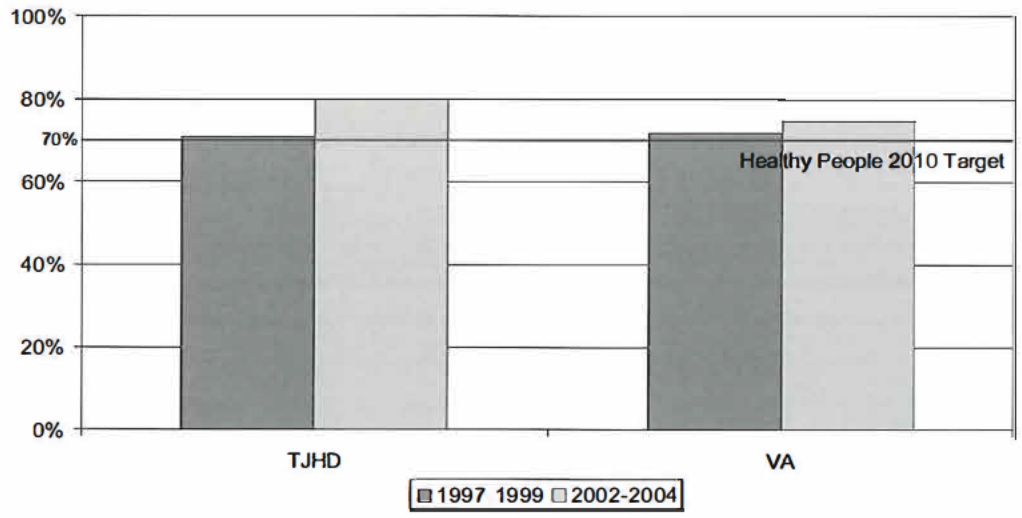


Figure 58. Percent of women aged 40 years and older who report having a mammogram within the past two years, Thomas Jefferson Health District (TJHD) and Virginia, 1997 – 1999 and 2002 – 2004. Source: Behavioral Risk Factor Surveillance Surveys, 1997 – 1999 and 2002 - 2004, Survey and Evaluation Research Laboratory, Virginia Commonwealth University.

Though no Healthy People 2010 target has been set for men receiving a prostate serum antigen (PSA) test, around 50 percent of men in the district reported receiving at least one PSA test. These results suggest that screening activities are viewed as beneficial by area residents (Figure 59).

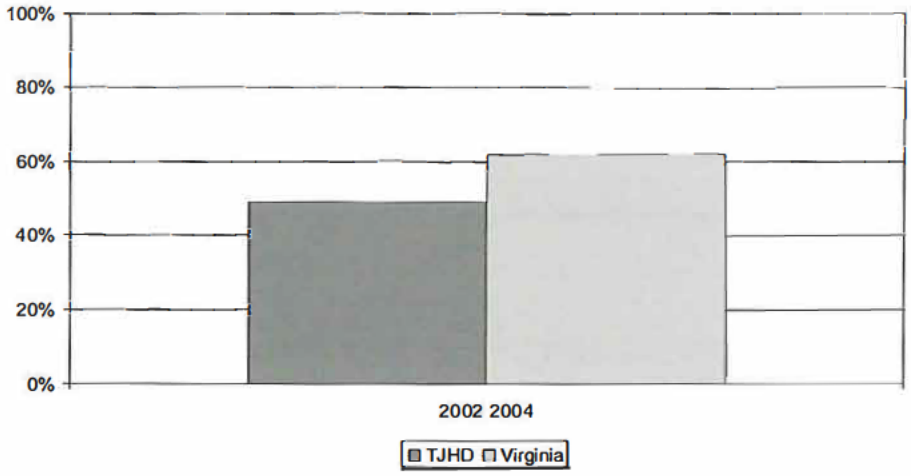


Figure 59. Percent of men aged 40 years and older who report ever having a prostate serum antigen (PSA) test, Thomas Jefferson Health District (TJHD) and Virginia, 2002 2004. Source: Behavioral Risk Factor Surveillance Survey, 2002 – 2004, Survey and Evaluation Research Laboratory, Virginia Commonwealth University.

Another preventive health indicator is recent dental care. Of those surveyed, nearly 80 percent of TJHD residents reported having visited a dentist in the past year, a proportion that surpasses the Healthy People 2010 goal of 56 percent (Figure 60).

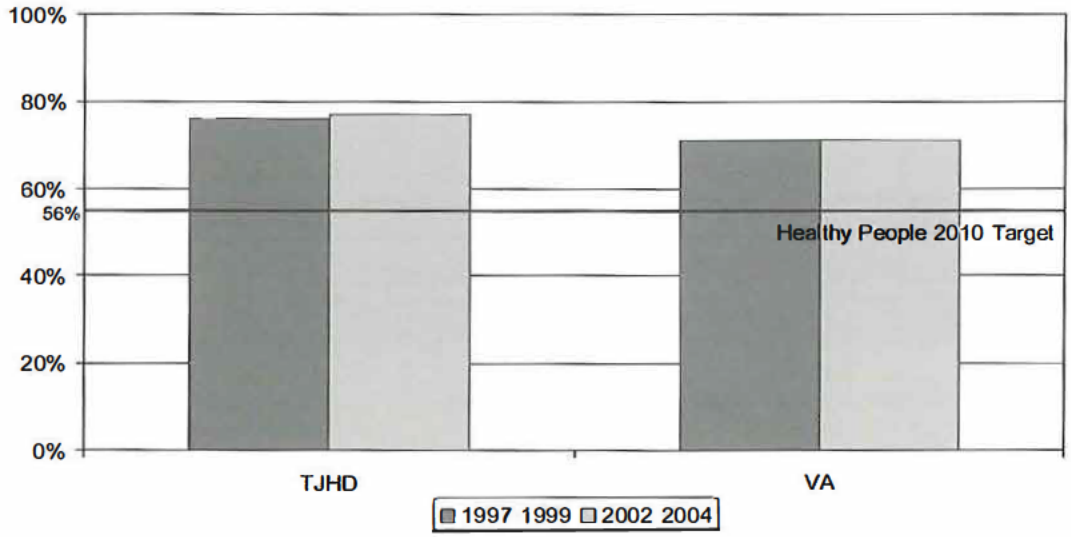


Figure 60. Percent of adults who report visiting the dentist within the past year, Thomas Jefferson Health District (TJHD) and Virginia, 1997 – 1999 and 2002 – 2004. Source: Behavioral Risk Factor Surveillance Surveys, 1997 – 1999 and 2002 - 2004, Survey and Evaluation Research Laboratory, Virginia Commonwealth University.

Looking at other preventive care indicators, nearly 80 percent of TJHD residents aged 65 years or older reported having received flu vaccine within the past year when surveyed (Figure 61). *The New England Journal of Medicine* reported in 2007 that flu vaccination in the elderly is associated with substantial reductions in: (1) the risk of wintertime or seasonal pneumonia-related and influenza-related hospitalizations and deaths; (2) reductions in deaths from any cause; and (3) reductions in the rates of heart attack and stroke.[16] Although the proportion of seniors receiving flu vaccine in TJHD exceeds the proportion in Virginia, it does not meet the Healthy People 2010 target of 90 percent, and it declined between 1997-99 and 2002-04. Continued health promotion and outreach to seniors could help close this gap.

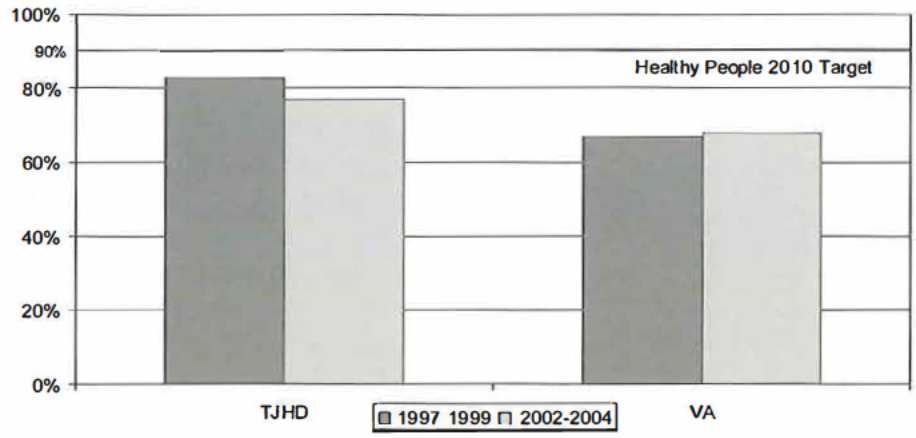


Figure 61. Percent of respondents aged 65 years and older who report receiving the flu vaccine within the past year, Thomas Jefferson Health District (TJHD) and Virginia, 1997 – 1999 and 2002 – 2004. Source: Behavioral Risk Factor Surveillance Surveys, 1997 – 1999 and 2002 - 2004, Survey and Evaluation Research Laboratory, Virginia Commonwealth University.

BEHAVIORAL RISK FACTORS SUMMARY

Because tobacco use is associated with numerous health disorders, reducing smoking is one of the top priorities of public health. The prevalence of smoking in the U.S. declined among men by 57 percent in 1955 to 23 percent in 2005 and among women from 34 percent in 1965 to 18 percent in 2005. The Healthy People 2010 target is for less than 12 percent of Americans to smoke. While in TJHD 20 percent of surveyed residents reported smoking in 2002-04, public health experts state that establishing programs designed to keep young people from starting to smoke and to help smokers quit can continue the significant progress in moving communities, and the nation as a whole, towards this goal. There do not appear to be racial disparities in the proportion of current smokers in Virginia; however, disparities do appear among income levels. Targeted interventions for persons with lower incomes may be beneficial.

Like tobacco, obesity is major risk factor for chronic disease. In addition to health education and regulatory initiatives, creating opportunities to access nutritious foods and physical activity at work, in school, and in the community can be effective approaches to addressing this public health issue. The percent of adults who are obese by self reported height and weight decreased in TJHD between 1997-99 and 2002 04 to less than 20 percent, approaching the Healthy People 2010 target of 15 percent. These data contrast with trends in measured obesity indicators of children in the City and County, in which percentages of overweight or obese children increased between 2003 and 2007 and exceed the Healthy People 2010 target.

Alcohol abuse is associated with liver and kidney disease, a number of types of cancer, pregnancy complications and birth defects. The *National Survey on Drug Use and Health* states that young adults in Virginia are more likely to abuse alcohol or illicit drugs than other age groups, with binge drinking being the most common substance abuse problem.

Preventive health care can lead to early detection and intervention of a number of diseases and can improve longevity and quality of life as well as reduce healthcare spending. Because of access to care and the nature of the health insurance, health maintenance organization (HMO) members may serve as an upper estimate for those seeking out and receiving preventive health care services. Among HMO members in Virginia, 69 percent receive breast cancer screening, 82 percent receive cervical cancer screening and 28 percent receive colorectal cancer screening. The area is doing fairly well with regard to select screening and prevention activities, based on local BRFSS results. Over 70 percent of women aged 40 years or older in TJHD reported receiving mammograms within two years of when surveys were conducted, which exceeds the Healthy People 2010 target, and around 50 percent of men aged forty years or older reported receiving at least one PSA test. Although the area does not quite meet the target for flu vaccination among its elderly population, the proportion of adults reported visiting a dentist at least once in the previous year exceeds the Healthy People 2010 target.

Section Three

In Section Three, data were collected to answer the question: What is the status of health in the community?

Indicators include:

- **Maternal and Child Health**
  - Infant Mortality
  - Low Birth Weight Infants
  - Prenatal Care
  - Teen Pregnancy
  - Mothers and Educational Status
- **Causes of Death**
  - Mortality Rates
  - Leading Causes of Death
  - Cardiovascular Disease Mortality
  - Cancer-Related Deaths
  - Chronic Lower Respiratory Disease Mortality
  - Unintentional Injury-Related Deaths
  - Diabetes-Related Deaths
  - Leading Causes of Death by Age Group
- **Cancer**
  - Lung Cancer
  - Breast Cancer
  - Prostate Cancer
  - Colorectal Cancer
- **Injury**
  - Unintentional Injury Rates
  - Causes of Unintentional Injuries
  - Motor Vehicle Crashes
  - Seat Belt and Child Restraint Use
  - Falls
  - Poisonings
  - Intentional Injury Rates
  - Suicide
- **Infectious Disease**
  - Sexually Transmitted Diseases
  - Vaccine Preventable Diseases
  - Foodborne and Waterborne Diseases
- **Ambulatory Care Sensitive Conditions**
  - Diabetes
  - Asthma
  - Hypertension
  - Chronic Obstructive Pulmonary Disease
  - Low Birth Weight
- **Mental Health**

Maternal and Child Health

Infant Mortality

Infant mortality is an indicator used to compare the health and well-being of populations across countries as well as within countries. Surprising to many Americans, the U.S. has one of the highest infant mortality rates among the industrialized countries. This is due to disparities among different groups of the population. Within the U.S., blacks and American Indians have higher infant mortality rates than other groups, and although infant mortality rates have been falling for all groups, differences between groups have persisted.[17] Infant mortality is a relatively infrequent event in the County and City due to the relatively small populations. However, Figure 62 shows that the City consistently has had a higher rate when compared to both Virginia and the U.S. The County has experienced lower rates, although they rose throughout the last decade. The County hovers close to the Healthy People 2010 target; the City does not yet meet it.

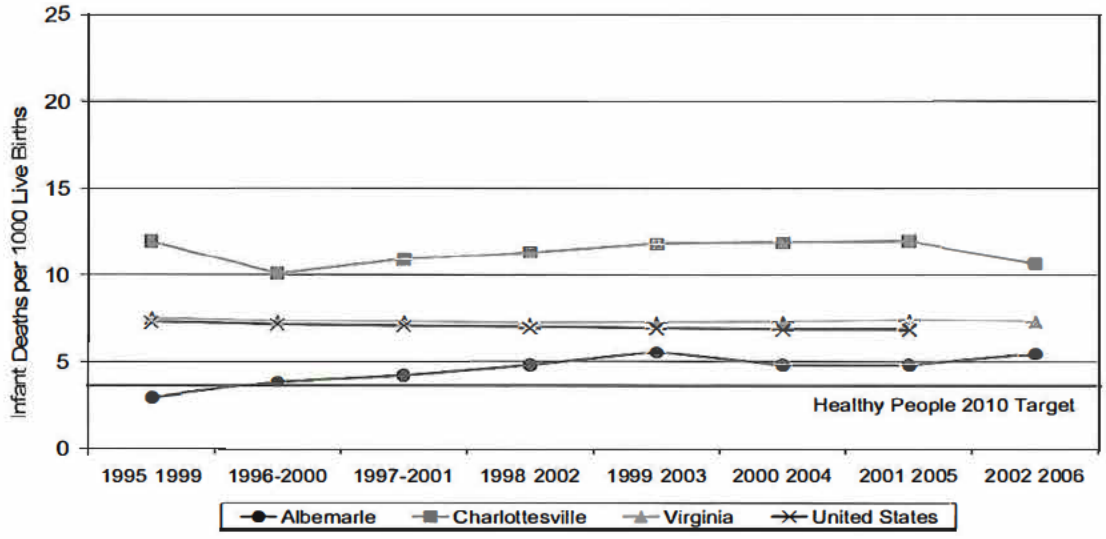


Figure 62. Five-year mean infant mortality rate per 1,000 live births, Albemarle County, City of Charlottesville, Virginia, and the U.S., 1995 – 2006. (Note: Data were unavailable for the U.S. in 2006.) Sources: Center for Health Statistics, Virginia Department of Health; National Center for Health Statistics, Centers for Disease Control and Prevention.

When examining infant mortality stratified by race, we see the same phenomenon in the City and County as is seen in the nation; African-American babies die more frequently than their white counterparts. In our area that rate has also been rising (Figure 63). The infant mortality rate for City white infants has declined and the County white rate meets the Healthy People 2010 target.

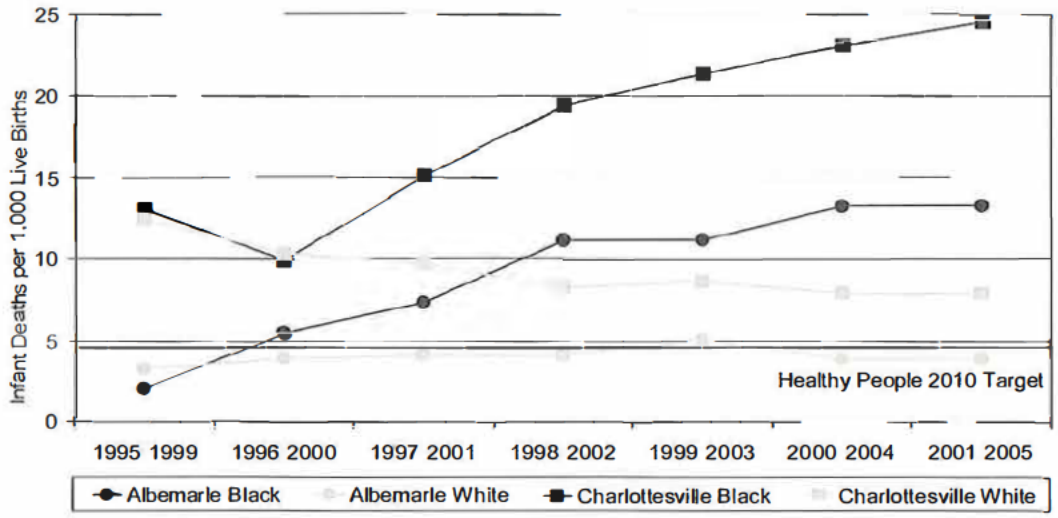


Figure 63. Five-year mean infant mortality per 1,000 live births by race, Albemarle County and City of Charlottesville, 1995 – 2005. Source: Center for Health Statistics, Virginia Department of Health.

When comparing the rate of infant mortality for African-Americans in TJHD, Virginia and the U.S., only the rate for TJHD appears to be rising (Figure 64).

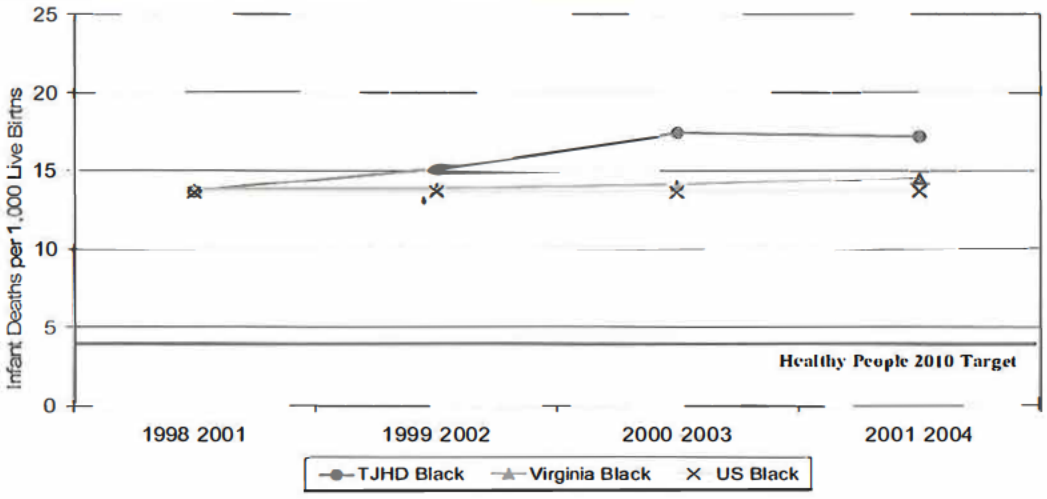


Figure 64. Four-year mean infant mortality rate per 1,000 live births among black infants, Thomas Jefferson Health District (TJHD), Virginia and the U.S., 1998 – 2004. Sources: Center for Health Statistics, Virginia Department of Health; National Center for Health Statistics, Centers for Disease Control and Prevention.

The mortality rate within the first 28 days of life, the neonatal death rate, declined substantially in the City during the later half of the 1990s but remains higher in the City than in Virginia as a whole (Figure 65). The rate for the County meets the Healthy People 2010 target.

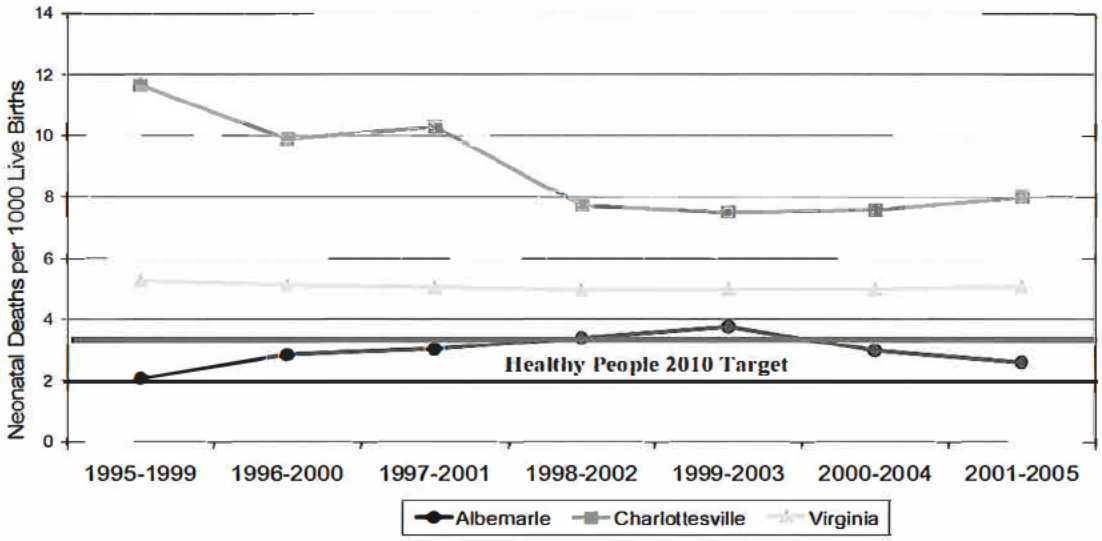


Figure 65. Five-year mean neonatal deaths (within first 28 days of life) per 1,000 live births, Albemarle County, City of Charlottesville and Virginia, 1995 – 2005. Sources: Center for Health Statistics, Virginia Department of Health; National Center for Health Statistics, Centers for Disease Control and Prevention.

Low Birth Weight Infants

Weighing less than 2,500 grams (about five and a half pounds) at birth is an important risk factor for infant mortality.[18] Low birth weight infants are also at increased risk of health problems including neurodevelopmental disabilities and respiratory disorders. About eight percent of babies in the area are born at an unhealthy low birth weight (Figure 66). Poor circumstances during pregnancy can lead to less than optimal fetal development via a chain that may include deficiencies in nutrition during pregnancy, maternal stress, a greater likelihood of maternal smoking, misuse of drugs and alcohol, insufficient exercise and inadequate prenatal care. These risks can be reduced by improved preventive health care before the first pregnancy and adequate pre- and postnatal care for mothers and babies. As pointed out by the World Health Organization (WHO), a good start in life means supporting mothers and young children: the health benefits of early development and education last a life time.[19]

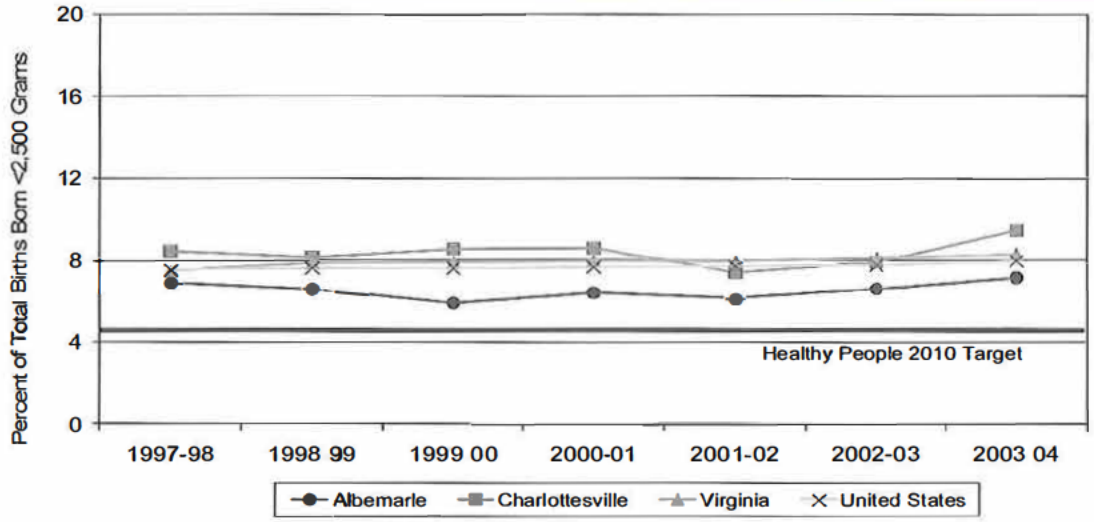


Figure 66. Two-year mean percentage of total births born weighing < 2500 grams, Albemarle County, City of Charlottesville, Virginia, and the U.S., 1997 – 2004. Sources: Center for Health Statistics, Virginia Department of Health; National Center for Health Statistics, Centers for Disease Control and Prevention.

When examining the proportion of babies born at low birth weight stratified by race, African-American babies are more likely than white babies to weigh less than 2,500 grams at birth; however, the proportion in the area has decreased since the late 1990s to levels below that for Virginia and the U.S. (Figure 67).

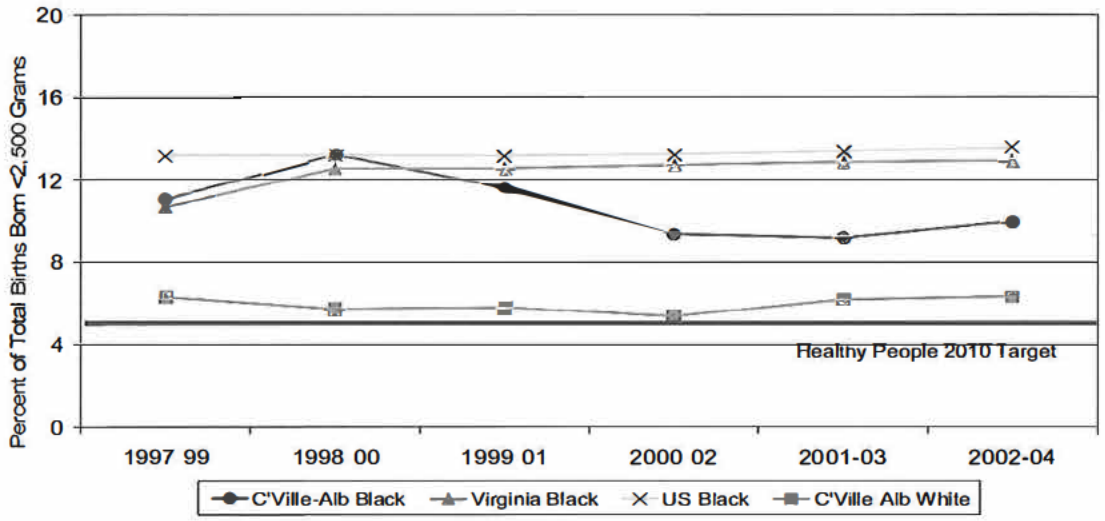


Figure 67. Three-year mean percentage of total births born weighing < 2500 grams by race, Charlottesville-Albemarle, Virginia, and the U.S., 1997 2004. Sources: Center for Health Statistics, Virginia Department of Health; National Center for Health Statistics, Centers for Disease Control and Prevention.

Prenatal Care

Women who receive early and adequate prenatal care have a greater chance of having healthy babies. Early entry into care enables prenatal education on nutrition and behaviors to avoid during pregnancy and allows for detection of problems. Women receiving routine care throughout pregnancy are less likely to deliver prematurely, thus decreasing the risk of detrimental consequences to the infant's health. Since 1999, the proportion of women entering prenatal care in their first trimester (0-13 weeks) has been slightly lower in the County and City than Virginia as a whole; a greater proportion of women received an adequate number of visits in 1997 than in 2005 (Figure 68).

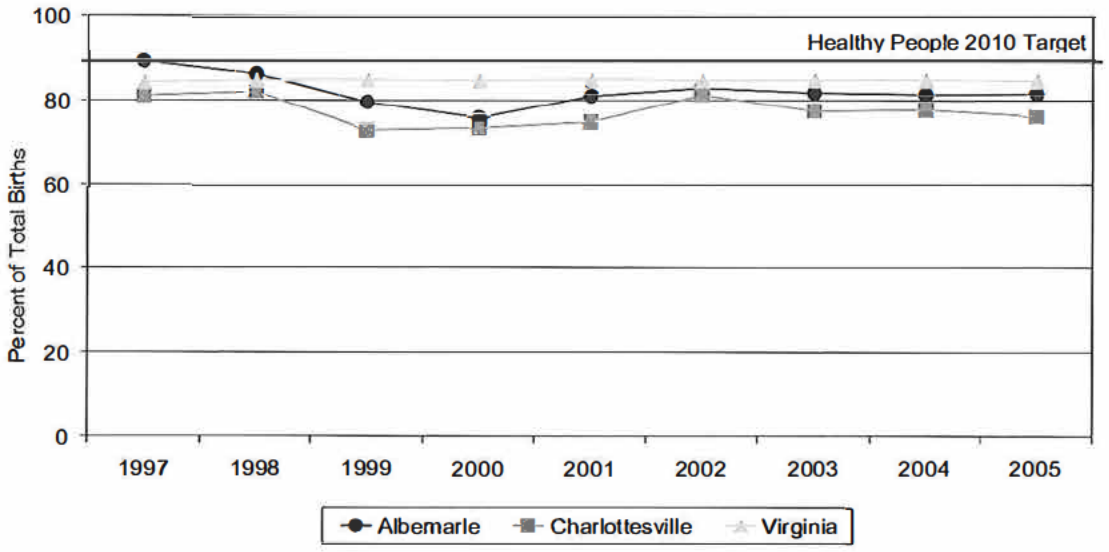


Figure 68. Percentage of births to women entering prenatal care in the first trimester, Albemarle County, City of Charlottesville and Virginia, 1997 2005. Sources: Community Level Information on Kids, Annie E. Casey Foundation; Center for Health Statistics, Virginia Department of Health.

For a full term (40 week) pregnancy with no complications, the American College of Obstetricians and Gynecologists recommends 13 to 14 prenatal appointments, based on one visit during the first trimester, monthly visits until 28 weeks, visits every two weeks between 28 and 36 weeks and then weekly visits until delivery. VDH collects information based on whether a woman had no visits, 1-9 visits, 10-14 visits, or 15 or more visits. About 60 percent of women in both the County and the City received at least 10 prenatal visits during the course of their pregnancy in 2000 2004 (Figure 69).

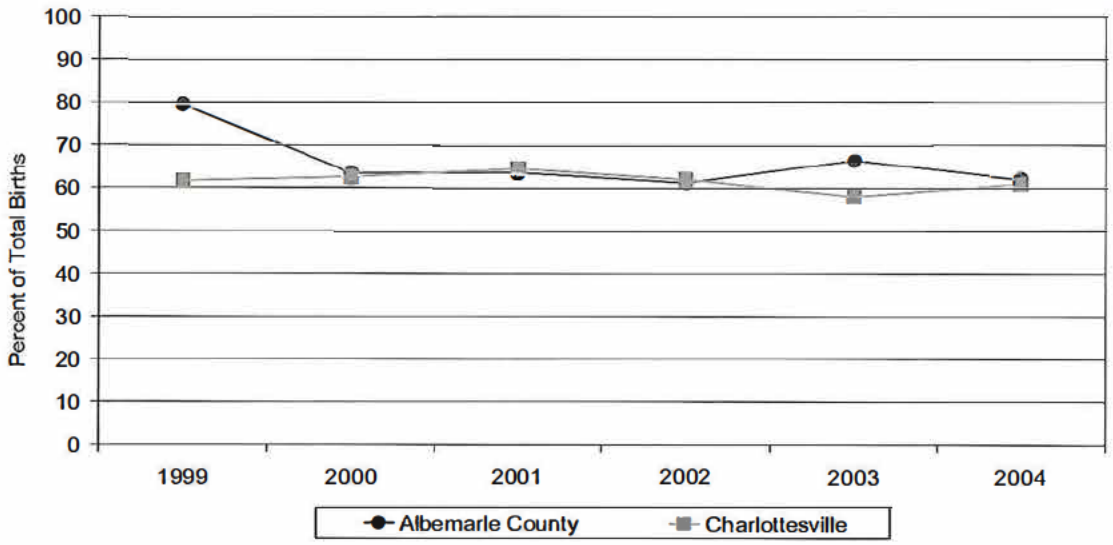


Figure 69. Percentage of births with ten or more prenatal care visits, Albemarle County and City of Charlottesville, 1999 – 2004. Source: Center for Health Statistics, Virginia Department of Health.

Teen Pregnancy

Babies born to teen mothers are more likely to be born prematurely and at low birth weight. These children are at greater risk of child maltreatment and of living in poverty. Girls born to teen mothers are more likely themselves to become teen mothers than girls born to older mothers. According to the WHO, the greater the length of time that people live in disadvantaged circumstances, the more likely they are to suffer from a range of health problems.[20] The County has consistently met the Healthy People 2010 target of 43 pregnancies per 1,000 for adolescents aged 15 to 17 years and its overall teen pregnancy rate appears to be holding steady. The City teen pregnancy rate among adolescents ages 10 to 19 appears to be climbing in more recent years (Figure 70).

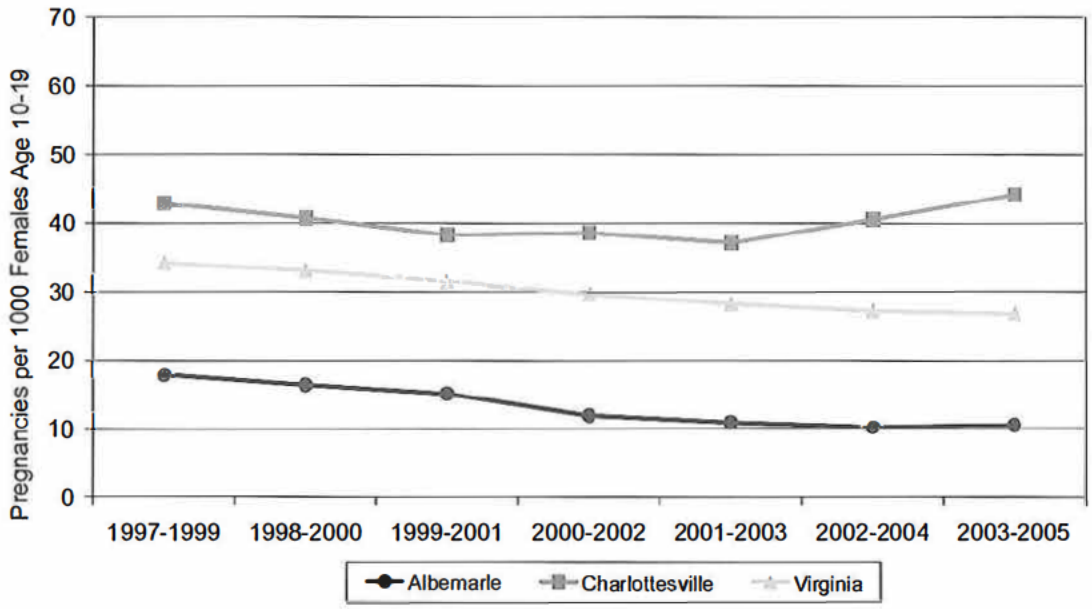


Figure 70. Three-year mean teen pregnancy rate per 1,000 females 10 19 years of age, Albemarle County, City of Charlottesville and Virginia, 1997 – 2005. Source: Center for Health Statistics, Virginia Department of Health.

When stratifying teen pregnancy rates by race, both African-American and white teens living in the City had higher rates than Virginia as a whole. The County's white teens have a markedly low rate of pregnancy. The birth rate of African-American teens in the County has fallen and is lower than White and African-American teens in the City (Figure 71).

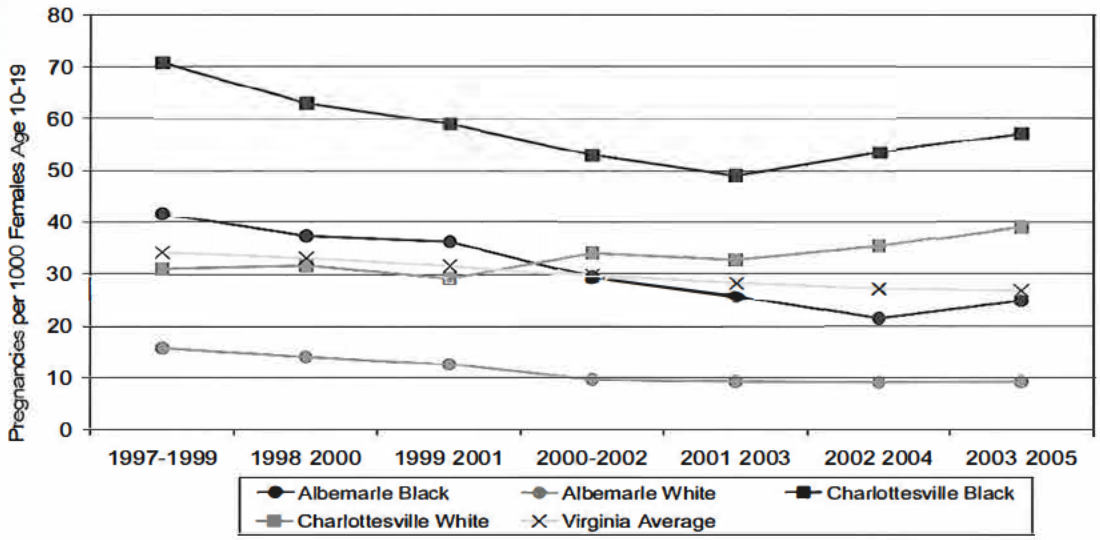


Figure 71. Three-year mean teen pregnancy rate per 1,000 females 10 19 years of age by race, Albemarle County, City of Charlottesville and Virginia, 1997 2005. Source: Center for Health Statistics, Virginia Department of Health.

Mothers and Educational Status

Public health studies have shown a correlation between maternal education and infant health as well as improvements in infant health when maternal educational status improves. In the U.S., babies born to mothers with less than a high school education are at greater risk of living in poverty. The proportion of births to mothers in the area with less than a high school education was about the same in 2005 as 2002; it is nearly 20 percent in the City, higher than Virginia as a whole (Figure 72).

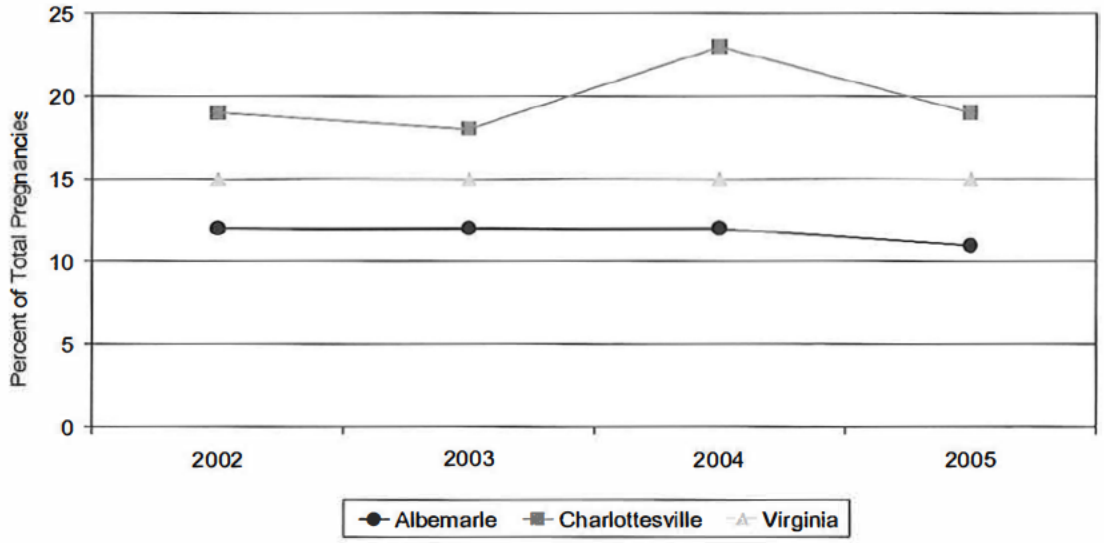


Figure 72. Percentage of births to mothers with less than high school education, Albemarle County, City of Charlottesville and Virginia, 2002 – 2005. Source: Community Level Information on Kids, Annie E Casey Foundation.

MATERNAL AND CHILD HEALTH SUMMARY

Infant mortality is an indicator used to compare the health and well-being of populations across countries as well as within countries. Surprising to many Americans, the U.S. has one of the highest infant mortality rates among the industrialized countries. This is due to disparities among different groups of the population. Within the U.S., blacks and American Indians have higher infant mortality rates than other groups, and although infant mortality rates have been falling for all groups, differences between groups have persisted. The City consistently has had a higher rate when compared to both Virginia and the U.S. The County has experienced lower rates, although they rose throughout the last decade. When examining infant mortality stratified by race, we see the same phenomenon in the City and County as is seen in the nation: African-American babies die more frequently than their white counterparts. In our area that rate has also been rising. The mortality rate within the first 28 days of life, the neonatal death rate, declined substantially in the City during the later half of the 1990s; the rate for the County meets the Healthy People 2010 target.

Risk factors for poor health outcomes in infants include low birth weight and lack of adequate prenatal care. Poor circumstances during pregnancy can lead to less than optimal fetal development. These risks can be reduced by improved preventive health care before the first pregnancy and adequate pre- and postnatal care for mothers and babies. As pointed out by the World Health Organization (WHO), a good start in life means supporting mothers and young children: the health benefits of early development and education last a life time. About eight percent of babies in the area are born at an unhealthy low birth weight. Sixty percent of women in the City and County receive the recommended number of 10 or more prenatal visits, leaving room to increase visits for pregnant mothers with the hope of improving both maternal and infant health.

Babies born to teen mothers are more likely to be born prematurely and at low birth weight. These children are at greater risk of child maltreatment and of living in poverty. Girls born to teen mothers are more likely to become teen mothers than girls born to older mothers. According to the WHO, the greater the length of time that people live in disadvantaged circumstances, the more likely they are to suffer from a range of health problems. The County consistently meets the Healthy People 2010 target for the rate of teen pregnancy among females ages 15 to 17 years; however, the overall teen pregnancy rate (ages 10-19 years) in the City appears to be climbing in more recent years.

Public health studies have shown a correlation between maternal education and infant health as well as improvements in infant health when maternal educational status improves. In the U.S., babies born to mothers with less than a high school education are at greater risk of living in poverty. The proportion of births to mothers in the area with less than a high school education was about the same is 2005 as 2002; it is nearly 20 percent in the City, higher than Virginia as a whole.

Causes of Death

Mortality Rates

Mortality surveillance is a routine public health activity, and death statistics provide some of the most reliable estimates because of the breadth of vital statistics surveillance. Trends in mortality over time between localities and between different subsets of the population can be useful in assessing health status. Locally, we can use mortality data to observe whether there are health disparities between races overall as well as for specific diseases.

Within TJHD, overall race and age-adjusted mortality declined between 2001 and 2004 for both whites and African-Americans; however, the rate among African-American residents is higher than that of white residents and higher than African-Americans in Virginia (Figure 73).

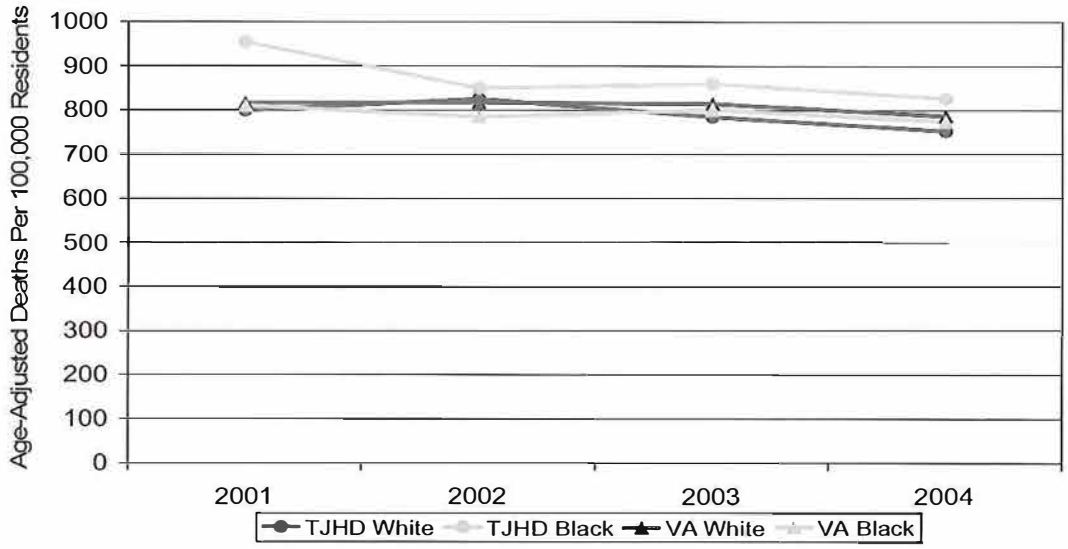


Figure 73. Age- and race-adjusted mortality, Thomas Jefferson Health District (TJHD) and Virginia, 2001 – 2004. Source: Center for Health Statistics, Virginia Department of Health.

Leading Causes of Death

According to the Virginia Center for Health Statistics, the five leading causes of death in Virginia and in TJHD in 2005 were, in order: heart disease, cancer, stroke, chronic respiratory disease, and unintentional injuries. This parallels what is seen nationally. According to the CDC, when we examine the underlying causes of death, however, the top three causes are behavioral risk factors: tobacco use, the combination of poor diet and inactivity, and alcohol consumption (Figure 74).

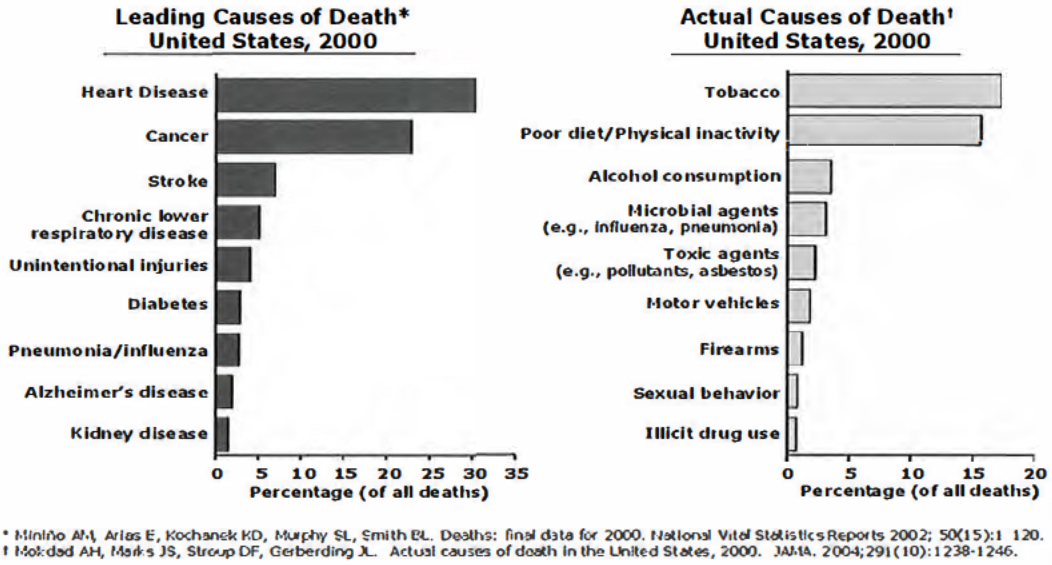


Figure 74. Leading and actual (underlying) causes of death, United States, 2004.

Table 13 shows that the sixth through tenth leading causes of death in TJHD are Alzheimer's disease, pneumonia and influenza, diabetes, kidney disease, and septicemia (serious bacterial infections of the blood).

	TJHD	Virginia
6th cause of death	Alzheimer's Disease	Diabetes
7th cause of death	Pneumonia and Influenza	Alzheimer's disease
8th cause of death	Diabetes	Pneumonia and influenza
9th cause of death	Kidney Disease	Kidney disease
10th cause of death	Septicemia	Septicemia

Table 13. Leading causes of death, numbers six through ten, Thomas Health District (TJHD) and Virginia, 2005. Source: Center for Health Statistics, Virginia Department of Health.

Cardiovascular Disease Mortality

As reported by VDH in the 2006 Comprehensive Chronic Disease Data Report, cardiovascular disease (CVD), comprising heart disease, stroke, hypertension, and circulatory system diseases, accounts for 34.5 percent of deaths in Virginia, more than the next four causes combined. Over the past thirty-five years, U.S. age-adjusted mortality from cardiovascular disease declined 50 percent. This marked reduction reflects advances in the prevention, diagnosis, and treatment of common cardiovascular conditions.[21] Figure 75 shows the CVD mortality rate by age in Virginia. Almost 39 percent of deaths attributed to CVD occurred prematurely, i.e. before the average life expectancy of 77.4 years, indicating a need to continue to take positive steps forward in cardiovascular disease prevention efforts.

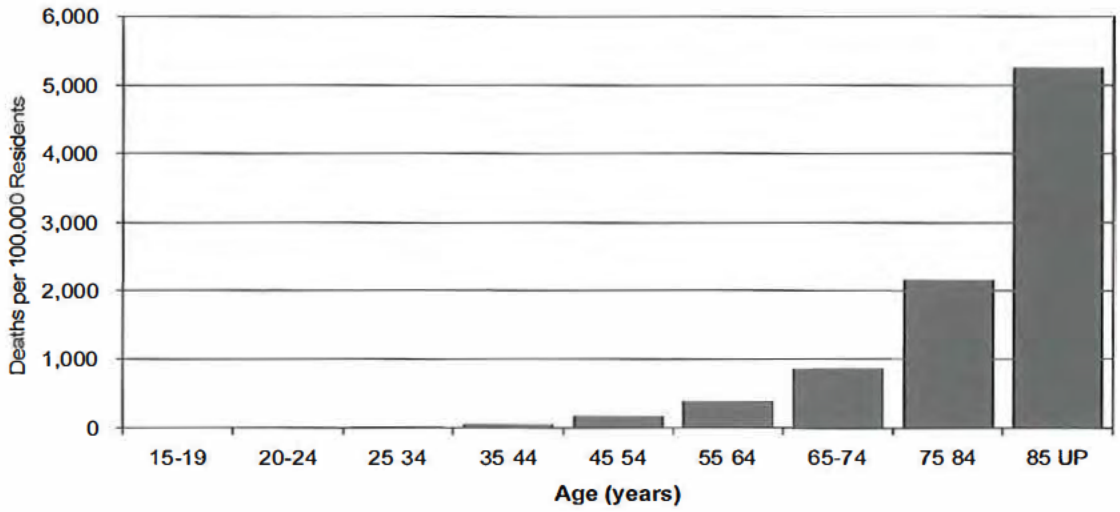


Figure 75. Cardiovascular disease mortality by age, Virginia, 2001 – 2005. Source: 2006 Comprehensive Chronic Disease Data Report, Virginia Department of Health.

Despite being the leading cause of death, mortality attributed to heart disease has declined in the County and the City over recent years (Figure 76). Residents also experienced lower rates of heart-disease-related deaths than residents of Virginia overall.

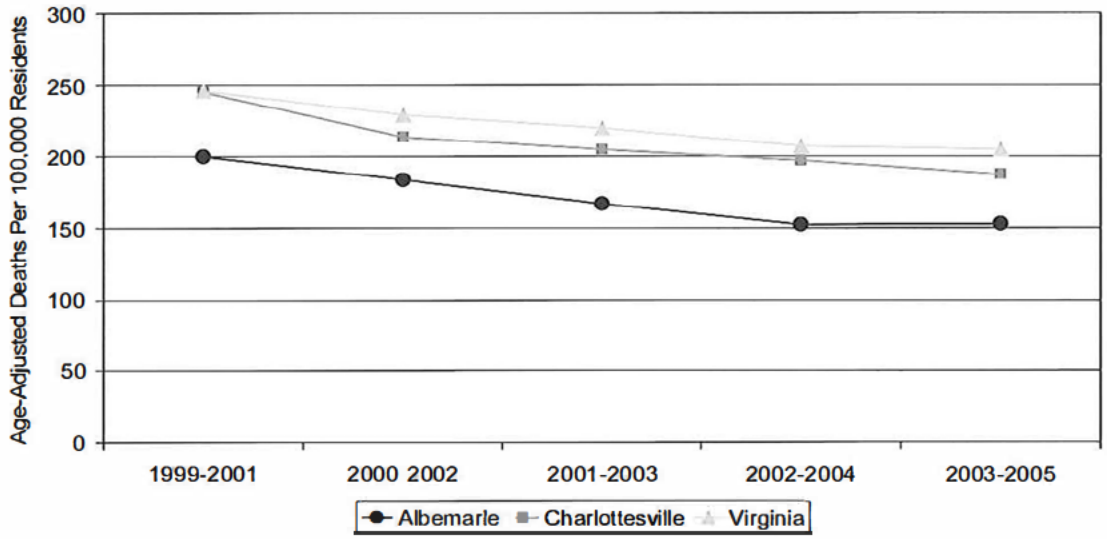


Figure 76. Three-year mean age-adjusted heart disease deaths, Albemarle County, City of Charlottesville and Virginia, 1999 – 2005. Source: Center for Health Statistics, Virginia Department of Health.

While rates are decreasing in both groups, among white and non-white residents in TJHD, non-whites experienced a higher rate of heart-disease-related deaths (Figure 77). Strategies that can be employed to reduce cardiovascular disease include reducing tobacco use, lowering blood cholesterol levels, increasing physical activity, reducing obesity, and controlling hypertension and diabetes. Additionally, according to the WHO, social and psychological circumstances can cause long-term stress that affect the cardiovascular system. In stressful situations, the human body's hormones and nervous system prepare it to deal with an immediate physical threat by triggering the fight or flight response: raising the heart rate, mobilizing stored energy, diverting blood to muscles and increasing alertness. Turning on this stress response diverts energy and resources away from many physiological processes important to long-term health, and this adversely affects the cardiovascular system.[22]

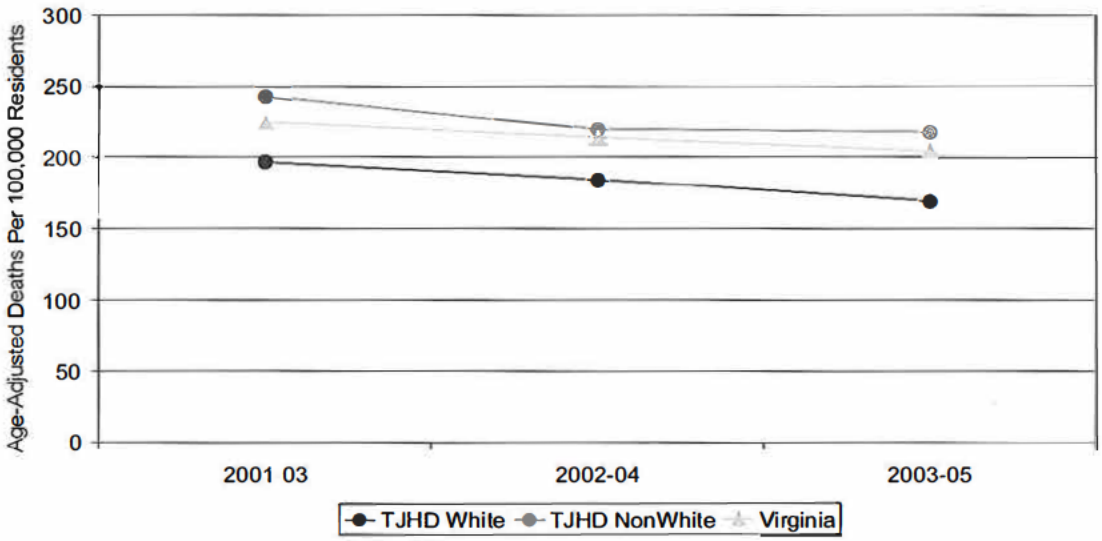


Figure 77. Three-year mean heart disease deaths by race, Thomas Jefferson Health District (TJHD) and Virginia, 2001 2005. Source: Center for Health Statistics, Virginia Department of Health.

The stroke-related death rate declined between 1999 and 2005 in both the County and City; by 2005 it was comparable to the rate of all Virginians (Figure 78).

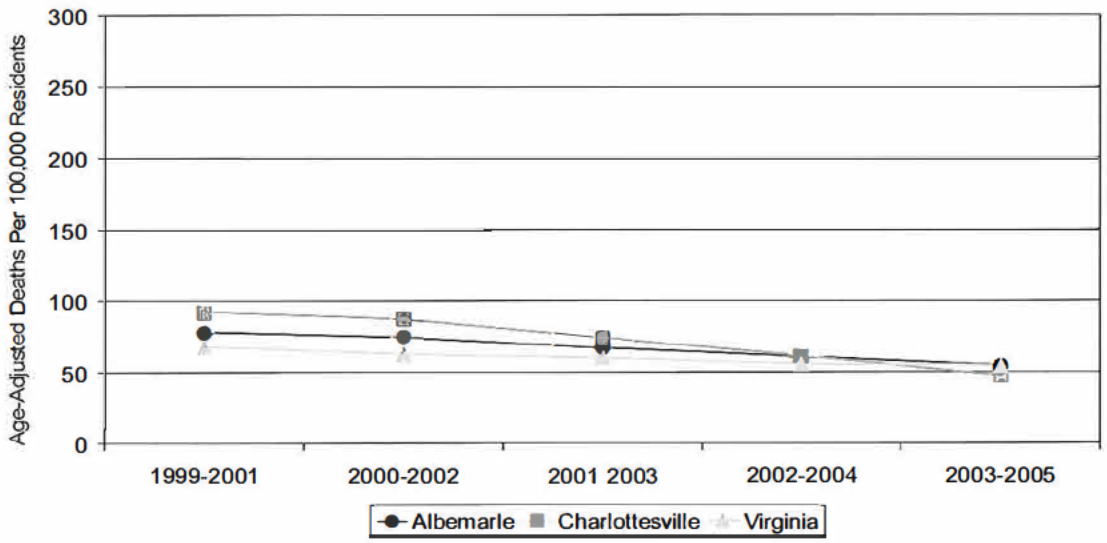


Figure 78. Three-year mean age-adjusted stroke-related deaths, Albemarle County, City of Charlottesville and Virginia, 1999 – 2005. Source: Center for Health Statistics, Virginia Department of Health.

When stratified by race, in TJHD from 2001 to 2005, non white residents suffered stroke-related deaths at a higher rate than Virginians overall, whereas the opposite was true for white residents (Figure 79).

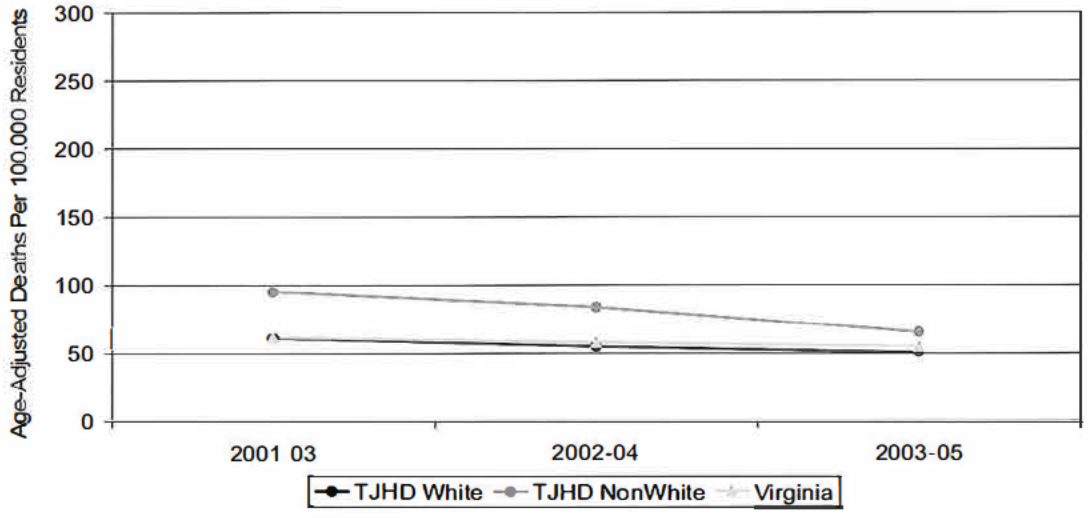


Figure 79. Three-year mean stroke-related deaths by race, Thomas Jefferson Health District (TJHD) and Virginia, 2001 – 2005. Source: Center for Health Statistics, Virginia Department of Health.

Cancer-Related Deaths

The City experienced a similar cancer-related death rate to Virginia and remained at a steady level between 1999 and 2005. The County rate decreased and was lower (Figure 80).

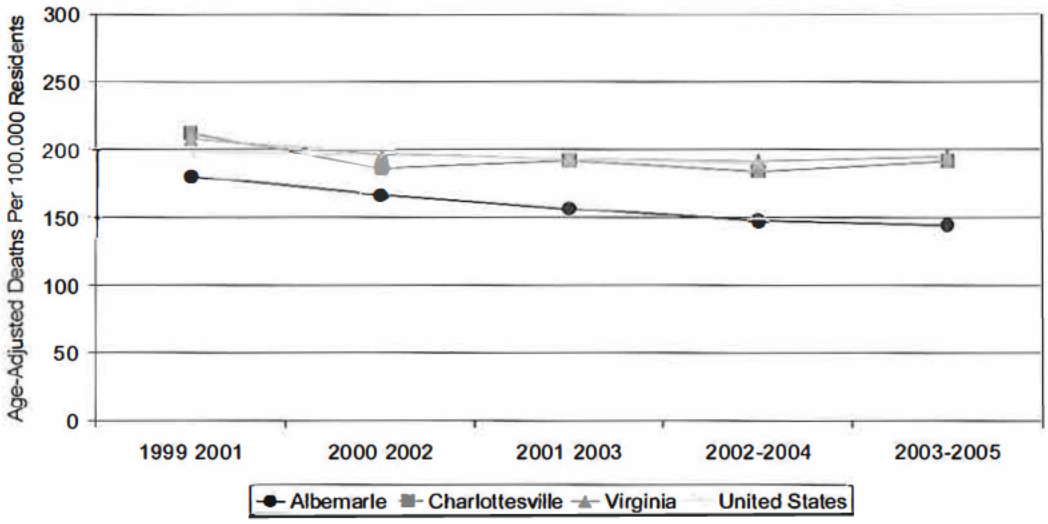


Figure 80. Three-year mean age-adjusted cancer-related deaths, Albemarle County, City of Charlottesville, Virginia, and the U.S., 1999 – 2005. Note: Data for 2005 were not yet available for the U.S. Source: Center for Health Statistics, Virginia Department of Health.

Cancer-related mortality rates among African-American residents of Charlottesville-Albemarle decreased between 1996 and 2004 to a level similar to that of white residents, and to a much lower rate than African-Americans in Virginia overall (Figure 81).

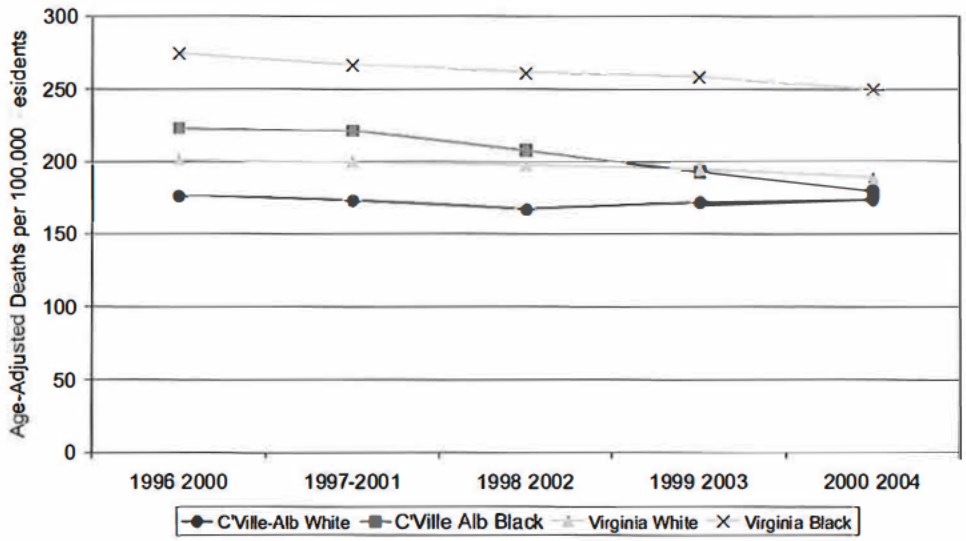


Figure 81. Five-year mean cancer-related deaths by race, Charlottesville-Albemarle and Virginia, 1996-2004. Source: Center for Health Statistics, Virginia Department of Health.

Chronic Lower Respiratory Disease Mortality

Mortality rates attributed to lower respiratory disease (chronic obstructive pulmonary disease and asthma) are similar in the County, City, and Virginia; however, the rate in the City crept up slightly between 1999 and 2005 (Figure 82).

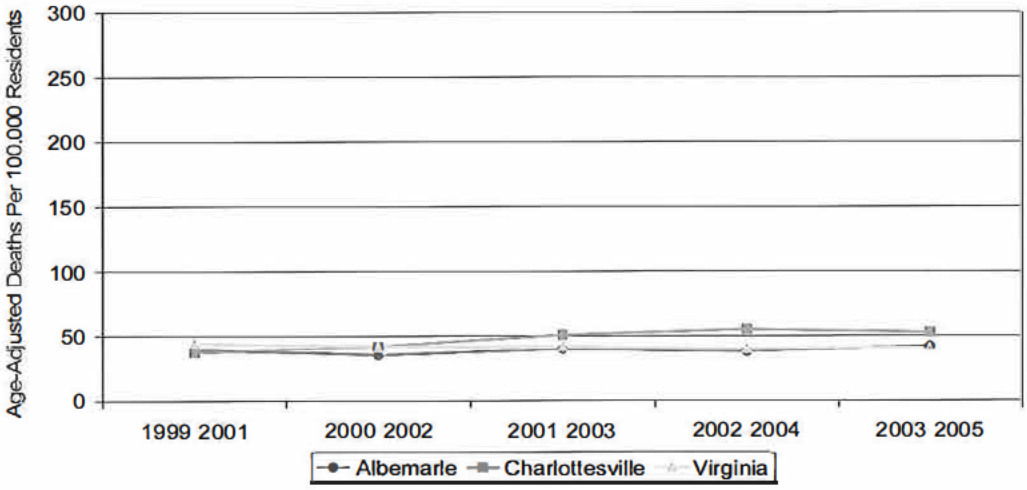


Figure 82. Three-year mean age-adjusted chronic lower respiratory disease (chronic obstructive pulmonary disease and asthma) deaths, Albemarle County, City of Charlottesville and Virginia, 1999 – 2005. Source: Center for Health Statistics, Virginia Department of Health.

White residents of TJHD experienced a higher rate of lower respiratory disease when compared to non-white residents (Figure 83). The rate also exceeded that of Virginia overall. Reducing tobacco use is an important strategy in reducing lower respiratory disease.

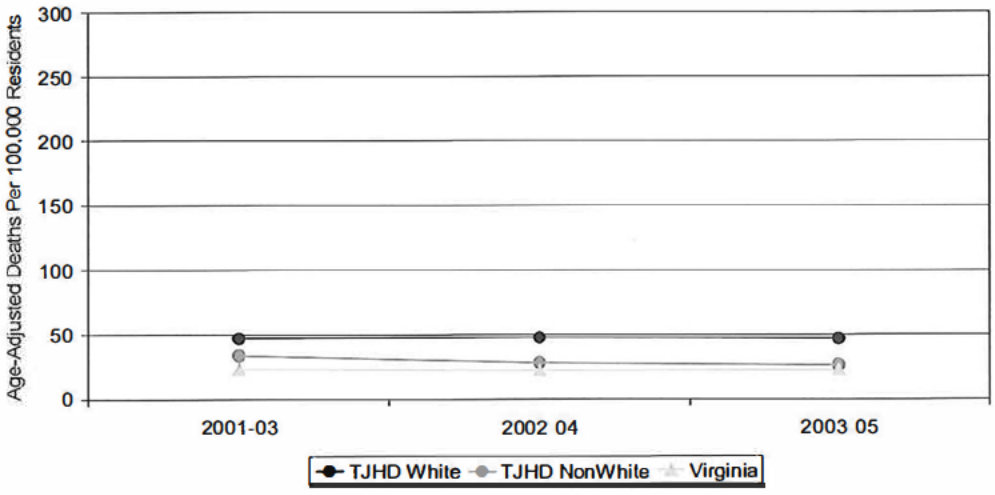


Figure 83. Three-year mean chronic obstructive pulmonary disease (COPD) deaths by race, Thomas Jefferson Health District (TJHD) and Virginia, 2001 – 2005. Source: Center for Health Statistics, Virginia Department of Health.

Unintentional Injury-Related Deaths

The mortality rate for unintentional injuries was largely the same for the County, City, and Virginia between 1999 and 2005; however, the rate for the County increased slightly over that time (Figure 84).

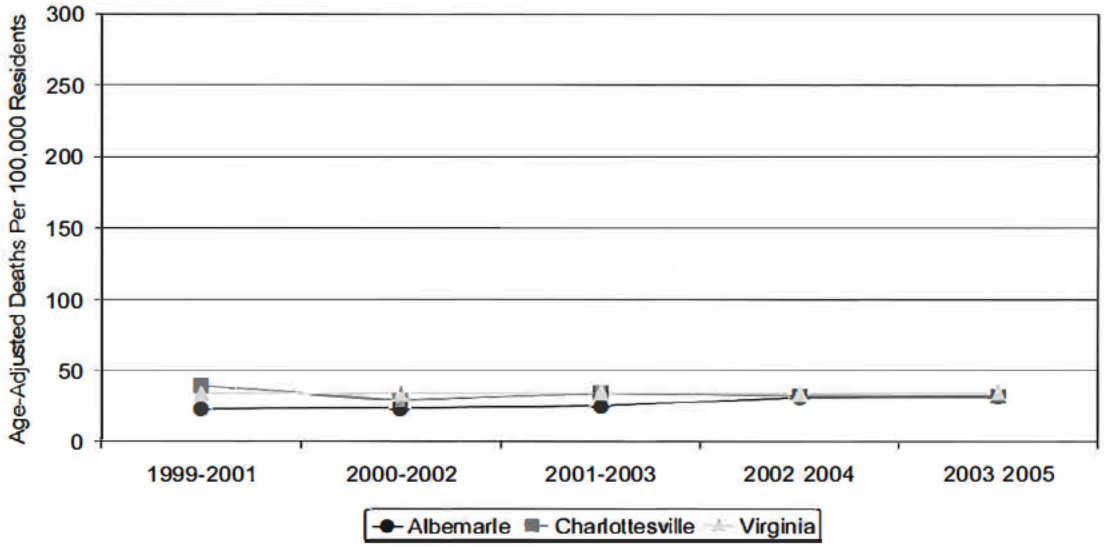


Figure 84. Three-year mean age-adjusted unintentional-injury-related deaths, Albemarle County, City of Charlottesville and Virginia, 1999 – 2005. Source: Center for Health Statistics, Virginia Department of Health.

The rate of death attributable to unintentional injuries does not appear to differ by race in TJHD (Figure 85).

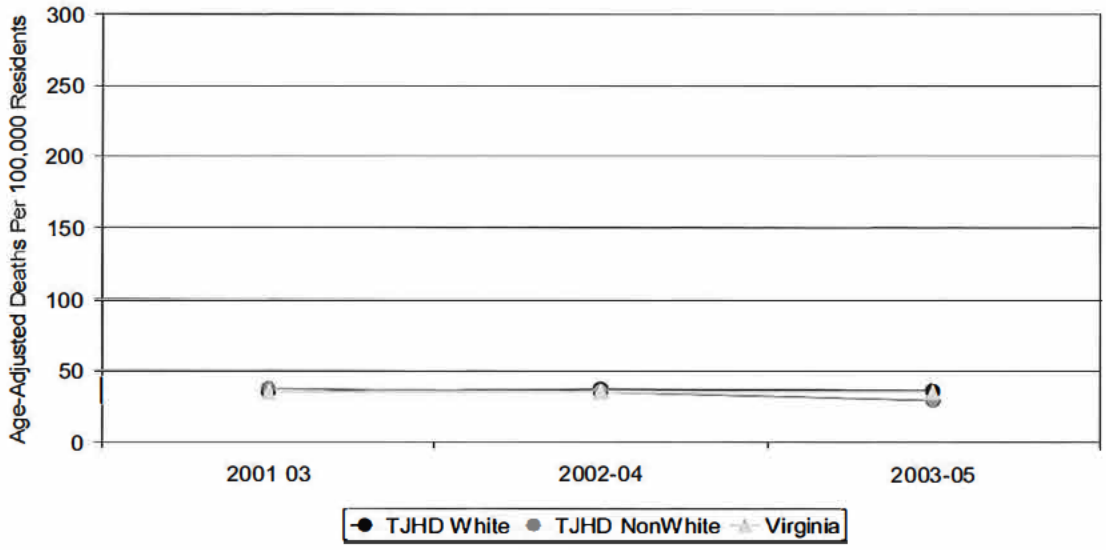


Figure 85. Three-year mean unintentional-injury-related deaths by race, Thomas Jefferson Health District (TJHD) and Virginia, 2001 – 2005. Source: Center for Health Statistics, Virginia Department of Health.

Diabetes-Related Deaths

The age-adjusted mortality rate due to diabetes is very similar in the County, City, and Virginia overall, with the County experiencing the lowest rate (Figure 86).

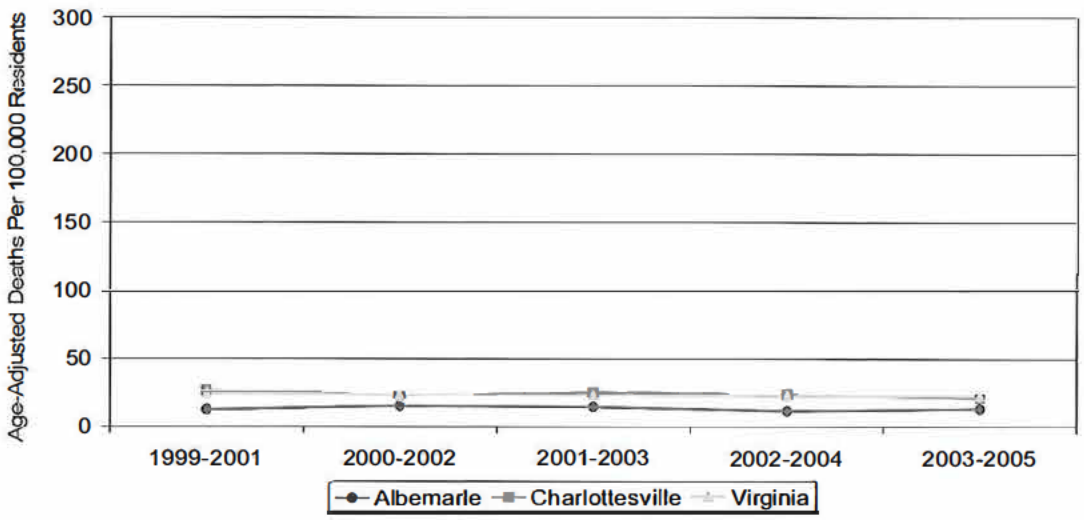


Figure 86. Three-year mean age-adjusted diabetes-related deaths, Albemarle County, City of Charlottesville and Virginia, 1999 – 2005. Source: Center for Health Statistics, Virginia Department of Health.

The mortality rates for diabetes stratified by race are similar in TJHD, with that of non-white residents being slightly higher (Figure 87). Strategies for reducing diabetes include increasing physical activity and decreasing obesity.

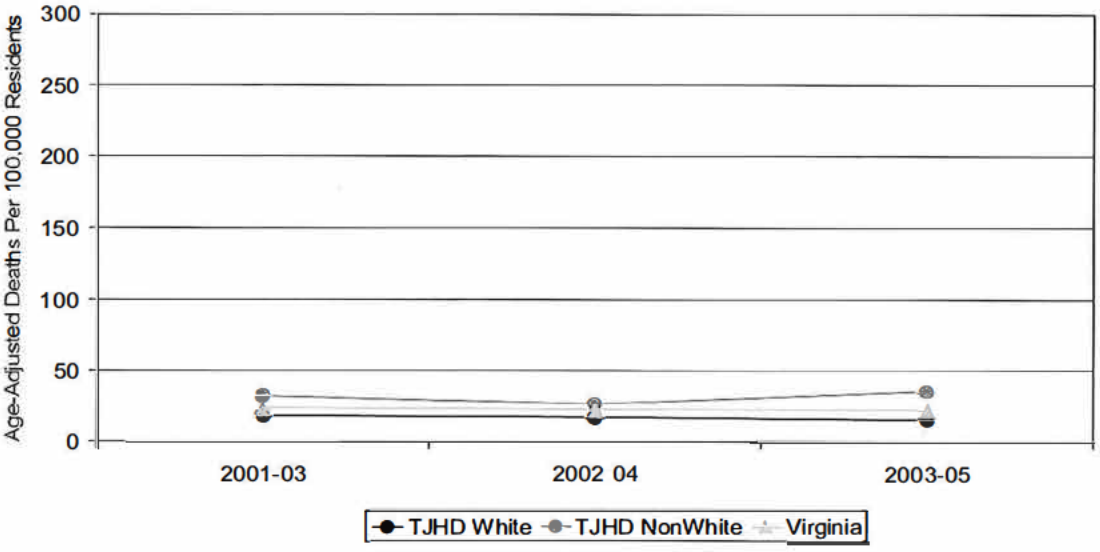


Figure 87. Three-year mean diabetes-related deaths by race, Thomas Jefferson Health District (TJHD) and Virginia, 2001 – 2005. Source: Center for Health Statistics, Virginia Department of Health.

Leading Causes of Death by Age Group

Table 14 shows the five leading causes of death by age group for Virginians during the period of 1999 2004. Four causes not seen by the population as a whole emerge among persons older than one year old: congenital anomalies, homicide, suicide, and HIV.

Age (years)	Cause	Percent of Deaths Per Age Group
< 1	Congenital anomalies	22 %
	Short gestation	15 %
	SIDS	10 %
	Maternal pregnancy complications	6 %
	Placenta, cord, or membranes complications	4 %
1 14	Unintentional injuries	32 %
	Cancer	13 %
	Congenital anomalies	8 %
	Homicide	7 %
	Heart disease	5 %
15 34	Unintentional Injuries	37 %
	Homicide	13 %
	Suicide	13 %
	Cancer	8 %
	Heart Disease	7 %
35 44	Cancer	20 %
	Unintentional Injuries	18 %
	Heart Disease	16 %
	Suicide	8 %
	HIV	8 %
45 54	Cancer	31 %
	Heart Disease	23 %
	Unintentional Injuries	8 %
	Stroke	4 %
	Suicide	4 %
55 64	Cancer	38 %
	Heart Disease	25 %
	Chronic Lower Respiratory Disease	4 %
	Stroke	4 %
	Diabetes	4 %
> 65	Heart Disease	29 %
	Cancer	22 %
	Stroke	9 %
	Chronic Lower Respiratory Disease	6 %
	Influenza and Pneumonia	3 %

Table 14. Five leading causes of death by age group, Virginia, 1999 – 2004. Source: National Vital Statistics System, Office of Statistics and Programming, National Center for Health Statistics, Centers for Disease Control and Prevention.

When stratified by race, the following important differences are seen:

- Although congenital anomalies are the leading cause of death among infants less than one year of age overall, among African-Americans, the leading cause of death is short gestation.

- Among African-American one to 14 year olds, the second (versus fourth overall) leading cause of death is homicide, which accounts for 12 percent of the deaths (versus seven percent overall).

- In the 15 to 34 year old age group, homicide (second overall) is the leading cause of death among African-Americans, accounting for 28 percent of the deaths, and suicide is the second (third overall) leading cause of death among whites, accounting for 16 percent of the deaths.

- In the 35 to 44 year old age group, African-Americans die from heart disease and HIV infection more often. Liver disease is the fifth leading cause among whites.

- In the 45 to 54 year old age group, deaths to African-Americans are caused by stroke more often than unintentional injury and by HIV more than suicide. Among whites, suicide and liver disease displace stroke from the top five causes of death.

- In the 55 to 64 year old age group, stroke replaces chronic lower respiratory disease as the third leading cause of death for African-Americans, followed by diabetes and kidney disease.

- Among African-Americans aged 65 years and older, chronic lower respiratory disease as well as influenza and pneumonia are replaced by diabetes and kidney disease as the fourth and fifth leading causes of death.

CAUSES OF DEATH SUMMARY

Within TJHD, overall race and age-adjusted mortality declined between 2001 and 2004 for both whites and African-Americans; however, the rate among African-American residents is higher than that of white residents and higher than African-Americans in Virginia.

Cardiovascular disease, cancer, chronic lower respiratory disease, and unintentional injuries are the leading causes of death at the local, state and national level. Tobacco, poor diet, physical inactivity and alcohol consumption are significant behavioral factors that lead to premature death. Although they remain the top three causes of mortality, deaths due to heart disease, cancer, and stroke have declined since 1999 in the County and City. Rates are higher among non-white residents compared to white residents for heart disease and stroke. Strategies that can be employed to reduce cardiovascular disease include reducing tobacco use, lowering blood cholesterol levels, increasing physical activity, reducing obesity, controlling hypertension and diabetes, and improving social and psychological circumstances to reduce long-term stress. The mortality rate from chronic lower respiratory disease (chronic obstructive pulmonary disease and asthma) has risen in the City, while remaining steady in the County and Virginia; it is higher among white residents compared to non-white residents. Reducing tobacco use is an important strategy in reducing lower respiratory disease.

Intentional injury is an important cause of mortality among 15 to 54 year olds. Homicide is among the five leading causes of death for persons aged one to 34 years in Virginia and is among the two leading causes of death (first among 15 to 35 year olds) among African-Americans in this age group. Suicide is among the five leading causes of death for persons aged 15 to 54 years in Virginia. Deaths attributable to HIV infection particularly affect African-Americans in the 35 to 54 year old age group, ranking it among the five leading causes of death.

Cancer

Cancer is the second leading cause of death overall in the U.S. and Virginia and the leading cause among 35 to 64 year olds in Virginia. Cancer is not one disease, but rather a number of different diseases. The major risk factors for cancer include a person's age, sex, family medical history, and smoking. Smoking alone causes one-third of all cancer deaths. Different kinds of cancer have different risk factors. Some of the major risk factors include the following:[23]

- Cancers of the lung, mouth, larynx, bladder, kidney, cervix, esophagus, and pancreas are related to tobacco use.

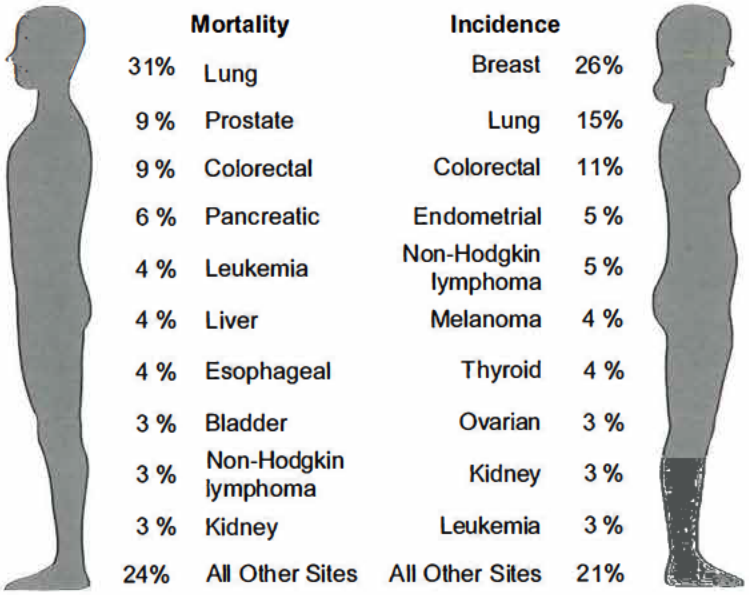
- Skin cancer is related to unprotected exposure to strong sunlight.

- Breast cancer risk factors include age, changes in hormone levels throughout life, obesity, and physical activity.

- While all men are at risk for prostate cancer, age, race, and diet increase the chances of developing the disease.

Cancer incidence and mortality differ by cancer type as do available screening and treatment. Cancer incidence and mortality also differ by gender. Figure 88 depicts some of these differences in the U.S.

Incidence		Mortality	
Prostate	29%	31%	Lung
Lung	15%	9 %	Prostate
Colorectal	10%	9 %	Colorectal
Bladder	7 %	6 %	Pancreatic
Non-Hodgkin lymphoma	4 %	4 %	Leukemia
Melanoma	4 %	4 %	Liver
Kidney	4 %	4 %	Esophageal
Leukemia	3 %	3 %	Bladder
Oral cavity	3 %	3 %	Non-Hodgkin lymphoma
Pancreatic	2 %	3 %	Kidney
All Other Sites	19%	24%	All Other Sites



Incidence		Mortality	
Breast	26%	26%	Lung
Lung	15%	15%	Breast
Colorectal	11%	10%	Colorectal
Endometrial	5 %	6 %	Pancreatic
Non-Hodgkin lymphoma	5 %	6 %	Ovarian
Melanoma	4 %	4 %	Leukemia
Thyroid	4 %	3 %	Non-Hodgkin lymphoma
Ovarian	3 %	3 %	Endometrial
Kidney	3 %	2 %	Brain
Leukemia	3 %	2 %	Liver
All Other Sites	21%	23%	All Other Sites

Figure 88. Distribution of estimated cancer incidence and mortality by site and gender, U.S., 2007. Source: American Cancer Society.

Despite prostate and breast cancer being the most incident cancers for men and women, respectively, lung cancer accounts for the most deaths among both sexes. Lung and colorectal cancers constitute the second and third most incident cancers, respectively, for both men and women. Some of the more aggressive types of cancers include pancreatic, liver, and esophageal cancer among men and pancreatic, brain, and liver cancer among women.

Incidence rates can reflect both increased screening as well as disease patterns. The combined incidence of all cancers remained stable in the City and County from 1999 to 2003; the age-adjusted incidence was slightly higher in the County (Figure 89). When stratified by race, from 2000 to 2004, incidence among African- Americans was also slightly higher (Figure 90). As was shown in the previous section, however, the cancer-related death rate among African-Americans in the area has decreased.

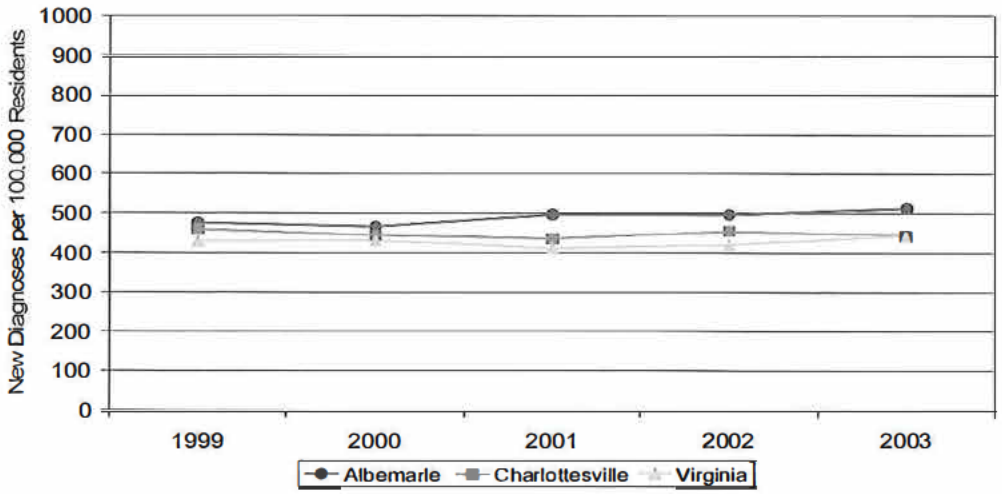


Figure 89. Combined incidence of all cancers per 100,000 residents, Albemarle County, City of Charlottesville and Virginia, 1999 2003. Source: Virginia Cancer Registry.

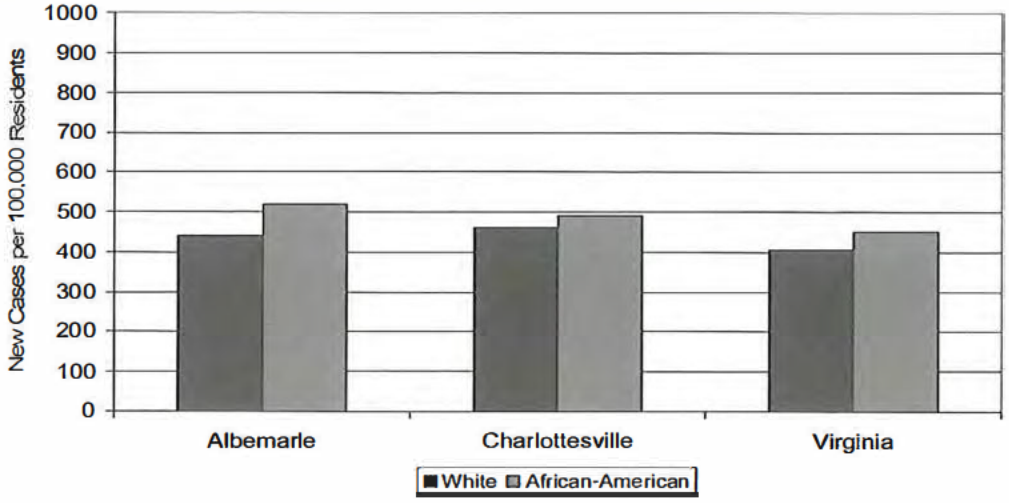


Figure 90. Incidence of all cancers per 100,000 residents by race, Albemarle County, City of Charlottesville and Virginia, 2000 – 2004. Source: Virginia Cancer Registry.

Cancer staging refers to how much the cancer has spread when the tumor is diagnosed. In general, the earlier the stage in which a cancer is diagnosed, the more likely a patient receives early treatment and consequently survives longer. Table 15 defines the different levels of cancer staging.

Stage	Description
Local	Cancer is contained to where it started
Regional	Cancer has spread to nearby organs, tissues and/or lymph nodes
Distant	Cancer has spread to distant organs, tissues, or lymph nodes
Unstaged	Not enough information at diagnosis

Table 15. Description of location of cancer by stage. Source: National Cancer Institute.

In the City and County, a greater proportion of breast and prostate cancers were diagnosed while the tumor remained localized (Figure 91). Screening tools for these cancers are used routinely, are fairly noninvasive, and are often covered by health insurance. Despite the availability of screening tools, colorectal cancers have been detected less frequently at the local stage. This may be due in part to the invasive nature of the screening tool, often a colonoscopy, and less comprehensive insurance policies. Lung cancers, for which no screening tool exists, were much less likely to be detected in the local and regional stages.

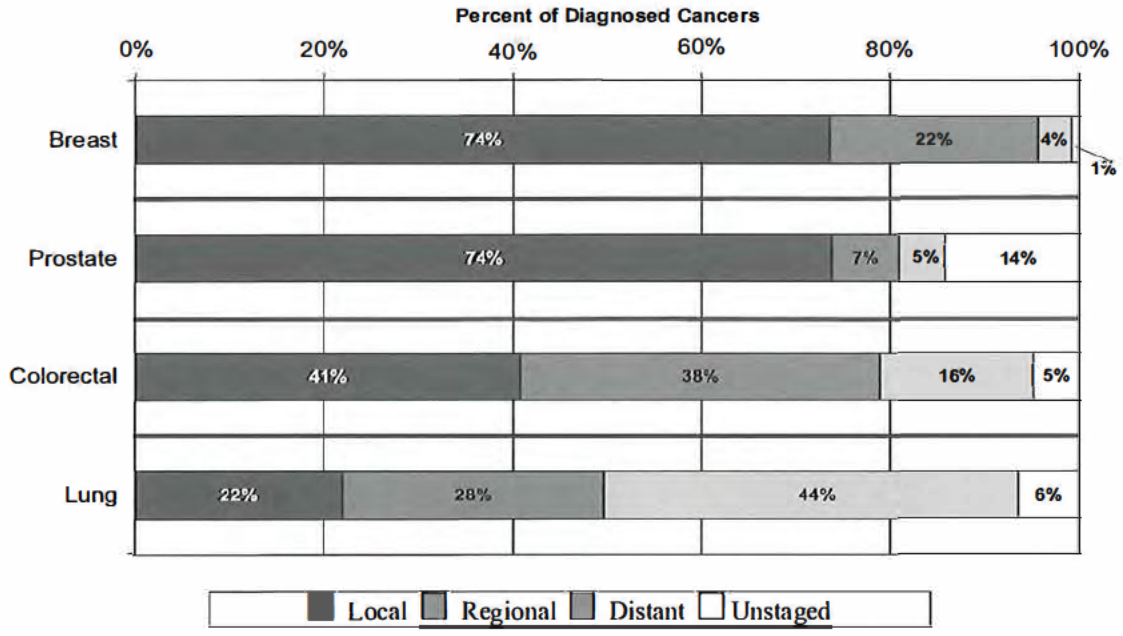


Figure 91. Cancer stage at diagnosis, Charlottesville-Albemarle, 1999 – 2004. Source: Virginia Cancer Registry.

Lung Cancer

Lung cancer incidence in the County and the City remained steady between 1999 and 2003 as shown in Figure 92. Death rates from lung cancer in TJHD, however, declined between 1996 and 2005, and are lower than the U.S. (Figure 93).

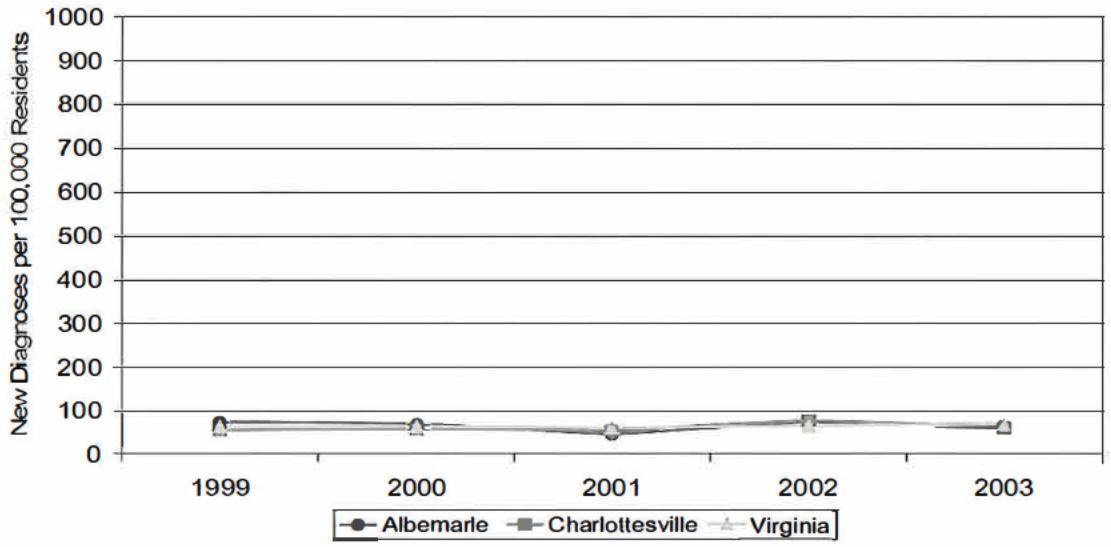


Figure 92. Lung cancer incidence per 100,000 residents, Albemarle County, City of Charlottesville and Virginia, 1999 2003. Source: Virginia Cancer Registry.

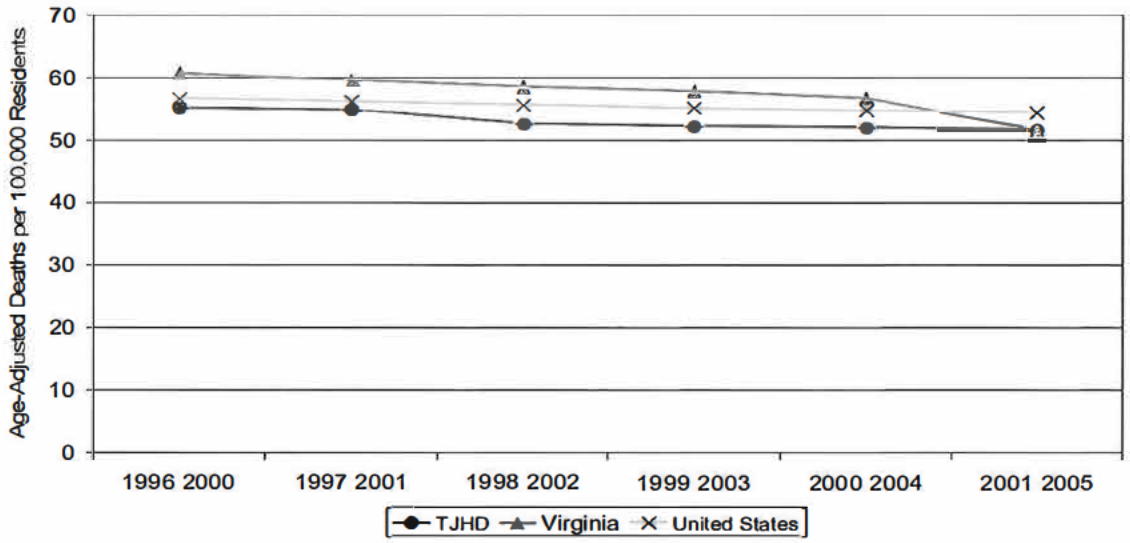


Figure 93. Five-year mean lung cancer mortality per 100,000 residents, Thomas Jefferson Health District (TJHD), Virginia and the U.S., 1996 – 2005. Source: Center for Health Statistics, Virginia Department of Health.

Breast Cancer

Breast cancer incidence has remained fairly steady in the County and Virginia since 1999 and has decreased slightly in the City (Figure 94). Mortality due to breast cancer in TJHD has also remained stable over the last several years (Figure 95).

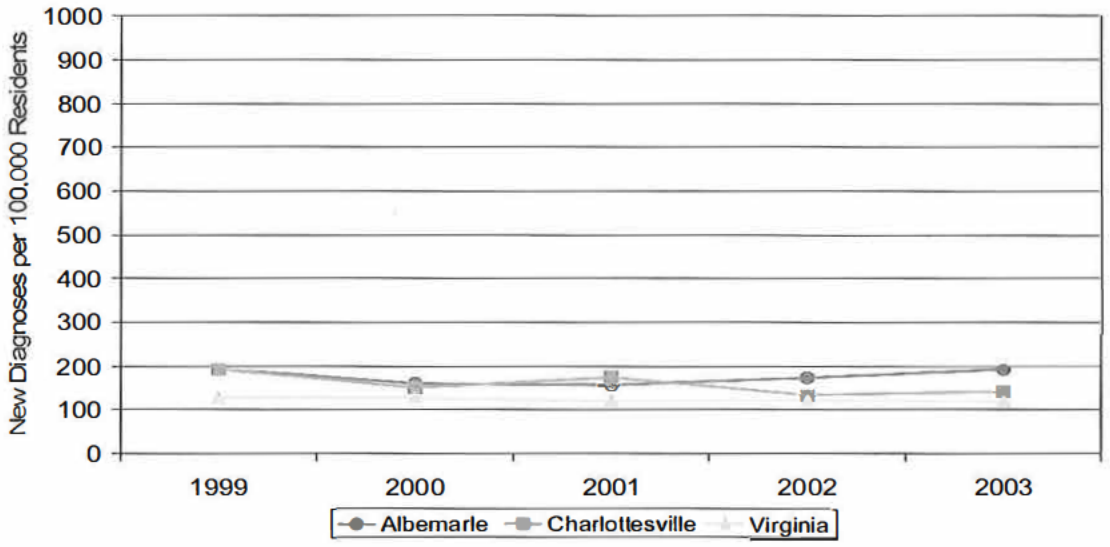


Figure 94. Breast (female) cancer incidence per 100,000 residents, Albemarle County, City of Charlottesville and Virginia, 1999 2003. Source: Virginia Cancer Registry.

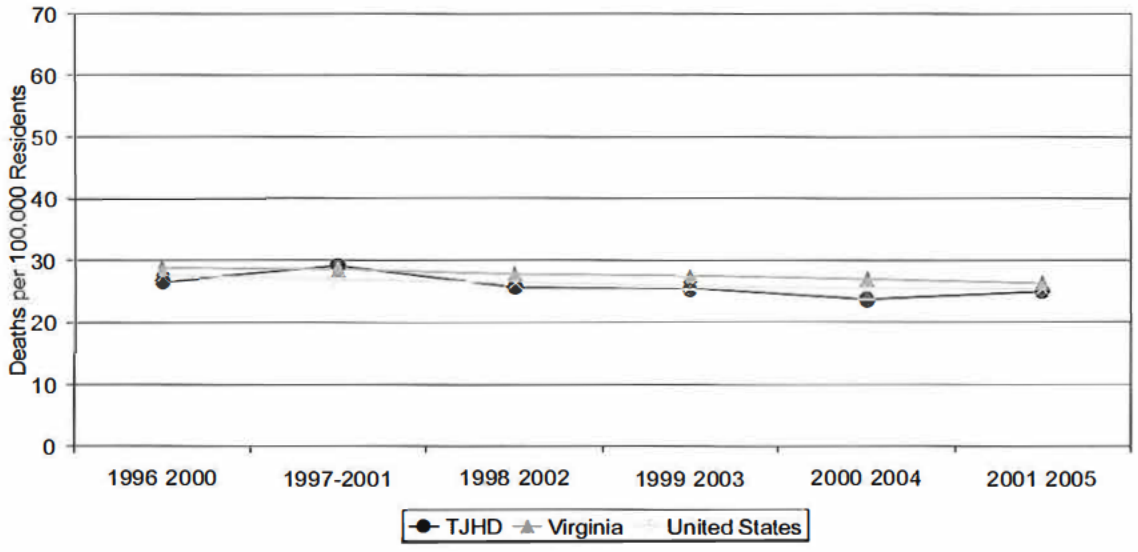


Figure 95. Five-year mean breast (female) cancer mortality per 100,000 residents, Thomas Jefferson Health District (TJHD), Virginia, and the U.S., 1996 – 2005. Source: Center for Health Statistics, Virginia Department of Health.

Prostate Cancer

As shown in Figure 96, the rate of newly diagnosed prostate cancer cases in the County remained consistent between 1999 and 2003. The City rate was higher in 2003 than 1999 and fluctuated during that time period. Prostate cancer mortality, however, decreased between 1996 and 2005 in TJHD (Figure 97).

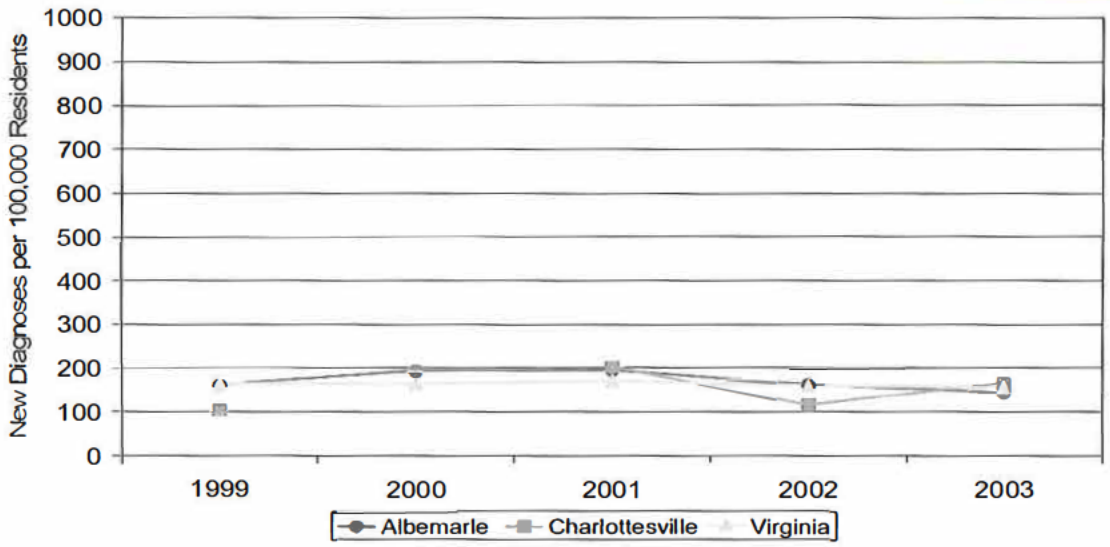


Figure 96. Prostate cancer incidence per 100,000 residents, Albemarle County, City of Charlottesville and Virginia, 1999 – 2003. (Note: Incidence rate not calculated for Charlottesville in 2000 because of low case number.) Source: Virginia Cancer Registry.

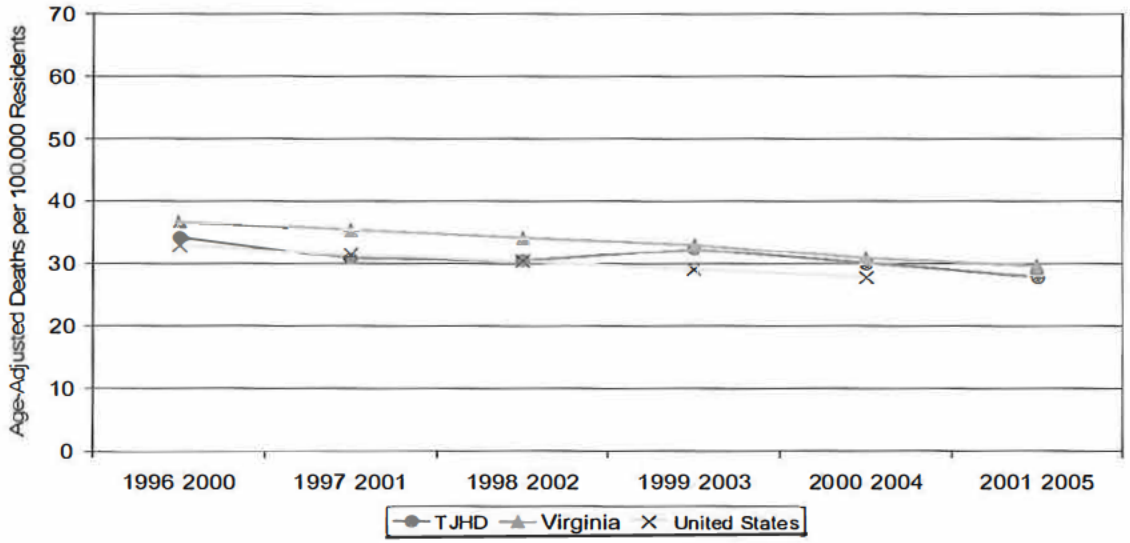


Figure 97. Five-year mean prostate cancer mortality per 100,000 residents, Thomas Jefferson Health District (TJHD), Virginia, and the U.S., 1996 2005. Source: Center for Health Statistics, Virginia Department of Health.

Colorectal Cancer

Colorectal cancer incidence in the County and City and mortality in TJHD has remained largely unchanged in recent years as shown in Figures 98 and 99.

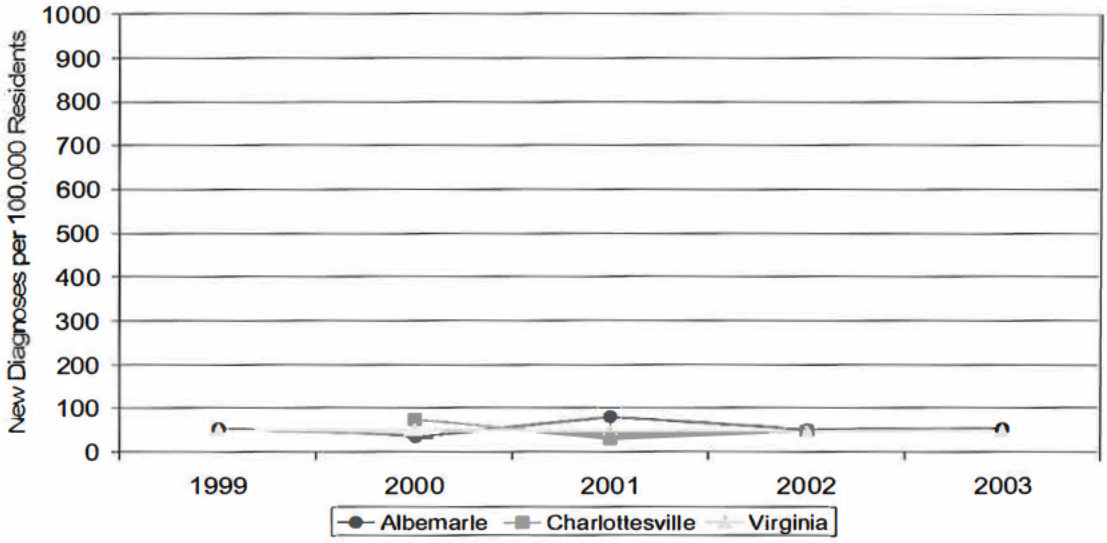


Figure 98. Colorectal cancer incidence per 100,000 residents, Albemarle County, City of Charlottesville and Virginia, 1999 – 2003. (Note: Incidence rate not calculated for Charlottesville in 2000 or 2003 because of low case number.) Source: Virginia Cancer Registry.

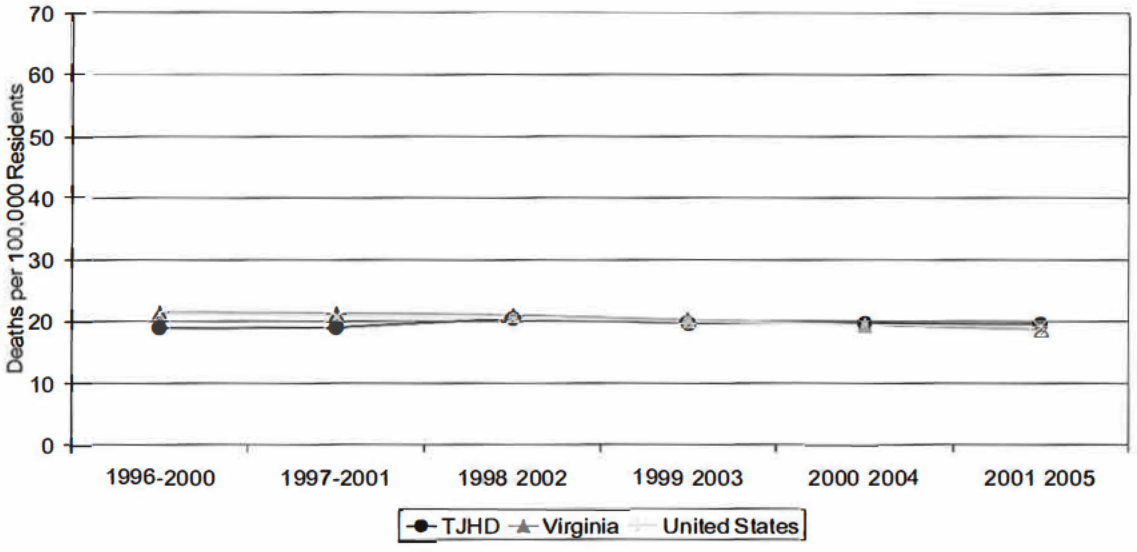


Figure 99. Five-year mean colorectal cancer mortality per 100,000 residents, Thomas Jefferson Health District (TJHD), Virginia, and the U.S., 1996 – 2005. Source: Center for Health Statistics, Virginia Department of Health.

CANCER SUMMARY

Breast and prostate cancer are the types of cancer that occur most often in women and men, respectively, but lung cancer causes the highest percentage of cancer deaths for both genders. Cancers (breast, prostate, and colon) for which screening tests are available tend to be diagnosed at an earlier stage than those without screening tests, resulting in improved survival. Although the incidence of most cancers has remained relatively consistent in Charlottesville and Albemarle, deaths attributable to these cancers have declined in TJHD. When stratified by race, from 2000 to 2004, the combined incidence rate of all cancers was slightly higher among African-Americans than whites. Cancer screening can lead to early diagnosis, which leads to improved survival.

Injury

Unintentional Injury Rates

Injuries, classified as unintentional (accidents) or intentional (suicide and homicide), constitute a significant source of both disability and death across the life spectrum. Unintentional injuries are the leading cause of death among one to 34 year olds in Virginia and the fifth overall leading cause of death. Both the County and City have experienced unintentional-injury-related mortality rates similar to Virginia's rates as shown in Figure 100.

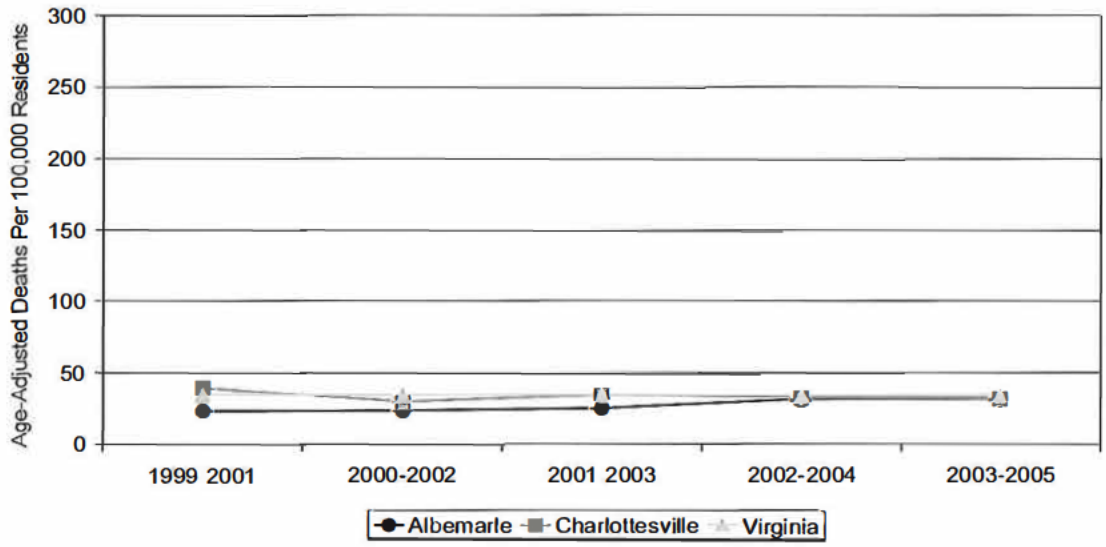


Figure 100. Three-year mean age-adjusted deaths due to unintentional injury per 100,000 residents, Albemarle County, City of Charlottesville and Virginia, 1999 – 2005. Source: Center for Health Statistics, Virginia Department of Health.

Causes of Unintentional Injuries

Forty-five percent of unintentional injury deaths occurring in Charlottesville-Albemarle can be attributed to motor vehicle crashes (Figure 101). As shown in Figure 102, in 1999-2005, Charlottesville-Albemarle experienced lower rates of death from motor vehicle crashes, as well as from suffocation, fires, and unintentional poisoning deaths, than Virginia as a whole.

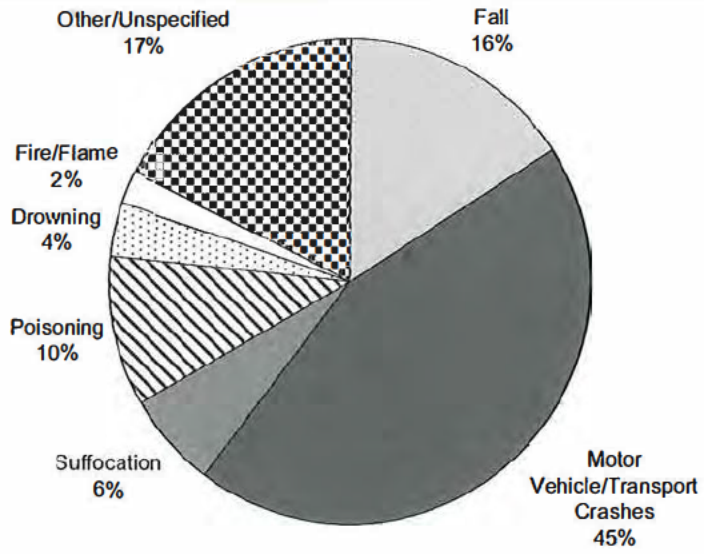


Figure 101. Causes of unintentional injury deaths, Charlottesville-Albemarle, 1999-2005. Source: Virginia Online Injury Reporting System.

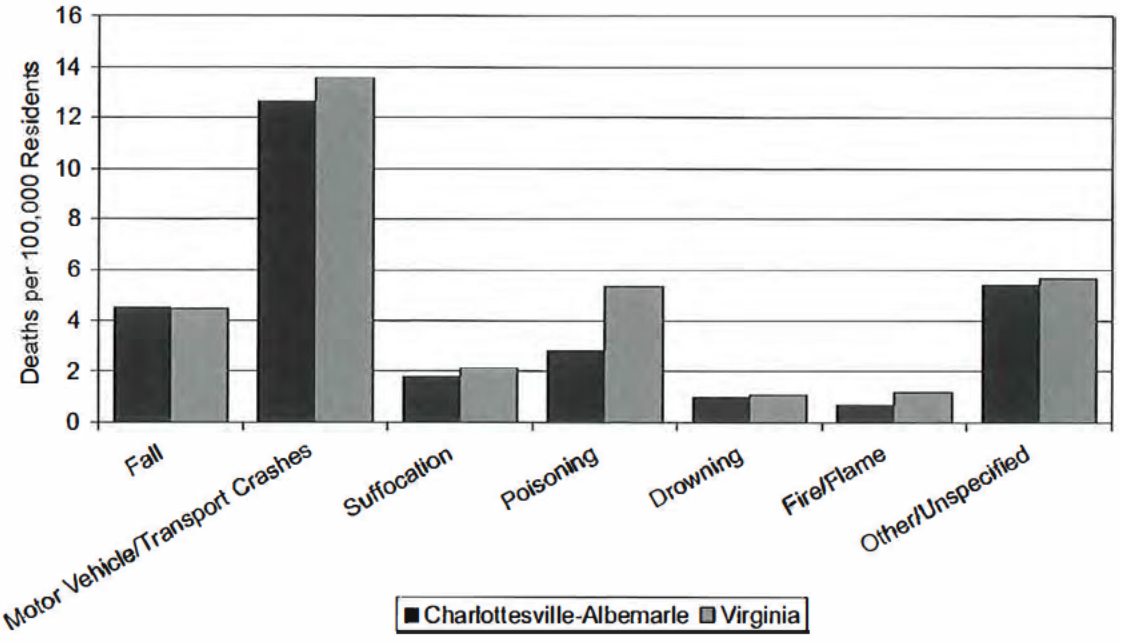


Figure 102. Unintentional injury mortality rate by cause, Charlottesville-Albemarle and Virginia, 1999 2005. Source: Virginia Online Injury Reporting System.

While motor vehicle crashes are the leading cause of unintentional injury deaths, falls are the leading cause of unintentional injury hospitalization for Charlottesville-Albemarle (Figure 103). Motor vehicle crashes and unintentional poisonings account for the second and third leading causes of unintentional injury hospitalizations in the City-County.

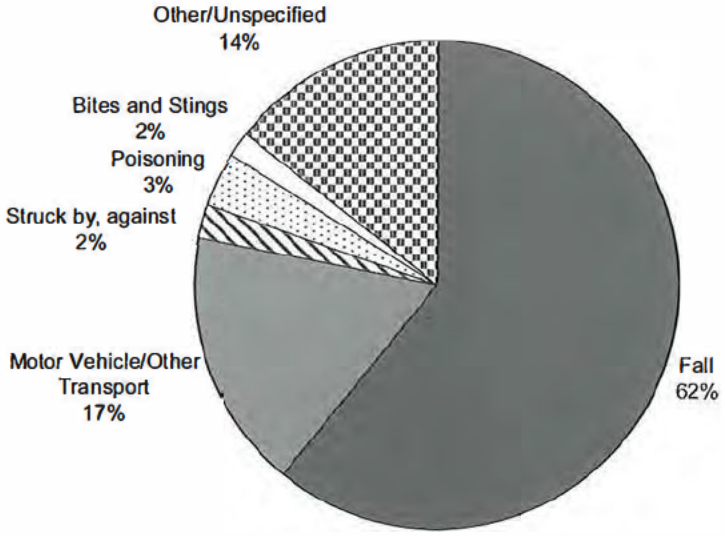


Figure 103. Causes of unintentional injury hospitalizations, Charlottesville-Albemarle, 1999 – 2005. Source: Virginia Online Injury Reporting System.

Table 16 shows cause-specific unintentional injury hospitalizations by age group. When hospitalized due to unintentional injury, children and teenagers are most likely to be hospitalized due to a motor vehicle crash, whereas the majority of hospitalizations of the elderly result from falls.

	0-19 years of age		20-64 years of age		65+ years of age	
	Number	Percent	Number	Percent	Number	Percent
Falls	61	2	398	37	1,315	84
Motor Vehicle/ Other Transport Crashes	109	40	329	30	65	4
Struck by, against	27	10	31	3	11	1
Poisoning	13	5	54	5	34	2
Bites, Stings	7	3	32	3	14	1
Other/Unspecified	57	21	240	22	123	8

Table 16. Number and percent of unintentional injury hospitalizations by age, Charlottesville-Albemarle, 1999 2005. Source: Virginia Online Injury Reporting System.

Motor Vehicle Crashes

Although it is difficult to make conclusions from the data because few fatalities occur in the City and County and there is a tendency of fatalities to cluster, Figure 104 suggests that the rate of motor vehicle crash-related fatalities in the City is consistently lower than Virginia as a whole. The County's percentage in 2004 and 2005 was similar to Virginia's.

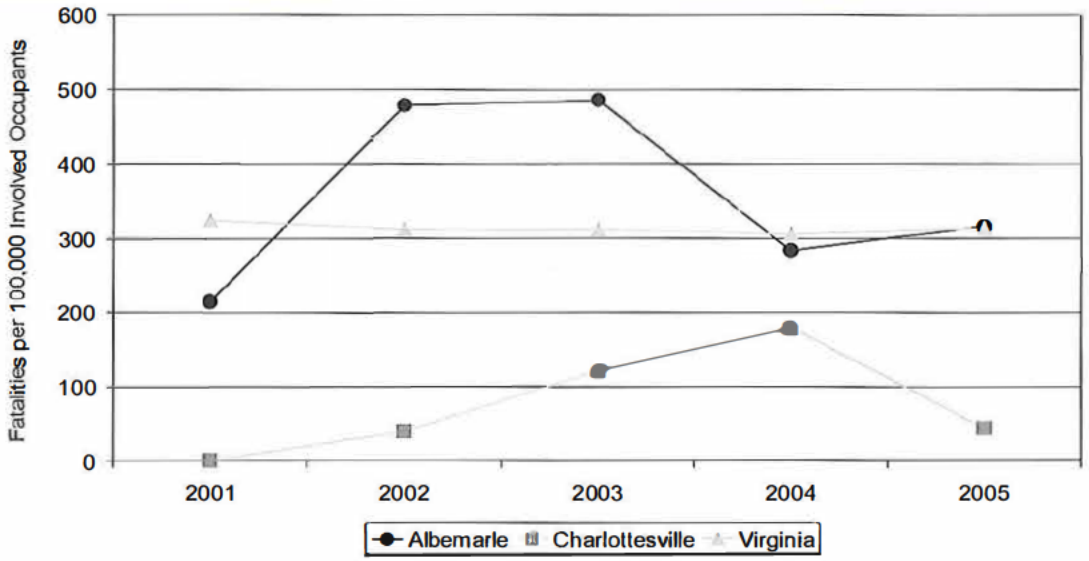


Figure 104. Motor vehicle crash fatality rate per 100,000 occupants by place of occurrence, Albemarle County, City of Charlottesville and Virginia, 2001 2005. Sources: Virginia CODES Database, Department of Motor Vehicles; Virginia Health Information, Virginia Department of Health; and Inova Regional Trauma Center.

As shown in Figure 105, while the number of crashes occurring in the City is small and therefore unstable, alcohol appears to have played a much smaller role in motor vehicle crash deaths in the City than in Virginia. The County's percentage is similar to Virginia, with alcohol being a factor in nearly 40 percent of motor vehicle fatalities. Alcohol was involved in just over 5 percent of all crashes in the City, County and Virginia.

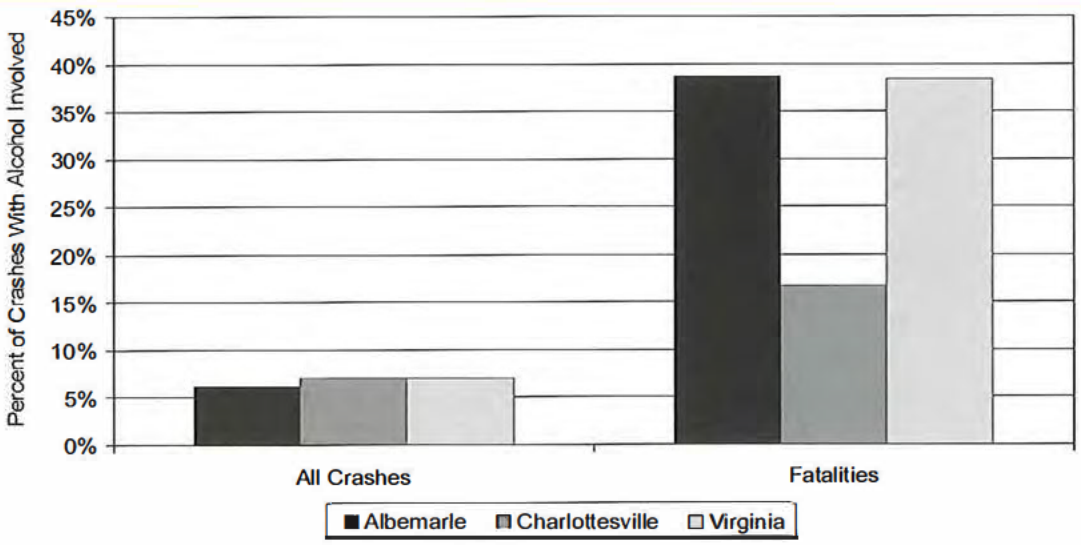


Figure 105. Percent of motor vehicle crashes and fatalities with alcohol involved by place of occurrence, Albemarle County, City of Charlottesville and Virginia, 1999 – 2006. Source: Virginia Traffic Crash Facts, Virginia Department of Motor Vehicles.

Seat Belt and Child Restraint Use

Failure to use safety restraints increases the risk of injury during a motor vehicle crash. As shown in Figure 106, the proportion of front-seat passengers observed to be wearing a seat belt in Virginia over the last decade has gradually approached the national average of 81 percent.

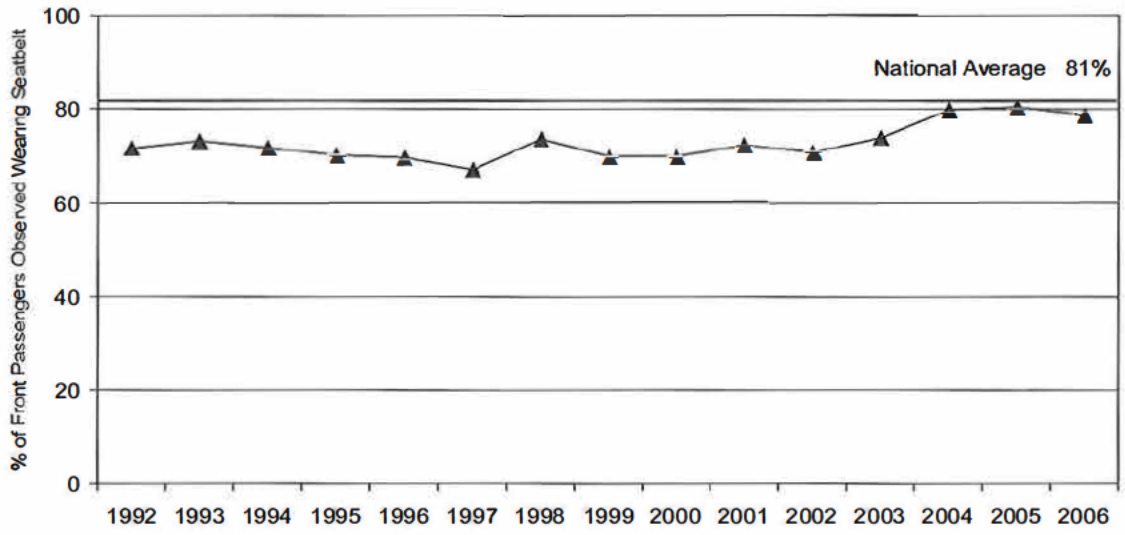


Figure 106. Observed seatbelt usage, Virginia, 1992 2006. Sources: Virginia Transportation Research Council; National Highway Traffic Safety Administration.

Current Virginia law requires child restraint seats for all children ages seven and under. Observational studies of children under the age of four in four Virginia cities, including Charlottesville, show increased total and correct usage of child safety seats between 1997 and 2004 (Figure 107).

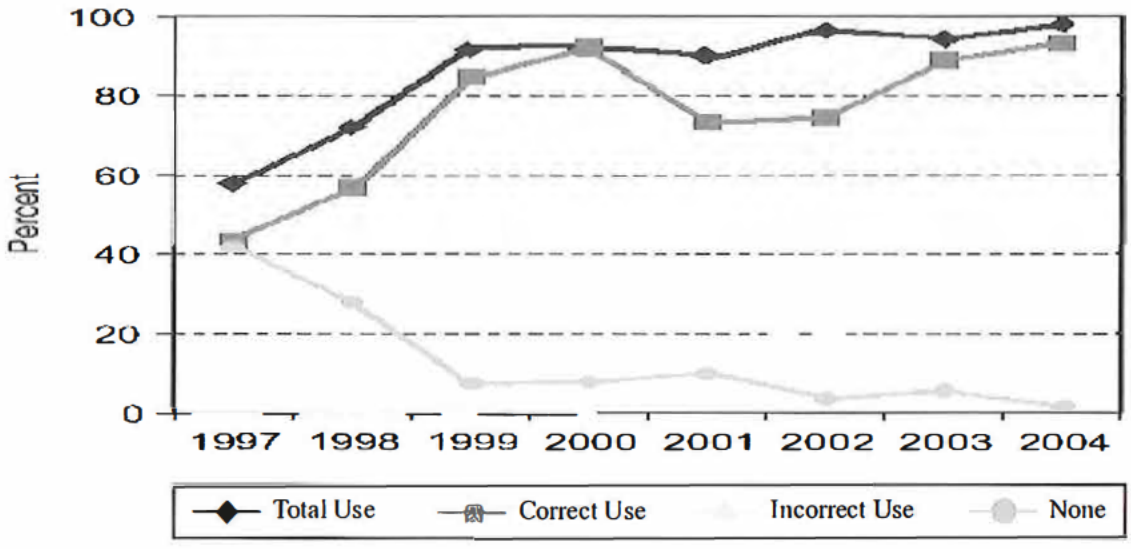


Figure 107. Observed child restraint use in children under age four, City of Charlottesville, Danville, Lynchburg, and Harrisonburg, 1997 2004. Source: Virginia Transportation Research Council.

Children ages four to 16 years of age have also experienced a steady, albeit smaller, increase in the observed use of proper safety restraints (Figure 108).

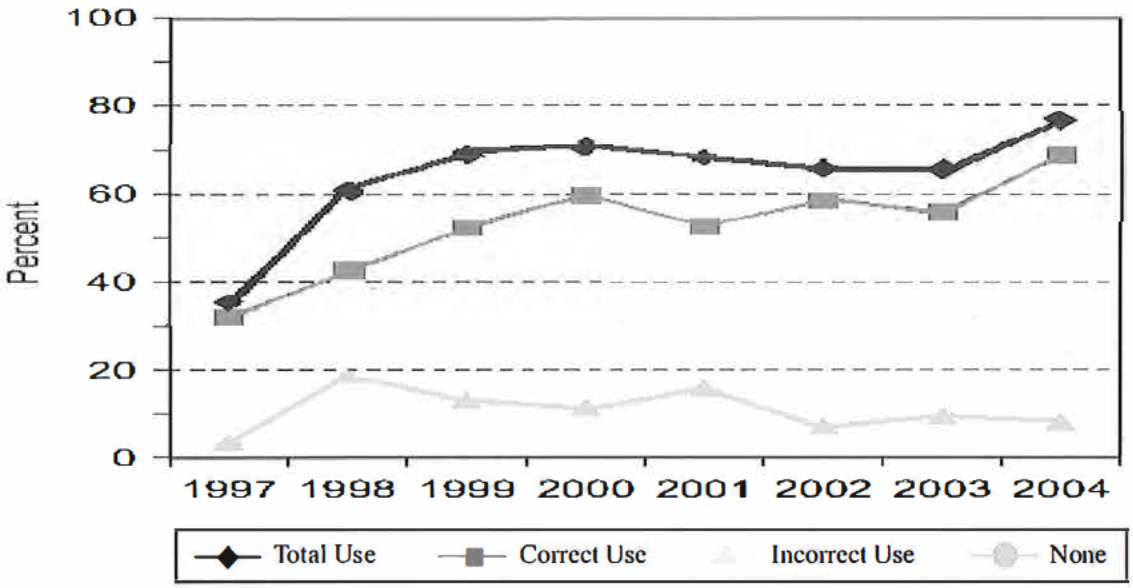


Figure 108. Observed child restraint use in children aged 4 to 16 years, City of Charlottesville, Danville, Lynchburg, and Harrisonburg, 1997 2004. Source: Virginia Transportation Research Council.

Falls

Falls are a significant cause of unintentional injury hospitalization and death. According to VDH's Virginia Online Injury Reporting System, in 2005, the mortality rate attributable to falls among Virginians was 5.3 deaths per 100,000 persons, twice the Healthy People 2010 target of 2.3. The elderly and females are particularly susceptible to hospitalization due to a fall; 68 percent of unintentional injury hospitalizations were among people older than 65 years of age, and fall victims were more than twice as likely to be female. According to the VDH Division of Injury and Violence Prevention, in 2007, the total cost to treat these injuries exceeded $382 million, with a median charge per episode of $16,738. The federal government was the expected payer for 72 percent of these injuries.

Poisonings

Poisoning is the third leading cause of unintentional injury hospitalization for all age groups in Charlottesville-Albemarle. Figure 109 shows the leading exposures in unintentional poisoning fatalities in Virginia for 1999 2004. The leading exposures included codeine or morphine, cocaine, methadone, and heroin.

Figure 5. Leading Causes of Unintentional Poisoning Deaths, Virginia 1999 2004

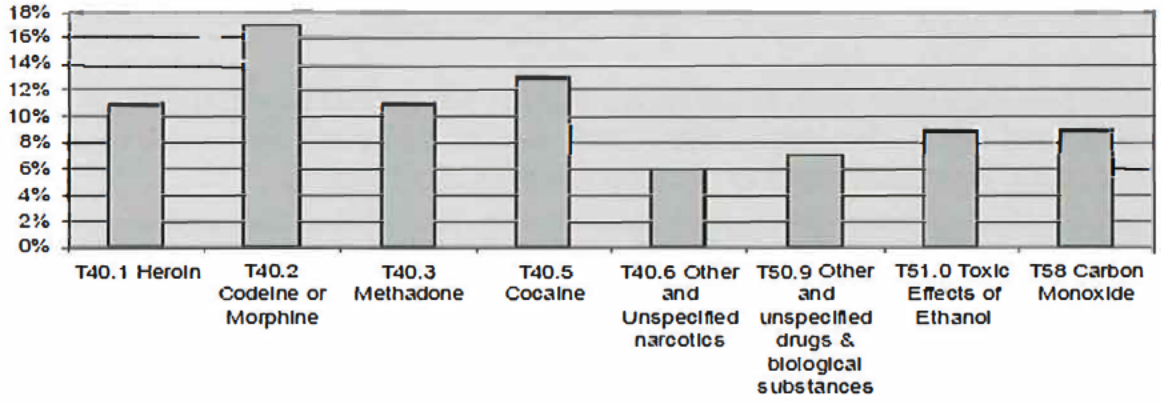


Figure 109. Unintentional poisoning deaths, Virginia, 1999 – 2004. Source: Virginia Injury Report: A Report on Poisonings in Virginia, 1999-2004, Division of Injury and Violence Prevention, Virginia Department of Health.

In 2006, the Blue Ridge Poison Control Center received more than 35,000 calls for poison exposures, more than 3,000 of which originated from TJHD. The vast majority (93 percent) occurred in the home, and the largest call volumes were experienced between 5:00 pm and 10:00 pm. Of those calls, 80 percent involved unintentional poisoning. Nearly half of the calls related to poisoning victims who were less than six years of age. (Source: Blue Ridge Poison Control Center)

Intentional Injury Rates

In Virginia, suicide, homicide, or both are among the ten leading causes of death in every age group less than 65 years of age. Figure 110 depicts the homicide and suicide rates for both the City and County. Both the suicide and homicide rates in the City decreased between 2000 and 2005. The County rates remained about the same. Suicide rates in both the County and City are higher than the homicide rates.

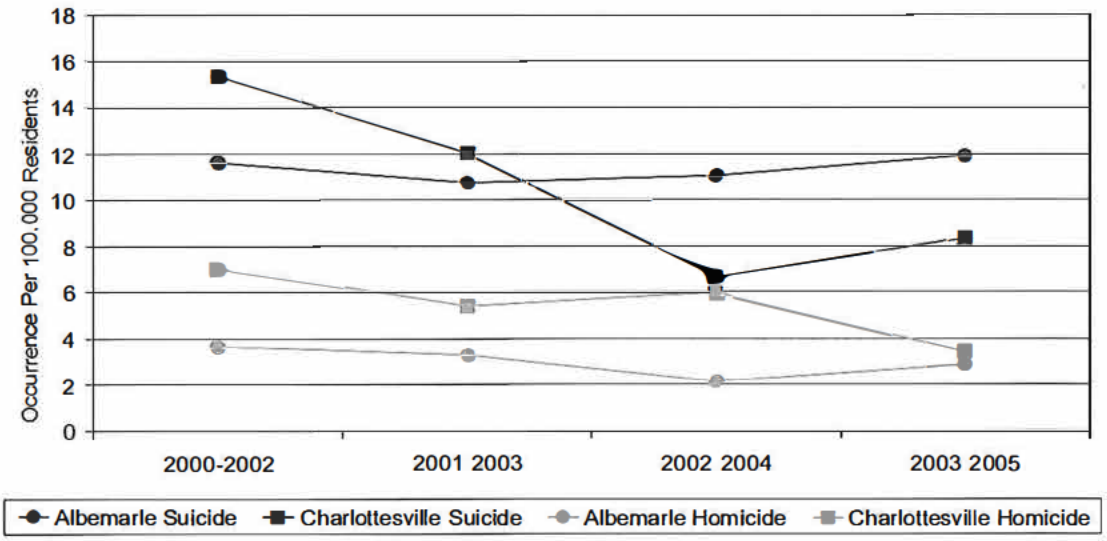


Figure 110. Three-year mean rates of intentional injuries per 100,000 residents, City of Charlottesville and Albemarle County, 2000 – 2005. Source: Office of Violence and Injury Prevention, Center for Health Statistics, Virginia Department of Health.

Suicide

According to VDH, in Virginia, the age group of 65 and older had the highest suicide rates in 2000. Suicide rates of whites are higher than for African-Americans by about 50 percent. Suicide is the third leading cause of death for those aged 10 to 24 years. The rate in this age group is higher among males, though the rate among females has increased over time. The suicide rate of 10 to 24 year olds is slightly lower for TJHD than Virginia and the U.S. (Figure 111). The rate decreased steadily between 2000 and 2005. As shown in Figure 112 the suicide rate of all ages combined in the City, once higher, has dropped below that of Virginia as a whole. The County rate has remained about the same.

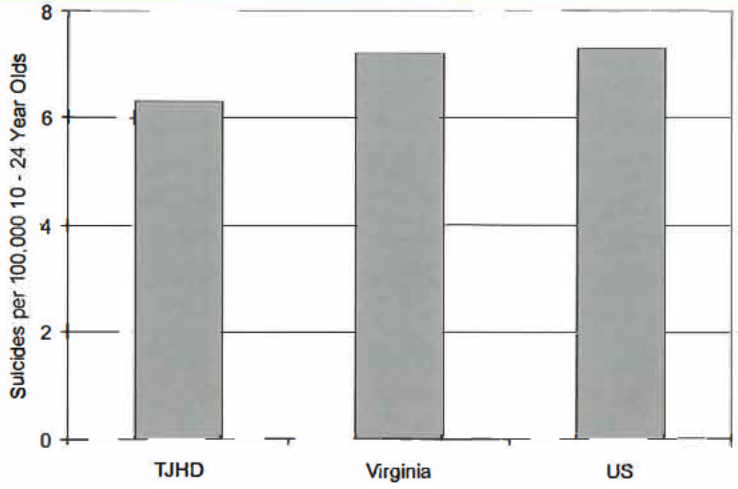


Figure 111. Rate of suicide per 100,000 adolescents and young adults 10 24 years of age, Thomas Jefferson Health District (TJHD), Virginia and the U.S., 1996 – 2005. Source: Youth Suicide in Virginia Report, Virginia Department of Health.

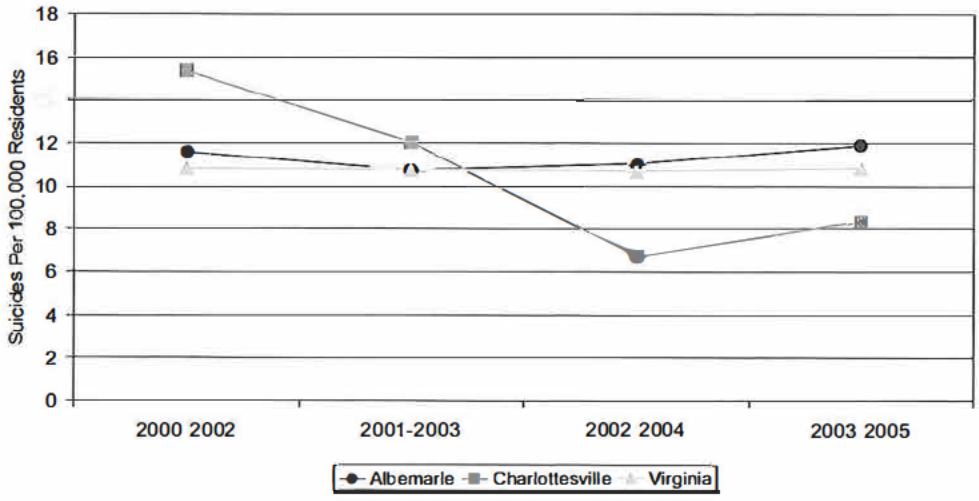


Figure 112. Rates of suicide per 100,000 residents, Albemarle County, City of Charlottesville and Virginia, 2000 – 2005. Source: Office of Violence and Injury Prevention, Virginia Department of Health.

In recent surveys, middle and high school students in both County and City schools responded to questions about health behaviors. The Youth Risk Behavior Survey administered in County Schools in November and December 2006 asked students whether they had "seriously considered attempting suicide at least once within the past twelve months." Of the 2,898 high schools students queried, 13 percent of respondents reported having considered suicide, while 15 percent of the 1,675 middle school students reported having considered suicide. Charlottesville City School students were administered a different instrument, the PRIDE Survey, in April 2005, which asked whether they had "thought about committing suicide." Of the 708 high school respondents, six percent reported thinking about committing suicide a lot or often, along with five percent of the 443 middle school students surveyed.

In the spring of 2008, the VDH's Office of the Chief Medical Examiner published a report that revealed that 56 percent of suicide victims had a mental health problem and 40 percent were receiving mental health treatment at the time of their deaths. Analysis of 2006 data from the Virginia Violent Death Reporting System showed that women and white suicide victims were more likely to have a mental health problem than male and black suicide victims. Those with mental health problems were more likely to have told someone about their intent to commit suicide and/or had a history of previous suicide attempts as compared to those victims without any known history of mental health problems.

INJURY SUMMARY

Unintentional injury is the fifth leading cause of death in Virginia, and the leading cause among children aged one to 18 years old. Unintentional injury mortality is most often related to motor vehicle crashes, whereas unintentional injury hospitalizations are most often associated with falls.

The percentage of motor vehicle crashes involving alcohol is less than 10 percent in the City and County, while the percentage of fatal crashes involving alcohol is much higher, over 15 percent and nearly 40 percent, respectively. Use of child restraints in four Virginia cities, including Charlottesville, has risen over the last decade, and seat belt use among front seat passengers in Virginia has nearly reached the national average.

Falls are the second leading cause of unintentional-injury-related death and the leading cause of unintentional-injury-related hospitalization. Virginia's death rate from falls is more than twice the Healthy People 2010 target. The elderly are most susceptible to fall-related injuries requiring hospitalization and often resulting in death. These injuries are very costly to treat, and the federal government is the expected payer of the majority of these medical costs.

The death rate from unintentional poisoning is lower in Charlottesville-Albemarle than Virginia, likely a result of having two hospitals and the Blue Ridge Poison Control Center in the community. Children under six years of age comprise nearly half of calls related to unintentional poisoning.

Intentional injuries also significantly contribute to morbidity and mortality, with suicide and/or homicide ranking in the top ten causes of death among one to 64 year olds. Contrary to popular perception, suicides often account for more deaths than homicides, which is the case in both the County and City.

Infectious Disease

Health care providers are required to report over 70 infectious diseases to the local health department for tracking and follow up. Among the eight most frequently occurring reportable diseases in Virginia, TJHD has experienced substantially higher mean annual incidence of only two, pertussis and giardiasis (Table 17).

Disease	TJHD		Virginia	
	Annual Cases (mean)	Mean Annual Rate Per 100,000*	Annual Cases (mean)	Mean Annual Rate Per 100,000*
Chlamydia	539	255.9	20,706	277.5
Gonorrhea	139	66.3	9,003	120.9
Pertussis (whooping cough)	75	35.6	274	3.7
Salmonellosis	34	16.0	1,183	15.9
Giardiasis	30	14.4	499	6.7
Varicella (chickenpox)	30	14.2	1,245	16.6
Campylobacteriosis	17	8.1	705	9.5
AIDS	17	8.0	730	9.8

Table 17. Five-year mean incidence of eight most frequently reported reportable infectious diseases, Thomas Jefferson Health District (TJHD) and Virginia, 2002 – 2006. Sources: TJHD and U.S. Census Bureau.

Other infectious diseases for which mean annual incidence rates in TJHD substantially exceeded that in Virginia include mumps and legionella (Table 18).

	TJHD		Virginia	
	Annual Cases (mean)	Mean Annual Rate Per 100,000*	Annual Cases (mean)	Mean Annual Rate Per 100,000*
Mumps	12	5.6	35	0.5
Legionellosis	4	2.1	65	0.9

Table 18. Five-year mean incidence of select reportable infectious diseases, Thomas Jefferson Health District (TJHD) and Virginia, 2002 – 2006. Sources: TJHD and U.S. Census Bureau.

Sexually Transmitted Diseases

Chlamydia, the most commonly reportable infectious disease, occurs at a rate about twice as high in the City as Virginia (Figure 113). The County's rate is slightly lower. These rates are not age-adjusted, however, and younger populations like the City's would be expected to have higher rates.

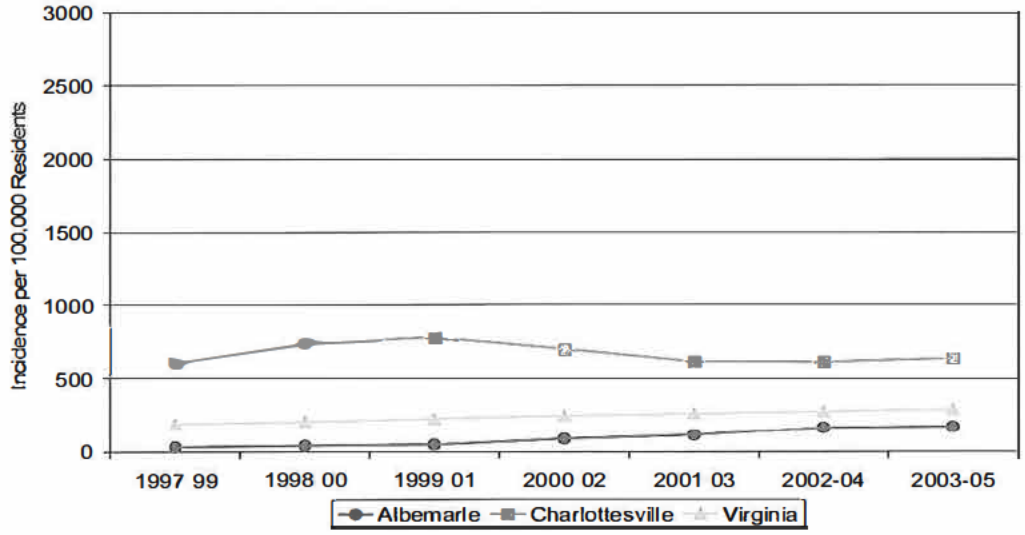


Figure 113. Three-year mean incidence of Chlamydia, Albemarle County, City of Charlottesville and Virginia, 1997 2005. Source: Office of Epidemiology, Virginia Department of Health.

Among adolescents and teens (10 to 19 year olds), the rate of Chlamydia infection in the City is markedly higher than Virginia; however, the rate decreased steadily between 1998 and 2005. The rate in the County increased but remained lower than Virginia (Figure 114).

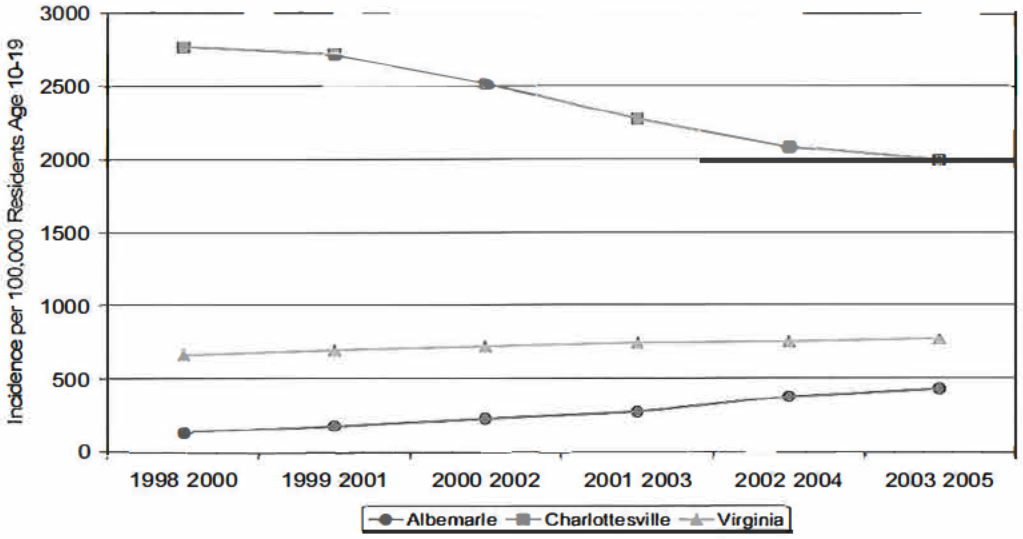


Figure 114. Three-year mean incidence of Chlamydia for ages 10 – 19 years, Albemarle County, City of Charlottesville and Virginia, 1998 2005. Source: Office of Epidemiology, Virginia Department of Health.

The rate of gonorrhea is also higher in the City than Virginia (Figure 115). The County rate is lower. Again, these rates are not age adjusted, however, and younger populations like the City's would be expected to have higher rates.

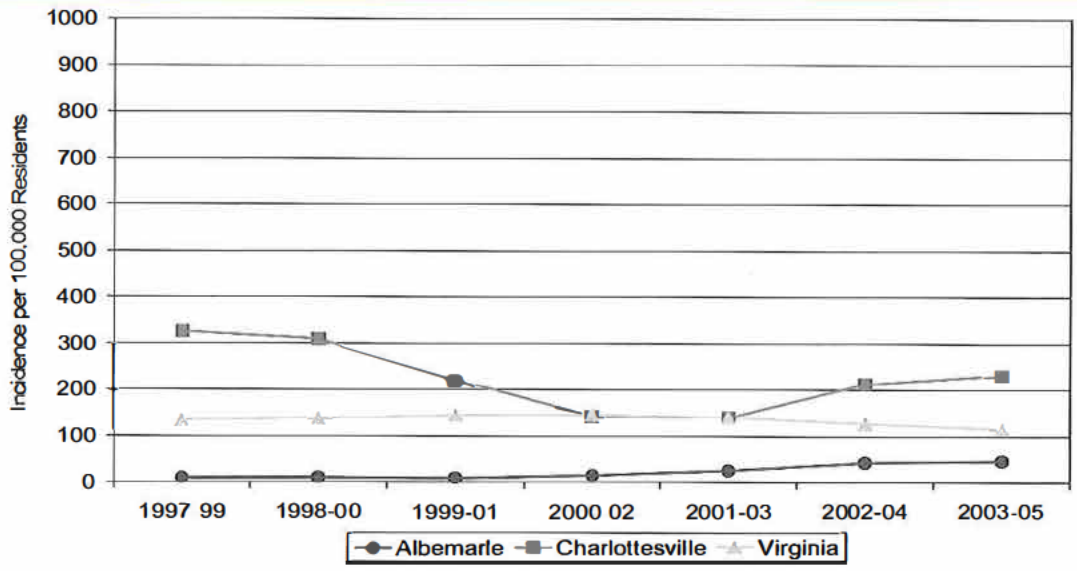


Figure 115. Three-year mean incidence of gonorrhea, Albemarle County, City of Charlottesville and Virginia, 1997 – 2005. Source: Virginia Department of Health, Office of Epidemiology.

Among adolescents and teens, the rate of gonorrhea infection decreased markedly in Charlottesville between 1998 and 2005 but remained above the Virginia rate. While lower than Virginia, the County rate increased (Figure 116).

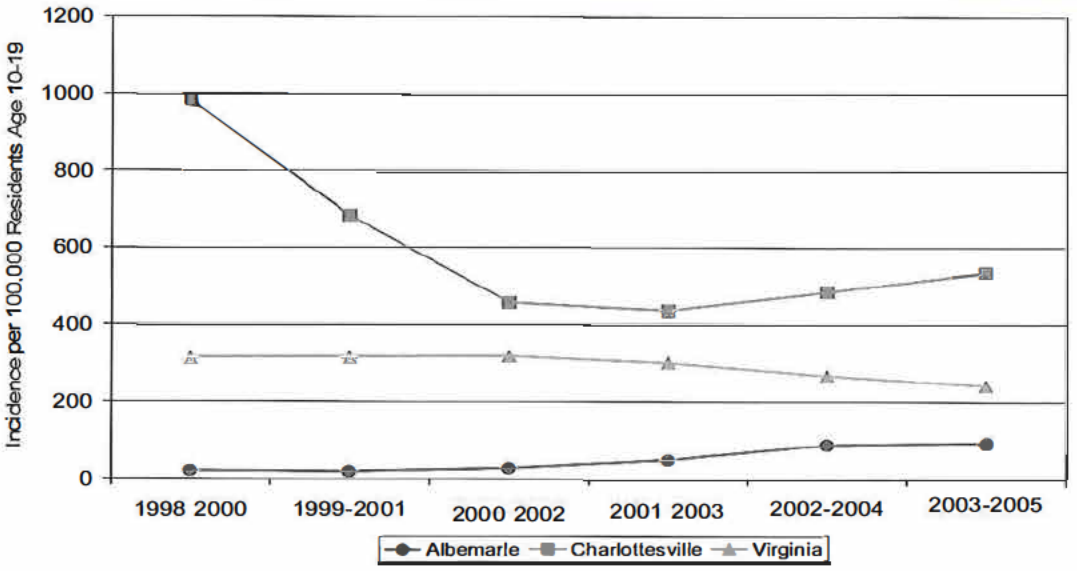


Figure 116. Three-year mean incidence of gonorrhea for ages 10 – 19 years, Albemarle County, City of Charlottesville and Virginia, 1998 – 2005. Source: Office of Epidemiology, Virginia Department of Health.

HIV, or Human Immunodeficiency Virus, is the virus that causes AIDS (Acquired Immunodeficiency Syndrome), a disease characterized by a severely weakened immune system. HIV is transmitted through the exchange of body fluids (blood, semen, vaginal secretions, or breast milk), most commonly through sex and sharing intravenous drug needles. A person can be infected with HIV for many years before developing AIDS. Incidence of HIV infection in the area was about the same in 2003-05 as in 1998-00, with the City experiencing higher rates than Virginia as a whole (Figure 117).

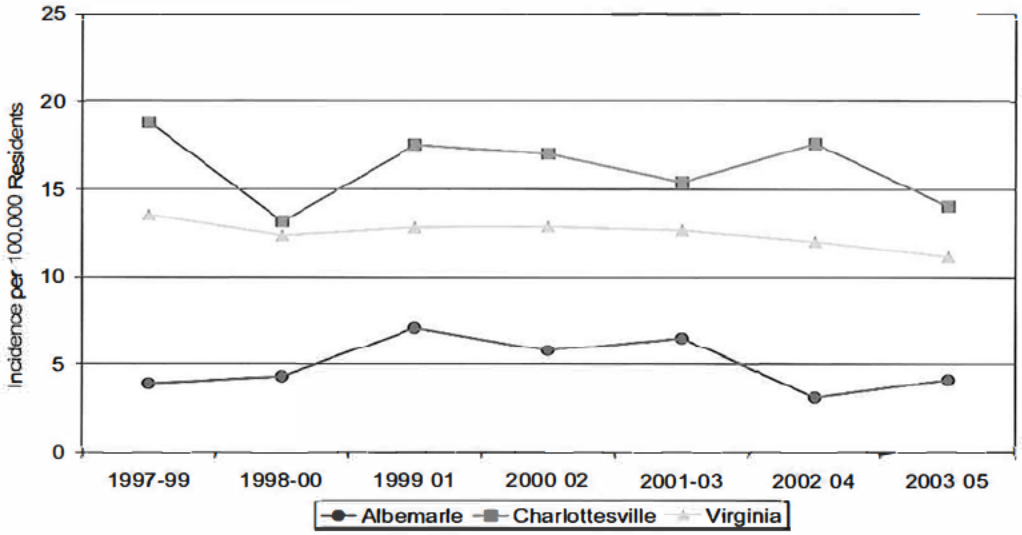


Figure 117. Three-year mean incidence of HIV infection, Albemarle County, City of Charlottesville and Virginia, 1997 – 2005. Source: Office of Epidemiology, Virginia Department of Health.

In recent years, the City, like Virginia, experienced a decline in the incidence of AIDS, while the County has seen a lower, steadier rate (Figure 118). Although the rate of AIDS in the City has been higher than in Virginia overall, the disparity has declined in recent years.

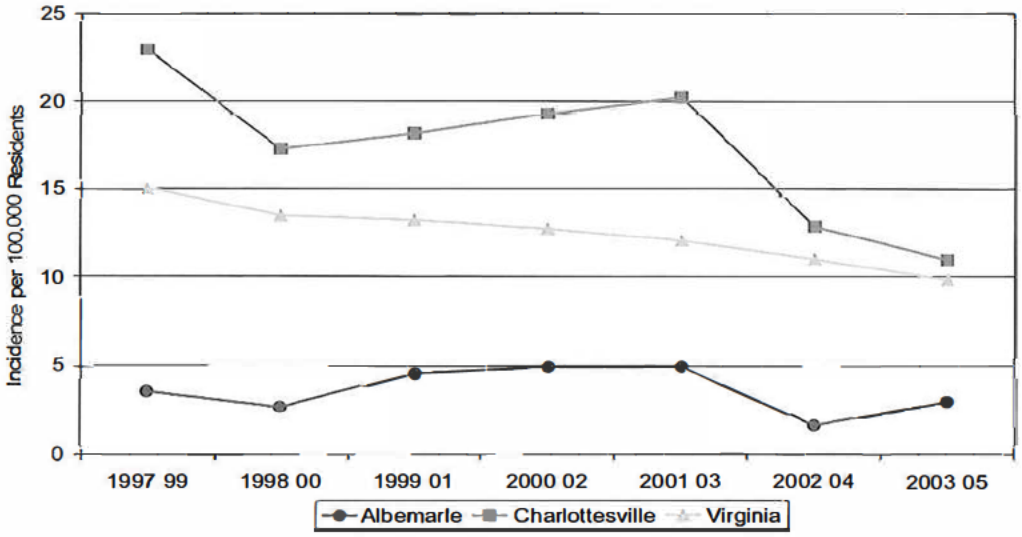


Figure 118. Three-year mean incidence of AIDS, Albemarle County, City of Charlottesville and Virginia, 1997 – 2005. Source: Office of Epidemiology, Virginia Department of Health.

Although the incidence rate of HIV infection has remained steady and the incidence rate of AIDS has slightly declined, the prevalence or number of HIV and AIDS cases in the area is steadily increasing over time. In addition to the effect of a growing population, this demonstrates that treatment for HIV and AIDS has improved, and this has decreased mortality (Figure 119).

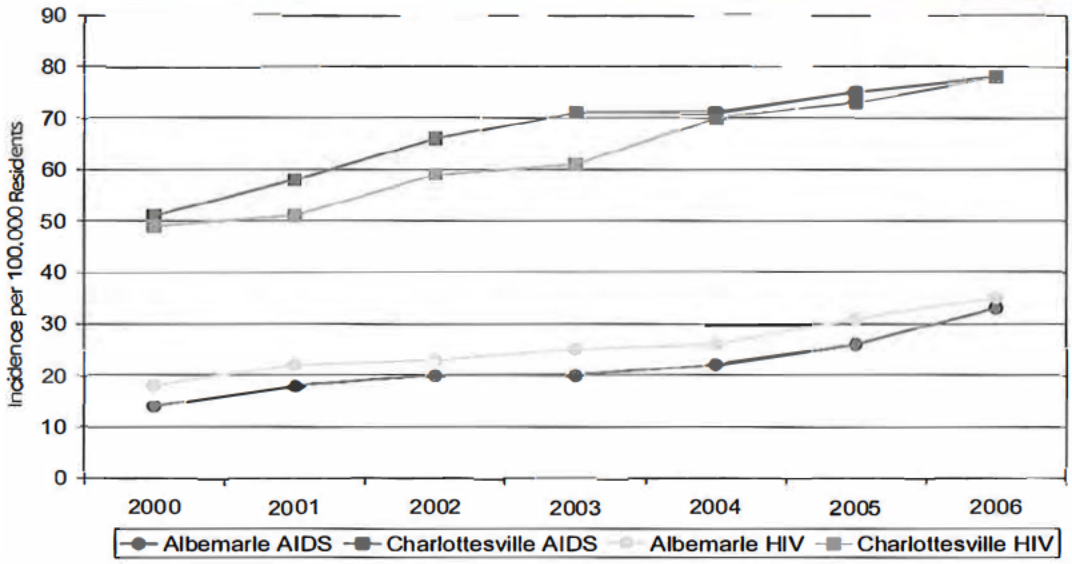


Figure 119. Prevalence of HIV and AIDS, Albemarle County and City of Charlottesville, 2000 – 2006. Source: Office of Epidemiology, Virginia Department of Health.

According to VDH, 76 percent of the HIV/AIDS cases reported in the Northwest Region of Virginia occurred in males and the greatest number reside in the City of Charlottesville. Table 19 shows that a disproportionate percent of HIV/AIDS cases occur among black and Hispanic persons, thus targeted prevention efforts are needed.

	Demographics of HIV/AIDS Population	Demographics of Total Population
White	49 %	82 %
Black	38 %	11 %
Hispanic	11 %	5 %
Other	2 %	2 %

Table 19. HIV/AIDS in Northwest Region of Virginia. Source: Northwest Region of Virginia: HIV/AIDS and STD Trends, 2006, Center for Health Statistics, Virginia Department of Health.

Vaccine Preventable Diseases

Since the 1960s, childhood immunization has been widely used to prevent what were once considered severe, or even life threatening, diseases. Due largely to school entrance requirements and increased vaccine availability, childhood immunization rates are at record high levels.[24] Even with such measures, some diseases continue to episodically reappear. Locally, Charlottesville-Albemarle has seen rates of pertussis, or whooping cough, much greater than those experienced by Virginia overall (Figure 120). Pertussis rates tend to cycle with increased numbers of cases every three to five years. A booster vaccine for adolescents and adults was introduced in 2006, providing the hope that rates will decrease in the future.

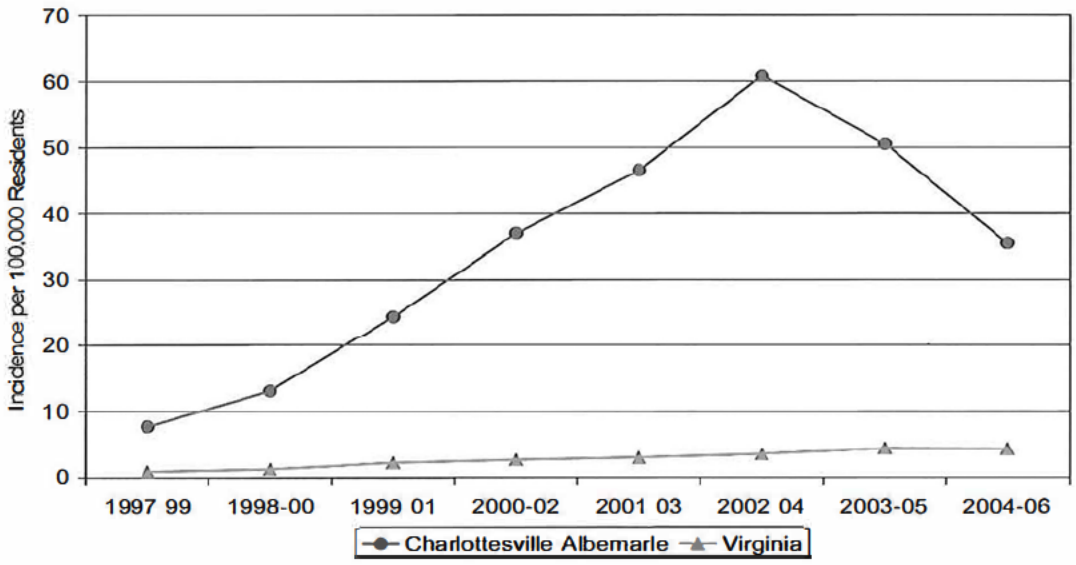


Figure 120. Three-year mean incidence of pertussis, Charlottesville-Albemarle and Virginia, 1997 – 2006. Source: Office of Epidemiology, Virginia Department of Health.

In 2006, Charlottesville-Albemarle experienced a mumps outbreak, although it wasn't the only community that did. Due to a global shortage of measles, mumps, and rubella vaccine (MMR) in the mid-1990s, a cohort of children in the United Kingdom (UK) received measles-rubella vaccine rather than MMR. Thus, a large resurgence of mumps occurred in the UK among young adults in 2004-06. In the spring of 2006, an outbreak occurred in the Midwest U.S. with the highest incidence also occurring among 18 to 24 year olds. TJHD had 64 suspected cases of mumps, of which 19 were confirmed. The majority of cases occurred among UVA students. However, the TJHD outbreak was not caused by the same strain as the Midwest and UK outbreaks, but rather was similar to a case imported to New Hampshire from Japan. One factor that contributed to the outbreaks was close living conditions on college campuses. Figure 121 depicts the incidence of mumps in the U.S. between 1980 and 2005, before the recent outbreaks. The positive effect of two doses of vaccine against mumps is clearly demonstrated.

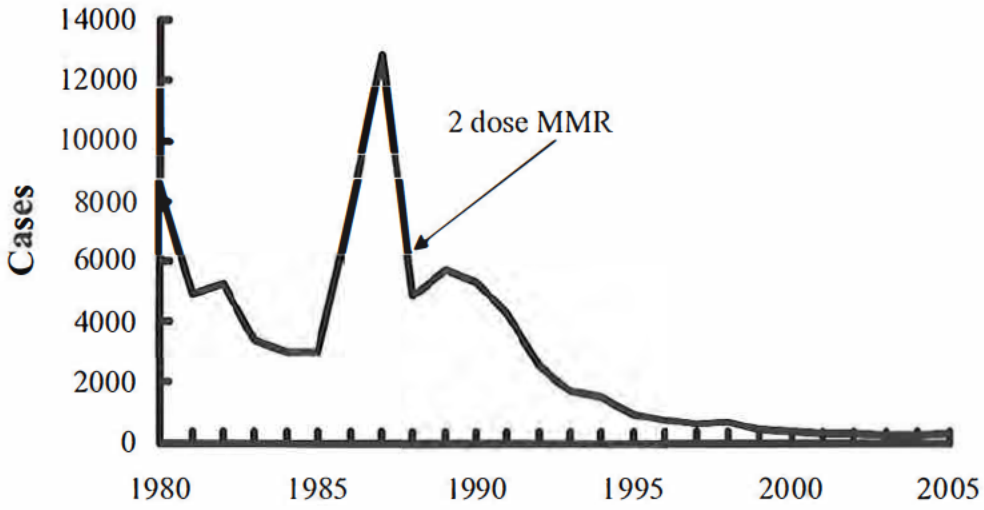


Figure 121. Cases of mumps, United States, 1980 2005. Source: National Immunization Program, Centers for Disease Control and Prevention.

Foodborne and Waterborne Diseases

Diseases caused by parasites, bacteria or viruses that are transmitted through food or water are of particular concern because such diseases can be uncomfortable, or even deadly; yet they are often preventable if proper precautions are taken. The rate of salmonella infection in Charlottesville-Albemarle has remained comparable to the rate in Virginia overall, though in the last several years the local rate of infection has been slightly more than that in Virginia (Figure 122). Proper food handling technique can help prevent the spread of this disease.

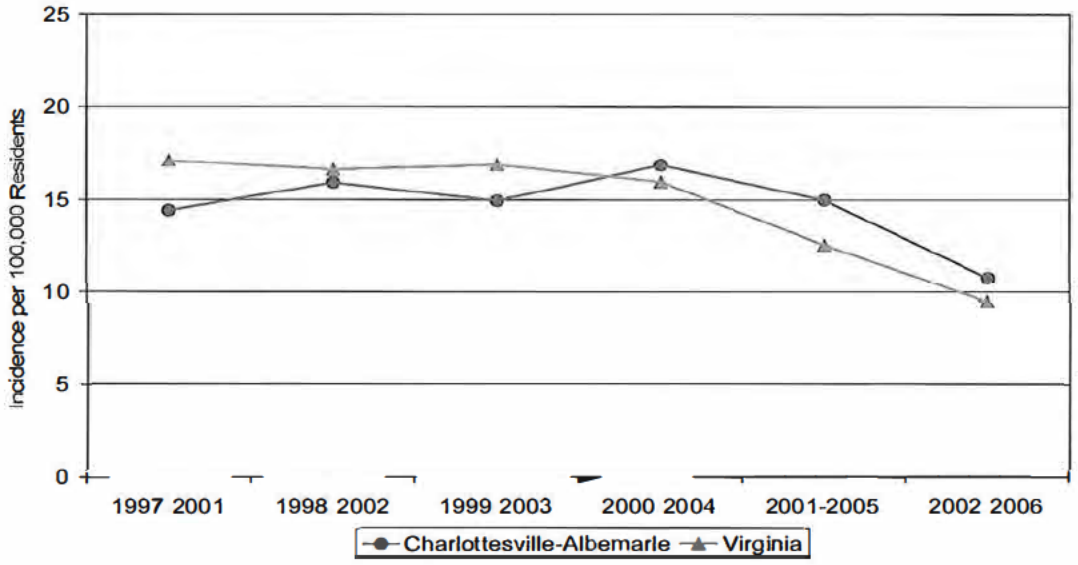


Figure 122. Five-year mean incidence of salmonellosis, Charlottesville-Albemarle and Virginia, 1997 – 2006. Source: Office of Epidemiology, Virginia Department of Health.

The local area has seen higher rates of giardia infection compared to Virginia overall (Figure 123). One factor that contributes to this is a higher rate of infection among refugees who arrive already infected with the organism.

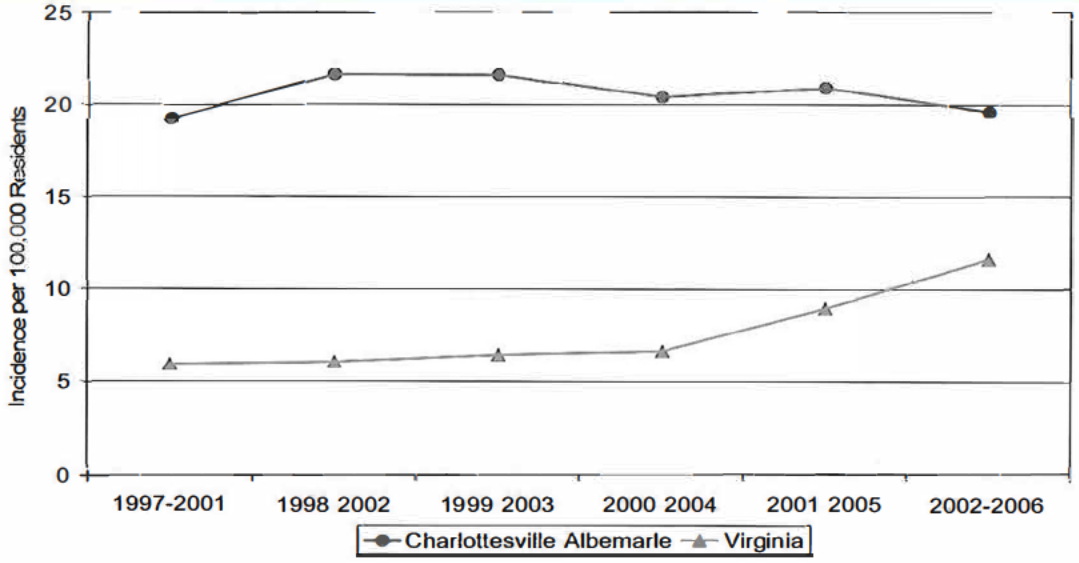


Figure 123. Five-year mean incidence of giardiasis, Charlottesville-Albemarle and Virginia, 1997 – 2006. Source: Office of Epidemiology, Virginia Department of Health.

Both the local area and Virginia have experienced increases in the incidence of E. coli 0157:H7 infections in recent years as shown in Figure 124. As with salmonellosis, proper food handling technique is critical in helping to prevent the spread of this disease.

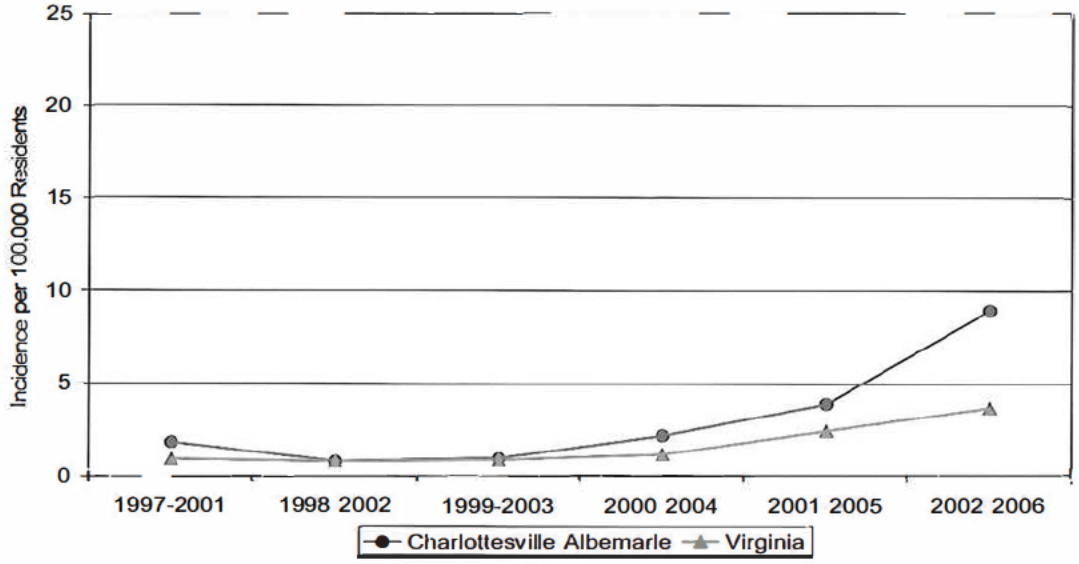


Figure 124. Three-year mean incidence of E. coli 0157:H7, Charlottesville-Albemarle and Virginia, 1997 – 2006. Source: Office of Epidemiology, Virginia Dept of Health.

INFECTIOUS DISEASE SUMMARY

Gonorrhea and Chlamydia, both sexually transmitted infections, are among the most common reportable infectious diseases, and the incidence is greater in teens than the overall population. Rates are higher in the City, due in large part to it being a younger population.

The City has experienced higher rates of HIV and AIDS than Virginia, though the incidence of AIDS has slowed markedly in the last couple of years. The prevalence of HIV and AIDS in both the City and County is slowly increasing, likely indicating improvements in treatment and survival. A disproportionate percent of HIV/AIDS cases occur among black and Hispanic persons, thus targeted prevention efforts are needed.

Salmonella, giardia, campylobacter, and E. coli 0157:H7 infections, which can all be transmitted through food and/or water, are all of concern for TJHD because of recent increases or a greater mean annual incidence. Proper hygiene and food handling techniques can help stem the spread of these infections.

Ambulatory Care Sensitive Conditions

According to the Agency for Health Care Quality and Research, ambulatory care sensitive events are hospitalizations that could be prevented with good outpatient care, which facilitates early intervention and prevention of complications and more severe disease. If few sentinel events, such as hospitalization for diabetes, asthma, or hypertension, occur, the primary care system is likely functioning well. Health care events or diseases identified as ambulatory care sensitive conditions include diabetes, asthma, hypertension, chronic obstructive pulmonary disease (COPD), low birth weight, congestive heart failure, angina without procedure, bacterial pneumonia, urinary infection, pediatric gastroenteritis, dehydration, and perforated appendix. For this assessment, data were compiled for the first five conditions.

According to three reported studies, hospitalizations for ambulatory care sensitive conditions are more prevalent among the uninsured and Medicaid patients.[25] Inversely, health maintenance organization (HMO) members have a lower likelihood of being hospitalized for these health conditions. Thus, HMO data may serve as an upper estimate for the provision of ambulatory care. Table 20 shows that the vast majority of HMO members in Virginia have access to preventive care.

Age Group	HMO Members with Access to Preventive Care (percent)	
	Virginia	U.S.
20 44 years of age	94 %	93 %
45 64 years of age	95 %	95 %
> 64 years of age	97 %	97 %

Table 20. Percent of HMO members (excluding Medicare and Medicaid) with access to preventive/ambulatory care services by age, Virginia and the U.S., 2006. Source: Virginia Health Information; National Committee for Quality Assurance.

Table 21 depicts various indicators of preventive care for HMO members in Virginia and the U.S. Over 60 percent of HMO members in Virginia with hypertension and almost 70 percent of those with diabetes who receive monitoring demonstrate good control over these diseases.

Indicator of Preventive Care For Ambulatory Sensitive Condition	HMO Members (percent)	
	Virginia	U.S.
Have asthma and use appropriate medications	92 %	92 %
Have hypertension but have poor control	42 %	40 %
Have diabetes monitored with HbA1C Tests but have poor control	31 %	30 %
Annual monitoring for persistent medication use	80 %	74 %

Table 21. Percent of HMO members (excluding Medicare and Medicaid) by select ambulatory sensitive condition indicators, Virginia and the U.S., 2006. Source: Virginia Health Information; National Committee for Quality Assurance.

Diabetes

Based on the data shown in Figure 125, the prevalence of diabetes in Virginia has steadily increased since 1994. The current prevalence is nearly three times the target set for diabetes by Healthy People 2010.

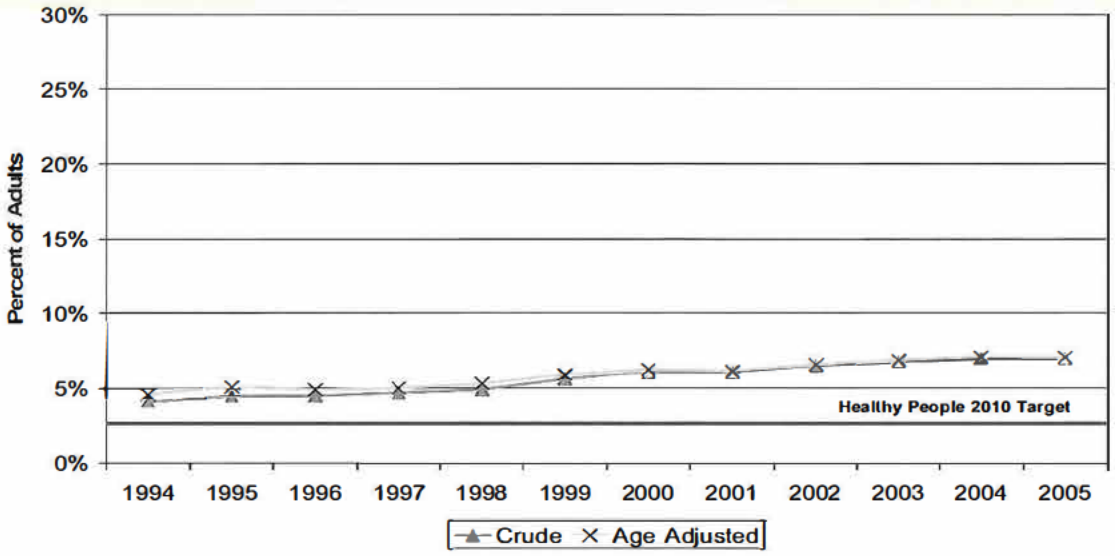


Figure 125. Unadjusted and age-adjusted prevalence rates of reported diabetes per 100 adult residents, Virginia, 1994 – 2005. Source: National Diabetes Surveillance System, Centers for Disease Control and Prevention.

The hospitalization rate for diabetes in TJHD increased slightly between 2000-02 and 2004-06. It is similar to Virginia's rate (Figure 126).

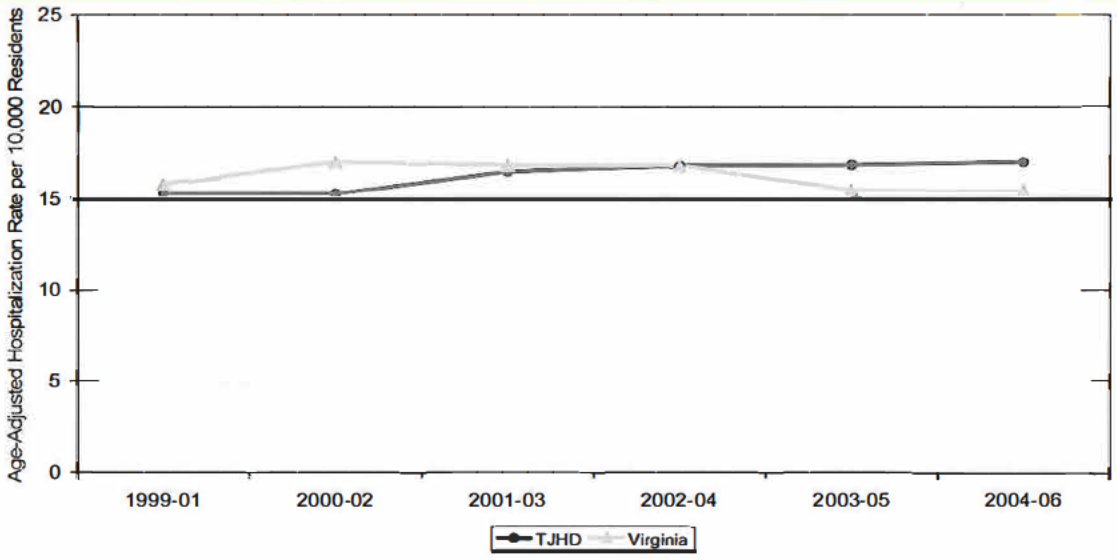


Figure 126. Three-year mean age-adjusted hospitalization rate for diabetes per 10,000 residents, Thomas Jefferson Health District (TJHD) and Virginia, 1999 – 2006. Source: Virginia Health Information.

Asthma

The prevalence of asthma among adults is comparable in Virginia and the U.S., about eight percent of both populations (Figure 127). The prevalence increased slightly between 2000 and 2006.

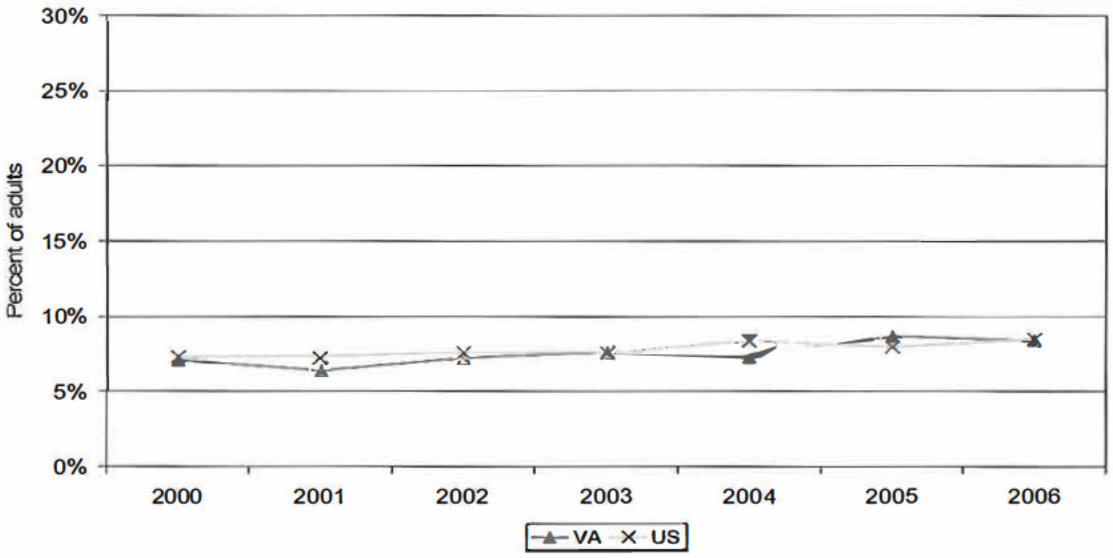


Figure 127. Prevalence of (self-reported) asthma among adults, Virginia and U.S., 2000 – 2006. Source: Behavioral Risk Factor Surveillance System, Centers for Disease Control and Prevention.

Despite the age-adjusted hospitalization rate for asthma not yet meeting the target set by Healthy People 2010, the rate for TJHD is decreasing (Figure 128).

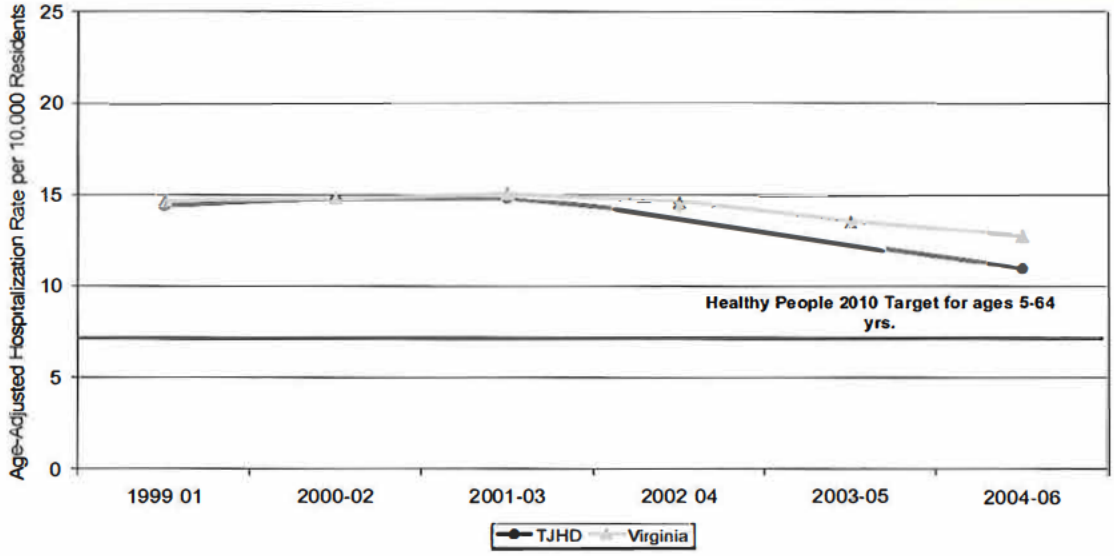


Figure 128. Three-year mean age-adjusted hospital discharge rate for asthma per 10,000 residents, Thomas Jefferson Health District (TJHD) and Virginia, 1999 – 2006. Source: Virginia Health Information.

Hypertension

Given that it is a major risk factor for heart disease and stroke, hypertension is an important indicator of prevention and control efforts. The prevalence of hypertension, shown in Figure 129, is nearly the same for Virginia and the U.S., with about a quarter of adults reporting having hypertension. The prevalence increased slightly between 1997 and 2005.

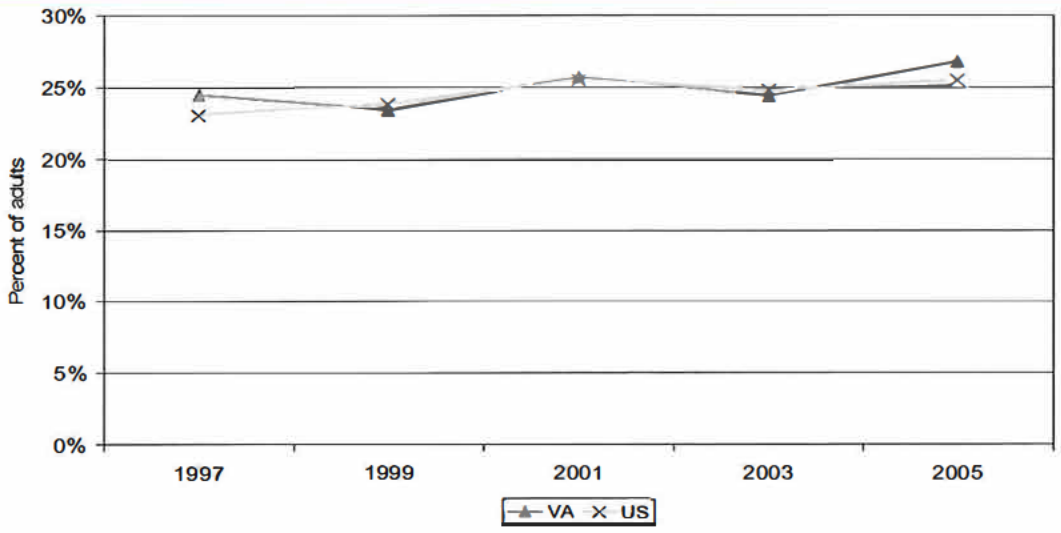


Figure 129. Prevalence of (self-reported) hypertension among adults, Virginia and the U.S., 1997 – 2005. Source: Behavioral Risk Factor Surveillance System, Centers for Disease Control and Prevention.

TJHD has a lower hospital discharge rate for hypertension than the previously discussed ambulatory care sensitive conditions; it is nearly identical to the rate for Virginia and has not changed over time (Figure 130).

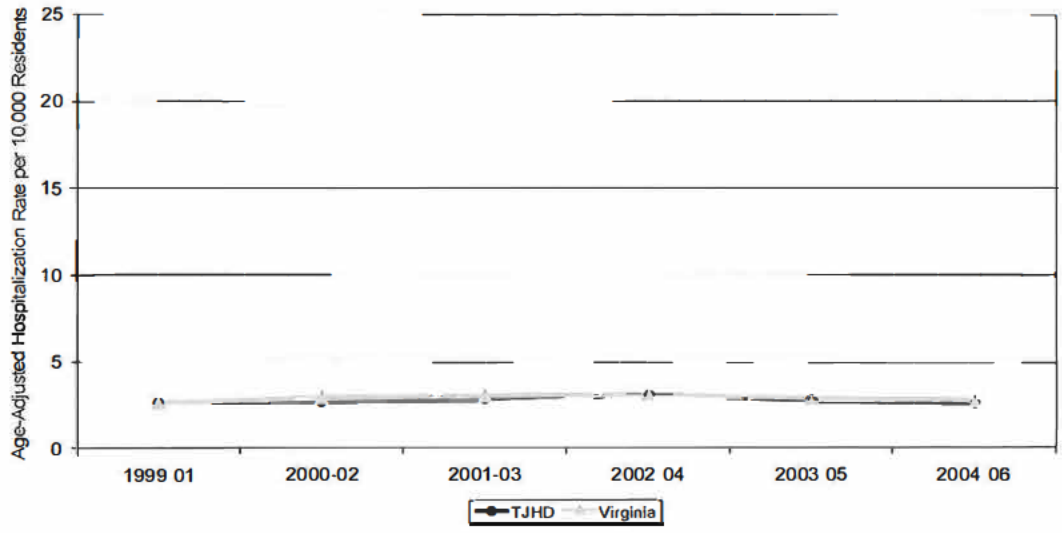


Figure 130. Three-year mean age-adjusted hospital discharge rate for hypertension per 10,000 residents, Thomas Jefferson Health District (TJHD) and Virginia, 1999 2006. Source: Virginia Health Information.

Local data on the prevalence of hypertension stratified by age, sex, and income are not available, but it is important to note that nationally, African-Americans are the racial group most affected by this disease, and women report hypertension more than men (Table 22). The prevalence of hypertension is also associated with lower socioeconomic status.

	Percent
All	30 %
Women	
All	31 %
White	29 %
African-American	44 %
Mexican-American	28 %
Men	
All	29 %
White	28 %
African-American	41 %
Mexican-American	27 %
Poverty status	
Poor	34 %
Near poor	34 %
Non-poor	28 %

Table 22. Age adjusted percent of adults (age > 20 years) with hypertension or taking blood-pressure–lowering medication by gender and race as well as poverty status, U.S., 1999 2002. Source: *Health, United States, 2005 with Chartbook on Trends in the Health of Americans*, National Center for Health Statistics.

Chronic Obstructive Pulmonary Disease

Chronic obstructive pulmonary disease (COPD) is defined as a group of diseases that affect the airway and often lead to lung infections. These diseases include emphysema and chronic bronchitis. Tobacco smoke, a major risk factor for COPD, is involved in 80 to 90 percent of cases. Other risk factors include occupational chemical and dust exposures. Figure 131 shows that hospitalizations for COPD decreased in TJHD between 1999 and 2006.

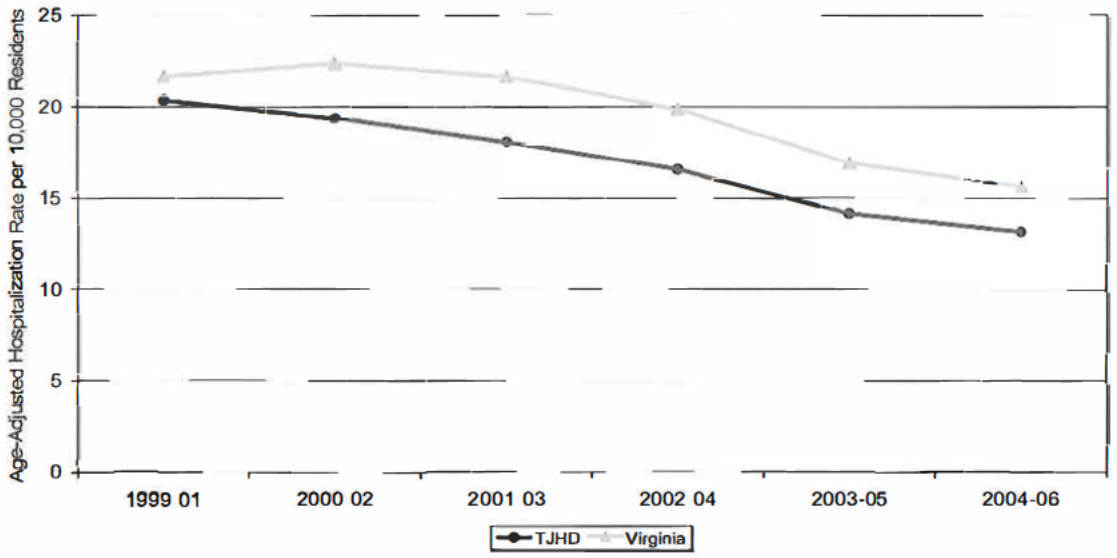


Figure 131. Three-year mean age-adjusted hospital discharge rate for chronic obstructive pulmonary disease per 10,000 residents, Thomas Jefferson Health District (TJHD) and Virginia, 1999 – 2006. Source: Virginia Health Information.

Smoking is associated with the majority of cases of COPD; thus, the disease would be largely prevented by eliminating tobacco use. As discussed in Section Two, almost 20 percent of TJHD residents self-report being current smokers, with rates comparable among both races.

Low Birth Weight

The birth of babies at a weight less than 2,500 grams is also recognized as an ambulatory care sensitive condition. As discussed earlier, a lower percentage of babies who are low-weight at birth is generally regarded as an indicator of good outpatient prenatal care. The proportion of infants born as low birth weight is greater in the City than Virginia and the U.S.; neither the City nor County meets the Healthy People 2010 target.

AMBULATORY CARE SENSITIVE CONDITIONS SUMMARY

Ambulatory care sensitive events are hospitalizations that can be prevented through good outpatient care because early intervention can prevent complications and more severe disease. If few sentinel events, such as hospitalization for diabetes, asthma, or hypertension, occur, the primary care system is likely functioning well. The prevalence of diabetes and hypertension have increased in Virginia. The rate of hospitalization for diabetes is slightly higher in TJHD than in Virginia while the rates of hospitalization for asthma and COPD are lower.

Mental Health

There is a lack of readily available data regarding the incidence of psychological disease locally, therefore, national and state-level data are presented. According to the National Survey on Drug Use and Health, about 10 percent of Virginia adolescents and young adults report suffering a major depressive event a period of at least two weeks of depressed mood, loss of enjoyment in daily activities, coupled with other specific symptoms of depression. In 2004 05, over one-fifth of Virginia young adults experienced serious psychological distress a diagnosable mental, behavioral, or emotional disorder of sufficient duration that resulted in functional impairment, substantially interfering with or limiting major life activities (Table 23).

Condition that Young Adults in Virginia Reported Suffering	Age In Years		
	12-17	18-25	26+
At Least one Major Depressive Episode	9%	11%	7%
Serious Psychological Distress	n/a	21%	9%

Table 23. Estimates of number of mental health problems, Virginia, 2004 – 2005. Source: National Survey on Drug Use and Health, Substance Abuse and Mental Health Services Administration, U.S. Department of Health and Human Services.

In most cases, patients with mental health issues can receive appropriate care in an outpatient setting; however, hospitalization is sometimes necessary. According to local hospital discharge data, psychosis requiring hospitalization increased in the City between 1998 and 2005 and is higher than the state rate (Figure 132). The County rate appears to have decreased slightly during this time period.

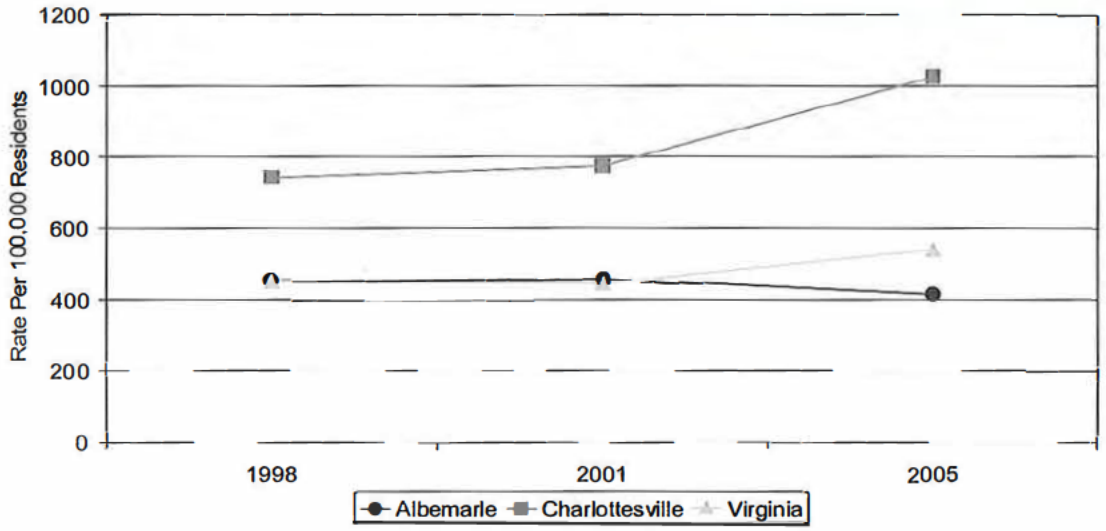


Figure 132. Hospital discharge rate for psychoses per 100,000 residents, Albemarle County, City of Charlottesville and Virginia, 1998, 2001, and 2005. Source: Virginia Health Information; Virginia Hospital and Health Care Association.

As described previously, Region Ten is the primary public provider of mental health services within PD 10. Within the City and County, depressive and schizophrenic/psychotic disorders are the most commonly diagnosed mental disorders at Region Ten, comprising about one-third of diagnoses in fiscal year 2007 (Figure 133).

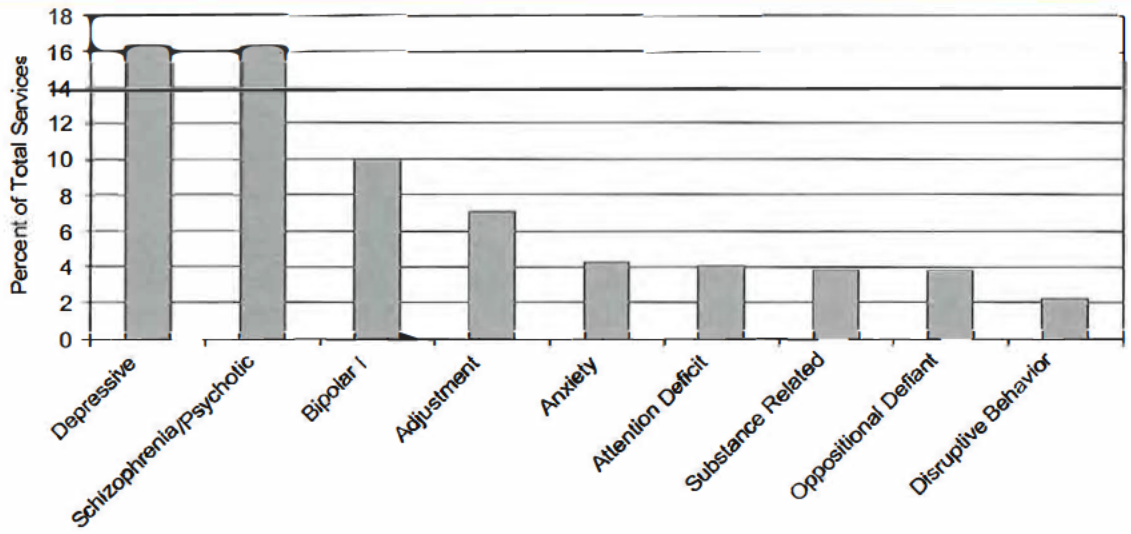


Figure 133. Most frequently diagnosed disorders identified during client encounters by the Region Ten Community Service Board (Region Ten), Albemarle County and City of Charlottesville, fiscal year 2007. Source: Region Ten.

In addition to Region Ten, the Charlottesville Free Clinic (CFC) also sees clients for mental health visits. Depression is the fourth leading diagnosis among all visits and has remained among the top five diagnoses over the past ten years.

MENTAL HEALTH SUMMARY

There is a lack of readily available data regarding the incidence of psychological disease locally; however, according to the National Survey on Drug Use and Health, in 2004-05 roughly 10 percent of Virginia adolescents and young adults suffered a major depressive event, and one-fifth suffered psychological distress. The percentage of persons older than 26 who suffered similar episodes is a bit lower. In most cases, patients with mental health issues can receive appropriate care in an outpatient setting; however, hospitalization is sometimes necessary. According to local hospital discharge data, psychosis requiring hospitalization increased in the City between 1998 and 2005 and is higher than the state rate. The County rate appears to have decreased slightly during this time period. Depressive, psychotic/schizophrenic, and bipolar disorders account for more than 40 percent of Region Ten diagnosed disorders, and the majority of Region Ten services are delivered in an outpatient setting.

Next Steps

The City-County community is growing, evolving and presenting new challenges to achieving and maintaining health. We are fortunate to have some resources that are not always available in other communities - two major hospitals, an ample supply of physicians, a free clinic, and a not-for-profit children's dental clinic. In addition, the constant influx of new people and ideas has helped to develop a cache of other traditional and non traditional sources of health care and education.

In many cases, we have been able to make substantial improvements in our community's health via new programs, campaigns, laws, and other mechanisms. Despite the many successes, this community still struggles with issues that affect the quality of health - and in turn, the quality of life. It is to these areas that we must turn our focus; we must actively reevaluate our preconceptions, and collaboratively brainstorm new solutions to these problems, while continuing to hold onto the gains where we have been successful.

The process of collecting quantitative data for MAPP began in the spring of 2007 with a review of previously collected data, moving forward to augment what was available with what was desirable. In one year's time the Charlottesville/Albemarle Health Department, in collaboration with the MAPP steering committee and many community partners, was able to pull together data from a variety of sources to present a comprehensive picture of where the health of our community stands today.

The process does not end with this report. The steering committee will continue to analyze these data and, combined with the results of the other MAPP assessments, use them as a basis to develop a strategic plan to advise where the community could work together to advance the health of the City and County. It is our hope that the data will help direct resources to areas where benefits to the collective health of our community can be maximized.

Endnotes

[1] The IRC in Charlottesville, c2008, International Rescue Committee www.theirc.org/where/united_states_charlottesville_va/the_irc_in_charlottesville.html.

[2] http://aspe.hhs.gov/poverty/07poverty.shtml.

[3] The 2004 Virginia Health Insurance and Access Survey was funded by the Health Resources and Services Administration (HRSA) State Planning Grants Program under the direction of The State Health Access Data Assistance Center of the University of Minnesota and completed by Clearwater Research, Inc.

[4] UVA Physician Directory, Martha Jefferson Hospital Physician Directory, Virginia Board of Medicine Practitioner Information Database, accessed July 3, 2007; U.S. Census Bureau.

[5] State Council for Higher Education for Virginia, Condition of Nursing and Nursing Education in the Commonwealth, January 2004.

[6] Who Will Care for Each of Us?: America's Coming Health Care Crisis, Nursing Institute at the University of Illinois College of Nursing, May 2001.

[7] State Council for Higher Education for Virginia, Condition of Nursing and Nursing Education in the Commonwealth, Jan. 2004, http://www.msnbc.msn.com/id/21134540/vp/23028110 - 23025801; 2004 National Sample Survey of Registered Nurses.

[8] HRSA, September 2004.

[9] State Council for Higher Education for Virginia, Condition of Nursing and Nursing Education in the Commonwealth, January 2004.

[10] Walls CA, Rhodes KV, Kennedy JJ. "The emergency department as usual source of medical care: estimates from the 1998 National Health Interview Survey," Acad Emerg Med. 2002; 9:1140-5.

[11] Schappert SM, Burt CW. "Ambulatory care visits to physician offices, hospital outpatient departments, and emergency departments: United States, 2001 02," National Center for Health Statistics. Vital Health Stat 13(159). 2006.

[12] National Center for Health Statistics, Chartbook on Trends in the Health of Americans, U.S., 2006.

[13] Schroeder, Steven, "We Can Do Better Improving the Health of the American People," N Engl J Med. 2007 Sep 20; 337(12):1221-1227.

[14] Ibid.

[15] Ibid.

[16] Treanor, John. D., "Influenza - The Goal of Control," N Engl J Med. 2007 Oct 4; 357(14):1439-1441.

[17] Council of Economic Advisers for the President's Initiative on Race, Changing America: Indicators of Social and Economic Well-Being by Race and Hispanic Origin, October 1999.

[18] McCormick MC., "The contribution of low birth weight to infant mortality and childhood morbidity," N Engl J Med. 1985 Jan 10; 312(2):82-90.

[19] WHO, Social Determinants of Health.

[20] Ibid.

[21] Weisfeldt, Myron L. and Zieman, Susan J, "Advances in the Prevention And Treatment Of Cardiovascular Disease," Health Affairs. 2007: 26, no. 1, 25-37.

[22] WHO, Social Determinants of Health.

[23] American Cancer Society, Detailed Guide: Cancer What Are the Risk Factors for Cancer? 2008.

[24] Scutchfield, F.D., Keck, C.W. (2003), Principles of Public Health Practice, Second Edition, Clifton Park: Delmar Learning.

[25] Bindman AB., "Preventable Hospitalizations and Access to Health Care," JAMA. 1995.; Basu J, Friedman B, Burstin H. "Primary Care, HMO Enrollment, and Hospitalization for Ambulatory Care Sensitive Conditions: A New Approach," Medical Care. 2002.; Zhan C, Miller M, Wong H, Meyer G., "The Effects of HMO Penetration on Preventable Hospitalizations," Health Services Research. 2004.

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EXHIBIT 7

October 15, 2020

VIA ELECTRONIC TRANSMISSION

Mr. John L. Schoenecker
Senior Investigative Counsel
Chairman Charles E. Grassley
U.S. Senate Committee on Finance
Washington, D.C. 20510

Re: Your inquiry of September 25, 2020

Dear Mr. Schoenecker:

As the Executive Vice President for Health Affairs at the University of Virginia, I write in response to your recent inquiry regarding the impact of COVID-19 on our debt collection practices. While the pandemic has had substantial impact on the financial condition of UVA Health, it has not affected our robust effort to provide financial assistance to patients who have difficulty paying outstanding medical bills.

Pursuant to your discussion with University of Virginia General Counsel Tim Heaphy, we have compiled specific information in response to the questions raised in your September 25 email to Sally Barber. We have also reviewed our November 19, 2019 letter to Senator Grassley, which was sent in response to his prior inquiry about our debt collection practices. This letter provides all such information responsive to your recent inquiry, as well as supplemental information responsive to the questions asked by Senator Grassley last fall.

As the information below reflects, the UVA Medical Center has remained steadfast in its commitment that all of our patients have access to excellent care at a reasonable cost. The financial constraints of COVID-19 have not altered this commitment. Our financial assistance polices remain robust and helpful to indigent patients and those who may have lost insurance coverage as a result of the pandemic.

Our specific responses are as follows:

1. How has COVID-19 affected UVA Medical Center's overall operations, including medical care unrelated to COVID-19? How has COVID-19 affected UVA Medical Center's overall finances?

   RESPONSE: UVA Medical Center has worked diligently to build sufficient capacity to serve COVID-19 patients while continuing to meet our commitment to the Commonwealth of Virginia by providing essential medical services, including trauma care. We have partnered with the Virginia Department of Health (VDH) and the Virginia Department of Emergency Management (VDEM) as to our COVID-19 preparedness and public health measures.

Our response to the COVID-19 pandemic has been costly, both in terms of spending and lost revenue. From March 25 through April 30, 2020 the Medical Center was prohibited from providing elective surgeries and procedures and non-urgent outpatient care in accordance with the Governor of Virginia and State Health Commissioner Order of Public Health Emergency Two, as amended. At times the Medical Center experienced delays and the unavailability of certain supplies and equipment needed to care for patients seeking medical attention, including due to the coronavirus. The cost of ramping up COVID-19 efforts, including additional supplies and Personal Protective Equipment (PPE), were both unbudgeted and significant, and occurred simultaneously with the Medical Center's staggering loss of revenue from electives. Our efforts and impacts to the operations and finances of the Medical Center have included, but are not limited to:

- We expanded our lab capabilities and were the first in Virginia to have in-house testing for COVID-19 for our patients and employees; further our lab developed new protocols for testing that have been adopted around the country, and we have provided testing for other hospitals in Virginia, DC and North Carolina.
- We developed manufacturing processes for testing supplies, including nasal swabs, to insure as best we could the ability for uninterrupted testing.
- In a 24-hour period we set up the first clinic in Virginia devoted to COVID-19 testing and later added additional clinics, which lessened the burden on our Emergency Department and provided convenient sites for patients.
- Working with VDEM and VDH, we are providing community testing for COVID-19 five days per week at off-site locations, many in underserved areas of the City of Charlottesville and surrounding counties.
- We have worked with the University to develop a plan for the safe return of students and faculty to UVA grounds and support extensive COVID-19 testing efforts for UVA students, including athletes, faculty, and staff, as well as on-going COVID-19 testing for Health System employees.
- We were the first hospital in Virginia to seek emergency certificate of public need approval and received it for an 84-bed tower to provide care for COVID patients, including negative pressure rooms which allowed for the safe separation from the rest of the inpatient population.
- We brought the 84-bed COVID tower on line ahead of schedule.
- We have a dedicated group of physicians, nurses and other health professionals who work on the COVID unit, including volunteers from our outpatient areas where care was curtailed.
- Similar to other hospitals, infection control measures were increased and correspondingly the cost of infection control increased.
- As noted above we postponed and rescheduled all outpatient clinic visits for a period of time in March and April except for sick patients or urgent visits in order to limit outpatients coming on site for non-COVID care, which protected the patients as well as our employees and helped to preserve PPE and testing supplies that were in short supply.

- Further we transitioned much of our outpatient visits to a telehealth platform, particularly for screening and routine care, which we are continuing to use today; there were unplanned costs associated with this scale-up.
- Leadership established daily, rapid communications to everyone within UVA Health to keep all employees informed and safe, and the rate of change of operations was significant, particularly in March, April and May.
- We conserved PPE and other scare resources as appropriate, stockpiled supplies as we could and formed a PPE Committee to actively manage the PPE supply and insure adequate supply; the cost of PPE and other supplies was higher than normal during times of national shortage.
- We quickly mobilized teleworking for those employees who could work from home, which required some adjustments to our network capacity, resulting in additional unplanned operating and capital expenditures.
- At no cost to them we provided educational outreach to regional community physicians to build knowledge and competencies in COVID-19 patient management for the community.
- We provided clinical support for regional nursing homes with clusters of COVID-19 cases.
- Our faculty and staff are engaged in research and a number of clinical trials related to COVID-19, including a trial involving remdesivir.

In response to the financial hardship of the pandemic from unplanned expenses, and to address significant revenue shortfalls totaling $89 million (due to volume disruptions in March and April), the entire UVA Health System undertook a three-month financial mitigation strategy that included 20% reductions in pay for all employees at the manager level and above and all physicians, suspending all employer retirement contributions, and mandatory staffing furloughs ranging from 20% to 100%, depending on the role of the employee and need of the organization for the skill set. UVA Health chose these mitigation efforts in lieu of massive lay-offs in order to protect jobs as well as to have the workforce needed to care for patients once volumes improved. Those mitigation efforts, coupled with an improvement in volume following the end of Public Health Order Two and governmental relief of $62 million (federal CARES Provider Relief Funds $41 million, state Coronavirus Relief Funds $16 million, and federal grants/support $5 million), helped to mitigate some of the financial impacts of COVID.

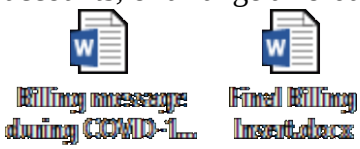
2. How has COVID-19 affected UVA Medical Center's overall finances?

RESPONSE: Combined with answer to Question 1.

3. How has COVID-19 affected UVA Medical Center's overall debt-collection efforts? How has COVID-19 affected UVA Medical Center's overall charitable-care efforts?

RESPONSE: In recognition of the impact that the pandemic has had on our patients and community, particularly those whose employment has been impacted, we have taken the following measures to help ease those financial burdens:

a. Paused referrals of delinquent accounts to collections and collection agencies.
b. Removed delinquent dunning messages from patient statements.
c. Allowed patients extended timeframes to apply for financial assistance, resolve accounts or arrange affordable, interest free payment plans.
d. Added billing messages into all of our statements to notify patients of resources available for those in need to help them apply for financial assistance, resolve accounts, or arrange affordable interest free payment plans. (see attached)



e. Initiated proactive outreach calls to help patients with aging balances apply for financial assistance, resolve accounts, or arrange affordable, interest free repayment plans.
f. Delayed patient statements to assure proper payer processing and compliance with the requirements of the CARES Act.

Prior to the pandemic in September of 2019, we stopped initiating patient lawsuits for delinquent balances. This practice has continued. We have also continued to participate in the Virginia Debt Set-Off program, but we have not garnished wages or executed on any judgments since September 2019. We continue to receive payoffs for previously obtained judgments and liens. In addition to the efforts detailed above, we have maintained the commitments we made relative to both our indigent and charity care programs as outlined in our November 19 letter: we doubled the discount for non-charity eligible uninsured patients receive to 40% of charges and significantly increased both the income and asset/resource limits making it easier for uninsured and under-insured patients to qualify for financial assistance on their bills. Those steps are further detailed in Answer 6.

4. How has COVID-19 affected UVA Medical Center's overall charitable-care efforts?

RESPONSE: Combined with answer to Question 3.

5. How much does it cost UVA Medical Center to treat a patient suffering from COVID-19 and what are the range of bills an uninsured or underinsured patient suffering from COVID-19 might expect to pay for such treatment?

RESPONSE: Our data indicates the average cost to treat patients at UVA Medical Center with COVID-19 on an inpatient basis has been approximately $37,000. The costs associated with caring for patients with coronavirus can, however, vary greatly due to many factors, including (i) the patients' underlying medical conditions that may include pre-existing or comorbid conditions, (ii) their social determinants of health,

(iii) the severity of their illness, (iv) the intensity of services needed to be provided, (v) their risk of mortality, (vi) how difficult their illness is to treat, and (vii) the resources needed to treat the illness to include diagnostic, therapeutic, and various bedside services used in the management of their particular illness. These factors can contribute to a greater length of stay for our COVID-19 patients, who averaged 12 inpatient days. The Medical Center agreed to participate in the Families First Coronavirus Response Act's Uninsured Relief Fund, and thus no bills for treatment covered by that Fund have been sent to uninsured patients. With regard to under-insured patients, through August 31, 2020, 51 inpatients treated at UVA for COVID-19 had commercial insurance/managed care coverage and the associated patient out of pocket costs ranged from $0 (a majority) to $4,026 for those stays.

6. Since your response of November 19, 2019, have any policies or practices, as discussed in that letter, changed? If so, how?

RESPONSE: The debt collection process changes we implemented in September 2019 have not changed as a result of the pandemic and continue to be applied today. We have implemented all of the changes to our financial assistance policies outlined in our original November 19 response (see below chart). In addition, with the help of the Community Advisory Council that we created last fall, we have been reviewing a draft catastrophic care policy to supplement the changes already made and notated below. Moreover, in its 2020 Regular Session, the Virginia General Assembly also changed two (2) laws governing our debt collection as an agency of the Commonwealth of Virginia. The amendments were to Code of Virginia §2.2-4806 (f) and §58.1-522 (B)), and the changes result in a requirement that the Medical Center take reasonable efforts to validate patients' eligibility for Medicaid or financial assistance prior to initiating collection activities. This change in law has not changed our practice, as we were already providing financial assistance before pursuing collection efforts consistent with this change in the Debt Collection Act.

The changes in our indigent/charity criteria are summarized below:

I. **Financial Assistance/Charity Care Changes:**

Federal Poverty Level (FPL)	Pre 12/31/2019	New Effective 1/1/2020
0 – 100%	Write off 100% of charges when patient meets FPL & State asset test. If assets disqualify the patient receives 20% discount and we pursue collection.	Write off 100% of charges, UVA will expand asset test to $50,000 (State asset guidelines are for individuals at $2,000)
101 – 200%	Write offs based on sliding scale tied to FPL (per Indigent care guidelines), leaving a patient balance that is due (asset test required).	Write off 100% of charges, UVA will expand asset test to $50,000 (State asset guidelines are for individuals at $2,000)
201 – 300%	Write off 20% of charges if uninsured	Write off 60% of charges. UVA asset test applies to $50,000
301 – 400%	Write off 20% of charges if uninsured	Write off 50% of charges. UVA asset test applies to $50,000

II. **Uninsured Discount:**

> 400%	Write off 20% of charges	Write off 40% of charges for uninsured discounts for non-indigent and non-charity, and for patients in the 0-400% FPL who are over asset requirement.

If you have questions about any of our responses, please reach out to me, and we will work to provide you with additional information. Thank you.

Sincerely,

K. Craig Kent, M.D.
Executive Vice President for Health Affairs

cc: Senator Mark R. Warner
Senator Timothy M. Kaine
President James T. Ryan

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United States Senate
COMMITTEE ON FINANCE
WASHINGTON, DC 20510–6200

VIA ELECTRONIC TRANSMISSION

Michael Ugwueke, DHA, FACHE
[redacted]

December 3, 2019

Dear Dr. Ugwueke:

The United States Senate Committee on Finance has exclusive jurisdiction within the United States Senate over matters of federal taxation, and as its chairman I am committed to making sure the United States' tax laws are administered fairly and effectively. As part of that commitment, it is my job to make sure that entities exempt from tax are fulfilling their tax-exempt purposes. In 2015, I investigated reports that the Mosaic Life Care hospital system in Missouri and Kansas was suing low-income patients to force them to pay their hospital bills even when those patients were eligible for financial assistance and discounted treatments.[1] As a result of that investigation, Mosaic Life Care established a three-month debt forgiveness period in which patients could apply or re-apply for financial assistance, forgave the debt of 5,070 patients, and hired more employees to help low-income patients apply for financial assistance.[2]

As you are surely aware, Methodist Le Bonheur Healthcare is a tax-exempt hospital by way of Section 501(c)(3) of the Internal Revenue Code.[3] Section 501(r) of the tax code requires tax-exempt hospitals to (1) meet community health needs assessments requirements, (2) maintain financial assistance policies, (3) limit amounts charged for medically necessary care provided to individuals eligible for financial assistance, and (4) refrain from extraordinary collection actions

[1] *See* Letter from Sen. Charles E. Grassley to Dr. Mark Laney, President and CEO of Mosaic Life Care (Jan. 16, 2015), *available at* https://www.documentcloud.org/documents/1503959-grassley-letter-2015-01-16-ceg-to-mosaic.html.

[2] Press Release, Sen. Charles E. Grassley, Grassley Releases Results of Inquiry into Missouri Tax-exempt Hospital; Confirms Debt Forgiveness of $16.9 Million for 5,070 Patients (May 24, 2016), *available at* https://www.grassley.senate.gov/news/news-releases/grassley-releases-results-inquiry-missouri-tax-exempt-hospital-confirms-debt.

[3] *See* Methodist Le Bonheur Healthcare IRS Form 990 (2017), *at* https://www.methodisthealth.org/files/990s/2017%20FORM%20990%20-%20PUBLIC%20-%20MLH.pdf.

against patients before making reasonable efforts to determine if those patients are eligible for financial assistance.[4] Unfortunately, I have seen a variety of news reports lately discussing what appear to be relentless debt-collection efforts by various tax-exempt hospitals, including Methodist Le Bonheur Healthcare. These efforts raise questions about how Methodist Le Bonheur Healthcare, and other tax-exempt hospitals, are complying with these requirements.

Specifically, according to a recent *MLK50* article,

> *From 2014 through 2018, Methodist filed more than 8,300 lawsuits. . .*
>
> ...
>
> *Its handling of poor patients begins with a financial assistance policy that, unlike many of its peers around the country, all but ignores patients with any form of health insurance, no matter their out-of-pocket costs. If they are unable to afford their bills, patients then face what experts say is rare: A licensed collection agency owned by the hospital.*
>
> *Lawsuits follow. Finally, after the hospital wins a judgment, it repeatedly tries to garnish patients' wages, which it does in a far higher share of cases than other nonprofit hospitals in Memphis.*
>
> ...
>
> *The number of lawsuits Methodist files isn't out of proportion to its size, at least compared to [other hospitals]. But where it does stand out is the share of cases in which it seeks a wage garnishment order, an action that can upend the lives of low-wage defendants.*
>
> *A court-ordered garnishment requires that the debtor's employer send to the court 25% of a worker's after-tax income, minus basic living expenses and a tiny deduction for children under 15. The court then sends that payment to the creditor.*
>
> *Methodist secured garnishment orders in 46% of cases filed from 2014 through 2018....*[5]

Furthermore, according to this article, Methodist Le Bonheur Healthcare sought to collect from one former patient for more than nine years, following her from job to job.[6] Methodist Le Bonheur Healthcare reportedly sought wage garnishment at several of the patient's employers despite indications the patient did not make enough to have her wages legally garnished.[7] On

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[4] 26 U.S.C. § 501(r) (2019).
[5] Wendi C. Thomas, *The Nonprofit Hospital That Makes Millions, Owns a Collection Agency and Relentlessly Sues the Poor*, MLK50: JUSTICE THROUGH JOURNALISM, June 27, 2019, *at* https://mlk50.com/mlk50-com-profitingfromthepoor-7deacb56d542.
[6] *Id.*
[7] *Id.*

one successful attempt, Methodist Le Bonheur Healthcare garnished $3.67 from the patient's paycheck.[8] The *MLK50* article goes on to state that Methodist Le Bonheur Healthcare is among the least generous in Tennessee when it comes to charity care and does not offer free or highly discounted care.[9] Additionally, Methodist Le Bonheur Healthcare reportedly only offers zero-percent interest payments for the insured and uninsured before court proceedings commence.[10]

According to my own review of the Shelby County General Sessions Court docket, it appears that Methodist Le Bonheur Healthcare filed 1,337 suits against patients for hospital debts in 2017, 1,380 suits against patients for hospital debts in 2018, and 585 suits against patients for hospital debts in 2019 through June 21, at which point some of those lawsuits appear to have been dropped while others continued.[11]

I have the following questions about some of the facts alleged in this article:

1. Since the beginning of 2014, how much money has Methodist Le Bonheur Healthcare collected from patients (including individuals responsible for making payments on behalf of patients) whose bills were more than 30 days past due? How many of these patients (including individuals responsible for making payments on behalf of patients) were eligible for financial assistance?

2. Since the beginning of 2014, how much charitable care has Methodist Le Bonheur Healthcare provided in each of those years? Please provide a breakdown of charitable care, including the methodology for calculating charitable care and what programs and services are included in that calculation, as well as the amounts allocated for each category.

3. Prior to the publication of the *MLK50* article quoted above, what was Methodist Le Bonheur Healthcare's process for notifying patients about their outstanding balances prior to those balances being transferred to either an in-house debt collector or a third party for debt collection and/or prior to judicial remedies being sought regarding those balances? If there had been a policy for notifying patients about such outstanding balances, please provide a copy of that policy.

4. Does Methodist Le Bonheur Healthcare maintain its own licensed debt-collection agency or office? If so, how much has this collection agency or office collected from low-income patients since the beginning of 2014 in each of those years?

    a. Since 2014, what techniques has this debt-collection agency or office employed for the purpose of collecting debts owed to Methodist Le Bonheur Healthcare? Please provide a copy of whatever handbook or other literature might describe such techniques, including draft scripts or

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[8] *Id.*
[9] *Id.*
[10] *Id.*
[11] *See* Shelby County General Sessions Civil Division, Person/Case Type Search, *available at* https://gscivildata.shelbycountytn.gov/pls/gnweb/ck_public_qry_cpty.cp_personcase_setup_idx.

the like, for agents or employees of such debt-collection agency or office to use when attempting to collect debts owed to Methodist Le Bonheur Healthcare.

b. Since 2014, what financial incentives have individual agents or employees of this debt-collection agency or office been offered for the purpose of securing the payment of debts owed to Methodist Le Bonheur Healthcare? Please provide a copy of whatever handbook or other literature might describe such financial incentives that agents or employees of such debt-collection agency or office might have been offered as incentive to collect debts owed to Methodist Le Bonheur Healthcare.

5. If Methodist Le Bonheur Healthcare does elect to use a third-party debt-collection service, what is Methodist Le Bonheur Healthcare's policy for transferring outstanding balances to a third-party for debt-collection? Please provide a copy of that policy.

6. Prior to the publication of the *MLK50* article quoted above, what was Methodist Le Bonheur Healthcare's policy on seeking judicial remedies to enforce the payment of outstanding balances? In your response, please include a discussion of how Methodist Le Bonheur Healthcare enforced balances that had been reduced to judgment, including but not limited to, how Methodist Le Bonheur Healthcare prioritized lien enforcement, garnishment, and other collection remedies. Please provide a copy of that policy.

7. Prior to the publication of the *MLK50* article quoted above, what was Methodist Le Bonheur Healthcare' financial assistance policy? Please provide a copy of that policy. Since the beginning of 2014, what percentage of patients who received medically necessary care from Methodist Le Bonheur Healthcare and did not have health insurance were eligible for financial assistance?

8. Prior to the publication of the *MLK50* article quoted above, what efforts did Methodist Le Bonheur Healthcare make to determine whether patients had been eligible for financial assistance before taking extraordinary collection actions, as defined by 26 U.S.C. §501(r) and its supporting regulations, against patients (including individuals responsible for making payments on behalf of patients)? If there was a written policy for determining whether patients had been eligible for financial assistance before taking extraordinary collection actions against them, please provide a copy of that policy.

9. Prior to the publication of the *MLK50* article quoted above, what efforts did Methodist Le Bonheur Healthcare make to inform patients (including individuals responsible for making payments on behalf of patients) of the availability of financial assistance before taking extraordinary collection actions? If there was a written policy for informing patients of the availability of financial assistance

before taking extraordinary collection actions against them, please provide a copy of that policy.

10. Since the beginning of 2014, has Methodist Le Bonheur Healthcare ever reevaluated and/or rescinded a patient's financial assistance determination? If so, how many times has Methodist Le Bonheur Healthcare reevaluated or rescinded such a determination, and what were the reasons for such determination(s)?

11. In the wake of the reporting discussed above, Methodist Le Bonheur Healthcare stated that it has raised its threshold for financial assistance from requiring patients be at or below 125 percent of the federal poverty guidelines to being at or below 250 percent of the federal poverty guidelines.[12] What had been the rationale for using a basis of a patient earning 125 percent of federal poverty guidelines or less for determining whether or not to deny financial assistance? What was the rationale for raising that threshold to 250 percent of the federal poverty guidelines?

12. Also in the wake of that reporting, you stated in a press release that Methodist Le Bonheur Healthcare has a new financial-assistance policy that "will better reflect the needs and circumstances of those we serve," and "[r]egardless of insurance status, Methodist will no longer pursue legal action against anyone who is at or below 250% of the federal poverty guidelines."[13] Please provide a copy of that new policy.

    a. How will Methodist Le Bonheur Healthcare's new financial-assistance policy better serve low-income patients compared to its old policy beyond including more people in it?

    b. Does this 250-percent threshold for legal action explain why Methodist Le Bonheur Healthcare appears to have dropped certain collection lawsuits this past summer while others remain pending? What steps did Methodist Le Bonheur Healthcare take to determine whether a defendant may or may not have been below this threshold?

13. Does Methodist Le Bonheur Healthcare plan to refile lawsuits against patients in which it has previously dropped lawsuits against? If so, what are the criteria for determining which lawsuits it will refile?

14. What, if any, procedures are in place to determine that delinquent debts of any amount are accurate prior to Methodist Le Bonheur Healthcare taking any steps to collect those debts?

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[12] *Methodist Le Bonheur Healthcare announces new initiatives to help address poverty and uplift their associates, patients, and community*, METHODIST LE BONHEUR HEALTHCARE (July 30, 2019), *at* https://www.methodisthealth.org/newsroom/news-article/methodist-le-bonheur-healthcare-announces-two-new-initiatives-to-help-address-poverty-and-uplift-their-associates-patients-and-the-community/.

[13] *Id.*

15. The article quoted above reports that Methodist Le Bonheur Healthcare once pursued payment from a low-income patient for more than nine years. The article also reports that Methodist Le Bonheur Healthcare once sought garnishment for $3.67 of the patient's paycheck.

    a. Are these facts correct as reported?

    b. What steps did Methodist Le Bonheur Healthcare take to ensure that this patient was not eligible for financial assistance before pursuing payment in this manner?

    c. Does Methodist Le Bonheur Healthcare have a policy on how long it pursues medical debts? If so, please provide a copy of that policy.

    d. Does Methodist Le Bonheur Healthcare have a policy on amount thresholds that it pursues when collecting on medical debts? If so, please provide a copy of that policy.

16. Prior to the publication of the original *MLK50* article quoted above, what was Methodist Le Bonheur Healthcare's policy for garnishing wages? Please provide a copy of that policy. How has this policy changed since the release of the *MLK50* article quoted above, if at all? Please provide a copy of that new policy.

17. In another follow-up article in September, *MLK50* reported that Methodist Le Bonheur Healthcare erased the debts owed by more than 6,500 patients it had sued for unpaid hospital bills.[14] Is this accurate? What was the criteria for determining which debts to forgive? When did the hospital forgive the debts?

18. Prior to the publication of the original *MLK50* article quoted above, did Methodist Le Bonheur Healthcare conduct a Community Health Needs Assessment (CHNA)? If so, please provide copies of each CHNA that Methodist Le Bonheur Healthcare has conducted.

In addition to having concerns about Methodist Le Bonheur Healthcare's financial-assistance and debt-collection practices, I am also concerned about how patients' hospital bills get so high in the first place. I have the following additional questions about Methodist Le Bonheur Healthcare's billing practices:

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[14] Wendi C. Thomas, *Methodist Le Bonheur erases debts of more than 6,500 patients it sued*, MLK50: JUSTICE THROUGH JOURNALISM, Sept. 24, 2019, *at* https://mlk50.com/we-reported-on-methodist-le-bonheur-suing-patients-it-erased-the-debts-of-more-than-6-500-patients-ade13e8e2e6d.

19. Methodist Le Bonheur Healthcare appears to list "Hospital Charges" on the internet. However, those prices "do not include any provider fees that may be associated with a hospital visit."[15]

    a. In this context, what is a "provider fee"?

    b. Prior to receiving services from Methodist Le Bonheur Healthcare, whether medically necessary or otherwise, how do patients know what the final costs of those services are going to be, whether such patients are covered by health insurance or not?

20. Under the Internal Revenue Code, tax-exempt hospitals are prohibited from billing patients without health insurance, and who are otherwise eligible for financial assistance, more than what individuals who have insurance are billed for medically necessary care.[16] How does Methodist Le Bonheur Healthcare ensure that it complies with this requirement? Since the beginning of 2014, what percentage of patients who received medically necessary care from Methodist Le Bonheur Healthcare and did not have health insurance were billed at rates commensurate with this requirement in the tax code?

21. I understand Methodist Le Bonheur Healthcare's latest Chargemaster (price list) is available on Methodist Le Bonheur Healthcare's website here: https://www.methodisthealth.org/files/billing/Methodist%20Le%20Bonheur%20Healthcare%20Chargemaster%202019_Addendum1.xlsx. Is this document Methodist Le Bonheur Healthcare' most up-to-date Chargemaster?

    a. What do the prices on this document represent?

    b. How are these prices determined?

    c. How do the prices that Methodist Le Bonheur Healthcare negotiates with insurance companies compare to these prices? If there is a fixed ratio for determining the prices Methodist Le Bonheur Healthcare negotiates with and/or charges insurance companies as compared to these prices in the Chargemaster, what is that ratio? If there is another method for determining the prices Methodist Le Bonheur Healthcare negotiates with and/or charges insurance companies as compared to these prices on the Chargemaster, what is that other method?

    d. Who pays these prices?

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[15] Methodist Le Bonheur Healthcare, Insurance & Billing, *at* https://www.methodisthealth.org/patients-guests/billing-department.dot.

[16] 26 U.S.C. §501(r)(5) (2019).

i. How do these prices relate to hospital bills that a patient might receive if he or she is covered by health insurance that considers Methodist Le Bonheur Healthcare "out-of-network"?

ii. How do these prices relate to hospital bills that a patient might receive if he or she does not have health insurance?

e. For patients who might incur these costs (or some pre-determined fraction of them), how does Methodist Le Bonheur Healthcare explain to patients seeking care that is not medically necessary that these are the costs they might incur (or some pre-determined fraction of them)?

f. For patients who might incur these costs (or some pre-determined fraction of them), how does Methodist Le Bonheur Healthcare explain to patients who require medically necessary and immediate care, and might not be in a position to understand costs they would incur as a result of that care, that these are the costs they might incur (or some pre-determined fraction of them)?

g. The Chargemaster appears to list a cost of $8,159.00 for "X-RAY AORTA LEG ARTERIES."

i. What is this service/supply?

ii. Why does this service/supply cost $8,159.00?

h. The Chargemaster appears to list a cost of $2,605.00 for "VEIN X-RAY ARM/LEG."

i. What is this service/supply?

ii. Why does this service/supply cost $2,605.00?

iii. What is the difference between the service/supply listed as "X-RAY AORTA LEG ARTERIES" and the service/supply listed as "VEIN X-RAY ARM/LEG"?

iv. Why is there a $5,554.00 difference between the prices of these two services/supplies?

v. What procedures or protocols does Methodist Le Bonheur Healthcare employ to ensure that its employees do not accidentally record a patient having received the "X-RAY AORTA LEG ARTERIES" service/supply when in fact that patient received the "VEIN X-RAY ARM/LEG" service/supply, or ensure that employees do not accidentally make similar billing errors?

i. The Chargemaster appears to list a cost of $172.00 for "PLACE NEEDLE IN VEIN."

   i. What is this service/supply?

   ii. Why does this service/supply cost $172.00?

j. The Chargemaster appears to list a cost of $172.00 for "WHEELCHAIR MNGMENT TRAINING."

   i. What is this service/supply?

   ii. Why does this service/supply cost $172.00?

k. The Chargemaster appears to list a cost of $32.00 for "VITAMIN B-12."

   i. What is this service/supply?

   ii. Why does this service/supply cost $32.00?

Please answer the above questions on a question-by-question basis, indicating which questions you are answering, no later than January 7, 2020. Should you have questions, please contact John Schoenecker or Quinton Brady of my Committee staff at (202) 224-4515. Thank you for your attention to this important mater.

Sincerely,

Charles E. Grassley
Chairman
Senate Committee on Finance

Methodist Le Bonheur Healthcare

The Power of One

January 21, 2020

The Honorable Charles E. Grassley
Chairman, Senate Committee on Finance
United States Senate
Washington, DC 20510

RE: December 3, 2019 letter to Methodist Le Bonheur Healthcare

Dear Chairman Grassley:

Thank you for your December 3, 2019 letter to Methodist Le Bonheur Healthcare ("MLH"), which seeks information regarding our patient financial assistance process and raises specific questions based on recent reporting by ProPublica and MLK50. MLH appreciates the opportunity to address your questions and highlight our commitment to ensuring access to and the affordability of our healthcare system. It has been and remains our mission and commitment to ensure that all patients have access to high quality, affordable healthcare.

I. Our Mission: Leadership in Service to the Health of Our Community

Grounded in our roots in the Methodist Church, and founded in 1918 to help meet the growing need for quality healthcare in the greater Memphis area, MLH has grown from one hospital into a comprehensive healthcare system with 13,000 Associates supporting six hospitals, ambulatory surgery centers, outpatient facilities, a hospice residence and physician practices serving communities across the Mid-South. MLH serves a population of 1.25 million people in Eastern Arkansas, West Tennessee, and North Mississippi.

As a not-for-profit, faith-based healthcare system, our purpose is to treat, support and educate our patients on their journey towards a greater quality of life. Patients and families are at the heart of all we do, and we accept and honor the trust they place in us by allowing us to serve them in their time of need. We care for a broad cross section of our community, including many economically disadvantaged areas, always remaining true to our goal of providing exceptional healthcare to all who enter our doors and ultimately improving every life we touch.

Each year, MLH contributes more than $226 million in charity care – care not covered by Medicare or TennCare (Tennessee's Medicaid program)--as well as medical education and a number of other services to improve the health of our community. MLH's foundations provide more than $24 million to meet the needs of the most vulnerable members of our community and MLH provides more than $2 million each year in corporate contributions to support numerous community health initiatives.

We know that in order to truly demonstrate our commitment to caring for all, we must reach beyond the walls of our hospitals and develop strategies and programs that address the unique health and education needs of our community. We advocate for community health and well-being through public policy, education, and community engagement. Our efforts are directed at improving access to services, risk reduction, child development and effective parenting, chronic illness management and prevention, and advocacy for well-being.

- MLH has more than 250 health workers, therapists and educators working in childcare centers, schools and homes.
- MLH provides 20 evidenced-based or best practice programs, designed to improve the health of people most at risk in our community.
- MLH collaborates with more than 400 local, regional, state and federal partners including businesses, childcare centers, schools, faith-based organizations, community organizations and governmental agencies.

We understand that beyond the ability to help patients access and afford the healthcare they need, our responsibility to help uplift our community must be viewed through the more than 13,000 dedicated employees who make this organization thrive. The issue of poverty in our community is multifaceted and complex; yet we continue to look for ways to make an impact. We worked, prior to the public spotlight last year, on two special initiatives to help battle poverty and a lack of opportunity in this community. First, we decided to further invest in our community through higher wages, we will incrementally increase the wages paid to employees up to $15.00 per hour by January 2021. Further, we decided to invest in our community and employees by providing career pathways and the opportunity to obtain free college credits in the Associate Advancement Program through the University of Memphis. Increasing the minimum wage and expanding employment opportunities with access to higher education will provide community benefit, both tangible and intangible, that demonstrates MLH's true commitment to the battle against poverty.

II. Financial Aid Program Overview

An essential part of the MLH mission is to provide high quality healthcare to anyone who needs it, regardless of their ability to pay. Because we serve a community that faces high levels of poverty, we treat a large number of patients who do not have the ability to pay for care. We strive to balance the need to ensure necessary funding, which allows us to operate, with our mission to provide the highest quality care for all, regardless of one's ability to pay for such care.

MLH maintains policies and procedures to ensure compliance with Section 501(r) of the Internal Revenue Code and continuously strives, as a mission-driven, not-for-profit hospital system, to ensure compliance with all requirements set forth in 501(c)(3) of the Internal Revenue Code, including the following broad categories: (i) Organizational Test, (ii) Operational Test, (iii) Community Benefit Standard, (iv) Open Emergency Room, (v) Community Board, (vi) Open Medical Staff Policy, (vii) Care for All/Ability to Pay, (viii) Surplus Funds, and (vix) Financial Assistance.

MLH has engaged in community health needs assessments and worked diligently to ensure it has met all associated requirements. We have a formalized Financial Assistance Policy, which is provided in plain language and limits the amounts eligible individuals are charged for medically necessary care. MLH does

not engage in extraordinary collections actions (as defined in the Act) before making reasonable efforts to determine if responsible parties/patients are eligible for financial assistance and works with those parties throughout the process to provide customer service on all accounts.

Throughout our history serving the healthcare needs of Memphis and the mid-south region, we have modified and updated our policies and practices as laws and community needs evolve. We use all opportunities that present themselves, regardless of format, to reflect on and reevaluate how MLH can best serve its mission-driven purpose of providing the highest quality healthcare to all members of its community, regardless of the ability to pay. To that end, when the articles were published, MLH used the opportunity to reevaluate and ultimately revise its processes. While we were in compliance with required policies and procedures, we still asked ourselves what more we could do to uplift our community and we made changes that reflect our mission and values.

A. Revised Financial Aid Program

In the summer of 2019, MLH's Board of Directors approved a new financial aid policy and MLH announced significant changes to the financial aid program. The re-evaluation and revision process allowed MLH to further its commitment to the community by not only ensuring continued compliance with all applicable laws, including 501(r), but by pushing ourselves to go above and beyond what is required under the law.

The expanded discounts provided through the new financial aid program, effective August 1, 2019, are summarized as follows:

1. Uninsured patients (which per the policy includes insured patients who are determined to be "underinsured") whose income level is above 250% of the Federal Poverty Guideline ("FPG"), receive an automatic 70% discount off of Gross Charges for Covered Services received at MLH facilities located in Tennessee and a 75% discount off of Gross Charges for Covered Services received at MLH facilities located in Mississippi.

2. Uninsured patients (which per the policy includes insured patients who are determined to be "underinsured") whose resources are at or below 250% of the FPG are eligible for benefits up to a 100% discount of Gross Charges for Covered Services received at any MLH facility per the chart below:

Previous Policy		**New Policy**	
% of Federal Poverty Guidelines	**% Discount off Charges**	**% of Federal Poverty Guidelines**	**% Discount off Charges**
Less than 125%	100%	Less than 200%	100%
125%-150%	90%	200%-225%	90%
151%-175%	80%	226%-250%	80%
175%-200%	70%		

3. Any responsible party/patient with an unpaid balance greater than $5,000 after insurance is applied (from a single medical encounter), will also be eligible for an additional 25% discount.

4. MLH employees with unpaid balances will not be subject to suit and/or garnishment.

Additional changes are summarized below:

B. Debt Collection

In addition to expanding our financial aid programs, MLH dismissed all pending debt collection actions so that the cases could be reassessed based upon the enhanced financial aid programs. Pursuant to the discounts identified above, cases have been dismissed for patients who make less than 250% of the FPG and provide requested documentation to MLH.

MLH will continue examining additional ways that we can improve our process and how we communicate with responsible parties and patients. We will monitor the changes that we have put into effect and make adjustments as necessary. We spent a significant amount of time seeking feedback from and listening to our patients, employees, and the broader community in this process; and we assessed the financial aid, billing, and collections practices of other similar sized, urban, mission-driven healthcare organizations. While the assessment revealed that our approach was not an outlier, we committed to doing more, which resulted in the revised policy, which now covers more than half of the population of greater Memphis and provides additional relief for patients who are already insured.

III. Responses to Specific Questions

1. Since the beginning of 2014, how much money has Methodist Le Bonheur Healthcare collected from patients (including individuals responsible for making payments on behalf of patients) whose bills were more than 30 days past due? How many of these patients (including individuals responsible for making payments on behalf of patients) were eligible for financial assistance?

Response: MLH is committed to serving all in our community, regardless of the ability to pay. Complying with the requirements of the law and our policies, MLH provides financial assistance to those in need, proper notice of the existence of financial aid and how to apply; allows the proper time period for financial aid applications; refrains from any collections activity within the prohibited time frame; and does not pursue collections activity, except as a last resort after multiple attempts to communicate with a responsible party/patient.

MLH[1] has collected a total of $169.1M from a total of 977,875 accounts that were 30 days or more past due since 2014, but this total does not reflect discounts or other financial assistance that may have been applied. In advance of any extraordinary collection efforts, MLH provided appropriate notice and an opportunity for the responsible party/patient to apply for financial aid. Of the accounts we have collected on, after thirty (30) days, approximately 1% were provided financial assistance (potentially beyond discounts already applied) upon the evaluation of additional information.

[1] The totals provided include all internal and external collection activities (both up front and back end) conducted on behalf of MLH.

2. Since the beginning of 2014, how much charitable care has Methodist Le Bonheur Healthcare provided in each of those years? Please provide a breakdown of charitable care, including the methodology for calculating charitable care and what programs and services are included in that calculation, as well as the amounts allocated for each category.

Response: MLH is an active, caring member of the community it serves. In fulfilling our teaching and healing ministry, we have established policies under which we provide care to underserved members of our community.

When defining charity care, MLH employs the Federal Poverty Guideline (FPG) to determine the level of discount uninsured patients receive. The level by which assistance is determined is through the scale set by U.S. Department of Health and Human Services (DHHS), which includes factors such as residents per household and income. MLH methodology includes a sliding scale for patients that fall at or below the 200% FPG baseline. MLH does not have a cap at which patients will not qualify for a discount. Additionally, MLH charity care guidelines provide for an expansive definition of charity care patients, including a discount from standard charges for uninsured patients.

In order to uphold our mission and dedication to our community, MLH turns no patient away regardless of whether they possess insurance. It is this commitment that enables MLH to utilize its charity care policy. Once deemed charity, payments are no longer sought after and the amount is covered by MLH at no cost to the patient or community.

Reported as community commitment are charity care, Medicaid and TennCare and other means tested programs, and unbilled community services at cost. Revenue received for each of these categories is substantially lower than the costs to operate. The revenue is offset against the community commitment to calculate net community commitment. A hospital assessment fee of 4.5% of net patient revenue from the fiscal year 2008 cost report was assessed during the fiscal years included in this discussion. The hospital assessment fee has been included in the Medicaid and other means tested programs section, while the reimbursement for the programs has been included in offsetting revenue. The unbilled community services section includes other services provided to the community at a net loss to the program; it includes programs such as clinical educational programs, health screenings and health fairs, among others. Please see Exhibit 1, MLH Charitable Care (2014-2018).

3. Prior to the publication of the *MLK50* article quoted above, what was Methodist Le Bonheur Healthcare's process for notifying patients about their outstanding balances prior to those balances being transferred to either an in-house debt collector or a third party for debt collection and/or prior to judicial remedies being sought regarding those balances? If there had been a policy for notifying patients about such outstanding balances, please provide a copy of that policy.

Response: MLH sent statements to the responsible party for an account with a minimum of three (3) written notices (day 1, day 60 and day 90) before an account became eligible for further collection efforts on day 121. If MLH had a phone number on file, it would also attempt to call the responsible party, starting on day 31. If at any time the responsible party made payment arrangements with MLH, the account would be removed from the collections work flow. Once the account was paid in full, the account would be cancelled. If an individual was working diligently with us to communicate and pay an

outstanding balance, MLH would not seek any judicial remedy. Please see Exhibit 2, Billing and Collections Policy for Self-Pay Accounts (2015).

4. Does Methodist Le Bonheur Healthcare maintain its own licensed debt-collection agency or office? If so, how much has this collection agency or office collected from low-income patients since the beginning of 2014 in each of those years?

Response: MLH does not currently maintain its own licensed debt-collection agency. Prior to April 2019, Consolidated Recovery Services ("CRS")—a wholly-owned MLH affiliate—was a licensed debt collector on behalf of MLH, which was only pursued as a last resort when responsible parties/patients refused to make appropriate payments and/or communicate with MLH. Neither MLH nor CRS tracked the income of patients; however, CRS collected $4,158,941.00 from 11,706 self-pay accounts, as (many of whom may be uninsured/low-income) identified below:

   a. Since 2014, what techniques has this debt-collection agency or office employed for the purpose of collecting debts owed to Methodist Le Bonheur Healthcare? Please provide a copy of whatever handbook or other literature might describe such techniques, including draft scripts or the like, for agents or employees of such debt-collection agency or office to use when attempting to collect debts owed to Methodist Le Bonheur Healthcare.

Response: A responsible party/patient would receive a minimum of three (3) written notices (day 1, day 60 and day 90) before an account became eligible for further collection efforts on day 121. If MLH had a phone number on file, it would also attempt to call the responsible party, starting on day 31. If at any time the responsible party made payment arrangements with MLH, the account would be removed from the collections work flow. CRS' techniques emphasize communication and respect for the responsible party/patient. Please see Exhibit 2 and Exhibit 3, Trainingmanual2014LGR.doc.

   b. Since 2014, what financial incentives have individual agents or employees of this debt-collection agency or office been offered for the purpose of securing the payment of debts owed to Methodist Le Bonheur Healthcare? Please provide a copy of whatever handbook or other literature might describe such financial incentives that agents or employees of such debt- collection agency or office might have been offered as incentive to collect debts owed to Methodist Le Bonheur Healthcare.

Response: Prior to January 2019, CRS employees earned 10.75% on amounts collected in excess of thirty thousand ($30,000.00) dollars monthly. Please see Exhibit 4, CRS_Commission.pdf.

5. If Methodist Le Bonheur Healthcare does elect to use a third-party debt-collection service, what is Methodist Le Bonheur Healthcare's policy for transferring outstanding balances to a third-party for debt-collection? Please provide a copy of that policy.

Response: MLH is not currently using a third-party debt-collection service. MLH ceased all third-party debt collection activities in January 2019 in order to implement a new billing system.

6. Prior to the publication of the *MLK50* article quoted above, what was Methodist Le Bonheur Healthcare's policy on seeking judicial remedies to enforce the payment of outstanding balances? In your response, please include a discussion of how Methodist Le Bonheur Healthcare enforced balances that had been reduced to judgment, including but not limited to, how Methodist Le Bonheur Healthcare prioritized lien enforcement, garnishment, and other collection remedies. Please provide a copy of that policy.

Response: If a responsible party did not set up a payment plan, was not eligible for additional financial aid, and had received appropriate notice in compliance with our policies, as a last resort after multiple unsuccessful collection attempts, we initiated litigation on selected accounts in order to obtain a money judgment for the balance owed on the account. If, after entry of judgement, payment arrangements were not made and/or the responsible party refused to communicate with us, we pursued other judicial relief such as garnishment or property liens. The use of property liens was discontinued in 2016 and currently, MLH will only seek to satisfy a judgement through garnishment as a last resort. Please see Exhibit 5, Pre-legal Suit Evaluation and Collection Procedures and Exhibit 6, Garnishment Pay.doc.

7. Prior to the publication of the *MLK50* article quoted above, what was Methodist Le Bonheur Healthcare' financial assistance policy? Please provide a copy of that policy. Since the beginning of 2014, what percentage of patients who received medically necessary care from Methodist Le Bonheur Healthcare and did not have health insurance were eligible for financial assistance?

Response:

Previous Policy	
% of Federal Poverty Guidelines	**% Discount off Charges**
Less than 125%	100%
125%-150%	90%
151%-175%	80%
175%-200%	70%

Per our policy prior to the publication of the MLK50 article, all patients who received medically necessary care and did not have health insurance were eligible to apply for and would receive financial aid, as outlined in the policy. Patients received a 75-80% discount on medically necessary care if they paid in full up front (depending on the facility) and a 70-75% discount if they did not pay up front (depending on the facility). Additional discounts may have also applied. Please see Exhibit 7, Financial Assistance Policy (2015), and Exhibit 8, FA Plain Language Summary (2015).

Since 2014, MLH has discounted 91% of the gross charges applied to all uninsured responsible party accounts. During the same period, total collections from uninsured responsible parties equaled 0.47% of total gross charges.

8. Prior to the publication of the *MLK50* article quoted above, what efforts did Methodist Le Bonheur Healthcare make to determine whether patients had been eligible for financial assistance before taking extraordinary collection actions, as defined by 26 U.S.C. §501(r) and its supporting regulations, against patients (including individuals responsible for making payments on behalf of patients)? If there was a written policy for determining whether patients had been eligible for financial assistance before taking extraordinary collection actions against them, please provide a copy of that policy.

Response: Consistent with MLH policy and the requirements of 26 U.S.C. §501(r), MLH undertook efforts to publicize and make available its financial aid policy and a plain summary of the policy by providing them in paper form and making these items available via the MLH website. Potentially eligible patients are provided with the policy, plain language summary and application forms prior to discharge. The Billing and Collections Policy for Self-Pay Accounts details that reasonable efforts to determine financial assistance must be made *prior* to any extraordinary collections efforts. Please see Exhibit 8, FA Plain Language Summary (2015) and Exhibit 2, Billing and Collections Policy for Self-Pay Accounts (2015).

9. Prior to the publication of the *MLK50* article quoted above, what efforts did Methodist Le Bonheur Healthcare make to inform patients (including individuals responsible for making payments on behalf of patients) of the availability of financial assistance before taking extraordinary collection actions? If there was a written policy for informing patients of the availability of financial assistance before taking extraordinary collection actions against them, please provide a copy of that policy.

Response: Prior to and after the MLK50 article, Patient Access staff have provided uninsured patients/responsible parties with a Financial Assistance Application at the time of registration.

The first statement a responsible party receives (insured or uninsured) advises the responsible party about the availability of Financial Assistance and includes a Financial Assistance application form. Specifically, the statement says: "Notice Regarding Potential Eligibility for Financial Assistance: You may be eligible for financial assistance under the Methodist Le Bonheur Healthcare Financial Assistance Policy. Depending on your income level, you may qualify for a significant reduction of your bill for medical services or a complete write-off of the fees for medical services. Information regarding eligibility for financial assistance and application forms for financial assistance may be obtained online at http://www.methodisthealth.org/patients-guests/billing-department.dot or by calling a patient financial counselor at (800)-819-8128 or (901)-842-1255, or complete and return the application on the reverse side.

After the post-discharge billing date, the responsible party would have two hundred and forty (240) days to complete a financial aid application before MLH pursued any other action. Please see Exhibits 2 and 7.

10. Since the beginning of 2014, has Methodist Le Bonheur Healthcare ever reevaluated and/or rescinded a patient's financial assistance determination? If so, how many times has Methodist Le Bonheur Healthcare reevaluated or rescinded such a determination, and what were the reasons for such determination(s)?

Response: Prior to July 2019, MLH documented ten (10) instances of an uninsured discount determination reversal, under the following circumstances: (1) the account had already received an uninsured discount and had a duplicate discount; and/or (2) late charges were added to the account, the uninsured discount was reversed on an interim basis to allow for reevaluation, though in each instance, the discount was reapplied to the account. Between July and September of 2019, MLH systematically re-evaluated all past due accounts that were pending legal action. The re-evaluation process, applying our revised policy, covered an additional 7700 accounts. Some of those accounts received an additional discount and/or reduced balance and others were completely forgiven.

11. In the wake of the reporting discussed above, Methodist Le Bonheur Healthcare stated that it has raised its threshold for financial assistance from requiring patients to be at or below 125 percent of the federal poverty guidelines to being at or below 250 percent of the federal poverty guidelines. What had been the rationale for using a basis of a patient earning 125 percent of federal poverty guidelines or less for determining whether or not to deny financial assistance? What was the rationale for raising that threshold to 250 percent of the federal poverty guidelines?

Response: To clarify, under our previous policy, financial assistance was not denied outright to those earning above 125 % of the FPG; that cutoff was the previous threshold for a <u>complete</u> write off. Under the old policy, those earning from 200% to 125% of the FPG could qualify for additional assistance in accordance with the chart below:

Previous Policy	
% of Federal Poverty Guidelines	**% Discount off Charges**
Less than 125%	100%
125%-150%	90%
151%-175%	80%
175%-200%	70%

With the revised policy, all those who are at 250% of FPG or below qualify for a <u>complete</u> write off.

12. Also in the wake of that reporting, you stated in a press release that Methodist Le Bonheur Healthcare has a new financial-assistance policy that "will better reflect the needs and circumstances of those we serve," and "[r]egardless of insurance status, Methodist will no longer pursue legal action against anyone who is at or below 250% of the federal poverty guidelines." Please provide a copy of that new policy.

Response: The new policy, which is publicly available at <u>https://www.methodisthealth.org/files/financial-assistance/TN%20Medical%20FAP%20English.pdf</u>, is attached as Exhibit 9 (FA Plain Language Summary (2019), attached as Exhibit 10).

a. How will Methodist Le Bonheur Healthcare's new financial-assistance policy better serve low-income patients compared to its old policy beyond including more people in it?

Response: In addition to expanding the reach of our financial assistance programs, we will also be applying a 25% discount to any singular medical encounter where an insurance provider left the responsible party with more than $5,000 in responsibility. Including more people under the policy will allow MLH to provide care and assistance to those who might not ordinarily seek treatment due to cost. Providing treatment at earlier stages of disease and illness allows us to improve long-term outcomes and reduce long-term healthcare costs for our community overall. This allows even more people the opportunity to positively engage in the community (through work, family, etc.) instead of dealing with chronic illness and disease.

b. Does this 250-percent threshold for legal action explain why Methodist Le Bonheur Healthcare appears to have dropped certain collection lawsuits this past summer while others remain pending? What steps did Methodist Le Bonheur Healthcare take to determine whether a defendant may or may not have been below this threshold?

Response: Yes, MLH dropped all lawsuits and completely erased the balances on all responsible party/patient accounts at or below 250% of the FPG. MLH relied on reputable third party data aggregators to determine each responsible party's/patient's FPG level, including Intelitech[2] and eBureau.[3]

13. Does Methodist Le Bonheur Healthcare plan to refile lawsuits against patients in which it has previously dropped lawsuits against? If so, what are the criteria for determining which lawsuits it will refile?

Response: Under the new policy, MLH will not refile lawsuits against those who earn at or below 250% of the FPG. For those above 250% FPG, who have the means to pay, MLH may consider legal action after making all reasonable attempts to contact the responsible party and/or patient, but with no response. To date, MLH is still considering formal criteria for initiating new lawsuits and has not yet formalized a process. Please see Exhibits 11 and 12, Hardship Pay ArrangmentsLGR.docx; and Hardship-CondensedLGR.docx.

14. What, if any, procedures are in place to determine that delinquent debts of any amount are accurate prior to Methodist Le Bonheur Healthcare taking any steps to collect those debts?

Response: MLH is committed to ensuring the accuracy of our billing information. Towards that end, we utilize a variety of resources and personnel to evaluate responsible party balances and ensure the accuracy of the billed amount prior to attempting collections. First, MLH follows its policies, as outlined above. Second, technological resources include a custom built Patient Accounting system (which

[2] Intelitech is a premier analytics and consulting provider for the Accounts Receivables management industry which analyzed data for MLH that was provided by eBureau.

[3] eBureau, now owned by TransUnion, is a leading provider of custom-analytic solutions with both credit-risk and anti-fraud applications.

accurately accounts for amounts billed, paid and outstanding), electronic billing system (which pulls various responsible party balances together into one bill), and contract management system (which is used to verify insurance amounts to be applied to responsible party balances). Finally, if a responsible party has any questions regarding accuracy, MLH is always willing to review an account on an individual basis, upon request. In the event of a billing error, MLH will take action to correct the mistake and accurately charge for the services rendered.

15. The article quoted above reports that Methodist Le Bonheur Healthcare once pursued payment from a low-income patient for more than nine years. The article also reports that Methodist Le Bonheur Healthcare once sought garnishment for $3.67 of the patient's paycheck.

    a. Are these facts correct as reported?

Response: The privacy rule of the Health Insurance Portability and Accountability Act (HIPAA) does not allow MLH to share patient information. However, our procedures dictate that MLH will not pursue legal action against accounts with an unpaid balance of less than Two Hundred Dollars ($200.00). Once a judgment has been entered in favor of MLH, we may pursue the amount we were awarded by the courts until the debt is paid, in the absence of information that a responsible party/patient is not able to pay.

    b. What steps did Methodist Le Bonheur Healthcare take to ensure that this patient was not eligible for financial assistance before pursuing payment in this manner?

Response: The privacy rule of the Health Insurance Portability and Accountability Act (HIPAA) does not allow MLH to share patient information. However, consistent with our policies and federal regulations, prior to the initiation of extraordinary collection efforts, MLH follows a reasonable process to determine whether or not the responsible party/patient is eligible for financial assistance. A responsible party/patient would receive a minimum of three (3) written notices (day 1, day 60 and day 90) before an account became eligible for further collection efforts on day 121.

The first statement a responsible party/patient receives (insured or uninsured) advises the responsible party about the availability of Financial Assistance and includes a Financial Assistance application form. Specifically, the statement says: "Notice Regarding Potential Eligibility for Financial Assistance: You may be eligible for financial assistance under the Methodist Le Bonheur Healthcare Financial Assistance Policy. Depending on your income level, you may qualify for a significant reduction of your bill for medical services or a complete write-off of the fees for medical services. Information regarding eligibility for financial assistance and application forms for financial assistance may be obtained online at http://www.methodisthealth.org/patients-guests/billing-department.dot or by calling a patient financial counselor at (800)-819-8128 or (901)-842-1255, or complete and return the application on the reverse side.

If MLH had a phone number on file for the account, it would also attempt to call the responsible party, starting on day 31. If at any time the responsible party made payment arrangements with MLH, the account would be removed from collections.

c. Does Methodist Le Bonheur Healthcare have a policy on how long it pursues medical debts? If so, please provide a copy of that policy.

Response: No, the length of time that MLH is able to pursue medical debt is governed by the statute of limitations, as provided by State law, and MLH maintains no separate policy. In Tennessee, an action to collect a medical debt must be filed within six (6) years (Tennessee Code Annotated § 28-3-109 (2019)); in Mississippi, an action on an open account must be filed within three (3) years (Mississippi Code Annotated § 15-1-29 (2019)); and in Arkansas, an action to recover charges for medical services performed or provided must be filed within two (2) years of the date the services were performed or provided or from the date of the most recent partial payment for the services, whichever is later (Arkansas Code Annotated § 16-56-106 (2019)). Once a judgement is rendered, MLH has from 7 to 10 years to collect, depending on the state. (T.C.A. § 28-3-110 (2019) (action to collect judgment must be commenced within 10 years), M.C.A. § 15-1-43 (2019) (action to collect judgment must be commenced within 7 years), A.C.A. § 16-56-114 (2019) (action to collect judgment must be commenced within 10 years).

d. Does Methodist Le Bonheur Healthcare have a policy on amount thresholds that it pursues when collecting on medical debts? If so, please provide a copy of that policy.

Response: No, but per our internal procedures, a responsible party must have a minimum balance of $200.00 to route for evaluation of whether or not MLH should file a lawsuit. Please see Exhibit 5.

16. Prior to the publication of the original *MLK50* article quoted above, what was Methodist Le Bonheur Healthcare's policy for garnishing wages? Please provide a copy of that policy. How has this policy changed since the release of the *MLK50* article quoted above, if at all? Please provide a copy of that new policy.

Response: Under our new policy, MLH will not pursue legal action (and thus would not garnish wages upon judgment) for anyone who is at or below 250% of FPG. Under the previous policy, the threshold level to bar legal action (and any subsequent garnishment) was 125% of FPG. With respect to garnishments under both policies, if a responsible party failed to voluntarily set payment arrangements after a court-ordered judgment and failed to communicate with us regarding any extenuating circumstances, MLH would seek to garnish wages, but only as a last resort after numerous communication attempts.

17. In another follow-up article in September, *MLK50* reported that Methodist Le Bonheur Healthcare erased the debts owed by more than 6,500 patients it had sued for unpaid hospital bills. Is this accurate? What was the criteria for determining which debts to forgive? When did the hospital forgive the debts?

Response. Between July and September 2019, MLH forgave, in full, debts owed on approximately 5,350 accounts. During that same time period, MLH partially wrote off the debts of approximately 2,350 additional accounts. The write–offs were based on our review of a responsible party's/patient's FPG

level, as reported by reputable third party data aggregators. In addition to forgiving the initial balance due, MLH also wrote off all legal fees (attorney fees, court costs, and post-judgment interest).

18. Prior to the publication of the original *MLK50* article quoted above, did Methodist Le Bonheur Healthcare conduct a Community Health Needs Assessment (CHNA)? If so, please provide copies of each CHNA that Methodist Le Bonheur Healthcare has conducted.

Response: As required, MLH conducted Community Health Needs Assessments in 2013, 2016, and 2019. The 2013 CHNA document contains a system-wide implementation plan and for 2016, MLH required that each hospital prepare a separate implementation plan. MLH is working on the implementation plan for the 2019 CHNA, due by May 15, 2020. Please see Exhibit 13 (2013 Community_Health_Needs_Assessment_MLH.pdf); Exhibits 14 and 14a-f (CHNA_Report_2016.pdf; 2016-Community-Health-Improvement-Plan-Le-Bonheur-Childrens-Hospital.pdf; 2016-Community-Health-Improvement-Plan-Methodist-Le-Bonheur-Germantown-Hospital.pdf; 2016-Community-Health-Improvement-Plan-Methodist-North-Hospital.pdf; 2016-Community-Health-Improvement-Plan-Methodist-Olive-Branch-Hospital.pdf; 2016-Community-Health-Improvement-Plan-Methodist-South-Hospital.pdf; 2016-Community-Health-Improvement-Plan-Methodist-University.pdf); and Exhibit 15 (CHNA_2019.pdf).

19. Methodist Le Bonheur Healthcare appears to list "Hospital Charges" on the internet. However, those prices "do not include any provider fees that may be associated with a hospital visit."

    a. In this context, what is a "provider fee"?

Response: Provider fees include but are not limited to charges generated by a medical professional such as a radiologist, pathologist, surgeon, anesthesiologist, ER physician, etc. MLH does not determine the provider fees charged by providers not employed by MLH and MLH financial assistance policies do not apply to those providers.

    b. Prior to receiving services from Methodist Le Bonheur Healthcare, whether medically necessary or otherwise, how do patients know what the final costs of those services are going to be, whether such patients are covered by health insurance or not?

Response: For patients who are prescheduled for services, we utilize an estimator tool that takes into consideration various factors concerning the scheduled services, including insurance eligibility, payor negotiated rates and Chargemaster prices, when applicable, to produce an estimate of the amount that the responsible party is expected to pay. When patients need medically necessary and/or emergent services, they may not know the final costs of services beforehand; a patient may be unable to communicate, unconscious or suffering from any number of conditions that do not allow conversations about healthcare costs. MLH provides information regarding costs, insurance and financial aid when it is able to do so, consistent with the Emergency Medical Treatment and Labor Act ("EMTALA") and the Tennessee and Mississippi Departments of Health hospital licensure requirements, and certainly before discharge.

20. Under the Internal Revenue Code, tax-exempt hospitals are prohibited from billing patients without health insurance, and who are otherwise eligible for financial assistance, more than what individuals who have insurance are billed for medically necessary care. How does Methodist Le Bonheur Healthcare ensure that it complies with this requirement? Since the beginning of 2014, what percentage of patients who received medically necessary care from Methodist Le Bonheur Healthcare and did not have health insurance were billed at rates commensurate with this requirement in the tax code?

Response: MLH mandates use of the Amounts Generally Billed ("AGB") discount through policy, with AGB automatically applied to all uninsured patients prior to any collections activity. Subsequently, all uninsured accounts then move to an automated screening for presumptive charity. MLH has determined that since 2014, 98.9% of all uninsured patients were billed less than or equal to the AGB rate.

21. I understand Methodist Le Bonheur Healthcare's latest Chargemaster (price list) is available on Methodist Le Bonheur Healthcare's website here:

https://www.methodisthealth.org/files/billing/Methodist%20Le%20Bonheur%20Healthcare%20Chargemaster%202019_Addendum1.xlsx

Is this document Methodist Le Bonheur Healthcare' most up-to-date Chargemaster?

Response: No. The current Chargemaster, which was updated as of January 1, 2020, is reflected on our website page at https://www.methodisthealth.org/patients-guests/billing-department.dot under the heading "Hospital Charges" and is attached as Exhibit 16.

a. What do the prices on this document represent?

Response: The Chargemaster reflects the prices charged for all hospital services without any discounts applied (i.e., insurance negotiated discounts, uninsured discounts, charity care, etc.).

b. How are these prices determined?

Response: Prices are determined in a variety of ways, which may include incurred costs, CMS reimbursement, market considerations, average wholesale price (pharmacy) along with a reasonable markup to ensure the continued provision of services to all in our community, regardless of the ability to pay.

c. How do the prices that Methodist Le Bonheur Healthcare negotiates with insurance companies compare to these prices? If there is a fixed ratio for determining the prices Methodist Le Bonheur Healthcare negotiates with and/or charges insurance companies as compared to these prices in the Chargemaster, what is that ratio? If there is another method for determining the prices Methodist Le Bonheur Healthcare negotiates with and/or charges insurance companies as compared to these prices on the Chargemaster, what is that other method?

Response: MLH does not have a fixed ratio for determining the pricing charged to the insurance companies, which is determined through individualized negotiations with all non-governmental payors.

When negotiating the price charged to the insurance companies, we generally consider cost, Medicare reimbursement rates, we take into consideration the number of covered lives and whether the contract is exclusive to Methodist or Methodist physicians. Contracts with different payors have several different payment methodologies. For in-patient pricing, we are paid based on a MS-DRG, an APR-DRG, a set amount per day, a case rate or a percent of charge. For outpatient pricing, we are paid per case rate, per visit rate or a percent of charges.

d. Who pays these prices?

Response: Payors who may be charged the Chargemaster list price include out of network payers or those who do not sign a Single Case Agreement, which serves as a one-time contracted rate for the rendered services.

Additionally, responsible parties/patients may be charged higher contracted prices for a service through their insurance companies than what MLH may charge. MLH does not control how insurance companies bill their insureds for in-patient services.

i. How do these prices relate to hospital bills that a patient might receive if he or she is covered by health insurance that considers Methodist Le Bonheur Healthcare "out-of-network"?

Response: MLH does not control how insurance companies allocate payment responsibility with their insureds for out-of-network services received at MLH. If there is no single case agreement, then the insurance company may apply the remaining non-contracted balance to the responsible party portion of the bill and refuse to cover the non-contracted balance. Under our new policy, if an insurer leaves a responsible party with a balance of more than $5,000.00 on any one charge (insured or uninsured), the responsible party is eligible for additional financial assistance.

ii. How do these prices relate to hospital bills that a patient might receive if he or she does not have health insurance?

Response: These are the list prices of services without any uninsured or charity discounts applied. An uninsured/underinsured patient who qualifies for financial assistance would never be billed these prices for medically necessary services.

e. For patients who might incur these costs (or some pre-determined fraction of them), how does Methodist Le Bonheur Healthcare explain to patients seeking care that is not medically necessary that these are the costs they might incur (or some pre-determined fraction of them)?

Response: If a service has been identified as not medically necessary prior to service, then our Pre-Service team will communicate, via phone calls and email, with the patient/responsible party and/or the ordering physician, as necessary, to inform them of the potential financial responsibility, should the patient/responsible party choose to proceed.

f. For patients who might incur these costs (or some pre-determined fraction of them), how does Methodist Le Bonheur Healthcare explain to patients who require medically necessary and immediate care, and might not be in a position to understand costs they would incur as

a result of that care, that these are the costs they might incur (or some pre-determined fraction of them)?

Response: It is the policy of each MLH facility to comply with the requirements of the Emergency Medical Treatment and Labor Act ("EMTALA") and the Tennessee and Mississippi Departments of Health hospital licensure requirements. Please see Exhibit 17, EMTALA policy.

g. The Chargemaster appears to list a cost of $8,159.00 for "X-RAY AORTA LEG ARTERIES."

i. What is this service/supply?

Response: Aortography, abdominal plus bilateral iliofemoral lower extremity, catheter, by serialography, radiological supervision and interpretation

ii. Why does this service/supply cost $8,159.00?

Response: Please see the answer to Question 21.b.

h. The Chargemaster appears to list a cost of $2,605.00 for "VEIN X-RAY ARM/LEG."

i. What is this service/supply?

Response: Venography, extremity, unilateral, radiological supervision and interpretation

ii. Why does this service/supply cost $2,605.00?

Response: Please see the answer to Question 21.b.

iii. What is the difference between the service/supply listed as "X- RAY AORTA LEG ARTERIES" and the service/supply listed as "VEIN X-RAY ARM/LEG"?

Response: X-ray aorta leg arteries is accessing the patient's arterial system whereas Vein X-ray arm/leg is accessing the venous system.

iv. Why is there a $5,554.00 difference between the prices of these two services/supplies?

Response: Please see the answer to Question 21.b.

v. What procedures or protocols does Methodist Le Bonheur Healthcare employ to ensure that its employees do not accidentally record a patient having received the "X-RAY AORTA LEG ARTERIES" service/supply when in fact that patient received the "VEIN X-RAY ARM/LEG" service/supply, or ensure that employees do not accidentally make similar billing errors?

Response: The charges are entered by either a Charging Specialist or medical coder after they have interpreted the dictated physician report. There is also a reconciliation process which identifies what services were ordered, completed, and charged. In the event of a billing error, MLH will take action to correct the mistake and accurately charge for the services rendered.

i. The Chargemaster appears to list a cost of $172.00 for "PLACE NEEDLE IN VEIN."

i. What is this service/supply?

Response: Introduction of needle or intracatheter into a vein

ii. Why does this service/supply cost $172.00?

Response: Please see the answer to Question 21.b.

j. The Chargemaster appears to list a cost of $172.00 for "WHEELCHAIR MNGMENT TRAINING."

i. What is this service/supply?

Response: Wheelchair management (e.g., assessment, fitting, and training)

ii. Why does this service/supply cost $172.00?

Response: Please see the answer to Question 21.b.

k. The Chargemaster appears to list a cost of $32.00 for "VITAMIN B-12."

i. What is this service/supply?

Response: Cyanocobalamin (Vitamin B-12)

ii. Why does this service/supply cost $32.00?

Response: Please see the answer to Question 21.b.

IV. Conclusion

We appreciate the opportunity to share our processes regarding financial assistance and address your concern that our non-profit status benefit those who have historically been underserved in our community. We share your commitment to those who are underserved because providing health care for everyone—regardless of their ability to pay—is essential to our Methodist heritage and mission. Please do not hesitate to contact us should you or your committee staff have any questions or need additional information.

Sincerely,



Michael Ugwueke
CEO, Methodist Le Bonheur Healthcare

January 21, 2020

Exhibit List to Methodist Le Bonheur Healthcare's Response to Senator Grassley

Exhibit Number	Title
1	MLH Charitable Care (2014-2018)
2	Billing and Collections Policy for Self-Pay Accounts (2015)
3	Traningmanual12014LGR.doc
4	CRS_Commission.pdf
5	Pre-legal Suit Evaluation and Collection Procedures
6	Garnishment Pay.doc
7	Financial Assistance Policy (2015)
8	FA Plain Language Summary (2015)
9	Financial Assistance Policy (2019)
10	FA Plain Language Summary (2019)
11	Hardship pay ArrangmentsLGR.docx
12	Hardship-Condensed.pdf
13	2013 Community_Health_Needs_Assessment_MLH
14	CHNA_Report_2016.pdf
14.a	2016-Community-Health-Improvement-Plan-Le-Bonheur-Childrens-Hospital.pdf
14.b	2016-Community-Health-Improvement-Plan-Methodist-Le-Bonheur-Germantown-Hospital.pdf
14.c	2016-Community-Health-Improvement-Plan-Methodist-North-Hospital.pdf
14.d	2016-Community-Health-Improvement-Plan-Methodist-Olive-Branch-Hospital.pdf
14.e	2016-Community-Health-Improvement-Plan-Methodist-South-Hospital.pdf
14.f	2016- Community-Health-Improvement-Plan-Methodist-University.pdf
15	2019 CHNA
16	MLH+Chargemaster+2020_Addendum_ANC1.pdf
17	EMTALA Policy

Charity Review 2014-2018

Charity Per Financial Stmts

	Per Financial Statement Footnote			
	Charity Care	Medicaid and other programs	Unbilled community service	Total
Year ended December 31, 2018:				
Community commitment	$ 96,477,919	$ 450,324,376	$ 50,457,345	$ 597,259,640
Offsetting revenue	(89,386)	(354,520,145)	(14,129,990)	(368,739,521)
Net community commitment	$ 96,388,533	$ 95,804,231	$ 36,327,355	$ 228,520,119
Year ended December 31, 2017:				
Community commitment	$ 89,524,247	$ 427,553,735	$ 47,640,671	$ 564,718,653
Offsetting revenue	(82,910)	(331,638,273)	(13,243,680)	(344,964,863)
Net community commitment	$ 89,441,337	$ 95,915,462	$ 34,396,991	$ 219,753,790
Year ended December 31, 2016:				
Community commitment	$ 86,583,704	$ 501,790,197	$ 33,014,385	$ 621,388,286
Offsetting revenue		(384,252,323)	(11,883,815)	(396,136,138)
Net community commitment	$ 86,583,704	$ 117,537,874	$ 21,130,570	$ 225,252,148
Year ended December 31, 2015:				
Community commitment	$ 84,110,586	$ 473,387,540	$ 45,241,258	$ 602,739,384
Offsetting revenue		(400,979,093)	(13,079,738)	(414,058,831)
Net community commitment	$ 84,110,586	$ 72,408,447	$ 32,161,520	$ 188,680,553
Year ended December 31, 2014:				
Community commitment	$ 88,775,329	$ 421,490,127	$ 47,323,922	$ 557,589,378
Offsetting revenue		(362,329,740)	(15,241,451)	(377,571,191)
Net community commitment	$ 88,775,329	$ 59,160,387	$ 32,082,471	$ 180,018,187

Per Filed 990 Schedule H			
Charity Care	Medicaid and other programs	Unbilled community service	Total
$ 96,498,352	$ 452,098,897	$ 52,672,485	$ 601,269,734
(89,386)	(360,939,585)	(13,968,792)	(374,997,763)
$ 96,408,966	$ 91,159,312	$ 38,703,693	$ 226,271,971
$ 89,501,718	$ 430,058,345	$ 55,056,701	$ 574,616,764
(82,910)	(337,373,588)	(15,359,721)	(352,816,219)
$ 89,418,808	$ 92,684,757	$ 39,696,980	$ 221,800,545
$ 86,833,888	$ 504,460,667	$ 45,535,648	$ 636,830,203
(88,966)	(387,448,385)	(12,238,990)	(399,776,341)
$ 86,744,922	$ 117,012,282	$ 33,296,658	$ 237,053,862
$ 83,938,464	$ 472,943,061	$ 60,117,173	$ 616,998,698
(105,530)	(400,790,555)	(12,911,319)	(413,807,404)
$ 83,832,934	$ 72,152,506	$ 47,205,854	$ 203,191,294
$ 90,817,977	$ 403,257,646	$ 56,356,422	$ 550,432,045
(144,470)	(360,622,946)	(15,254,100)	(376,021,516)
$ 90,673,507	$ 42,634,700	$ 41,102,322	$ 174,410,529

BILLING AND COLLECTIONS POLICY FOR SELF-PAY ACCOUNTS

Type: **Finance/Administrative**

Facility: **System**

Purpose: The purpose of this policy is to set forth the actions that Methodist Le Bonheur Healthcare will take in the event of non-payment of the portion of patient accounts that are the responsibility of individual patients and that are not covered by insurance or other third-party payment sources. This policy is also intended to ensure that reasonable efforts are made to determine whether an individual patient (or the person responsible for payment of the account) is eligible for assistance under the Methodist Le Bonheur Medical Financial Assistance Policy for Uninsured Patients before extraordinary collection actions are taken to collect a patient account.

Scope: This policy covers billing and collections of self-pay accounts as well as the billing and collection of co-payments, co-insurance and deductibles. This policy, however, does not apply to patient accounts for which any third-party liability exists.

I. Definitions

A. Plain Language Summary: means a written statement that describes the financial assistance offered by Methodist Le Bonheur Healthcare under the Medical Financial Assistance Programs for inpatient and outpatient hospital services and that contains the information required by § 501(r) of the Internal Revenue Code.

B. Amounts Generally Billed ("AGB"): means the Usual and Customary Charges for Covered Services provided to individuals under the Level One and Level Two Medical Financial Assistance Program, multiplied by the AGB Percentage applicable to such services.

C. AGB Percentage: means a percentage derived by dividing (1) the sum of all allowed amounts for Medically Necessary services provided paid during the Relevant Period by Medicare fee-for-service and all private health insurers as primary payors, together with any associated portions of these claims paid by Medicare beneficiaries or insured individuals in the forms of co-payments, co-insurance or deductibles, by (2) the Usual and Customary Charges for such Medically Necessary Services. The AGB Percentage shall be calculated no later than September 1 of each year, for the most recent Relevant Period. The calculation of the AGB Percentage shall comply with the "look-back method" detailed in Treasury Regulation § 1-501(r)-5(b)(1)(B).

D. Application Period: means the period during which Methodist Le Bonheur Healthcare must accept and process an application for financial assistance under the Methodist Le Bonheur Healthcare Medical Financial Assistance Programs.

The Application Period begins on the date the care is provided and runs through the 240th day after Methodist Le Bonheur provides the patient the first billing statement for the care provided.

E. Billing Deadline: means the date after which Methodist Le Bonheur may initiate Extraordinary Collection Actions against a Responsible Individual who has failed to submit an application for financial assistance under the Medical Financial Assistance Programs. The Billing Deadline shall be specified in a written notice to the Responsible Individual at least 30 days before the deadline but no earlier than the last day of the Notification Period.

F. Extraordinary Collection Actions: means any action taken against an individual related to obtaining payment on a Self-Pay Account that (1) requires a legal or judicial process, (2) involves selling of a Self-Pay Account to a third party, or (3) involves reporting adverse information concerning the Responsible Party to credit reporting agencies or credit bureaus. Extraordinary Collection Actions do not include efforts to perfect statutory liens or collect from third-party liability sources.

G. FAP-Eligible Individual: means a Responsible Individual who is eligible for financial assistance under the Methodist Le Bonheur Medical Financial Assistance Programs regardless of whether the Responsible Individual has submitted an application for financial assistance under either of the medical financial assistance programs.

H. Financial Assistance Policy: means the Methodist Le Bonheur Medical Financial Assistance Policy for Uninsured Patients and the Level One and Level Two Medical Financial Assistance Programs established thereunder.

I. Notification Period: means the period during which Methodist Le Bonheur must notify a Responsible Individual about its Financial Assistance Policy in order to have made reasonable efforts to determine if the person is an FAP-Eligible Individual. The Notification Period begins on the date medical services are first provided and runs through the 120th day after Methodist Le Bonheur provides the first billing statement to the Responsible Individual.

J. RAP: means Revenue Assurance Professionals, LLC, which is responsible for billing and collecting accounts for hospital services.

K. Responsible Individual: means the patient and any other individual having financial responsibility for a Self-Pay Account.

L. Self-Pay Account: means that portion of a patient account for which the patient or other Responsible Individual is individually responsible for payment net of any reductions or write-offs made pursuant to an approved application for assistance under the Level One or Level Two Medical Financial Assistance Program.

M. Uninsured Patient: means a patient without the benefit of health insurance or government programs that may be billed for Covered Services provided to them or for physician services and who is not otherwise excluded from this policy under Section II below. If a patient with the benefit of health insurance or government programs that may be billed for Covered Services has a claim denied for pre-existing conditions, benefit maximums reached or non-covered services, the patient will be deemed to be an Uninsured Patient.

N. Covered Services: means Medically Necessary inpatient and outpatient services.

O. Medically Necessary: means those services required to identify or treat an illness or injury that is either diagnosed or reasonably expected to be Medically Necessary taking into account the most appropriate level of care. Depending on a patient's medical condition, the most appropriate setting for the provision of care may be a home, physician's office, an outpatient facility, or a long-term care, rehabilitation or hospital bed. In order to be Medically Necessary, a service must:

1. Be required to treat an illness or injury;

2. Be consistent with the diagnosis and treatment of the patient's condition;

3. Be in accordance with the standards of good medical practice;

4. Not be for the convenience of the patient or the patient's physician; and

5. Be that level of care most appropriate for the patient as determined by the patient's medical condition and not the patient's financial or family situation.

Emergency Medical Services are deemed to be Medically Necessary.

P. Emergency Medical Services: means the services necessary and appropriate to treat a medical condition of an FAP-Eligible Patient that has resulted from the sudden onset of a health condition with acute symptoms which, in the absence of immediate medical attention, are reasonably likely to place the FAP-Eligible Patient's life in serious jeopardy, result in serious impairment to bodily functions or result in serious dysfunction of any bodily organ or part.

II Policy

This policy is intended to comply with § 501(r) of the Internal Revenue Code and United States Treasury regulations promulgated thereunder. Subject to compliance with this policy and those federal laws and regulations, Methodist Le Bonheur Healthcare may take all legal actions, including Extraordinary Collection Actions, to obtain payment for medical services provided. This policy sets forth the processes and procedures to ensure that reasonable efforts are made to determine whether a Responsible Individual is FAP-Eligible and the steps Methodist Le Bonheur Healthcare will take before instituting any collection actions, including Extraordinary Collection

Actions. In no event will Methodist Le Bonheur Healthcare, either directly or through any debt collection agency or other party to which the hospital has referred a patient account, engage in Extraordinary Collection Actions before making reasonable efforts to determine whether a Responsible Individual is eligible for assistance under Methodist Le Bonheur Healthcare's Financial Assistance Policy.

A. Reasonable Efforts to Determine FAP Eligibility

1. All Uninsured Patients will be given the Financial Assistance Policy, Plain Language Summary, and application forms for assistance under the Financial Assistance Policy prior to discharge from the hospital facility.

2. At least four separate account statements, sent 30 days apart, shall be mailed to the last known address of each Responsible Individual before the end of the Notification Period. At least 60 days must elapse between sending the first and last of the four separate account statements. Each of the four separate account statements shall include the following:

   a. A summary of the hospital services and a detail listing the services covered by the statement;

   b. The charges for the services; and

   c. The amount required to be paid by the Responsible Individual.

. 3. At least one the account statements sent during the Notification Period shall include a written statement informing the Responsible Individual about the Extraordinary Collection Actions that may be taken if the Responsible Individual does not apply for assistance under the Financial Assistance Policy or pay the amount due by the Billing Deadline (i.e., the last day of the Notification Period). This statement must be provided to the Responsible Party at least 30 days before the Billing Deadline.

4. All telephone calls to the Responsible Individual concerning the Self-Pay Account shall include notification concerning the Financial Assistance Policy and information regarding the application process.

B. Initiation of Extraordinary Collection Actions

Extraordinary Collection Actions may be commenced to obtain payment of Self-Pay Accounts only if the following conditions are met:

1. The Responsible Individual has failed to apply for assistance under the Financial Assistance Policy by the end of the Notification Period; and

2. RAP has confirmed that the Responsible Individual has received the 30-day written notice described in Section II.A.3 above.

OR

3. The Responsible Individual has submitted a complete application for assistance under the Financial Assistance Policy and RAP has determined definitively that the Responsible Individual is ineligible for financial assistance and the account remains unpaid.

C. Effect of Incomplete Applications for Assistance under the Financial Assistance Policy or Application Submitted During the Application Period

If any Responsible Individual submits an incomplete application for financial assistance during either the Notification Period or the Application Period, or submits a complete application during the Application Period, then Extraordinary Collection Actions may not be initiated (if submitted during the Notification Period) or must be suspended (if submitted during the Application Period but after the initiation of Extraordinary Collection Actions) until each of the following conditions has been met:

1. RAP provides the Responsible Individual with written notice that the submitted application is incomplete and identifies the additional information or documentation required under the Financial Assistance Policy to complete the application for financial assistance. This written notice must include a copy of the Plain Language Summary; and

2. RAP provides the Responsible Individual with at least 30 days prior written notice of the Extraordinary Collection Actions that may be initiated if the application for financial assistance under the Financial Assistance Policy is not completed or payment is not made. The deadline for completion of the application, however, may not be set before the end of the Application Period; and

3. The Responsible Individual who submitted the incomplete application fails to complete the application by the end of the Application Period or the deadline set forth in the notice required by Section II.C.2 above; or

4. In the event a completed application for assistance under the Financial Assistance Policy is received after the Notification Period but during the Application Period, RAP determines definitively that the Responsible Individual is ineligible for financial assistance.

D. Requirements for Contracts with Collection Agencies

Methodist Le Bonheur Healthcare will not sell or assign a Self-Pay Account to collection agency or another third party for collection before the end of the Notification Period. If, however, Methodist Le Bonheur Healthcare sells or assigns a Self-Pay Account to a collection agency or another third party after the Notification Period but before the expiration of the Application Period, the written

agreement between Methodist Le Bonheur and the third party must obligate the third party assignor to:

1. Refrain from engaging in Extraordinary Collection Actions until the Billing Deadline;

2. Suspend any Extraordinary Collection Action if the Responsible Individual submits an application for financial assistance under the Financial Assistance Policy during the Application Period;

3. If the Responsible Individual is determined to the FAP-Eligible, then to ensure that the Responsible Individual does not pay and is not billed more than AGB and to reverse any Extraordinary Collection Actions previously taken; and

4. Obtain similar provisions in a written agreement if the third party sells or assigns the debt to yet another party.

E. Miscellaneous Provisions

1. In the event Extraordinary Collection Actions are authorized under this policy, RAP or any third party collection agency shall be authorized to report unpaid Self-Pay Accounts to credit reporting agencies and credit bureaus, to file litigation, to obtain judgment liens and execute upon such liens in a manner consistent with applicable state laws.

2. Self-Pay Accounts of Responsible Individuals who are able but unwilling to pay are considered uncollectible bad debts and will be referred to outside agencies for collection. Responsible Individuals who qualify for assistance under either the Level One or Level Two Medical Financial Assistance Program and who fail to pay the balance of the accounts (after adjustment for the discounts provided by those financial assistance programs) when due will be referred to outside agencies for collection of uncollectible bad debts.

3. Free copies of this policy shall be made available to the public. Such free copies are available in each hospital facility's admissions or registration areas, on the Methodist Le Bonheur Healthcare website, and may be requested by mail.

Talk-off scores are based upon:

- Proper ID of Self and Company
- Federal and state laws - "For quality assurance all calls are recorded."
- Verify Patient's first and last name
- Proper ID of client (Methodist, Surgery Center, PCG, CCA, Sutherland, etc)
- Quote the balance due
- Full and complete verification – address/date of birth of last 4 of ssn.
- Account knowledge (using client applications – bridge, e-clinical, etc)
- Negotiation (promise to pay/pay arrangement)
- Reiterated resolution (repeat the promised pay arrangement to the patient to make sure you are both in agreement)
- Tone, professionalism, listening skills
- Appropriate use of wait date, promised dates, promised amounts and disposition.
- Appropriate use of contact codes and frequency.
- Thorough Documentation (updating user defined windows, noting acct, etc.)
- Tying accounts needing to be tied/untied.

Inbound Talk-off

Proper ID of Self and Company

"Thank you for calling the business office, my name is ____"

State Federal and state laws

"For quality assurance all calls are recorded."

*__Note__ – if a patient asks who we are "**We are the business office for Methodist and all of it's affiliated physician groups**."

Outbound calls talk-off

"Good morning/afternoon/evening may I speak with (**patient or responsible party's name**)?"

Once you have confirmed you are speaking with the correct person, then go into telling them whom you are with "This is ___ with the (client's) business office, for quality assurance all calls are recorded and for security purposes please verify your date of birth."

*note – if they are wanting to know what this call is about and you have confirmed you are speaking with the patient/responsible party you can only give dates of service and location. You cannot go into detailed billing until you have verified patient's correct date of birth or last 4 of social and mailing address. If you have given them this information and they still will not verify inform the patient due to HIPPA laws I am unable to provide further information without verification, if you are uncomfortable with that you can call us back to verify we are with (the client) or we can send a statement via mail.

Once patient information is verified, inform the patient of the insurance we filed and balance. First see if they can pay the balance in full, if not – go by these guidelines:

	$249 or less	$250-$600	$601-$999	$1,000 & +
2nd Option -	**2/Months**	**3-4 Months**	**3-6 Months**	**6-9 Months**
3rd Option –	**3/Months**	**5-6 Months**	**7-9 Months**	**10-18 Months**
4th Option -	**4/Months**	**7-8 Months**	**10-12 Months**	**19-24 Months**

***Reminder – Always ask if the balance can be paid in full, if not then work out payment plan according to above guidelines.**

*Patients with commercial insurance: If the patient is unable to pay within the guidelines and is willing to pay something monthly/biweekly on the account, let the patient know we are willing to work with them on hardship pay arrangement for 6 months.

What makes a promise to pay? Disposition 1100

1. You have to speak with the responsible party/patient.
2. Obtain an amount agreed upon with both responsible party and us.
3. Obtain due date.
4. Reiterate this information to the patient to make sure this is agreed upon and understood.

Broken Promises

The account will move to 1BPA after you have set up an agreed amount in 1100 and it has not been received by due date. The account will be marked how many times it has moved to 1BPA in window 102. We are able to reset the payment arrangement for up to 2BPA's, if the account is showing 3BPA's + in window 102 do **NOT** reset the promise to pay unless the responsible party agrees to set up secured payments with check or credit card.

Calling on 1st BPA

Call the responsible party, verify information and inform them the promised payment was not received and see if they would like to secure payments. If the patient declines secured payments note the account and reset if they agree to a payment.

Calling on 2nd BPA

Call the responsible party, verify information, inform them the promised payment was not received for a second time, and offer secured payments, if they decline once again and say they will continue sending payments. Advise the patient you can reset the payment arrangement once more, but if the payment is late or delinquent again we will not be able to reset the arrangement without secured payments. Note the account you told the patient if the arrangement breaks the account will not be reset without secured payments. It is still ok to reset the promise to pay at this point if the patient agrees to send another payment.

Calling on 3rd BPA

Call the responsible party, verify information and inform them the promised payment was not received a 3rd time and offer secured payments, if they decline once again and say they will continue sending payments. Inform them that you will not be able to reset the payment arrangement without secured payments and it will not ensure the account will stay in our office. If you are unable to obtain secured payments, not the account in special notes "Do not reset without secured payments," then move the account to 1WK1 and date it out 5 days.

Calling on accounts with Final Notice

If you call and speak with a patient and they state they do not want to pay or will call us back, advise them there is a final notice that was sent and it will only hold it in our office for a certain amount of time. Ask them to please contact as soon as possible to prevent account from being sent to collections and we will note the acct that we spoke with the patient.

*Note- As long as we keep the patients informed, they will have to reason to call back upset that their account went to collections.

CRS Commission Program			
From	To	Percentage Rate	Type
$ -	$ 30,000.00	0.00%	Threshold
$ 30,000.01	$ 999,999,999.99	10.75%	Uncapped

		Commission Program			
Company	MLH	From	To	Percent Rate	Rate
Department	RAP - CRS	$ -	$ 30,000.00	0%	Threshold
Manager		$ 30,000.01	$ 999,999,999.99	10.75%	Uncapped
Start of Period					
End of Period					

SAP ID	Associate Name	Revenue Collected	Commissionable Amount	Commission Payout	Comments

Last update: 7/14/08
By: Pearl Murray

Pre-Legal Suit Evaluation & Collection Procedures

❖ Account Selection for Filing Suit -automatic system process

1. **Disposition:** 39PL/3901 (CRS Call Center has exhausted collection efforts)
2. **Age**: (in addition to the basic statute of limitation guideline)
   - Service date after 1/1/04: there may be routes with some year 2004 accounts and some older accounts; at least half of the balance needs to come from 2004 accounts and none of the account is close to passing statue of limitation.
   - No age limitation (except statue of limitation) if we have recently successfully collected RP's other accounts in phase 5000 via judgment execution.
   - No age limitation if account was referred to phase 4000 prior to July 2005 (old potential suits)
3. **A Way to Execute the Judgment or Good Payment History**: Has POE or Checking account information (has paid by direct check or personal check); or has made more than 3 payments.
4. **Balance**: Minimal route balance not less than $200.00. (Only apply to disposition 4000 and 4AAA evaluation.)
5. **Balance after Commercial Insurance or pure Self-pay**.

❖ Suit Evaluation

At any point of the Pre-Legal suit evaluation process, if the route is not qualified for suit, it will be moved to disposition 0600 and route-tied with other existing phase 3000 selfpay account(s) with oldest list date account as the seed. If we are proceeding with suit on one client's account(s), the others will be moved to 4800 pending 2nd suit evaluation in 180 days. See page 10 for Disposition 4800 procedures.

<u>Disposition 4000</u>

Upon Disposition Change, credit report will be automatically requested on RP, and routes will be assigned to Senior Legal specialist. (When manually moving an account to phase 4000, please move it to disposition 4001 instead of disposition 4000 so it will not trigger the system to request another credit report unnecessarily.)

Phase 1: Initial Suit Eligibility Review

- Review window 300 credit report summary to eliminate accounts with:
  - **Active Bankruptcy records- Status is "Filing"** (Note: If there is any BKR data in window 300, please pull up full credit report in window 56 to view detail. Dismissed Bankruptcy case is an invalid bankruptcy case, please treat it as if the debtor did not file a Bankruptcy.) or
  - **Low TU score** (under 550) or
  - Has **significant Civil Judgment or Federal or State Lien balance** (over $10K).

Move the unqualified route to **0060 with documentation explaining why it is not qualified.**

--credit score (**TU score** field in window 300--needs to be higher than 550)

--under active Bankruptcy
--outstanding judgment (**Public records** field in window 300—if there is an outstanding judgment or lien, need to pull up the full credit report to evaluate the age and balance. Paid Civil Judgment does not count. Dismissed BKR does not count.)
--outstanding debts (**Negatives** and **Collection items** field in window 300-- outstanding mortgage indicates owing a property which is a plus for suit; outstanding commercial debt is minus for suit)

- Review total selfpay balance for like clients. At least one client's total balance **should exceed $200**. Move the unqualified route to 0600.
- For Methodist accounts with blank or incomplete spouse information in FACS window 4, check Bridge ARC8 screen for possible missing responsible spouse information. It is commonly seen that an account was covered under the insurance of the spouse of the listed Responsible party. By locating the information and complying with State laws, window 4 responsible spouse name, SSN (may need to check Accurint if is not available on Bridge), DOB, and POE information can be updated accordingly.
- If RP is not qualified for suit based on RP's credit report and there is a responsible spouse, please manually request spouse credit report and evaluate following the same criteria above.
- If RP or responsible spouse is qualified for suit based on balance and credit report data, proceed to POE skip-tracing at 4POE.

Disposition 4POE
Upon Disposition Change, routes will be assigned to Junior Legal Specialists.

Phase 2: Skip Tracing

- **Verify Contact Information (Residential & POE)**: We need to have at least one good phone number and address (residential or POE) to communicate and serve the debtor.
- **Verify POE on both RP and Responsible Spouse (if there is one):** We need to confirm that the method for executing the judgment is still valid
- **Spouse & Property**: A responsible spouse and owing a property are not critical criteria for filing a suit. But we want to gather as much information as possible to increase our ability to execute the judgment. If spouse or property is located, need to update window 4 spouse name and SSN and DOB or window 402 property value.
- If no POE information can be located for RP (and spouse), the account should be sent to 4TWN for The Work Number search. If POE information is found, proceed to disposition 4AAA for final suit evaluation.

Disposition 4AAA
Upon Disposition Change, routes will be assigned back to Senior Legal Specialists.

Phase 3: Final Suit Eligibility Review & Tying
4AAA Suit Eligibility Check List 6 items

☐ Method to Execute Judgment

- Confirm that there is valid contact information and a way to execute the judgment- **either a valid POE, a valid bank account** (update Bank information in win 18 if available; if bank account is the only method to execute judgment, it needs to be verified as well) **or verified property ownership with reasonable equity to cover the outstanding balance.** If we cannot locate any good phone number or address to reach the debtor (residential or POE) after exhausted all skip tracing resources, move the route to **0060**.

☐ Re-group Route to proceed with one client's accounts

- Next check window 302 field "AUTH TO SUE" to make sure it is marked "Y", indicating the client authorizes us to file sue the debtor. Untie non-suit client's and un-like client's accounts, tie the untied accounts in one route, then move the route to 4800 and extend out wait date for 180 days pending 2nd suit evaluation.

☐ Include All Accounts Eligible for Suit or Suit Evaluation

- **Phase 3000**- Check possible **agency-untie** and review **window 3** to identify other phase 3000 accounts that are eligible for suit. Move those accounts to 4001 to be route-tied to the existing 4000 routes (same client ties to 4AAA, different client ties to 4800 if necessary).
- **Phase 6000**- E-mail supervisor to recall other phase 6000 accounts that are eligible for suit (under the same creditor and statute of limitation will not expire within 180 days). Recalled phase 6000 accounts will be moved to disposition 4001 to be route-tied to the existing 4AAA route.

☐ Minimum Route Balance $200.00

- Route balance for suit package should not be less than $200.00. Untie any zero balance account and move to disposition 4002 to be canceled.

☐ Make Oldest Service Date Account the Seed

- Make account with the oldest service date the seed and copy verified RP and Spouse information (window 2, 4, 18, 302 and 402-property value) to the new seed if necessary.

☐ Determine if Spouse needs to be included in the Suit

- Verify that we have a responsible spouse to add to the suit or a property to file Property Lien on after judgment. **Only add spouse when there is a way to execute judgment on the spouse**, either we have spouse POE information or spouse's name is on the bank account or on the property. If spouse is included in the suit and we have not pulled the spouse's credit report, please manually request spouse's credit report to check Bankruptcy status.

- If route is qualified for suit at this point:
    1. Update County and State (State needs to be spelled out) in window 401
    2. Update Methodist EPI Number in window 402 for GCOA request use.
    3. Request Affidavit (after county and state are updated in window 401): letter code 4000, once requested, window 401 AFF request date will be updated automatically
    4. Request GCOA on RP and responsible spouse (if spouse is included in suit): letter code 4010, once requested, window 401 GCOA request date will be updated automatically
    5. Extend out wait date 15 days for Affidavit and GCOA to return

- Once Affidavit is returned, proceed to disposition 4SUE for Pre-Legal Collection.

❖ Pre-Legal Collection Process

Disposition 4SUE

Upon Disposition Change, double check window 401 to make sure county and state are filled out correctly and there is an Affidavit return date, then request Pre-Legal Letter, letter code 4001 and 4002. Once requested, widow 401 LEGAL LTR SENT date will be updated automatically and the system will also extend out wait date 7 days to allow time for the Pre-Legal letter to be delivered. Bring the printed Pre-Legal Letter to the Legal Assistant to be sent via FedEx.

1. Send Pre-Legal Letter to notify the debtor that the Legal Process is about to begin and to offer an opportunity to come to a resolution of the debt prior to filing the law suit.
2. Call the debtor at home or POE to recover the bills 7 days after the Pre-Legal Letter was sent, and move the route to:
    a. **4100** if can set up an arrangement
    b. 39DC if the debtor disputes the bill (after supervisor review)
    c. 3700 if discover unsolved INS issue (after supervisor review)
    d. 3LIT if discover unsolved LIT issue (after supervisor review)
    e. 3300 if discover new Bankruptcy
    f. 3DEC if the debtor is verified to be deceased and no responsible spouse to go after

If cannot reach the debtor after three attempts or if debtor does not want to pay, proceed with Self-pay Balance Review. (Please make sure we have both AFF and GCOA results before proceeding, if we are still pending GCOA, please leave the account in 4SUE to be followed up.)

Phase 4: Self-pay Balance Review
After Pre-Legal Collection has been exhausted, we need to conduct account self-pay balance review before finalizing the suit package to the attorney's office.

I. Suit Folder Creation

Step 1. Create a new Manila folder with Responsible party's name(s).

Step 2. Print form 5003 for a list of accounts in the route and paper-clips the list on the outside of the folder. This list will serve as a check list for self-pay balance review. Please put a check-mark next to the account if Legal Department is able to complete the review internally. Please use a color highlighter to highlight the account(s) that needs to be reviewed by Insurance Department.

II. Account Self-pay Balance Review

Step 3. Treat all Non-Methodist accounts as PT due balance. No self-pay review is necessary unless PT dispute the balance. If it is a Methodist account, go to the next step.

Step 4. First pull up Bridge and review Bridge notes. Review Bridge history from screen **ARA8** (read notes forward) or **ARJ5** (read notes backward). If there is rep notes on Bridge stating that it is PT due balance after review, regardless INS pays or not, treat all of them as PT due balance. Print out Bridge notes. No need to pull EOB (Explanation Of Benefits). If not, go to the next step.

Note: see next page for Bridge representative notes vs Bridge automatic system notes as well as Bridge notes printing instruction and EOB pulling instruction

Step 5. If there is no rep notes on Bridge, but the balance is a result of ER, CD, HX, UC visits with closing balance of $25, $50, $75, $100, $150, $200, $250 or $300, which are typical PT co-pay, treat them as PT due balance. Print out Bridge notes. No need to pull EOB. If not, got to the next step.

Step 6. If there is no rep notes on Bridge, but the balance is a result of IP, SS, NB visits with closing balance of $250, $500, $1000 or $1500, which are typical PT co-pay, treat them as PT due balance. No nedd to pull EOB. If not, go to the next step.

Step 7. If FACS window 702 indicated that the account has been reviewed by INS or window 108 indicated that the account has been reviewed by DISC, treat it as PT due balance. Print out Bridge notes. No need to pull EOB. If not, go to the next step.

Step 8. For everything else, if there is either an INS payment or an INS adjustment posted on the account, **request EOB** to verify PT due balance. After receiving the EOB, please confirm that Patient responsibility (balance) on the EOB matches the ending self-pay balance on Bridge and FACS, and document the account in FACS with EOB information. The EOB will then be served as self-pay proof to confirm that patient

balance is correct in the suit package. Please update "Y" in FACS window 402 field "PULL EOB" and summarize your review in FACS. If not, go to the next step.

Step 9. See next page Disposition 4DCR for instructions to refer account to INS for in-depth review. Only refer to INS for in-depth review when:

1. There is a balance discrepancy between EOB and Bridge/FACS.
2. Self-pay review cannot be finalized in Legal via step 3 through 7 AND there is no EOB for the account, either because insurance was not filed or denied due to no proper insurance coverage or EOB cannot be found.

Bridge representative notes vs Bridge automatic system notes

The Bridge history should have representative notes (automatic system notes do not count, see definition below) indicating patient balance after insurance in specific dollar amount, and the balance should match the original balance of the account in FACS.

Automatic Bridge system notes: If letter codes appear at the amount column associated with the notes on Bridge, the note was entered automatically via the system instead by a real representative. The letter codes are exception codes for the standardized notes.

Printing Bridge Notes

Print out Bridge history from **ARHS** screen (see instructions below) as self-pay proof to confirm that patient balance is correct; then update "Y" in FACS window 402 field "PRINT BRIDGE" and summarize your review in FACS.

Instructions for printing Bridge history from ARHS screen: At Bridge ARHS screen, input Methodist account number in the PATIENT ACCT field, input "DEFUB8" in the PRINTER ID field, answer "Y" to the question DO YOU WANT MEMOS PRINTED?, then hit "+" sign to print. The account history will be printed over the printer in Insurance Department next to Elizabeth Sugg's desk.

Requesting EOB

For ones needing EOB review, please fill out window 701 on the individual account for EOB request. Please use the insurance payment or adjustment information on Bridge ARJ5 or ARA8 screen to fill out the following fields (on the left-hand side of window 701) for a valid EOB request.

- EOB REQUEST: "Y"
- PAYER: name of the insurance payer according to Bridge payment history
- POST DATE: post date of the insurance payment or adjustment according to Bridge history
- AMT OF PYMT: amount of the payment according to Bridge history
- RECEIPT NO: listed right next to the insurance payment or adjustment on Bridge, it normally starts with two letters following with numbers
- EOB RETURN TO: always put "CRS LEG"
- EOB PULLED: this field needs to be blank in order for the EOB to be pulled, if there is a previous EOB pulled date in this field, please remove the date.

Step 10. Disposition change instructions:

- If there is pending EOB review in the route, please move the route to disposition **4DCR** from disposition 4SUE and extend out wait date for 7 days to allow time to receive the EOB from Support Service.
- If Legal Department is able to complete all the self-pay balance review in the route internally, please re-evaluate the route for Final Suit Evaluation following the 6-item check list. Forward the qualified and completed new case folder to the SR Legal Rep who is in charge of the new suit package process that month to file and move the route to **4RAA**. Every account in the route should have either Bridge history or EOB for self-pay proof with summarized review notes in FACS.

Disposition 4DCR

Route will stay with Legal reps for pending EOB request. If is determined for in-depth insurance review, the associated Manila folder should be given to the supervisor. The supervisor will forward all requests to INS department at once and transfer these routes to the INS rep for the time being.

- Once pending EOB review is completed, if there is any account in the route that requires in-depth review by the Insurance Department, please
  - Highlight the account(s) in color on the checklist
  - Move the route to disposition 4DCR
  - Forward the half-completed suit folder to management to be forwarded to Insurance supervisor. The route will then be transferred to the Insurance Department in FACS by management. After Insurance Department review, verified self-pay balance will be moved back to 4AAA for Legal Department to proceed with final suit package to 4RAA.

❖ **Final Suit Package**

Disposition 4RAA

IMPORTANT- All actions below have to be completed BEFORE the route is moved into 4RAA. Upon disposition change to 4RAA, the system will transfer the route away from the SR Legal rep to dummy collector ID GC4.

4RAA Finalize Suit Package Check List 7 items:

☐ Include All CRS Self-pay accounts within Statue of Limitation

- Check window 3 again to see if there is any additional account in phase 3000 that is eligible to be included in the suit. If there is, the new account needs to be added to the route and new Affidavit needs to be prepared.

☐ Minimum Route Balance $100.00

- Remaining route balance not less than **$100.00.** Untie any zero balance account and move to disposition 4002 to be cancelled. Affidavit will need to be re-prepared if any account was added or untied.

☐ Method to Execute Judgment

- Re-confirm a valid method to execute judgment if the last verification was conducted more than 90 days ago—Good POE or Bank Account for garnishment

☐ MISC (Collection) Fee for GCOA and Fedex Letter

- Check window 6 to make sure GCOA cost ($3) and Fedex Letter cost ($11 for Memphis Metro area and $13 for the rest) are added in the MISC fee bucket --If any one of the collection cost is missing, please alert management

☐ Signed Affidavit

- Check win 401 that there is an Affidavit return date
- Check win 47 for scanned Affidavit

☐ Valid GCOA on all parties

- Signed GCOA or confirmed GCOA NTBF for Methodist Shelby County suits —There is a "GCOA return date" in window 401 or "NO GCOA date" in window 402 on every route multiple with a GCOA request date.
- Check window 47 for scanned GCOA(s)

☐ Self-pay Review Completed

- Verify all accounts in the route have been determined to be pure selfpay balance.
- check window 402 to make sure either the "PULL EOB" or "PRINT BRIDGE" field is updated in EVERY account in the route.

(8. Debtor Info and Account(s) Info will be prepared in phase 5000)
(9. Civil Warrant will be prepared in phase 5000)

SR rep who finalized the suit to 4RAA is responsible for locating the associated Affidavit and GCOA(s) and forward the completed folder (containing Affidavit, FedEx letter,

delivery confirmation, GCOA, and self-pay review documents) to the SR rep who is in charge of preparing new suits for the month.

Please make sure no debtor payment was received within 30 days before we finalize the suit package. If there was, please attempt to contact the debtor for pay arrangement plan first. If the debtor was previously contacted by us and refused to pay or to work with us, the account can be moved to 4RAA directly.

Move the route to disposition 4RAA. System will move the route to 5000 once the Pre-Legal Letter dispute period is over (15 days from the date of the letter) and if no payment was received within the last 30 days.

Disposition 5000

The management will run the automated process to assign the route to an attorney based on the County/State in window 401.

- Shelby, TN case will be assigned to Pietrangelo: attorney ID 1001
- MS case will be assigned to Camp: attorney ID 1102
- AR case will be assigned to McHughes: attorney ID 1701

Disposition 5200

Once this assignment process is updated, the system will move the routes to disposition 5200 with attorney ID assigned and attorney fee added, if there is a signed GCOA, and extend out 30 days automatically. Then Management will generate the Civil Warrant for all the new cases to be included in the suit folder. The rep who is responsible for the New Case/Civil Warrant process will be responsible for:

- Check every new suit folder to make sure the package is complete and ready to go
- Forward the suit folder to be scanned on the seed account (Affidavit; EOB; Debtor and Account information Form 5001/5003; Civil Warrant-Pietrangelo case only)
- Create cost sheet for Shelby County Suits (only fill out creditor, defendant(s), CRS account number, the attorney is responsible for filling out the court cost)
- Bring non-Shelby County suit folders to management to be mailed to other full-service attorneys

Disposition 4800

Letter 4800 (route-level letter) is created to be used prior to suit evaluation. The letter is very similar to the CRS final notice letter but has Legal's phone number on the letter.

4800 Process

Step 1. Untie $0 account (if any) and move it to 4002.

Step 2. Check window 3 and possible agency-untie multiples and route-tie all CRS self-pay accounts to 4800

Step 3. Verify RP and spouse name, phone number, address (which can all be copied directly from the agency route in Pre-Legal or Legal collection, skip-tracing may be necessary in rare circumstances.)

Step 4. Request letter 4800

Step 5. Document and extend out wait date 30 days for response

Step 6. Once wait date is up, if none of the single client balance in the route is more than $200, move the route to disposition 0060 not qualified for suit. Or, if we have determined that there is no method to execute judgment based on previous suit evaluation, move the route to disposition 0060 not qualified for suit. Otherwise, go to the next step.

Step 7. Untie and group the largest balance client account(s) and move to 4AAA to proceed suit evaluation. Leave remaining accounts (if any) in disposition 4800 and extend out wait date 180 days for next suit package evaluation.

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INTRADEPARTMENTAL POLICY

ORIGINATOR: Patient Financial Services

SUBJECT: **Garnishing Pay**

PURPOSE: To collect bad debt balance via issuing garnishment on the debtor's pay after securing the debt with a civil judgment at county General Session or Circuit Court.

FUNCTIONS AFFECTED: Consolidated Recovery Systems Legal Department

Policy

A garnishment on a debtor's pay can be issued through the county General Session or Circuit Court in the name of the creditor's representing attorney ten days after a secured civil judgement is awarded. The garnishment can include the debtor's outstanding balance and associated legal costs and fees. A reasonable number of collection attempts will be performed to provide the debtor an opportunity to pay the balance in full, or to set up an acceptable payment arrangement prior to a pay garnishment being issued. Garnishment on a debtor's pay will be issued when the debtor fails to set up voluntary payment arrangement or cannot be reached after reasonable attempts to locate the debtor have been exhausted.

Definitions:

Reasonable number of attempts: Reasonable number of follow up attempts is defined as:

1) A minimum of two (2) call attempts to every available and callable phone number listed with the case

2) Phone calls must be made at different times of the day following FDCPA regulations.

Eligible for Garnishment – An account is eligible for garnishment on the tenth (10th) day after the judgement date.

Procedure

Responsibility: Sr Collection Recovery Representative

Fresh Judgement – The debtor shows no intention or interest in paying the balance or making acceptable voluntary payment arrangements of the outstanding balance and associated legal costs and fees before the case is eligible to be filed under garnishment.

1) If the garnishment was issued in the State of TN, issue a garnishment on the debtor's pay will be issued within 7 days of the judgement date
2) If the garnishment was issued in Mississippi or Arkansas, the attorney will issue the garnishment
3) Follow the "Procedure of Preparation" and system steps listed below to issue a garnishment.

Responsibility: Sr Collection Recovery Representative

Judgment under Broken Arrangement Status – The debtor had previously agreed to and was set up for voluntary payment arrangements. However, the debtor did not keep the promise and broke the arrangement.

1) If the debtor is contacted and agrees to recover and resume voluntary payment arrangements, arrangements may be -
   - Re-established by the patient directly with Consolidated Recovery Systems (collection agency representing the creditor)
   - Established with the creditor representing attorney's office
   - Established with the court by filing a Motion and establishing a starting date and monthly amount in front of a judge.

2) A "reasonable number of follow up attempts" will be made to provide an opportunity for the debtor to recover the delinquent payment(s) and resume the voluntary payment arrangement before issuing the garnishment. "Exhaustive" attempts must be made following FDCPA regulations.

3) If voluntary payment arrangements are not reestablished as stated in item (2) above, and the exhausting call attempts efforts did not produce results, the following steps will be followed:
   a) Mail a "Broken Promise" letter to the debtor's residential address if the voluntary payment arrangement was set up directly with Revenue Assurance Professionals
   b) Allow five days for the debtor to respond
   c) Issue a garnishment on the debtor's pay within 7 days if the debtor refuses to recover and resume the voluntary payment arrangement or cannot be reached after exhausting reasonable number of attempts

Responsibility: Sr Collection Recovery Representative

Re-issuing garnishment on expired garnishment - A garnishment is only valid for 180 days from the date it was issued. If the debtor's entire outstanding balance has not been collected by the original garnishment

within 180 days, another garnishment will be filed after the previous garnishment expires. The following steps must be followed:

1) A "reasonable number of attempts" must be made to provide the debtor an opportunity to set up voluntary payment arrangements directly with Revenue Assurance Professionals. Exhaustive attempts must be made following FDCPA regulations.
2) Garnishment on a debtor's pay will be issued within 7 days when the debtor refuses to set up voluntary payment arrangement or cannot be reached after exhausting reasonable number of call attempts.

Responsibility:
Sr Collection Recovery Representative

Preparation and System (FACS) Steps to issue a garnishment

To prepare an account for garnishment, the following steps must be followed:

1) Ensure that the debtor does not have any "unreported payments" on hold by:
   - Checking the Shelby County General Session or Circuit Court web sites at:

http://co4.shelbycountytn.gov/court_clerks/gen_sessions_court/civilindex.htm
or
http://gs2.co.shelby.tn.us:7779/pls/crweb/ck_public_qry_main.cp_main_idx

   - Call court bookkeeping (when web site access is not available)
     Shelby County General Sessions Court
     General [redacted]
     Bookkeeping [redacted]
   - Or call our representing attorney's office (on full service cases)
     TN Shelby County – [redacted] (half service)
     TN Regional – [redacted] [redacted] (full service)
     Mississippi - [redacted] [redacted] (full service)
     Arkansas - [redacted] [redacted] (full service)

2) Re-verify the debtor's place of employment to ensure active employment status

3) Verify the department and address at the place of employment that handles garnishment paperwork
   - Update the information in FACS window 302, if garnishing the responsible party's pay
   - Or Window "4" if garnishing the responsible spouse's pay

4) For **"Half Service Attorney's Cases"**
   a) Move the case to disposition 5700 with wait date "T" (See "Steps to Change a Disposition" below)
   b) Update window "401" field "GARN FILE DT" if garnishing the responsible party's pay; Update window "401" field "SPOUSE GARN DT", if garnishing the spouse's pay
   c) Update window "401" field "GARN AMT" to
      - "25.00 + 26.00" if serviced through our Shelby County private process server Mid South Subpoena Service
      - "25.00 + 22.00" if serviced through out-of-county Sheriff's Department
      - "25.00 + 4.42" if serviced through certified mail
   d) Weekly garnishment process will select cases in disposition 5700 with a "wait date" of 45 days to extend the follow-up for 45 days from the date the garnishment is issued
   e)
   f) Process garnishment forms and garnishment cost sheets to be packaged and filed via county General Session or Circuit Court with corresponding filing court cost

5) For "Full Service Attorney's Cases
   a) Print out debtor information form 5001 from window 0 in FACS
   b) FAX the garnishment information to the attorney's office to issue garnishment
   c) Leave the case in disposition 5300 to allow time for the attorney's office to report the garnishment file date and associated court cost back
   d) Upon notification from the attorney's office, update the disposition
   e) Change the disposition to 5700 and extend the "wait date" (See "Steps to Change a Disposition" below)
   f) Update window 401 field "GARN FILE DT", if garnishing the responsible party's pay; or window 401 field "SPOUSE GARN DT", if garnishing the responsible spouse's pay
   g) Weekly garnishment process will select cases in disposition 5700
   h) Enter disposition "5700" and a wait date of 60 days to extend the follow-up for 60 days from the date the garnishment is issued

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APPROVED

[redacted]

Director of Operations
Revenue Assurance Professionals

APPROVED

[redacted]

Chief Financial Officer
Revenue Assurance
Professionals

AUTHORIZED

[redacted]

Corp. Director, PFS/Rev Cycle
Methodist Healthcare

MEDICAL FINANCIAL ASSISTANCE POLICY FOR UNINSURED PATIENTS

Type: **Finance**

Facility: **System (Replacing S-01-042 and S-01-043)**

Purpose: The purpose of this policy and the Medical Financial Assistance programs established and governed by it is to provide access to care to those without the ability to pay and to provide consistent and appropriate discounts from billed charges to uninsured patients who qualify for assistance hereunder. This policy sets forth the basic framework for two Medical Financial Assistance programs that applies to emergency and other medically necessary care received by uninsured patients at all facilities operated by Methodist Le Bonheur Healthcare. This policy constitutes the official financial assistance policy under Section 501(r) of the Internal Revenue Code for each such facility.

I. Definitions:

A. Amounts Generally Billed ("AGB"): means the Usual and Customary Charges for Covered Services provided to individuals under the Level One and Level Two Medical Financial Assistance Programs, multiplied by the AGB Percentage applicable to such services.

B. Billing and Collections Policy: means the Methodist Le Bonheur Healthcare policy titled "Billing and Collections Policy for Self-Pay Accounts."

C. Covered Services: means Medically Necessary inpatient and outpatient services received at a Methodist Le Bonheur hospital facility.

D. Emergency Medical Services: means the services necessary and appropriate to treat a medical condition of an FAP-Eligible Patient that has resulted from the sudden onset of a health condition with acute symptoms which, in the absence of immediate medical attention, are reasonably likely to place the FAP-Eligible Patient's life in serious jeopardy, result in serious impairment to bodily functions or result in serious dysfunction of any bodily organ or part.

E. FAP-Eligible Patient: means a patient eligible for financial assistance under this policy or one or both of the Medical Financial Assistance Programs hereunder regardless of whether the patient has applied for financial assistance.

F. AGB Percentage: means a percentage derived by dividing (1) the sum of all claims for Medically Necessary services provided paid during the Relevant Period by Medicare fee-for-service and all private health insurers as primary payors, together with any associated portions of these claims paid by Medicare beneficiaries or insured individuals in the forms of co-payments, co-insurance or

deductibles, by (2) the Usual and Customary Charges for such Medically Necessary Services. The AGB Percentage shall be calculated no later than September 1st of each year, for the most recent Relevant Period. The calculation of the AGB Percentage shall comply with the "look-back method" detailed in Treasury Regulation § 1-501(r)-5(b)(1)(B).

G. RAP: means Revenue Assurance Professionals, LLC, which is responsible for billing and collecting accounts for hospital services.

H. Relevant Period: means the 12-month period ending on August 31 , 2015, for financial assistance provided from January 1, 2016 until the AGB Percentage is calculated based on claims paid during the 12-month period ending on August 31, 2016. Thereafter, the Relevant Period means each 12-month period ending on August 31.

I. Medicaid: means TennCare, Arkansas Medicaid, Mississippi Medicaid, and any and all other State or Federal programs to provide medical insurance to low-income individuals.

J. Medically Necessary: means those services required to identify or treat an illness or injury that is either diagnosed or reasonably expected to be Medically Necessary taking into account the most appropriate level of care. Depending on a patient's medical condition, the most appropriate setting for the provision of care may be a home, physician's office, an outpatient facility, or a long-term care, rehabilitation or hospital bed. In order to be Medically Necessary, a service must:

1. Be required to treat an illness or injury;

2. Be consistent with the diagnosis and treatment of the patient's condition;

3. Be in accordance with the standards of good medical practice;

4. Not be for the convenience of the patient or the patient's physician; and

5. Be that level of care most appropriate for the patient as determined by the patient's medical condition and not the patient's financial or family situation.

Emergency Medical Services are deemed to be Medically Necessary.

K. Uninsured Patient: means a patient without the benefit of health insurance or government programs that may be billed for Covered Services provided to them or for physician services and who is not otherwise excluded from this policy under Section II below. If a patient with the benefit of health insurance or government programs that may be billed for Covered Services has a claim denied for pre-existing conditions, benefit maximums reached or non-covered services, the patient will be deemed to be an Uninsured Patient.

L. Usual and Customary Charges: means the rates for Covered Services that are filed annually with the Tennessee Department of Health or other applicable state or federal agency. If rates are not required to be filed annually with any state or federal agency, then the Usual and Customary Charges will be the rates for Covered Services as set forth in the Charge Master for the hospital at the time the Covered Services are rendered.

II. Financial Assistance Programs

A. Overview. This policy establishes two programs of financial assistance. Under the Level One Medical Financial Assistance Program, Uninsured Patients having annual household incomes above 200% of the United States Department of Human Services Poverty Guidelines ("Federal Poverty Line") may, depending on their assets and liabilities, qualify for discounted pricing for Covered Services. Under the Level Two Medical Financial Assistance Program, Uninsured Patients having household incomes at or below 200% of the Federal Poverty Line may, depending on their assets and liabilities, qualify for financial assistance in the form of free or discounted Covered Services, subject (in some cases) to application for Medicaid or Tenncare. This policy and the Medical Financial Assistance Programs set forth herein are intended to comply with Section 501(r) of the Internal Revenue Code and the Treasury Regulations promulgated thereunder, and shall be interpreted in accordance with those regulations.

B. Exclusions. This policy and the Medical Financial Assistance Programs established and detailed herein apply solely to Uninsured Patients who have no third-party coverage either for the Covered Services provided to them, through governmental sources or commercial insurance, or for physician services. There is no financial assistance program available to persons who are not Uninsured Patients. The policy and the Medical Financial Assistance Programs established and detailed hereunder DO NOT apply to the portion of charges an insured patient is personally responsible for paying, i.e., co-pays, co-insurance, and deductibles, and does not apply to non-Covered Services. This policy is not available to persons who have any contractual claim or right for reimbursement or indemnification from an insurer or other third party payor. This policy is not available to those who have voluntarily discontinued health insurance coverage within the 60 days immediately preceding the date services were received from a Methodist Le Bonheur hospital facility. Furthermore, this policy does not apply to charges for services from other providers whose services are coincident to those provided by Methodist Le Bonheur Healthcare, e.g., surgeons, anesthesiologists, radiologists, or other physicians not employed by Methodist Le Bonheur Healthcare. (A list of all providers whose charges for Covered Services are governed by this policy is attached hereto as Exhibit A.) This policy also does not apply to elective or cosmetic procedures except as may be determined in the sole discretion of Methodist Le Bonheur on a case-by-case basis.

C. Reservation of Rights to Seek Reimbursement of Charges from Third Parties. In the event that any first or third party payor is liable for any portion of an Uninsured Patient's bill, Methodist Le Bonheur Healthcare will seek full reimbursement of all charges incurred by the patient at the Hospital's Usual and Customary Charges from such first or third party payors, subject to any limitations imposed by commercial insurance contracts covering Underinsured Patients, including subrogation claims, despite any financial assistance granted pursuant to this policy.

D. Methods of Applying for Financial Assistance. Patients may apply for financial assistance under with the Level One or Level Two Medical Assistance Program by any of the following means:

1. Downloading the Application Form from www.methodisthealth.org/patients-guests/billing-department.dot and mailing it to: Methodist Healthcare, PO Box 2279, Memphis, TN 38101-2279

2. Obtaining an Application Form from a Patient Financial Counselor by calling (800) 819-8128 or (901) 842-1255 and mailing it to: Methodist Healthcare, PO Box 2279, Memphis, TN 38101-2279

3. Any of the methods specified in the Billing and Collections Policy.

E. Level One Medical Financial Assistance Program.

1. Eligibility Criteria and Determinations. If an Uninsured Patient's resources are above 200% of the Federal Poverty Line, subject to the exclusions listed in Section II. B and II.C of this policy, a case-by-case evaluation of the patient's ability to pay will be made. The Uninsured Patient will be offered prompt payment resolutions, financial counseling and payment arrangements at the point of service.

2. Amounts Payable Under the Level One Medical Financial Assistance Program. Regardless of the determination of eligibility, an Uninsured Patient whose resources exceed 200% of the Federal Poverty Line will be given an immediate 75% discount off of Usual and Customary Charges for Covered Services received at Methodist Le Bonheur hospital facilities located in Tennessee, and an immediate 80% discount off of Usual and Customary Charges for Covered Services received at Methodist -- Olive Branch, provided that prompt payment in full of the estimated charges is made at point of service. If prompt payment is not made at point of service, a 70% discount off of Usual and Customary Charges for Covered Services received at Methodist Le Bonheur hospital facilities located in Tennessee and a 75% discount off of Usual and Customary Charges for Covered Services received at Methodist -- Olive Branch will be given to all Uninsured Patients. Additional discounts may be given to Uninsured

Patients, on a case-by-case basis, depending on the individual's circumstances and other considerations including the individual's standing with respect to the Federal Poverty Line. If an Uninsured Patient whose resources exceed 200% of the Federal Poverty Line is determined to be eligible for additional Level One Medical Financial Assistance, the Uninsured Patient will in no event be charged more than AGB for the Covered Services. Notwithstanding the foregoing, if the Covered Services are Emergency Services or services that the hospital facility is otherwise required to provide under EMTALA, then those services will be provided without requiring any advance deposit, prepayment or payment arrangements, and the discounts referenced in this Section II.E.2. will be offered to the Uninsured Patient after stabilization and prior to discharge.

F. Level Two Medical Financial Assistance Program.

1. Eligibility Criteria and Determinations. If an Uninsured Patient's resources are at or below 200% of the Federal Poverty Line, subject to the exclusions listed in Section II. B. and II.C. of this policy, the Uninsured Patient will ordinarily be qualified for Level Two Medical Financial Assistance. To obtain the benefits available under Level Two Medical Financial Assistance, an Uninsured Patient must complete and submit an Application for Medical Financial Assistance (see form attached) and, if Methodist determines it appropriate under the circumstances, an application for Tenncare, Medicaid or Medicare Disability, and be denied coverage by any state or federal program for which application was made at the request of Methodist Le Bonheur.

2. Amounts Payable Under the Level Two Medical Financial Assistance Program. Uninsured Patients who qualify for assistance under the Level Two Medical Financial Assistance Program will be charged no more than AGB for any Covered Service. Additional discounts, up to and including a complete write-off of all AGB charges for Covered Services, may be given after considering the Uninsured Patient's resources, number in household, and the Federal Poverty Line. Methodist Le Bonheur will ordinarily require an Uninsured Patient to apply for Tenncare, Medicaid or Medicare Disability or to pay a substantial advance payment or deposit towards an estimated AGB for Covered Services. Notwithstanding the foregoing, if the Covered Services are Emergency Services or services that the hospital facility is otherwise required to provide under EMTALA, then those services will be provided without requiring any advance deposit, prepayment or payment arrangements, and the discounts referenced in this Section II.F.2. will be offered to the Uninsured Patient after stabilization and prior to discharge.

G. Collection of Balances owed by Patients; Billing and Collections Policy. Accounts for hospital services for patients who are able but unwilling to pay are considered uncollectible bad debts and will be referred to RAP or outside

agencies for collection. The unpaid discounted balances of patients who qualify for Level One or Level Two Medical Financial Assistance are considered uncollectible bad debts and will be referred to RAP or outside agencies for collection or other actions in accordance with the Billing and Collections Policy. The Billing and Collections Policy will be posted on the Methodist Le Bonheur Healthcare website and each hospital-specific website. In addition, a free copy of the Billing and Collections Policy can be obtained by any member of the public upon request at the Admissions office of each hospital facility or by request to RAP at the address and telephone number listed at the end of this policy.

H. Monitoring and Administration of Programs. RAP has the responsibility for monitoring and ensuring that a reasonable effort to determine whether an individual is FAP-Eligible and for determining whether and when extraordinary collection actions may be taken in accordance with this policy and the Billing and Collections Policy.

I. Publication of Policy.

1. Plain Language Summary. A plain language summary notifying individuals that Methodist Le Bonheur Healthcare offers financial assistance to Uninsured Patients under the Level One and Level Two Medical Financial Assistance Programs will be prepared and updated as required to reflect modifications or amendments to the programs. The plain language summary will provide the following information in clear, concise, and easy-to-understand language:

   a. A brief description of the eligibility requirements and assistance offered under the Level One and Level Two Medical Financial Assistance Programs;

   b. The direct website address and physical locations at each hospital facility where any individual may obtain a free copy of this policy, the Billing and Collections Policy, and application forms for the Programs;

   c. The contact information, including the telephone number and physical location, of hospital staff who can provide information regarding the Level One and Level Two Medical Financial Assistance Programs, the application process, and assistance completing the application process;

   and

   d. A statement that no FAP-Eligible Individual will be charged more than AGB for Covered Services.

2. Dissemination of Plain Language Summary. The website for Methodist Le Bonheur Healthcare as well as each hospital-specific website shall conspicuously post the plain language summary. Each billing statement for self-pay accounts shall include an insert of the plain language

summary, and RAP representatives shall include information concerning the Level One and Level Two Medical Financial Assistance Programs in collection calls to self-pay accounts. Methodist Le Bonheur will also distribute copies of the plain language summary and the policy itself to community groups serving populations likely to include FAP-Eligible individuals. All admissions staff shall advise individuals who may be FAP-Eligible of the existence of the Level One and Level Two Medical Financial Assistance Programs at the time of registration and provide a copy of the plain language summary to those individuals.

3. Notification of Potential FAP-Eligible Patients. Patients who are potentially FAP-Eligible will be given a copy of this policy, the plain language summary, and application forms for the Level One and Level Two Medical Financial Assistance Programs before discharge from a hospital facility. Further notifications concerning the Programs will be made in accordance with the Billing and Collections Policy.

PLAIN LANGUAGE SUMMARY

METHODIST LE BONHEUR MEDICAL FINANCIAL ASSISTANCE PROGRAM

Methodist Le Bonheur Healthcare offers financial assistance to uninsured patients. An uninsured patient is someone who has no health coverage at all and who does not have any right to be reimbursed for healthcare expenses by someone else. A patient who has health coverage is considered uninsured if the patient's claim is denied.

If you are an uninsured patient, and your resources exceed 200% of the Federal Poverty Level, Methodist Le Bonheur will review your income and assets and make a determination of whether you are able to pay all or any portion of your bill for medically necessary or emergency services. Such patients will be given a 75% discount off of the bill for medically necessary and emergency services received at a Methodist Le Bonheur hospital facility located in Tennessee, or an 80% discount off of the bill for medically necessary and emergency services received at Methodist -- Olive Branch, if payment in full of estimated charges is made at the time of admission. If payment is not made at the time of admission, uninsured patients will receive a 70% discount off of the bill for medically necessary and emergency services received at a Methodist Le Bonheur hospital facility located in Tennessee or a 75% discount off of the bill for medically necessary and emergency services received at Methodist -- Olive Branch. Such patients may receive additional discounts depending on your particular circumstances.

If you are an uninsured patient whose resources are equal to or less than 200% of the Federal Poverty Line, you will qualify for Medical Financial Assistance provided that you (1) complete the application for Medical Financial Assistance, and (2) apply for Tenncare, Medicaid or Medicare Disability if requested. Such patients will receive at least a 70% discount off of the bill for medically necessary or emergency services received at a Methodist Le Bonheur hospital facility located in Tennessee or a 75% discount off of medically necessary and emergency services received at Methodist -- Olive Branch. Additional discounts, up to and including a complete write-off of all charges for services, may be given.

Qualified uninsured patients will never be charged more than "amounts generally billed" for medically necessary or emergency services, and will never be required to make any pre-payment or to make payment arrangements before receiving emergency services.

A free copy of Methodist Le Bonheur's financial assistance policy, billing and collections policy, and the application forms for medical financial assistance may be obtained by downloading them from www.methodisthealth.org. Free copies are also available at each hospital facility in the admissions or registrations areas. You may also call (800) 819-8128 or (901) 842-1255 to request that a free copy of the policies and application forms be mailed to you. Methodist Le Bonheur staff located in the admissions and registration areas are available to provide information about the Medical Financial Assistance Programs as well to help you complete the application process.

Methodist Le Bonheur Healthcare

MEDICAL FINANCIAL ASSISTANCE POLICY

Tennessee — Methodist University Hospital, Methodist North Hospital, Methodist South Hospital, Methodist Germantown Le Bonheur Children's Hospital

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Type: **Finance**

Facility: **System (Replacing S-01-042 and S-01-043)**

Purpose: The purpose of this policy and the Medical Financial Assistance programs established and governed by it is to provide access to care to those without the ability to pay and to provide consistent and appropriate discounts from billed charges to patients who qualify for assistance hereunder.

Policy: Methodist Le Bonheur Healthcare is committed to providing the highest level of care to all members of our community, regardless of their ability to pay. This policy sets forth the basic framework for three Medical Financial Assistance programs that apply to emergency and other medically necessary care received by patients at all Methodist Le Bonheur Healthcare hospitals. Any emergency or medically necessary care will not be delayed or withheld based on a patient's ability to pay. Any evaluation of financial arrangements will occur only after an appropriate medical screening exam and necessary stabilizing services have been provided in accordance with the Emergency Medical Treatment and Labor Act. This policy will be reviewed annually.

I. Definitions:

A. Amounts Generally Billed ("AGB"): means the Gross Charges for Covered Services provided to individuals under the Level One and Level Two Medical Financial Assistance Programs, multiplied by the AGB Percentage applicable to such services.

B. AGB Percentage: means a percentage derived by dividing (1) the sum of all claims for Medically Necessary services provided paid during the Relevant Period by Medicare fee-for-service and all private health insurers as primary payors, together with any associated portions of these claims paid by Medicare beneficiaries or insured individuals in the forms of co-payments, co-insurance or deductibles, by (2) the Gross Charges for such Medically Necessary Services. The AGB Percentage shall be calculated no later than September 1st of each year, for the most recent Relevant Period. The calculation of the AGB Percentage shall comply with the "look-back method" detailed in Treasury Regulation § 1.501(r)-5(b)(3). For the current relevant period beginning January 1, 2019 and ending on December 31, 2019, the AGB Percentage is 30% for our Tennessee hospitals.

C. Application Period: Period of time a patient has to submit a completed application for financial assistance. For purposes of this policy the application period begins on the date medical care is provided and ends no less than 240 days after the first billing statement following the date services are rendered or 30 days after the hospital provides a written notice to the patient outlining pending extraordinary collection actions.

D. Billing and Collections Policy: means the Methodist Le Bonheur Healthcare policy titled "Billing and Collections Policy."

E. Covered Services: means Medically Necessary inpatient and outpatient services received at a Methodist Le Bonheur hospital facility.

F. Discount: For purposes of this policy, this term refers to a reduction in the amount that is due from the patient.

G. Emergency Medical Services: means the services necessary and appropriate to treat a medical condition that has resulted from the sudden onset of a health condition with acute symptoms which, in the absence of immediate medical attention, are reasonably likely to place a patient's life in serious jeopardy, result in serious impairment to bodily functions or result in serious dysfunction of any bodily organ or part.

H. Gross Charges: means the rates for Covered Services that are filed annually with the Tennessee Department of Health or other applicable state or federal agency. If rates are not required to be filed annually with any state or federal agency, then the Gross Charges will be the rates for Covered Services as set forth in the Charge Master for the hospital at the time the Covered Services are rendered.

I. FAP-Eligible Patient: means a patient eligible for financial assistance under this policy or one or both of the Medical Financial Assistance Programs hereunder regardless of whether the patient has applied for financial assistance.

J. PFS: means Patient Financial Services, a department of Methodist Le Bonheur Healthcare, which is responsible for billing and collecting accounts for hospital services.

K. Relevant Period: means the 12-month period ending on August 31, 2018, for financial assistance provided from January 1, 2019 until the AGB Percentage is calculated based on claims paid during the 12-month period ending on August 31, 2019. Thereafter, the Relevant Period means each 12-month period ending on August 31.

L. Medicaid: means TennCare, Arkansas Medicaid, Mississippi Medicaid, and any and all other State or Federal programs to provide medical insurance to low-income individuals.

M. Medically Necessary: means those services required to identify or treat an illness or injury that is either diagnosed or reasonably expected to be Medically Necessary taking into account the most appropriate level of care. Depending on a patient's medical condition, the most appropriate setting for the provision of care may be a home, physician's office, an outpatient facility, or a long-term care, rehabilitation or hospital bed. In order to be Medically Necessary, a service must:

1. Be required to treat an illness or injury;

2. Be consistent with the diagnosis and treatment of the patient's condition;

3. Be in accordance with the standards of good medical practice;

4. Not be for the convenience of the patient or the patient's physician; and

5. Be that level of care most appropriate for the patient as determined by the patient's medical condition and not the patient's financial or family situation.

Emergency Medical Services are deemed to be Medically Necessary.

N. Uninsured Patient: means a patient without the benefit of health insurance or government programs that may be billed for Covered Services provided to them and who is not otherwise excluded from this policy under Section II below. If a patient with the benefit of health insurance or government programs that may be billed for Medically Necessary Services has a claim denied the patient will be deemed to be an Uninsured Patient.

O. Insured Patient: means a patient with health insurance and/or any third party payor program which reimburses for medical expenses. Patients who have a claim denied for pre-existing conditions or benefit maximums reached are not deemed insured for purposes of this policy.

P. Medically Underinsured: means any patient who has insurance and has a balance due greater than $5,000 for any singular medical encounter.

Q. Extraordinary Collection Actions: means any action taken against an individual related to obtaining payment on a Self-Pay Account that requires a legal or judicial process, or involves reporting adverse information concerning the Responsible Party to credit reporting agencies or credit bureaus. Extraordinary Collection Actions do not include efforts to perfect statutory liens or collect from third-party liability sources.

II. Financial Assistance Programs

A. Overview: This policy establishes three programs of financial assistance. Under the Level One Medical Financial Assistance Program, Uninsured Patients having annual household incomes above 250% of the United States Department of Human Services Poverty Guidelines ("Federal Poverty Line") qualify for discounted pricing for Covered Services. Under the Level Two Medical Financial Assistance Program, Uninsured Patients having household incomes at or below 250% of the Federal Poverty Line qualify for financial assistance in the form of free or discounted Covered Services, subject (in some cases) to application for Medicaid or TennCare. Under the Medically Underinsured Financial Assistance Program, Medically Underinsured Patients qualify for financial assistance in the form of discounted Covered Services. This policy and the Medical Financial Assistance Programs set forth herein are intended to comply with Section 501(r) of the Internal Revenue Code and the Treasury Regulations promulgated thereunder, and shall be interpreted in accordance with those regulations.

B. Exclusions: This policy and the Medical Financial Assistance Programs established and detailed herein apply solely to Uninsured Patients who have no third-party coverage either for the Covered Services provided to them, through governmental sources or commercial insurance. There is no financial assistance program available to persons who are not Uninsured Patients. The only exception to this exclusion is the provision for Medically Underinsured Patients as detailed below in section "G". The policy and the Medical Financial Assistance Programs established and detailed hereunder DO NOT apply to the portion of charges an insured patient is personally responsible for paying, i.e., co-pays, co-insurance, and deductibles, and does not apply to non-Covered Services. This policy is not available to persons who have any contractual claim or right for reimbursement or indemnification from an insurer or other third party payor. This policy does not apply to charges for services from other providers whose services are coincident to those provided by Methodist Le Bonheur Healthcare, e.g., surgeons, anesthesiologists, radiologists, or other physicians not employed by Methodist Le Bonheur Healthcare. (A list of all providers whose charges for Covered Services are governed by this policy is attached hereto as Exhibit A.) This policy also does not apply to elective or cosmetic procedures except as may be determined in the sole discretion of Methodist Le Bonheur on a case-by-case basis.

C. Reservation of Rights to Seek Reimbursement of Charges from Third Parties: In the event that any first or third party payor is liable for any portion of an Uninsured Patient's bill, Methodist Le Bonheur Healthcare will seek full reimbursement of all charges incurred by the patient at the Hospital's Gross Charges from such first or third party payors, subject to any limitations imposed by commercial insurance contracts covering Underinsured Patients, including subrogation claims, despite any financial assistance granted pursuant to this policy.

D. Methods of Applying for Financial Assistance: Patients may apply for financial assistance under the Level One or Level Two Medical Assistance Program by any of the following means:

1. Downloading the Application Form fromhttps://www.methodisthealth.org/financial-assistance/
2. Obtaining an Application Form from a Patient Financial Counselor by calling (901) 542-5347 or (901) 842-1255
3. Obtaining an Application Form from any Methodist Le Bonheur Healthcare facility's registration personnel.

AND

4. Mail completed application and Proof of Income to: Methodist Le Bonheur Healthcare – Self Pay Department, PO Box 172193, Memphis, TN 38187

OR

5. Fax to (901) 266-6474

E. Level One Medical Financial Assistance Program

1. Eligibility Criteria and Determinations: All Uninsured Patients whose income is above 250% of the Federal Poverty Line, subject to the exclusions listed in Section II.B and II.C of this policy, are eligible for Level One Medical Financial Assistance. Additionally, the Uninsured Patient will be offered prompt payment resolutions, financial counseling and payment arrangements at the point of service.

2. Level One Medical Financial Assistance: Uninsured Patients whose resources exceed 250% of the Federal Poverty Line will be given an immediate 70% discount off of Gross Charges for Covered Services received at Methodist Le Bonheur hospital facilities located in Tennessee and a 75% discount off of Gross Charges for Covered Services received at Methodist-Olive Branch, Mississippi.

F. Level Two Medical Financial Assistance Program

1. Eligibility Criteria and Determinations: If an Uninsured Patient's resources are at or below 250% of the Federal Poverty Line, subject to the exclusions listed in Section II.B. and II.C. of this policy, the Uninsured Patient will be qualified for Level Two Medical Financial Assistance. To obtain the benefits available under Level Two Medical Financial Assistance, an Uninsured Patient must complete and submit an Application for Medical Financial Assistance (see form attached) within the Application Period. If Methodist determines it appropriate under the circumstances, an application for TennCare, Medicaid or

Medicare Disability, must be submitted and coverage denied by any state or federal program for which application was made at the request of Methodist Le Bonheur.

2. Level Two Medical Financial Assistance: Uninsured Patients who qualify for assistance under the Level Two Medical Financial Assistance Program will be eligible for up to 100% Discount of Gross Charges per the chart below. Methodist Le Bonheur will ordinarily require an Uninsured Patient to apply for TennCare, Medicaid or Medicare Disability or to pay an advance payment or deposit towards an estimated AGB for Covered Services at our Tennessee hospitals.

% of Federal Poverty Guidelines	% Discount
Less than 200%	100%
200% - 225%	90%
226% - 250%	80%
Greater than 250%	70%

G. Medically Underinsured Program: Any Insured Patient with a balance due greater than $5,000 from a singular medical encounter will be eligible for a 25% discount off of the patient's responsibility on that encounter.

H. Collection of Balances owed by Patients; Billing and Collections Policy: Accounts for hospital services for patients who are able but unwilling to pay are considered uncollectible bad debts and are subject to Extraordinary Collection Actions in accordance with the Billing and Collections Policy. Under no circumstance will Methodist Le Bonheur Healthcare seek Extraordinary Collection Actions against patients whose income is less than 250% of the Federal Poverty Guidelines.

The Billing and Collections Policy will be posted on the Methodist Le Bonheur Healthcare website and each hospital-specific website. In addition, a free copy of the Billing and Collections Policy can be obtained upon request at the Admissions office of each hospital facility or by request to PFS at the address and telephone number listed above.

I. Monitoring and Administration of Programs: PFS has the responsibility for monitoring and ensuring that a reasonable effort to determine whether an individual is FAP-Eligible and for determining whether and when Extraordinary Collection Actions may be taken in accordance with this policy and the Billing and Collections Policy.

J. Publication of Policy

1. Plain Language Summary: A plain language summary notifying individuals that Methodist Le Bonheur Healthcare offers financial assistance to Uninsured Patients under the Level One and Level Two

Medical Financial Assistance Programs and for the Medically Underinsured will be prepared and updated as required to reflect modifications or amendments to the programs. The plain language summary will provide the following information in clear, concise, and easy-to-understand language:

a. A brief description of the eligibility requirements and assistance offered under the Level One and Level Two Medical Financial Assistance Programs along with the Medically Underinsured Program;

b. The direct website address and physical locations at each hospital facility where any individual may obtain a free copy of this policy, the Billing and Collections Policy, and application forms for the Programs;

c. The contact information, including the telephone number and physical location, of hospital staff who can provide information regarding the Level One and Level Two Medical Financial Assistance Programs, the application process, and assistance completing the application process;

AND

d. A statement that no FAP-Eligible Individual will be charged more than AGB for Covered Services.

2. Dissemination of Plain Language Summary: The website for Methodist Le Bonheur Healthcare as well as each hospital-specific website shall conspicuously post the plain language summary. Each billing statement for uninsured accounts shall include a notice of Financial Assistance eligibility and relevant contact information. PFS representatives shall include information concerning the Level One and Level Two Medical Financial Assistance Programs in collection calls to Uninsured Patients. Methodist Le Bonheur will also distribute copies of the plain language summary and the policy itself to community groups serving populations likely to include FAP-Eligible individuals. All admissions staff shall advise individuals who may be FAP-Eligible of the existence of the Level One and Level Two Medical Financial Assistance Programs at the time of registration and provide a copy of the plain language summary to those individuals.

3. Notification of Potential FAP-Eligible Patients: Patients who are potentially FAP-Eligible will be given a copy of the plain language summary, and application forms for the Level One and Level Two Medical Financial Assistance Programs before discharge from a hospital facility. Further notifications concerning the Programs will be made in accordance with the Billing and Collections Policy.

*Policies should be reviewed online and are valid ONLY on the date it is printed.Do not print policies for future reference.Print Date: 1/21/2020 8:37:57 PM

Methodist Le Bonheur Healthcare

Tennessee
Methodist University Hospital
Methodist North Hospital
Methodist South Hospital
Methodist Germantown Hospital
Le Bonheur Children's Hospital

Mississippi
Methodist Olive Branch Hospital

PLAIN LANGUAGE SUMMARY

METHODIST LE BONHEUR MEDICAL FINANCIAL ASSISTANCE PROGRAM

If you need help understanding this summary of financial assistance programs, please see any member of the registration staff or call (901) 542-5347.

Methodist Le Bonheur Healthcare offers financial assistance to uninsured patients. An uninsured patient is someone who has no health coverage at all and who does not have any right to be reimbursed for healthcare expenses by someone else. A patient who has health coverage is considered uninsured if the patient's claim is denied.

If you are an uninsured patient, Methodist Le Bonheur Healthcare will review your income and based on your income as a percent of the Federal Poverty Guidelines make a determination of whether you are abl to pay all or any portion of your bill for medically necessary or emergency services All uninsured patients will receive a discount off of the bill for medically necessary and emergency services received at a Methodist Le Bonheur hospital per the chart shown below.

If Services provided in Tennessee		If Services provided in Mississippi	
% of Federal Poverty Guidelines	% Discount	% of Federal Poverty Guidelines	% Discount
Less than 200%	100%	Less than 200%	100%
200% - 225%	90%	200% - 225%	90%
226% - 250%	80%	226% - 250%	80%
Greater than 250%	70%	Greater than 250%	75%

Patient's receiving Medical Financial Assistance as outlined above will be required to (1) complete the application for Medical Financial Assistance, and (2) apply for Tenncare, Medicaid, or Medicare Disability if requested.

Qualified uninsured patients will never be charged more than "amounts generally billed" for medically necessary or emergency services, and will never be required to make any prepayment or to make payment arrangements before receiving emergency services.

A free copy of Methodist Le Bonheur Healthcare's financial assistance policy, billing and collections policy, and the application forms for medical financial assistance may be obtained by downloading them from www.methodisthealth.org/financial-assistance Free copies are also available at each hospital facility in the admissions or registrations areas. You may also call (901) 542-5347 or (901) 842-1255 to request that a free copy of the policies and application forms be mailed to you. Methodist Le Bonheur Healthcare staff located in the admissions and registration areas are available to provide information about the Medical Financial Assistance Programs as well to help you complete the application process.

Hardship Pay Arrangements

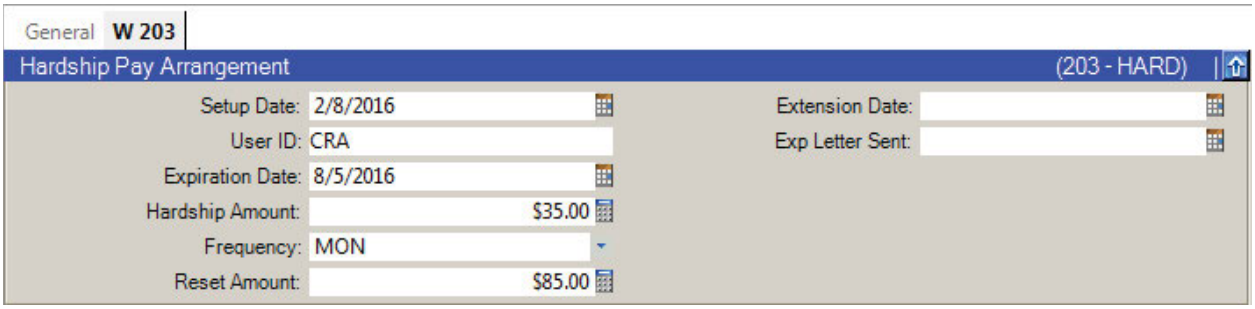
We will allow patients with hardships to pay less than our scheduled pay arrangement guidelines for up to 6/months.

Rules for Hardship

- Amount cannot be less than $15.00
- Once 6 months have expired the future payments cannot be reset for less than $25.00
- A patient can only do an additional 6 months of hardship one time.

Charles Rapp
Updated: 02/08/16

Hardship Documentation – Condensed



Rules for Hardship:

- Setup Date must be today.
- User ID must be filled in.
- Expiration date **cannot** be more than 183 days out.
- Amount **cannot** be less than $15.00 for EO and $25.00 for CRS.
- Frequency **cannot** be blank
- Reset amount **cannot** be less than $25.00.

Once the window is filled out and the account has been saved you can update the general window with the following:

- Wait Date: 10 days past the due date.
- Due Date: Day you are expecting the payment.
- Pay Amount is equal to the Hardship amount above.
- Frequency is set to MON.

After that the disposition acts like a regular pay arrangement. The patient will get the following:

- Initial hardship letter – states that you have been set up on a hardship pay arrangement.
- Regular thank you and reminder letters.
- New final hardship notice letter saying that the hardship will be coming to an end.

Version: 11/19/2013

Methodist Le Bonheur Healthcare Community Health Needs Assessment & Strategic Implementation Plan

Facilities Included:

- **Methodist Healthcare – Memphis Hospitals**
  - **Methodist University Hospital**
  - **Methodist South Hospital**
  - **Methodist North Hospital**
  - **Methodist Le Bonheur Germantown Hospital**
  - **Le Bonheur Children's Hospital**
- **Methodist Healthcare – Fayette Hospital**
- **Methodist Extended Care Hospital**

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Community Health Needs Assessment Committee

Methodist Le Bonheur Healthcare Management

Michael Ugwueke	COO and EVP
Heather Swanson, MD	President, Medical Staff
Nikki Polis	CNO and SVP
Bill Breen	SVP, Physician Alignment
Ed Rafalski	SVP, Strategic Planning and Marketing
Carol Ross-Spang	SVP, Human Resources
Paula Jacobson	President, Methodist Foundation
Lynn Field	VP, Legal Services and Compliance
Mike Nesbit	VP, Financial Services
Lee Meyers	Corporate Director, Marketing and Communications
Carol Weidenhoffer	Corporate Director, Planning, Research and Business Development
Jennilyn Utkov	Administrative Director, Marketing, Le Bonheur Children's Hospital
RuthAnn Hale	Director, Media and Community Relations
Teresa Cutts	Director, Research and Innovative Practice
Katie Nelson	Planning Manager
Zach Hidinger	Market Research Analyst
Robyn Hornsby	Reimbursement Analyst
Dee Wimberley	Administrative Coordinator, External Communications

Board Committee Review

Quality Committee
Faith and Health Committee

Introduction

This document is the Community Health Needs Assessment (CHNA) for Methodist Le Bonheur Healthcare (MLH) in Memphis, Tennessee and includes the Strategic Implementation Plans for Methodist Healthcare – Memphis Hospitals, Methodist Healthcare – Fayette Hospital and Methodist Extended Care Hospital.

Organization Description

MLH is an integrated, not-for-profit healthcare delivery system based in Memphis, Tennessee, with 1,665 total licensed beds. Our hospital system (see Figure 1) includes home health services, outpatient surgery centers, minor medical centers, diagnostic centers, sleep centers and a hospice residence that serve the entire Mid-South (see Figure 2). Areas of expertise include The Brain and Spine Institute, The Transplant Institute, The Cancer Center, The Cardiovascular Institute and pediatrics at Le Bonheur Children's Hospital. MLH has been affiliated with The United Methodist Church since 1918. MLH combines a dedication to clinical excellence with a faith-based commitment to care.

MLH, centered in Shelby County, is one of Tennessee's largest healthcare providers, serving populations of diverse socio-economic characteristics across a large area of West Tennessee, North Mississippi, and East Arkansas. MLH's principal acute care subsidiary organization is Methodist Healthcare – Memphis Hospitals, a not-for-profit corporation that operates five Shelby County hospitals under a single license. Four of its hospitals, Methodist University Hospital, Methodist South Hospital, Methodist North Hospital and Methodist Le Bonheur Germantown Hospital, serve primarily adult patients. The fifth hospital, Le Bonheur Children's Hospital, is a regional tertiary/quaternary care center for pediatric patients from throughout the Methodist Healthcare region. MLH also owns and operates Methodist Healthcare – Fayette Hospital, the only hospital in Fayette County, Tennessee as well as Methodist Extended Care Hospital, a long-term care hospital located on the Methodist University Hospital campus. The most recent addition to the MLH family is Methodist Healthcare – Olive Branch Hospital which opened in DeSoto County, Mississippi in August 2013. The needs of the DeSoto community are included in this document, yet the Strategic Implementation Plan will be included in future planning documents.

Methodist Healthcare - Memphis Hospitals (MHMH) Methodist Memphis was chartered in 1922 by the Memphis, North Mississippi and North Arkansas Annual Conferences of The United Methodist Church as the successor to a corporation chartered in 1918 in Mississippi. Methodist University is located in the downtown Memphis Medical Center on the site of the original Methodist Hospital, which opened in 1921 with 72 private rooms. Methodist Memphis has grown consistent with community needs for over three-quarters of a century. In 1995, Methodist Memphis merged with Le Bonheur Children's. Methodist Memphis now owns and operates five acute care hospitals in the Memphis area, including Methodist University, the system's flagship tertiary care hospital

Methodist University Hospital Methodist University is the 617 licensed acute bed flagship facility of MHMH. As the principal teaching facility for the University of Tennessee Health Science Center (UTHSC) in the Memphis area, academic training meets application and practice. At Methodist University, a staff of more than 2,500 Methodist associates focuses on providing patient and family-centered healthcare services. The following specialty areas provide cutting-edge technology and offer the latest and most advanced procedures to patients in the Mid-South: The Transplant Institute with a nationally ranked Liver Transplant Program; The Brain and Spine Institute, with the largest brain attack program in Tennessee; cardiology and cardiovascular services, with the largest STEMI program in Tennessee; oncology; Center for Emergency Medicine; Certificate of Distinction from The Joint Commission as a Primary Stroke Center and AMI Center. Methodist University has established areas of focus to provide comprehensive regional tertiary care for cardiac, cancer, neurologic and transplant patients.

Methodist South Hospital Methodist South was opened in the Whitehaven community 1973 to serve the strong population growth in south Shelby County and north Mississippi. Methodist South currently has 156 licensed acute beds. Methodist South provides a full complement of general acute care services, including maternity, cancer care, critical care, same day surgery, 24-hour emergency care, full cardiac services and dialysis services, and includes a Level 2 neonatal intensive care unit (NICU).

Methodist North Hospital Methodist North was opened in 1978 in the Raleigh community to support the growing needs of north Shelby County and neighboring Tipton County. Methodist North currently has 246 licensed acute beds. Methodist North provides general acute care services including cancer care, critical care, same day surgery, 24-hour emergency care, full cardiac services and orthopedic surgery.

Methodist Le Bonheur Germantown Hospital In 1993, Methodist Memphis purchased Methodist Germantown, a hospital in Germantown, Tennessee, a suburb to the east of Memphis. In 2010, the Women's and Children's Pavilion opened and was awarded Leadership in Energy Efficiency Design (LEED) Gold Certification by the U.S. Green

Building Council. The expansion project added 100 beds to the campus, bringing the total licensed bed count up to 309. Several renovations and expansions occurred including additional operating rooms, cardiac services expansion and family care spaces. Among the many services offered by Methodist Germantown are a Maternity Center with a Level 3 NICU, Le Bonheur pediatric inpatient unit, comprehensive cardiology program, critical care services, orthopedic surgery program, outpatient diagnostic imaging center and a 24 hour emergency department staffed and equipped to meet the healthcare needs of both children and adults.

Le Bonheur Children's Hospital In October 1995, Le Bonheur Children's merged into Methodist Memphis. Le Bonheur Children's is ranked as a Best Children's Hospital by *U.S. News and World Report*. The Mid-South's only comprehensive pediatric facility, Le Bonheur operates the only pediatric ACS level 1 trauma center and level 3C NICU in the region. In 2010, the hospital moved into a new 255 licensed acute bed replacement facility on a campus that includes a newly renovated Research Center and Outpatient Center. In 2012, the new patient tower was awarded LEED Silver Certification by the U.S. Green Building Council. Le Bonheur Children's is the primary pediatric teaching hospital for the UTHSC at Memphis. Le Bonheur Children's provides numerous specialty services including liver and kidney transplantation, brain tumor resections, cardiothoracic surgery, and invasive and non-invasive cardiac laboratories. Le Bonheur Children's also maintains laboratories where medical scientists perform research in many areas including neuroscience and infectious and respiratory diseases. In addition to the acute care hospital, Le Bonheur Children's provides urgent care, outpatient surgery and subspecialty clinics throughout the Mid-South in ambulatory settings, and partners with various West Tennessee school systems to provide school-based nursing services, health screenings, and health education. Le Bonheur Children's also collaborates with St. Jude Children's Research Hospital (St. Jude) in many program areas, such as brain tumors and sickle cell disease, through joint protocols and shared medical staff. St. Jude is one of the world's premier centers for research and treatment of catastrophic diseases in children and is located in Memphis approximately 1.3 miles from Le Bonheur Children's facilities.

Methodist Healthcare - Fayette Hospital Methodist Fayette owns and operates a 46 licensed bed acute care general service hospital located in Somerville, Tennessee. There are no other acute care hospitals in Fayette County. Methodist Fayette's services include radiology, laboratory, pharmacy, 24-hour emergency care and an ambulatory care center. Methodist Fayette offers a range of primary and secondary care services, primarily in the family practice specialty. An ambulatory care center provides, in addition to family practice, services in urology, hematology/oncology, ophthalmology, cardiology and podiatry.

Methodist Extended Care Hospital, Inc. Methodist Extended Care Hospital (MECH) is a Tennessee nonprofit corporation that provides long-term acute care services in its 36 licensed bed facility located on the campus of Methodist University Hospital. MECH staff is trained to provide highly individualized care of patients who are medically fragile and still require specialized nursing care and intensive therapies through an extended hospital stay. While at MECH, patients get the acute care they need to ensure a smooth transition to home, skilled care, nursing home, rehabilitation facility or to home health care.

The multi-disciplinary patient care team includes physicians, nurses, pharmacists, medical social workers, rehabilitation therapists, respiratory therapists, specialized case managers, chaplains and patient educators. Together, they develop and implement comprehensive programs and focused care to assist the patient and family to the highest functional level. The majority of our patients stay 10-25 days. The longer length of stay and the lower nurse-patient ratio provide an opportunity for staff to develop a close, trusting and healing relationship with the patient and their families with unrestricted visiting hours. MECH services specialize in medically complex wound care, low intensity rehabilitation, cardiac rehabilitation and ventilator weaning.

Our Mission

MLH, in partnership with its medical staffs, will collaborate with patients and their families to be the leader in providing high quality, cost-effective patient- and family-centered care. Services will be provided in a manner which supports the health ministries and Social Principles of The United Methodist Church to benefit the communities we serve.

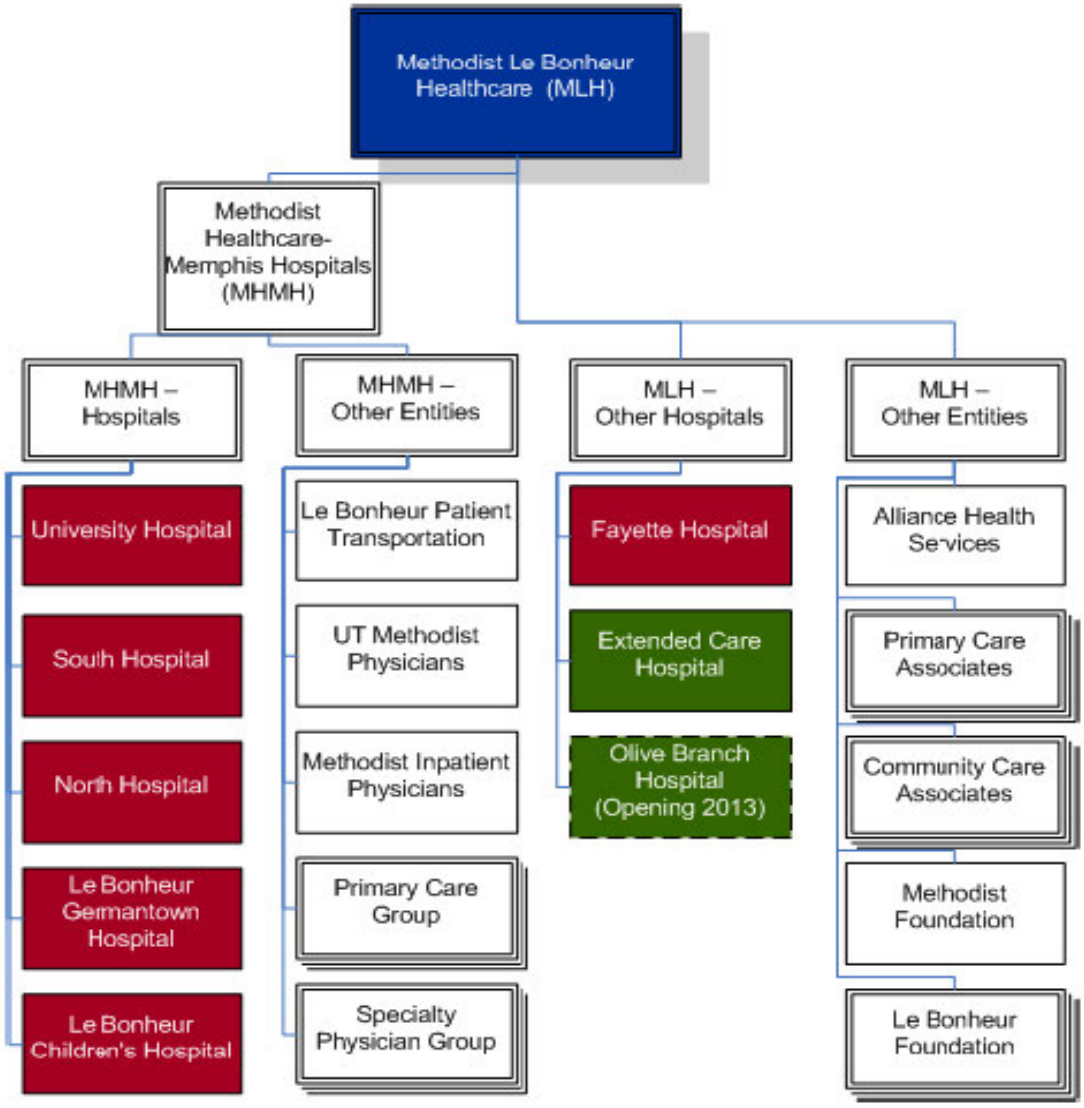
Our Vision

MLH is a faith-based healthcare system that, in partnership with its physicians, will be nationally recognized for delivering outstanding care to each patient, achieved through collaboration with patients and their families.

Our Values

Service: Patients and families are at the heart of all we do.
Quality: We consistently provide the highest quality of care through safe, proven practices.
Integrity: We accept and honor the trust placed in us through our faith-based mission.
Teamwork: Together we are better.
Innovation: We are a learning organization and embrace new ways to get better results.

Methodist Le Bonheur Healthcare Organization



Source: MLH Strategic Planning and Marketing

Figure 1

Methodist Le Bonheur Healthcare Locations

DIAGNOSTIC CENTERS

Le Bonheur East Diagnostic Center
806 Estate Place • Memphis, TN 38120
901.287.4000

Methodist Breast Center - Germantown
7945 Wolf River Boulevard • Germantown, TN 38138
901.516.9000

Methodist Diagnostic Center - Germantown
1377 S. Germantown Road • Germantown, TN 38138
901.516.9000

Methodist Diagnostic Center - Midtown
1801 Union Avenue • Memphis, TN 38104
901.516.9000

Methodist Diagnostic Center - North
3950 New Covington Pike • Memphis, TN 38128
901.516.9000

Methodist Diagnostic Center - Olive Branch
9085 Sandidge Center Cove • Olive Branch, MS 38654
901.521.7908

Methodist Diagnostic Center - South
1300 Wesley Drive • Memphis, TN 38116
901.516.9000

Methodist Diagnostic Center - Southaven
7400 Airways Boulevard • Southaven, MS 38671
662.521.7908

SURGERY CENTERS

Hamilton Eye Institute and Surgery Center
930 Madison, Suite 370 • Memphis, TN 38163
901.448.3900

Le Bonheur East Surgery Center
786 Estate Place • Memphis, TN 38120
901.287.4100

Methodist Surgery Center - Germantown
1363 Germantown Road • Germantown, TN 38138
901.624.6634

Methodist Surgery Center - North
3950 New Covington Pike, Suite 100 • Memphis, TN 38128
901.373.1991

Wolf River Surgery Center
1325 Wolf Park Drive, Suite 101 • Germantown, TN 38138
901.252.3403

SLEEP CENTERS

Methodist Sleep Disorders Center
5050 Poplar Avenue, Suite 300 • Memphis, TN 38117
901.683.0044

Methodist Sleep Disorders Center - Olive Branch
5480 Goodman Road • Olive Branch, MS 38654
901.683.0044

MINOR MEDICAL CENTERS

Minor Medical Center - Cordova
8095 Club Parkway • Cordova, TN 38016
901.758.6035

Minor Medical Center - Hacks Cross
8071 Winchester Road • Memphis, TN 38125
901.756.6056

Minor Medical Center - Midtown
1803 Union Avenue, Suite 2 • Memphis, TN 38104
901.722.3152

Minor Medical Center - Olive Branch
5480 Goodman Road • Olive Branch, MS 38654
662.893.9800

WOUND HEALING CENTERS

North Comprehensive Wound Healing Center
3950 New Covington Pike, Suite 350 • Memphis, TN 38128
901.516.5766

South Comprehensive Wound Healing Center
1251 Wesley Drive, Suite 107 • Memphis, TN 38116
901.516.3730

HOSPICE & HOME CARE

Methodist Hospice Residence
6416 Quince Road • Memphis, TN 38119
901.516.1600

All other home-based services:
6400 Shelby View Drive • Memphis, TN 38134
901.516.1400

FOUNDATION

Methodist Healthcare Foundation
1211 Union Avenue, Suite 450
Memphis, TN 38104
901.516.0500

OUR OTHER LOCATIONS

Methodist Le Bonheur Healthcare is proud to have aligned with many physician practices over the last couple of years, and that number will continue to grow in 2013.

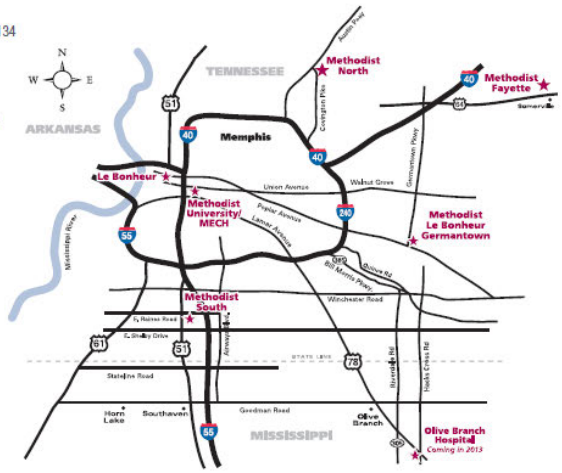
PRIMARY CARE GROUPS

- Eastmoreland Internal Medicine
- Foundation Medical Group
- Germantown Internal Medicine Associates
- The Internal Medicine Clinic
- Jordan Internal Medicine
- Kraus Internal Medicine
- Lakeland Family Medicine
- McClatchy Medical Center
- Methodist Teaching Practice
- MidSouth Family Medicine
- Midtown Internal Medicine
- Motley Internal Medicine
- Peabody Family Care
- PennMarc Internal Medicine
- Primary Health Care
- Southwind Medical Specialists

SPECIALTY CARE GROUPS

- OB/GYN Associates of the Mid-South
- Sutherland Cardiology Clinic
- The Cardiovascular Center
- Germantown Surgical Associates
- Loiseau General Surgery
- Methodist Shoulder & Orthopaedic Surgery
- Thaddeus B. Gaillard Jr. M.D.

We are also proud to partner with The West Clinic, the Mid-South's premier adult cancer treatment center.



Source: MLH Strategic Planning and Marketing, facilities listed as of April 2012

Figure 2

Service Area

MLH serves the residents in an area spanning three states including Tennessee, Arkansas and Mississippi. The System's service area is defined by aggregating patient origin in rank order of originating county and zip code (see Table 1; Figure 3). We define our primary service area as that which represents 75 percent of discharge volume. We consider the next 15 percent of patient discharge origin our secondary area. The defined service area for this CHNA is based on the communities in which the majority of our patients reside and in which we have a hospital presence. We selected Shelby and Fayette counties in Tennessee and DeSoto County in Mississippi as the area of focus of the 2012 CHNA.

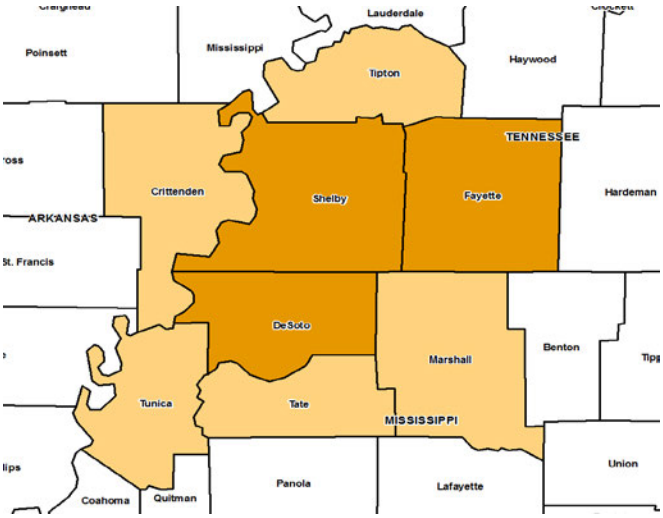
Patient Origin by County

MLH Patient Origin	County	State	Percent of Total Discharges
Primary Region	**Shelby**	TN	74.1%
Primary Region Total			**74.1%**
Secondary Region	**DeSoto**	MS	5.3%
	Tipton	TN	4.0%
	Crittenden	AR	2.9%
	Fayette	TN	2.0%
	Marshall	MS	1.2%
Secondary Region Total			**15.3%**
Tertiary Region Total	**Others**		**10.6%**
Grand Total			**100.0%**

Source: MLH Internal Ascent Data

Table 1

CHNA Geographic Area of Focus



Source: Healthcare Advisory Board, Crimson Market Advantage

Figure 3

Executive Summary

With the passage of the Affordable Care Act, tax- exempt hospitals are required to:

- Conduct a CHNA for the defined community, at least every three years
- Secure input representing broad interests of the community served
- Prioritize community needs
- Identify organizations in the community that serve these needs
- Make CHNA findings widely available
- Develop implementation strategies for each priority identified (see Figure 4)
- Report to the Internal Revenue Service as an attachment to the 990 tax form how it is meeting its implementation plan

The CHNA enables strategic planning with a focus on activities that positively impact the health of our community through a continuum of care tailored to meet the unique needs of women, infants, seniors and racial, ethnic and linguistic minorities. Thus, besides fulfilling the new requirements for section 501(c)(3) status, the CHNA helps to identify community health needs in our System's service area and determine resource availability to guide appropriate resource allocation.

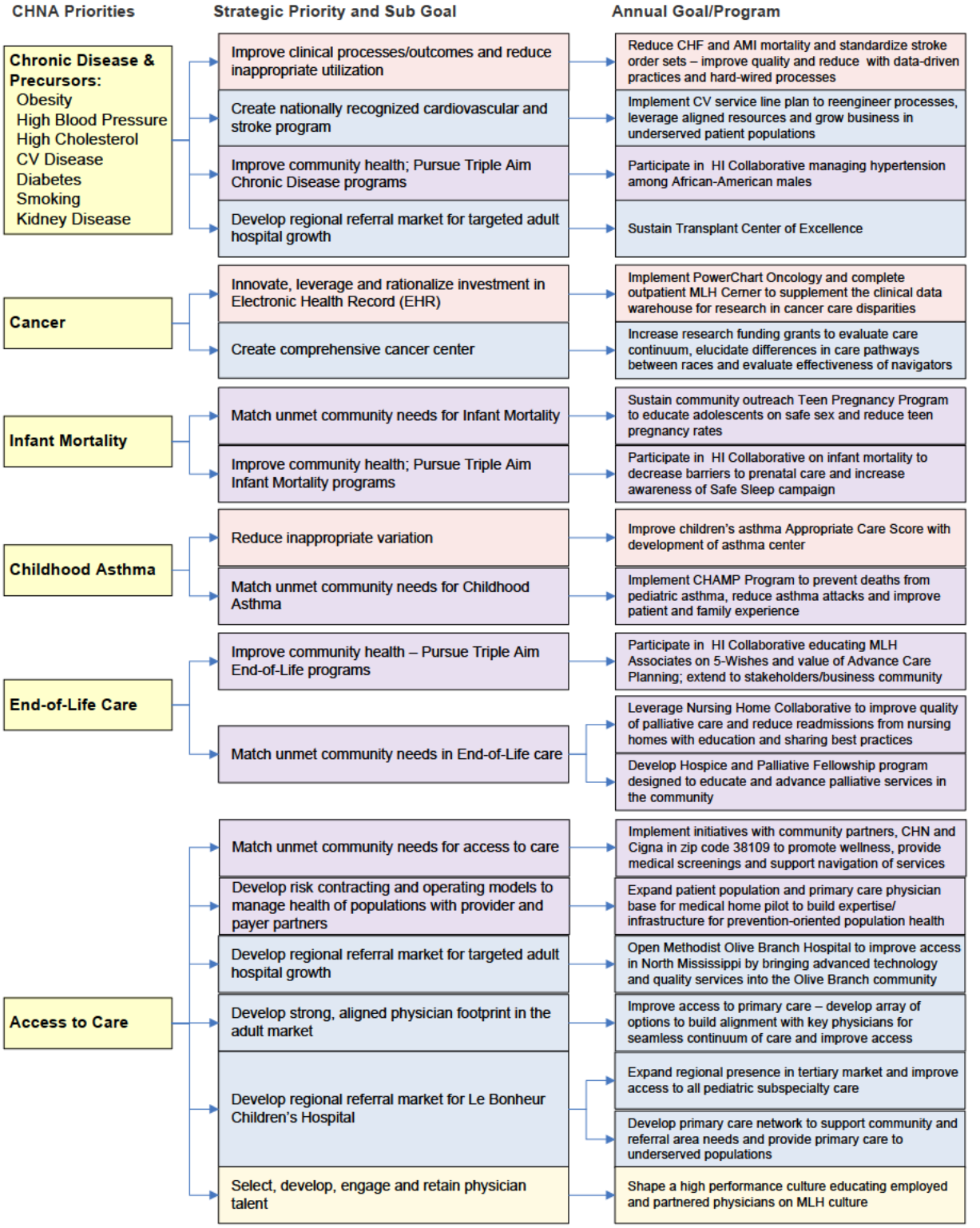
MLH is committed to undertaking a community-wide process to develop a comprehensive CHNA representing the community needs in our service area. The process includes regional- and county-specific secondary data collection. Primary data was collected via community surveys and in-depth interviews with hard-to-reach individuals and a wide range of public and private organizations.

Purpose

This CHNA has been completed for a variety of reasons, chief among them being:

- To help meet the hospital's mission of enhancing the health of the people and communities it serves
- To comply with the Patient Protection and Affordable Care Act of 2010 and maintain the hospital's tax-exempt status
- To establish community health needs for the hospital's service area to help prioritize resource allocation
- To gather data that can be used in other efforts to obtain grants and qualify for awards and certifications
- To identify existing resources within the MLH communities, forge partnerships with these entities and facilitate the coordination of care
- To create a sustainable process for conducting CHNA that can be replicated annually and inform the strategic planning process

Community Health Needs Strategic Implementation Plan



Source: MLH Strategic Planning and Marketing

Figure 4

Profile of the Community

Demographics

MLH primarily serves zip codes in Shelby and secondarily Fayette and DeSoto counties in Tennessee and Mississippi. The following tables depict demographic and socioeconomic characteristics of MLH's service area for the most recent period available. The total population of Shelby County, the county of origin for nearly 75 percent of MLH patients, has a total population of just fewer than one million individuals and will grow by approximately one percent over the next five years (see Table 2).[i] DeSoto and Fayette counties are projected to have the most robust percentage growth through 2017. DeSoto is most notable with projected growth of more than 23,000 people in five years (see Table 2). The population distribution by age for Shelby and DeSoto counties differ from the State and National distributions with higher proportions of individuals less than 18 years of age and lower proportions of those greater than 65 years of age (see Table 4). Shelby County has a much higher proportion of Black Non-Hispanic population compared to the State and Nation and has the highest proportion of Hispanic population by county when compared to DeSoto and Fayette (see Table 5).

Service Area Population Statistics

Report Area	2000 Total Pop	2012 Total Pop	2017 Total Pop	% Change 2012-2017
DeSoto	105,402	167,513	190,807	13.9%
Fayette	23,600	35,668	39,553	10.9%
Shelby	902,572	936,133	946,735	1.1%
MS	2,844,661	2,997,336	3,081,920	2.8%
TN	5,683,067	6,433,632	6,694,670	4.1%
USA	281,421,886	313,095,504	325,256,783	3.9%

Source: Truven Health Analytics – Market Expert

Table 2

Service Area Population Distribution by Gender

Report Area	Males			Females		
	2012	2017	% Change	2012	2017	% Change
DeSoto	82,963	94,379	13.8%	84,550	96,428	14.0%
Fayette	17,476	19,363	10.8%	18,192	20,190	11.0%
Shelby	446,366	453,239	1.5%	489,767	493,496	0.8%
MS	1,454,868	1,500,004	3.1%	1,542,468	1,581,916	2.6%
TN	3,139,564	3,270,038	4.2%	3,294,068	3,424,632	4.0%
USA	154,449,013	160,510,076	3.9%	158,646,491	164,746,707	3.8%

Source: Truven Health Analytics – Market Expert

Table 3

Service Area Population Distribution by Age

Report Area	Age < 18				Age 18-64				Age 65+			
	2012		2017		2012		2017		2012		2017	
	Count	% of Total	Count	% of Total	Count	% of Total	Count	% of Total	Count	% of Total	Count	% of Total
DeSoto	47,654	28.4%	52474	27 5%	103,120	61.6%	116,057	60 8%	16,739	10.0%	22,276	11.7%
Fayette	8,408	23.6%	9,307	23 5%	22,645	63.5%	24,197	61 2%	4,615	12.9%	6,049	15 3%
Shelby	255,411	27.3%	255,177	27 0%	585,430	62.5%	581,168	61.4%	95,292	10.2%	110,390	11.7%
MS	780,068	26.0%	797,559	25 9%	1,835,535	61.2%	1,852,123	60.1%	381,733	12.7%	432,238	14 0%
TN	1,529,252	23.8%	1,579,434	23.6%	4,046,743	62.9%	4,105,738	61 3%	857,637	13.3%	1,009,498	15.1%
USA	76,658,741	24.5%	78,723,481	24 2%	196,186,413	62.7%	200,024,110	61 5%	40,250,350	12.9%	46,509,192	14 3%

Source: Truven Health Analytics – Market Expert

Table 4

Service Area Population Distribution by Race

Report Area	White Non-Hispanic		Black Non-Hispanic		Hispanic		Asian & Pacific Islander Non-Hispanic		All Others		Total	
	2012 Pop	% of Total	2012 Pop	% of Total	2012 Pop	% of Total	2012 Pop	% of Total	2012 Pop	% of Total	2012 Pop	% of Total
DeSoto	113,740	67.9%	39,570	23.6%	9,197	5.5%	2,367	1.4%	2,639	1.6%	167,513	100.0%
Fayette	24,602	69.0%	9,436	26.5%	902	2.5%	298	0.8%	430	1.2%	35,668	100.0%
Shelby	353,362	37.7%	489,006	52.2%	57,061	6.1%	22,581	2.4%	14,123	1.5%	936,133	100.0%
MS	1,724,137	57.5%	1,109,778	37.0%	89,293	3.0%	27,940	0.9%	46,188	1.5%	2,997,336	100.0%
TN	4,828,852	75.1%	1,066,775	16.6%	319,336	5.0%	99,226	1.5%	119,443	1.9%	6,433,632	100.0%
USA	196,688,510	62.8%	38,363,681	12.3%	53,183,255	17.0%	15,746,511	5.0%	9,113,547	2.9%	313,095,504	100.0%

Source: Truven Health Analytics – Market Expert

Table 5

Service Area Population Distribution by Education Level

Report Area	Less than High School		Some High School		High School Degree		Some College/Assoc. Degree		Bachelor's Degree or Greater	
	Pop Age 25+	% of Total	Pop Age 25+	% of Total	Pop Age 25+	% of Total	Pop Age 25+	% of Total	Pop Age 25+	% of Total
DeSoto	4,287	4.0%	9,282	8.7%	33,403	31.3%	36,494	34 2%	23,132	21.7%
Fayette	1,651	6.7%	2,502	10.2%	8,610	35.1%	6,593	26 9%	5,143	21.0%
Shelby	28,864	4.9%	61,375	10.4%	163,308	27.6%	177,328	29 9%	161,765	27.3%
MS	135,120	7.1%	246,390	12.9%	586,157	30.8%	566,513	29.7%	371,097	19.5%
TN	286,236	6.6%	455,932	10.6%	1,426,484	33.1%	1,160,982	26.9%	983,482	22.8%
USA	12,983,704	6.3%	17,782,698	8.6%	59,226,337	28.7%	58,786,469	28.5%	57,335,469	27.8%

Source: Truven Health Analytics – Market Expert

Table 6

Service Area Population Distribution by Household Income

Report Area	<$15K		$15-25K		$25-50K		$50-75K		$75-100K		Over $100K	
	HH Count	% of Total	HH Count	% of Total	HH Count	% of Total	HH Count	% of Total	HH Count	% of Total	HH Count	% of Total
DeSoto	5,052	8.4%	4,953	8.3%	16,493	27.5%	14,359	24.0%	9,526	15.9%	9,564	16.0%
Fayette	1,964	14.8%	1,242	9.4%	3,190	24.1%	2,832	21.4%	1,760	13.3%	2,267	17.1%
Shelby	58,393	16.5%	42,244	11.9%	99,152	28.0%	64,528	18.2%	37,414	10.5%	52,994	14.9%
MS	239,859	21.2%	158,594	14.0%	331,137	29.2%	195,936	17.3%	98,672	8.7%	109,881	9.7%
TN	417,722	16.5%	321,624	12.7%	754,122	29.8%	478,339	18.9%	247,542	9.8%	309,615	12.2%
USA	15,369,795	13.0%	12,820,377	10.8%	31,615,999	26.7%	23,106,564	19.5%	14,092,107	11.9%	21,577,709	18.2%

Source: Truven Health Analytics – Market Expert

Table 7

Community Partners and Resources

Community Health Asset Mapping Since 2008, MLH has held many Community Health Asset Mapping Partnership (CHAMP) workshops to improve population health. The CHAMP initiative was derived from the Participatory Inquiry into Religious Health Assets, Networks, and Agency (PIRHANA) research tool developed by the African Religious Health Assets Program (ARHAP). Rather than focusing on the problems and deficiencies in communities, CHAMP seeks to identify positive assets already-existing within communities.

To date, CHAMP workshops have taken place in Frayser, Orange Mound, Binghampton, McLemore-LeMoyne Owen and Riverview-Kansas communities in Memphis, Tennessee. Such grassroots initiatives have created catalogues of community-identified assets and relationships, many through the mapping process itself. CHAMP's mission is to align these community health assets to improve access to healthcare, eliminate disparities and improve the health status of all who live in Memphis by 2020.

Healthy Shelby Healthy Shelby is a collaborative of hospitals, health care providers, social service providers and local government leaders working with the Institute for Health Improvement (IHI), to address the county's most critical health problems: Infant Mortality, End-of-Life Care and Chronic Disease. MLH joins the Regional Medical Center, Baptist Memorial Healthcare and Saint Francis Hospital as health care leaders in this collaborative housed at the Healthy Memphis Common Table (the regional health improvement collaborative significantly supported by the Robert Wood Johnson Foundation). Two-year funding was secured to launch these projects for better population health, improved patients' experience of care, and lower healthcare costs.

Christ Community Health Services Christ Community Health Services (CCHS) is a faith-based community health system, serving the uninsured, homeless and others in need through six health centers, three dental clinics, three pharmacies and a mobile health van. CCHS health services include pediatric and adult primary care, general surgery, obstetrics/gynecology, Title X family planning, HIV care management, refugee care, vaccinations, social work and various outreach programs. *Source: christcommunityhealth.org*

Church Health Center The Church Health Center (CHC) is a faith-based nonprofit organization providing care to low-income Shelby County residents in an urban clinic, and offering employers an affordable healthcare program for lower-wage, uninsured working people. CHC services include primary and specialty care, dentistry, eye care and counseling. Through its wellness ministry, CHC also offers services ranging from personalized exercise plans and cooking classes, to group exercise classes and activities for children and teens. *Source: churchhealthcenter.org*

Memphis Health Center, Inc. (MHC) Memphis Health Center, Inc. (MHC) offers health services through a primary care delivery system, which emphasizes preventive health and wellness. MHC serves both urban and rural populations. Clinical services include immunizations and early

screening, family practice, obstetrics and gynecology, internal medicine, HIV/AIDS primary medical services, dental, medical laboratory, pediatrics, pharmacy, radiology, ophthalmology, homeless services, student health services and podiatry. MHC also has support and enabling services, such as social services, case management, health education, transportation, WIC, family planning, Community Health Outreach Education Service Program, and Community Network Program. *Source: http://www.memphishealthcenter.org/about-us.php*

University of Tennessee Health Science Center The University of Tennessee Health Science Center (UTHSC) is our academic affiliate. As of September 1, 2013, Methodist partnered with UT Medical Group (UTMG) and the UTHSC to create a new academic physician practice group designed to enhance the delivery of specialty care and hospital-based medical services in the Memphis area. The new group, called UT Methodist Physicians (UTMP) includes UTMG physicians who have a strong history of affiliation with MLH. This partnership will advance the Academic Medical Center model and work to improve the health of the overall community, raise the level of medical practice for adults and seek to achieve clinical best practices. Le Bonheur Children's Hospital serves as the UTHSC's principal pediatric teaching site.

UTMP is similar to the successful formation in 2011 of UT Le Bonheur Pediatric Specialists (ULPS). ULPS, a partnership between the UTHSC and Le Bonheur Children's Hospital, is a multi-speciality group with more than 100 pediatric specialists**.** The physicians and nurses care for patients, lead research to prevent and eliminate childhood diseases and act as teachers to pass their knowledge to the next generation of healthcare professionals. The combination of research and clinical care ensures the most advanced level of pediatric care for the community.

Data Assessment / Methods

Shelby County MAPP Process

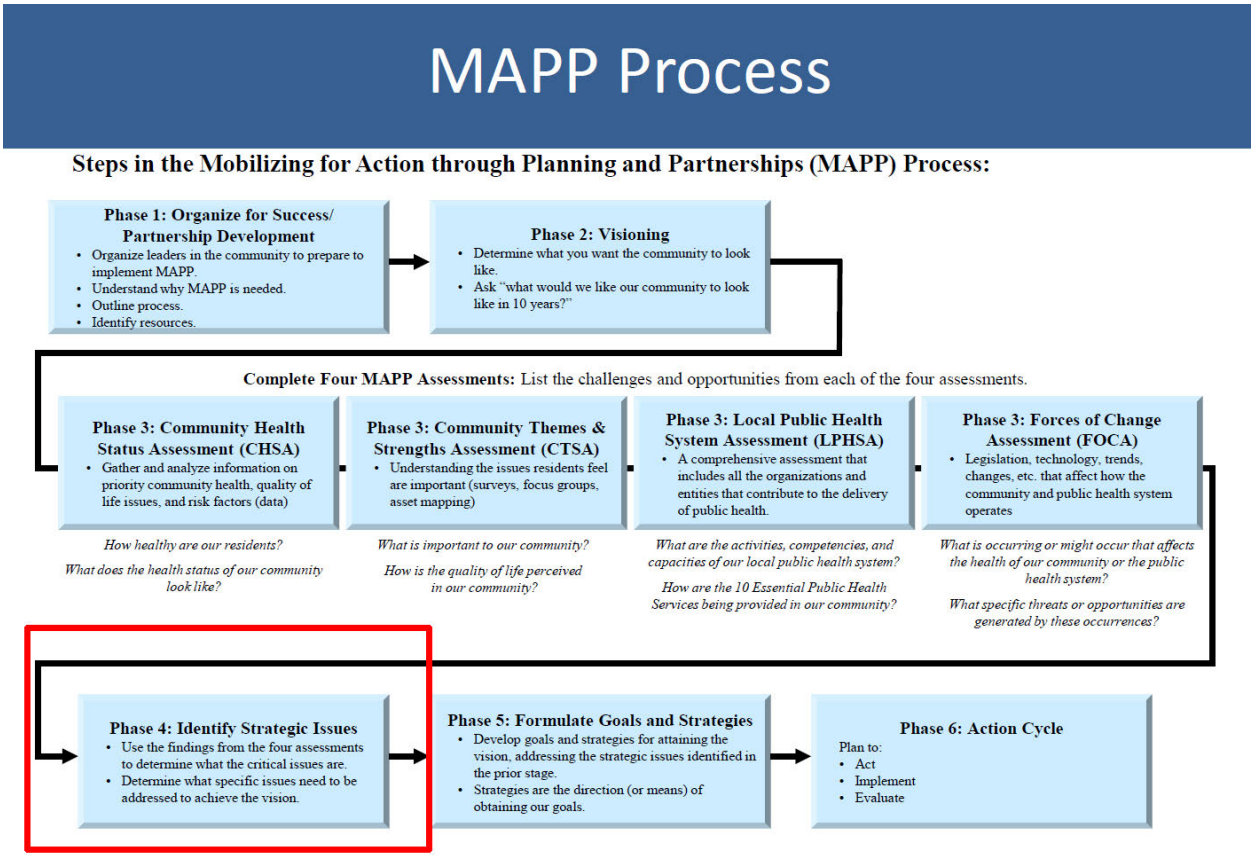
In 2011-12, MLH in partnership with the Shelby County Health Department and other key community stakeholders completed a CHNA to identify unmet health needs in the communities we serve. This was a comprehensive analysis of needs including demographic, epidemiologic, utilization and socio-economic factors resulting in the identification and prioritization of community health needs at the local level. This information was then incorporated into our annual strategic planning process. In Shelby County, the Health Department was in the process of developing their Mobilizing for Action through Partnerships and Planning (MAPP) analysis; MLH had representation on the steering committees and served on other subsidiary committees that gathered data.

What is MAPP?

Mobilizing for Action through Planning and Partnerships (MAPP) is a strategic approach to community health improvement. As a tool, MAPP helps communities improve health and quality of life through a community-wide and community-driven strategic planning process (see Figure 5). Through MAPP, communities seek to achieve optimal health by identifying and using their resources wisely, taking into account their unique circumstances and needs and forming effective partnerships for strategic action. MAPP is intended to result in the development and implementation of a community-wide strategic plan for community health improvement.

MAPP focuses on strengthening the entire local public health system rather than separate pieces by bringing together diverse interests to collaboratively determine the most effective way to conduct community health activities. This nurturing and development of a strong community consensus around the needs of the local public health system is viewed as a springboard towards future collective action and collective impact.

The MAPP tool was developed by the National Association of County and City Health Officials (NACCHO) in cooperation with Centers for Disease Control and Prevention's (CDC) Public Health Practice Program Office through a work group of local health officials, CDC representatives, community representatives and academicians between 1997 and 2000. Since MAPP's creation it has been used in hundreds of communities throughout the United States.



Source: Shelby County Health Department

Figure 5

The MAPP process has four distinct components, which include:

1. Community Themes and Strengths Assessment (CTSA)
   Provides rich understanding of issues residents feel are important

2. Community Health Status Assessment (CHSA)
   Identifies priority community health and quality of life issues

3. Forces of Change Assessment (FoCA)
   Identifies forces (legislation, technology, etc.) that influence context in which the community and health operate

4. Local Public Health System Assessment (LPHSA)
   All of the organizations, systems that contribute to delivery of public health services in the community

At the time of the writing of this CHNA, the MAPP process was in its fourth phase (see Figures 6 and 7). The community survey (CDC-pilot survey) resulted in 1,544 surveys with 968 completed online and 576 shorter surveys completed in-person. Three focus groups were conducted, two with Friends for Life and one with the Memphis Gay and Lesbian Community Center Young Adult Group.

Preliminary findings of health issues identified by the community ranked obesity, diabetes, high blood pressure, mental health, homicide/murder and cancer as the leading issues facing residents of Shelby County (see Figure 8). Preliminary findings of community-related behaviors ranked unsafe sex, poor nutrition, illegal drug use, physical inactivity and tobacco use/smoking as the leading health behavior issues facing residents Shelby County (see Figure 9). The relationship of unhealthy behaviors and health issues is evident in the results, particularly when linking physical inactivity with obesity, for example. Finally, the proportion of people living below poverty, the related unemployment rate and rate of uninsured are all higher among Shelby County residents when compared to the State and Nation (see Figure 10).

MAPP Timeline: Where have we been?

Phase	Description	Date	Notes
Phase I	Organize for Success/ Partnership Development	Dec 1 – Dec 31, 2012	Core group meeting 12/19/12
Phase II	Visioning	Jan 1 – Mar 1, 2013	Kick-off event 2/1/13 Draft Vision/Values
Phase III	Four Assessments	Mar – Sept 2013	Plan & conduct the four assessments

Source: Shelby County Health Department

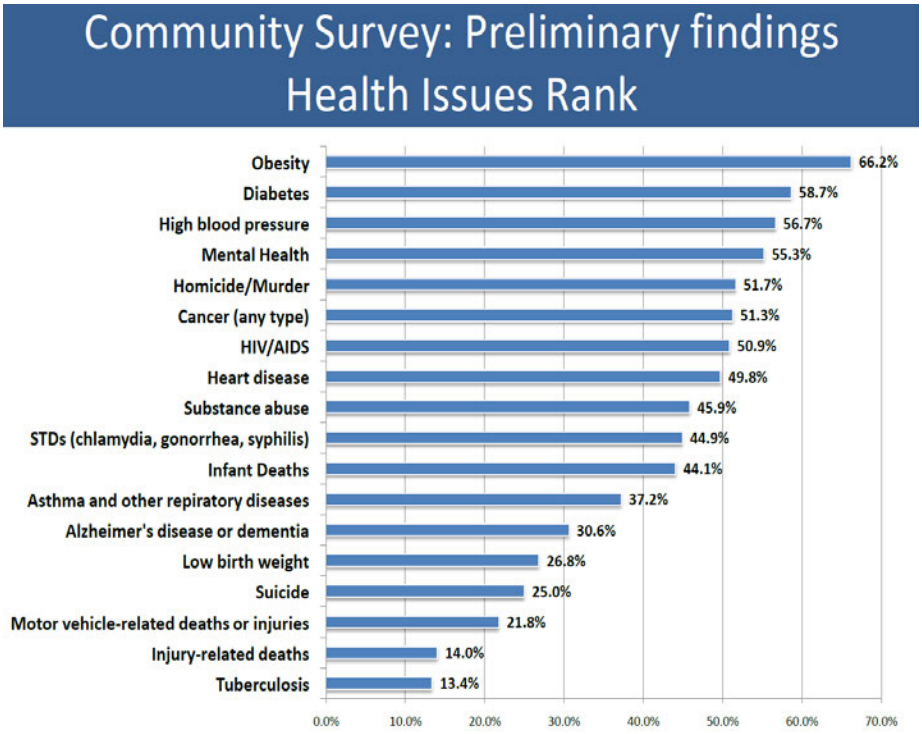
Figure 6

MAPP Timeline: Where are we going?

Phase	Description	Date	Notes
Phase IV	***Identify Strategic Issues***	***Oct – Nov 2013***	***Via MAPP meetings and MAPP Steering Committee***
Phase V	Formulate Goals & Strategies	Dec 13 – Jan 14	Via Strategic Issue Working Groups
Phase VI	The Action Cycle	Jan 2014 - onward	Evaluate action steps and activities Report back to community

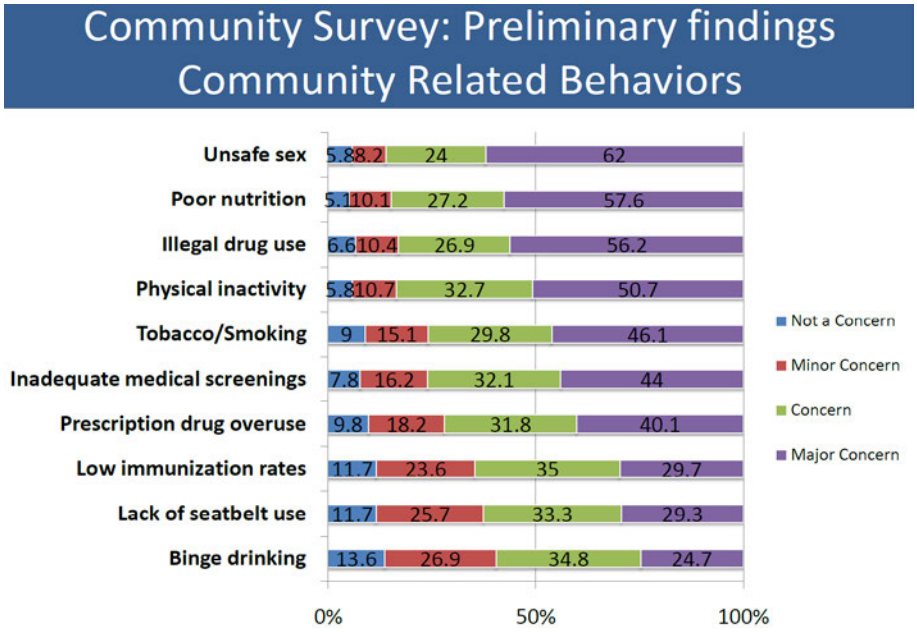
Source: Shelby County Health Department

Figure 7



Source: Shelby County Health Department

Figure 8



Source: Shelby County Health Department

Figure 9

Socioeconomic Characteristics			
	Shelby County	Tennessee	United States
Percent below Poverty Level			
Children	30.3%	24.0%	19.9%
Total persons	20.1%	16.8%	14.3%
Median Household Income	$44,391	$41,693	$52,762
Percent receiving SNAP benefits	27.8%	20.5%	14.5%
Employment- Percent Unemployed	9.8%	8.4%	7.6%
Special Populations			
Population with less than HS diploma	14.4%	16.8%	14.6%
Receiving Medicaid	24.5%	18.5%	19.9%
Veteran population	9.1%	10.5%	9.6%
Linguistically isolated households	2.8%	1.8%	5%
Population without health insurance[1]	16.3%	14.1%	15.2%
Homeless persons estimates[3]	1,942	2,638	656,129
Population ages 65 and older	10.2%	13.5%	12.9%

Source: Shelby County Health Department

Figure 10

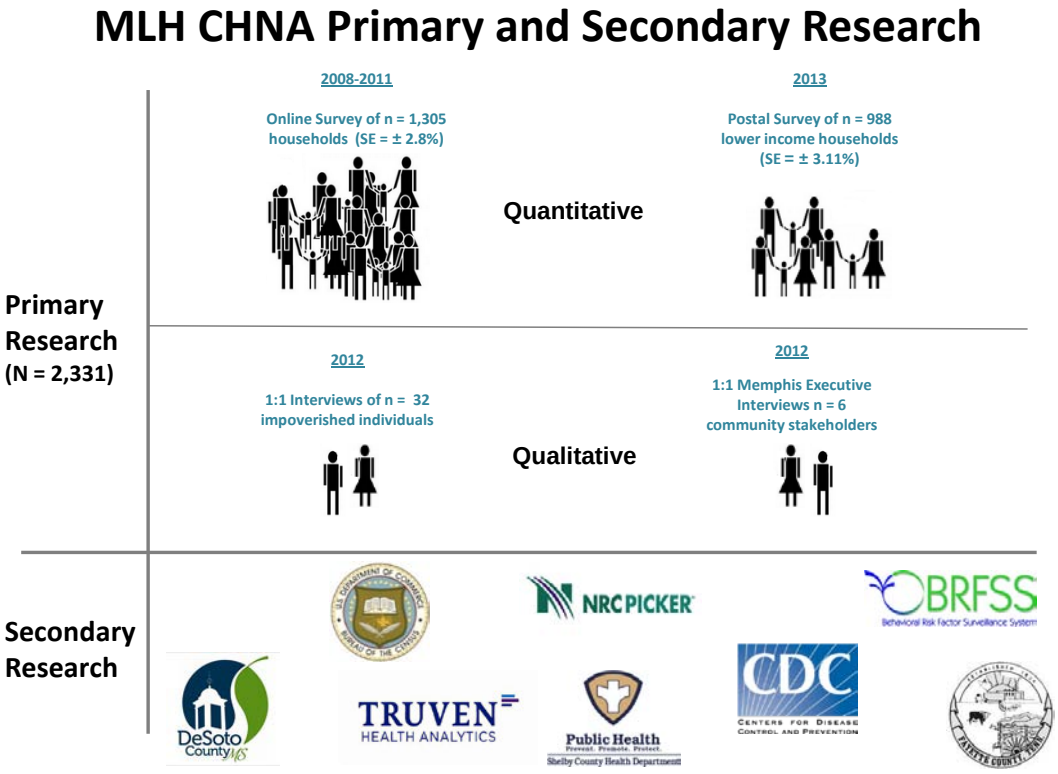
Governor's Health and Wellness Initiative

The Governor's Campaign for Health and Wellness, Healthy Tennessee summarizes three key areas of focus for the State including: making physical activity an integral part of everyday life; increasing the consumption of healthy food and beverages in the right portions; and reducing tobacco use. [ii] The Governor's vision is to enable and encourage more Tennesseans to lead healthier lives and thereby lower healthcare costs, reduce absenteeism, increase productivity and improve the overall quality of life in the State. Comparing Shelby County to the State during the MAPP process, Shelby County has an opportunity to significantly improve health outcomes in all three priority areas.

CHNA Process

Given full results from MAPP are not expected until Phase V in mid-January 2014, MLH conducted primary surveys of residents in the MLH service area utilizing a variety of methods to ensure representation from our diverse communities. Secondary data from demographics and socioeconomic sources, Tennessee and Mississippi vital statistics, disease prevalence and health indicators and statistics were collected. National, state and local sources were also used (see Figure 11).

The information was presented to the senior leadership charged with defining MLH's strategic priorities and a list of the health issues that were identified in both primary and secondary data sources was created. Management prioritized strategy based upon needs identified and resources available. Identified priorities were presented to the Faith and Health and Quality sub-committees of the MLH Board of Directors in the Fall of 2012. With Board committee approval, the CHNA implementation plan was created to meet the needs identified for 2013 and incorporated into our strategic plan and deployment map.



Source: MLH Strategic Planning and Marketing

Figure 11

Summary of Primary Research

MLH completed four primary research studies to determine the health needs of its service area population. The National Research Corporation (NRC) Consumer Health Report was completed in 2011 providing valuable information about the middle and upper income populations in the MLH service area. The NRC Consumer Health Report was an emailed survey to a random sample of greater Memphis area residents. Because the survey was email-based, we believed that the survey may have excluded the needs of low-income groups with less access to computers and internet. To augment the NRC Consumer Health Report findings, Methodist conducted a mail-based survey to individuals making less than $40,000 per year. The mailed survey was sent to a random sample of low-income consumers living in the greater Memphis area. Because Memphis is home to a relatively large homeless and housing-insecure population, Soup Kitchen Interviews were completed to capture the health needs of this high-risk population. Finally, for additional input from local employers, the MLH CEO conducted one-on-one interviews with community leaders to assess their needs. We believe the combination of survey methodologies (mail, internet and personal interviews) was the best way to accurately capture the health needs of our entire, diverse and socially/medically complex community.

NRC Consumer Health Report

Study Objectives

NRC Consumer Health Report was used to determine the health status, health risk/chronic conditions, preventive health behaviors, physician access and community perceptions of healthcare in the MLH service area.

The Consumer Health Report provided a tool to enable MLH to strengthen the health of the community by assisting on the following:

1. Measurement and evaluation of health status and healthcare utilization within the community
2. Identification of the prevalence of chronic conditions within various demographic and geographic segments within the community
3. Identification of high-risk populations
4. Identification of gaps in care and preventive health behaviors among various demographic and geographic segments within the community

Methodology

The survey document was an internet-based questionnaire which respondents received through internet invitations. The questionnaire was developed utilizing NRC's experience in the design and implementation of hundreds of consumer research studies. Questions were designed to meet the objectives determined from the combined input of marketing directors and strategic planners nationwide. The questions were presented in a clear and concise manner, in an easy-to-understand format and the questionnaire was thoroughly pre-tested in an actual field situation to ensure

respondents' question comprehension. Beginning in May 2008, ongoing data collection was implemented for the survey. Internet survey invitations begin the first of each month with returns completed by the 22nd. The respondent is the individual in the household who is most often your target for communications: the primary healthcare decision-maker. The individual most often selects the hospital, physician, healthcare products and services utilized by household members and, therefore, was the subject of the study.

Sample Size

The NRC Consumer Health Report provides a detailed view of the health needs, health status, behaviors and perceptions of residents within MLH's service area. The NRC Consumer Health Report is conducted annually across communities in over 200 of the nation's largest metropolitan statistical areas (MSA's), and is also available at state and national levels.

The MLH service area sample for 2011 was comprised of 1,305 households. The standard error range for a sample of 1,305 households is +/- 2.7 percent at the 95 percent confidence interval.

The Memphis, Tennessee, sample for 2011 was comprised of 1,211 households. The standard error range for a sample of 1,211 households is +/-2.8 percent at the 95 percent confidence interval.

The Tennessee sample for 2011 was comprised of 5,949 households. The standard error range for a sample of 5,949 households is +/- 1.3 percent at the 95 percent confidence interval.

The national sample within January – December 2011 was comprised of 278,824 households which includes the largest 180 MSAs within the U.S. The standard error range for a sample of 278,824 households is +/- 0.2 percent at the 95 percent confidence interval.

The National Sample

The survey invitations consisted of households nationally representative of the 48 contiguous United Sates. The national balancing criteria included U.S Census regions, age of head of household and population density. The survey data was electronically coded and tabulated by NRC according to an innovative and thorough tabulation specification plan.

To ensure proper sample representation within each tabulated market area, the data was weighted according to a number of key demographic variables including: age of head of household, area population, household income, race, presence of children and marital status. Weighting ensures that the sample is representative. For example, if 20 percent of the households within a market area are headed by a family member 18-24 years of age, then within the sample 20 percent of the area heads of households are 18-24 years of age. This pattern is held consistent across all variables applied in the weighting procedures.

MLH Low-Income Consumer Health Survey

Study Objectives

The MLH CHNA for households making less than $40,000 per year provides a tool to enable our organization to strengthen the health of lower income households by assisting in the following:

1. Measurement of health status and healthcare utilization within lower income households in the community
2. Identification of the prevalence of chronic conditions within lower income households in the community
3. Mapping of the high risk, lower income population
4. Identifications of gaps in care and preventative health behaviors among low income households in the community

Methodology

The MLH CHNA provides a detailed view of the health needs, health status, behaviors and perceptions of low-income households within the MLH service area.

Sample Size

The MLH service area sample size was comprised of 988 households. The standard error range for a sample size of 988 households is +/- 3.11 percent at the 95 percent confidence level. The response rate for the entire MLH market area was 5.8 percent.

Survey Instrument

The survey document is a mail-based questionnaire. The questionnaire was developed by the MLH Market Research team which has expertise in the design and implementation of many patient research studies. The NRC Consumer Health Report was also used as a guide. Questions were designed to meet the objectives determined from the combined input of marketing directors and strategic planners. The questions were presented in a clear and concise manner, in an easy-to-understand format.

Survey Timing

MLH purchased a list of 17,000 randomly selected households making less than $40,000 per year in the following market areas: Shelby County, Fayette County, and Tipton County in Tennessee, Crittenden County in Arkansas, and DeSoto County in Mississippi. The list was purchased from Truven Health Analytics. The survey was mailed in May 2013 and responses were collected through June 2013.

The Sample

The survey document was sent to households making less than $40,000 per year in the MLH primary and secondary service area. The survey data was electronically entered into Survey Monkey and tabulated and analyzed by the MLH Market Research department.

Study Objectives – Soup Kitchen Interviews

In 2012, MLH hired a market research consultant to conduct interviews at Memphis-area soup kitchens to determine the health needs of the severely impoverished population in our service area. It was necessary to specifically identify the needs of this population in interviews as our primary research internet-based and mail-based surveys would not reach this segment of our population.

Data on the homeless or housing insecure population in Memphis (estimated at about 2,000 people) is available through the Coalition for the Homeless. It is data, however, and does not reveal the needs, questions and specific situations of those who live on the streets. It also does not reveal the barriers these individuals may encounter or perceive.

Learning more about the healthcare needs of these individuals was the objective of this qualitative study.

Research Approach and Methods

The study consisted of 32 face-to-face interviews with homeless people or people in extreme poverty. These were conducted with people visiting Soup Kitchen programs in the city.

The interviews were completed on-site at the meal programs by one interviewer who was introduced to the group at each event by a program leader. The 32 interviews (ranging from approximately 7 to 15 minutes in length) were completed in five visits to meal-related programs, including those at:

- Idlewild Presbyterian Church
- First Congregational Church
- St. John's Methodist Church

The Report

In order to capture the individuality of the respondents, the interviewer took key word notes during interviews and then reconstructed their comments for this report.

Summary of Findings

One of the most important findings of this study is it was a study of ***individuals*****.** Although they may have been at the same programs, the circumstances of these individuals varied enormously. There were some common themes. Many of the respondents had ***mental health issues***. They told the interviewer they were paranoid schizophrenic, depressed, bipolar, had anxiety issues and more. Some respondents did not mention specific mental health issues but had characteristics/symptoms that may indicate these types of problems.

Another common theme was the ***lack of dental care***. The types of insurance that many of these individuals have do not usually cover dental care. A few mentioned visiting dentists when they were in pain, mostly to have teeth pulled. Others just let it go because they could not afford it. A couple of respondents talked about pulling their own teeth.

Medical care (other than dental and eye care) was somewhat more available to the respondents. They reported going to Christ Community Healthcare (clinics and mobile), The MedPlex, Midtown Mental Health, free clinics at Orange Mound and in Binghampton. Several mentioned Methodist Central (the former name of MLH's midtown Memphis facility, now known as Methodist University Hospital). Those with insurance went to these and other doctors by referral.

Medications and prescriptions were an issue for many of the respondents – some took a large number of medications (heart failure patient, liver transplant patient, HIV patients, others) and some could not afford to buy their medicines. When that was the case, most said they simply did not take the medication until they had the money to buy the medicine again (including OTC medications, painkillers, vitamins that were recommended).

The frequency of medical visits is strongly tied to medications and prescriptions – those with HIV go every 3 months because they need their prescriptions. Those with narcotics and drugs for mental illness go more often because those prescriptions are usually for just one month.

Of the 32 people interviewed, 13 said they had ***no insurance for health care***. Nineteen said they had either TennCare/BlueCare/Medicaid or Disability insurance/Medicare/SSI. Many of those who had these plans currently had experienced periods without any healthcare coverage, particularly those who applied for disability (several said it took two years to be granted).

Eleven of the respondents interviewed were on disability. Because disability payments are based on salaries when working, their situations ranged dramatically. Some were still on the streets. Others were able to afford an apartment. All were relieved to have the health insurance that is a part of being granted disability status.

Twenty-three of the 32 respondents said they had a place to live***.*** Many of these sounded unstable -- they were "***housing insecure***" – not sure when their current arrangement would end. A few said they had their own apartments or places. Others spoke of staying with friends or family (and often spoke of the unhappiness of that situation). Some were sleeping on sofas; one was staying in a garage. The other nine were on the streets.

Study Objectives – Stakeholder Interviews - Employers

As an additional input into the CHNA process, MLH's CEO interviewed CEOs of six major Memphis-area corporations to assess how MLH could best address healthcare concerns of business leaders as well as the health needs of their employees. The interviews included the following companies: AutoZone, Morgan Keegan, FedEx, Medtronic, Baker Donelson and First Horizon.

Research Approach and Methods

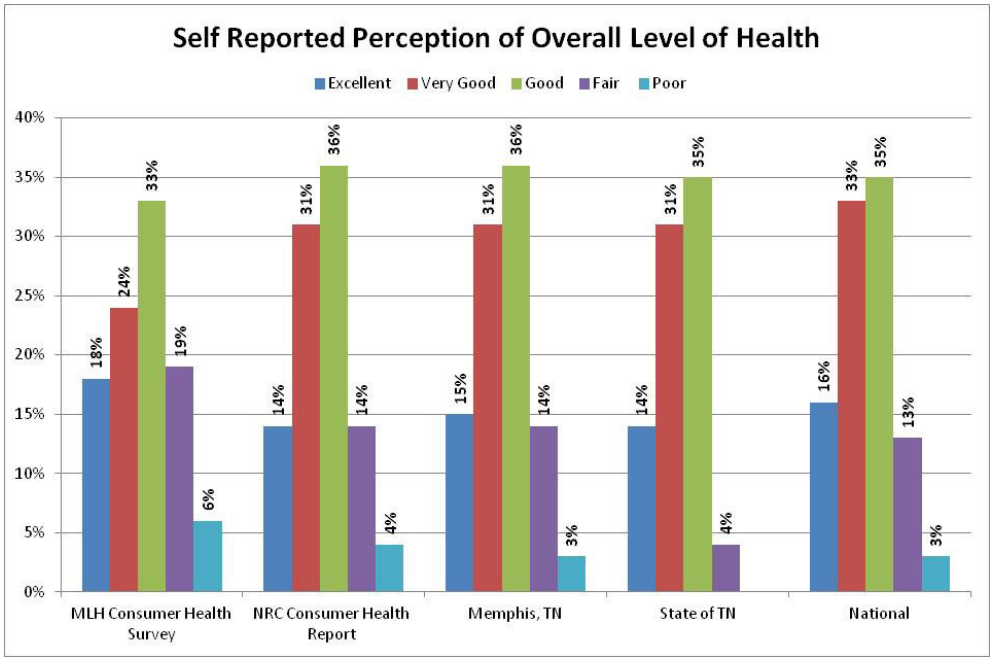
The interviews were largely unstructured with a question guide provided to encourage dialogue.

Summary of Findings

All company leaders interviewed were very interested and engaged in wellness and preventive medicine for their workforces and all are structuring their own approach. No standard approach was found to be widely embraced. All are moving to more Health Savings Account (HSA) participation and shifting more financial responsibility to the employees. The major health needs of employees identified were the cost of care and access to care. All would welcome new innovative ideas that add value – providers and health plans have the experience and data to improve the health of their respective workforces.

Common Survey Research Themes

Overall Level of Health – Perception of overall level of health in the MLH service area is lower than the national benchmark population (see Figure 12). The national population benchmark of self-reported "excellent" or "good" overall level of health is forty-nine percent. According to the NRC Consumer Health Report and MLH Low-Income Consumer Health Survey, forty-five and forty-two percent respectively reported that their overall level of health was "excellent" or "good." By general observation, Soup Kitchen interviewees were not in "excellent" or "good" health. There is a consistency between perception and reality. The MLH Service Area is home to some of the highest rates of chronic disease in the country *(Source: CDC, County Health Rankings 2012).*



Source: MLH Consumer Health Survey and NRC Consumer Health Report

Figure 12

Chronic Disease Management

Obesity – Obesity is the leading co-morbidity in the MLH service area. The Mid-South suffers from some of the highest obesity rates in the country *(Source: CDC, County Health Rankings 2012)*. However, self-reported prevalence of obesity is lower than national estimates. Only fifteen percent of NRC Consumer Health Report respondents indicated that they or someone in their household is obese and four percent indicated that they or someone in their household has participated in a weight loss program over the last twelve months.

One half of MLH Consumer Health Survey respondents reported that they or someone in their household had been told by a doctor to lose weight.

The obesity rates in Tennessee, Mississippi and Arkansas are thirty-two percent, thirty-six percent and thirty-two percent respectively. The Mid-South is home to some of the highest obesity rates in the country. The national obesity rate is twenty-five percent *(Source: Behavioral Risk Factor Surveillance System - BRFSS 2011).*

High Blood Pressure - The number one health risk factor across the MLH Service area is high blood pressure according to MLH primary research. Forty-one percent of NRC Consumer Health Report respondents reported they or someone in their household had been diagnosed with high blood pressure while only fifty-five percent of respondents indicated that they or someone over the age of 18 in their household had a blood pressure test in the last twelve months. We believe high blood pressure may be underreported because only about half of the eligible population received a blood pressure test in the last twelve months.

Seventy-three percent of MLH Low-Income Consumer Health Survey respondents reported that they or someone in their household had been diagnosed with high blood pressure.

Six out of thirty-two Soup Kitchen Interview respondents indicated that they had been diagnosed with high blood pressure.

The Mid-South has some of the highest rates of high blood pressure in the country. Thirty-nine percent of Tennessee adults, thirty-nine percent of Mississippi adults and thirty-six percent of Arkansas adults have been told by a doctor that they have high blood pressure. The national average for high blood pressure in the United States is thirty-one percent *(Source: BRFSS 2011)*.

High Cholesterol – High cholesterol is one of the most prevalent health conditions in the MLH service area. Twenty-nine percent of NRC Consumer Health Report respondents reported that they or someone in their household had been diagnosed with high cholesterol while only thirty-four percent indicated that they or someone in their household over the age of 18 had a cholesterol test in the last twelve months. We believe the prevalence of high cholesterol may be underreported because only one third of the eligible population received a cholesterol test in the last twelve months.

Fifty-one percent of MLH Low-Income Consumer Health Survey respondents reported they or someone in their household had been diagnosed with high cholesterol.

Two out of thirty-two Soup Kitchen Interview respondents indicated that they had high cholesterol.

The Mid-South has some of the highest rates of high cholesterol in the country. Thirty-nine percent of Tennessee adults, forty-two percent of Mississippi adults and forty percent of

Arkansas adults have been told by a doctor that they have high cholesterol. The national average for high cholesterol is thirty-eight percent *(Source: BRFSS 2011).*

Smoking – Smoking was a common behavioral health risk factor in the primary research studies and is more prevalent among lower-income populations in the MLH service area. Twenty-seven percent of NRC Consumer Health Report respondents reported that they or someone in their household smoked cigarettes every day and only two percent of respondents indicated that they or someone in their household had participated in a smoking cessation program in the last twelve months.

Thirty-six percent of MLH Low-Income Consumer Health Survey respondents reported that they or someone in their household smoked cigarettes every day.

Three of thirty-two Soup Kitchen Interview respondents indicated that they smoked cigarettes.

Smoking is more common in Tennessee, Mississippi and Arkansas than compared to national averages. About thirteen percent of adults in the United States report smoking cigarettes regularly compared to twenty-three percent in Tennessee, twenty-four percent in Mississippi and twenty-three percent in Arkansas *(Source: BRFSS 2011).*

Arthritis – Arthritis is one of the most prevalent health conditions in the MLH Service Area, and is more prevalent among lower-income populations according to MLH primary research. Twenty-one percent of NRC Consumer Health Report respondents and fifty-nine percent of MLH Low-Income Consumer Health Survey respondents reported they or someone in their household has arthritis. It appears arthritis disproportionately presents in low-income populations because of a disproportionate representation of the elderly in this income group.

The prevalence of arthritis is slightly higher in Arkansas and Mississippi compared to national averages. Thirty-one percent of adults in both Arkansas and Mississippi have been told by a doctor they have arthritis. Twenty-six percent of Tennessee adults have been told by a doctor they have arthritis which is the national average *(Source: BRFSS 2011).*

Mental Health – Mental health disorders are prevalent in the MLH service area. About one-fifth of NRC Consumer Health Report and over one-third of MLH Low-Income Consumer Health Survey respondents reported that they or someone in their household suffered from depression or anxiety. A major theme from the Soup Kitchen interviews was the pervasiveness of mental health disorders among the homeless or housing-insecure. Mental health disorders were reported or observed in nine of thirty-two Soup Kitchen interviewees.

Depression is more prevalent in the Mid-South compared to national averages. Twenty percent of adults in Tennessee, eighteen percent of adults in Mississippi and twenty-two percent of adults in Arkansas

have been told by a doctor that they have depression compared to the national average of eighteen percent *(Source: BRFSS 2012).*

Dental Care – Lack of access to dental care was a common theme in the primary research studies. However, lack of dental care was much more prevalent among low-income populations. The Soup Kitchen Interviews revealed a large need for dental care among the homeless and housing-insecure. Among respondents to the Soup Kitchen Interviews, seven of thirty-two reported or presented with the lack of dental care.

Even among the middle and upper income groups, only thirty-eight percent of NRC Consumer Health Report respondents reported that they or someone in their household had received a dental exam in the last twelve months compared to forty-five percent nationally. According to the MLH Low-Income Consumer Health Survey, of those that reported putting off healthcare over the last year, nearly half reported putting off dental care.

Lack of access to dental care appears to disproportionately affect the Mid-South. Nationally, almost seventy percent of adults have visited the dentist or dental clinic in the last year compared to only sixty-one percent in Tennessee, fifty-five percent in Mississippi and fifty-five percent in Arkansas *(Source: BRFSS 2012).*

Access to Primary and Specialty Care – Access to primary and specialty healthcare appears to be a problem for individuals living in the MLH service area, especially for those who are low-income and housing insecure. Seven percent of NRC Consumer Health Report respondents reported not having seen a doctor within the last two years.

Thirty-seven percent of MLH Low-Income Consumer Health Survey respondents reported putting off care due to lack of a regular doctor. Over one-fourth of MLH Low-Income Consumer Health Survey reported putting off care due to lack of transportation. Seventeen percent reported putting off care due to not being able to take time off of work. Sixteen percent reported putting off care due to inconvenient office hours and ten percent put off care because they could not get an appointment with their doctor.

The solution to access appears not to be as basic as recruiting more doctors. Tennessee, Mississippi and Arkansas have higher patient to physician ratios than the national average. According to the Robert Wood Johnson Foundation's County Health Rankings the Tennessee ratio is 1,409:1; the Mississippi ratio is 1,920:1; and the Arkansas ratio is 1,613:1 as compared to the National ratio of 1,067:1.

Access to Pediatric Care - Le Bonheur Children's Hospital, working in tandem with the UT Health Sciences Center Department of Pediatrics, has identified community needs among children ages 18 and younger specifically in the areas of asthma, developmental disabilities, autism and obesity. Chronic diseases linked to health disparities continue to be a challenge for our region, so bench-to-bedside research and clinical care will be focused on areas of most significant need. A disproportionate number of children in our community live in extreme poverty and/or are born to teen moms and/or moms that

had no prenatal care. As such, the infant mortality rate in our community is fifty percent higher than the national average.

Inability to Pay for Healthcare – One of the common themes in the NRC Consumer Health Report, MLH Low-Income Consumer Health Survey and the Soup Kitchen interviews was a general inability to pay for healthcare. According to NRC Consumer Health Report respondents, the top two reasons provided when asked "your household is uninsured because?" were cost (thirty-three percent) and unemployment (thirty percent) (multiple response options allowed, groups not mutually exclusive).

The most commonly reported reasons in the MLH Low-Income Consumer Health Survey for putting off care among lower-income MLH Service Area consumers was concern about spending (forty-four percent) and inability to pay for services (forty-two percent). Twelve percent of MLH Low-Income Consumer Health Survey respondents reported being uninsured.

Individuals living in Tennessee, Mississippi and Arkansas are more likely to be uninsured than the national average. Seventeen percent of adults living in Tennessee, twenty-one percent of adults living in Mississippi and twenty-one percent of adults living in Arkansas are uninsured compared to the national average of eleven percent *(Source: BRFSS 2012).*

Differences among Populations Surveyed

The low-income population in the MLH service area is generally less healthy with a higher prevalence of disease and is presumed to be older (prevalence of diseases/conditions that onset later in life). Lack of dental care disproportionately affects the low-income and homeless or housing insecure, and mental health disorders seem to disproportionately affect the homeless or housing insecure in the MLH service area population.

Contrasting Two Communities: 38109 (South Memphis) and 38138/38139 (Germantown) MLH serves a diverse patient population. Most notably there are differences between our suburban and urban service areas. To characterize the nature of this difference we investigated the difference between zip code 38109 in South Memphis and zip codes 38138 and 38139 (Germantown) in the first ring suburbs east of Memphis. The two communities are significantly different, in terms of many agreed-upon determinants of health, as shown below.

Report Area	Determinants of Health Comparison		
	Percent Aged 65+	Percent ≤ High School Degree	Percent Household Income ≤ $25k
South Memphis (38109)	11.5%	62.8%	44.0%
Germantown (38138, 38139)	11.2%	14.5%	6.5%
United States	12.9%	43.7%	23.8%

Approximately 62.8 percent of South Memphis (38109) residents report having less than or equal to a high school degree, compared to only 14.5 percent of Germantown residents. Moreover, almost half (44 percent) of South Memphis households earn $25,000 or less annually.

Source: Truven Health Analytics

Table 8

To capture the health needs of 38109 (referred to as South Memphis in this comparison) we fielded the postal-survey to households making less than $40,000. To capture the health needs of 38138/38139 (referred to as Germantown in this comparison) we fielded the NRC Consumer Health Report online-survey.

Primary research findings suggest that both communities—South Memphis and Germantown—each have specific and unique health needs. Based on primary research in these two geographies, we determined that while there are health needs in Germantown, South Memphis is burdened by more pervasive and prevalent health conditions.

Access to Care: Access to healthcare exists where services are available and there is an adequate supply of services. Here, insurance status is used to infer the availability of services, where it is assumed services are less available to those without insurance. According to the online survey, only 4.8 percent of Germantown residents report being without insurance, suggesting access to healthcare is not a relatively highly rated need in this community. However, among low-income South Memphis residents (29.3 percent uninsured), like most low-income communities, access to health services is considered a definite community health need.

Asthma: Among those households responding to the online survey, thirteen percent reported having at least one case of asthma. For Germantown households, this prevalence was slightly less (7.1 percent). But, among South Memphis households, one out of three households (33 percent) reported having at least one case of asthma. Compared to other conditions, asthma is not as highly rated of a health need for either community.

Chronic Disease and Precursors: Prevalence of cardiovascular disease, for both communities, is likely underreported (Remember: data is self-reported; findings are derived from community perceptions). The American Heart Association estimates that more than one in three persons has at least one type of cardiovascular disease (Circulation, 2012). Households in Germantown self-reported a cardiovascular disease prevalence of only 14.3 percent, whereas

South Memphis households reported a more nationally representative—but likely still underestimated—prevalence of 33.3 percent.

For both communities, evidence for their being underreported can be seen in the much higher prevalence of high blood pressure and high cholesterol, both of which are considered by the American Heart Association as types of cardiovascular disease. High blood pressure is prevalent among 57.1 percent of Germantown households; and high cholesterol among 45.2 percent. Prevalence is even higher among South Memphis households: 78.7 percent have high blood pressure and 48.5 percent have high cholesterol. That means, in this community, almost four out of five households are home to at least one person with high blood pressure and one out of two households is home to at least one person with high cholesterol. Therefore addressing cardiovascular disease is a need for both communities.

Smoking and obesity, two risk factors, seem to influence the high prevalence of cardiovascular disease in both communities, but probably for South Memphis more so than Germantown. Less than 10 percent of Germantown households report having at least one smoker living in the home, compared to 33.3 percent of South Memphis households. Exact differences between the two communities in terms of obesity prevalence are not known. Nonetheless, 19 percent obesity among Germantown households, or almost one of five homes, suggests a health need. Moreover, though obesity among South Memphis households was not specifically reported, 58.2 percent of these households reported that at least one household member had been told by a health professional to "lose weight." Therefore, findings suggest a need for addressing overweight/obesity in both communities.

Diabetes: Probably the biggest disparity between the two communities, at least in regards to these metrics, pertains to diabetes. For the South Memphis community, the prevalence of diabetes is 63.6 percent, and it is 14.3 percent for Germantown households. Both are significant, but the difference between the two is probably even more significant. Addressing diabetes is a definite health need for South Memphis.

Cancer: Cancer is the only disease where prevalence is higher among Germantown households (35.7 percent) than South Memphis households (12.5 percent). For the most part, this difference can be attributed to the very high prevalence of skin cancer (28.6 percent) in Germantown.

Contrasting Two Communities: 38109 and 38138, 38139

Report Area	Access	Asthma	Chronic Diseases & Precursors						Cancer		
	Uninsured	Asthma	Cardiovascular Disease	High Blood Pressure	High Cholesterol	Smoking	Obesity	Diabetes	Skin Cancer	Non-Skin Cancer	Cancer
Online											
38138, 38139	4.8%	7.1%	14.3%	57.1%	45.2%	9.5%	19.0%	14.3%	28.6%	7.1%	35.7%
MLH Market	18.2%	13.0%	8.3%	37.9%	30.1%	28.9%	19.0%	20.6%	5.4%	8.4%	13.9%
Postal											
38109	29.3%	33.3%	33.3%	78.7%	48.5%	33.3%	*N/A	63.6%	N/A	N/A	12.5%
MLH Market	32.4%	31.5%	35.0%	73.5%	51.5%	36.0%	*N/A	54.9%	N/A	N/A	18.0%
*59.2 percent of the MLH Market and 58.2 percent of 38109 respondents have been told by a health professional to "lose weight."											

Source: MLH CHNA Primary Research

Table 9

Summary of Secondary Research

MLH collected and analyzed secondary data from multiple sources including: The Robert Wood Johnson Foundation's Country Health Rankings, Healthy People 2020, CHNA.org, The Centers for Disease Prevention and Control (CDC), Behavioral Risk Factor Surveillance Survey (BRFSS), Medical Expenditure Panel Survey (MEPS), National Health and Nutrition Survey (NHANES), The National Cancer Institute's State Cancer Profiles, the Health Indicators Warehouse, and Agency for Healthcare Research and Quality (AHRQ). The data resources were queried for data related to the occurrence of disease, health behaviors and healthcare outcomes. For the most part, secondary research findings echoed primary research findings.

For comparison, given the similarity of distribution of population by race, we compared mortality rates to Wayne County, Michigan noting that for all leading causes of death, with the exception of heart disease and chronic lower respiratory disease, Shelby County had higher mortality rates (see Table 10). When comparing to the State of Tennessee as a whole, Shelby County had higher mortality rates for all causes except accidents and chronic lower respiratory disease.

Age adjusted mortality rate per 100,000 population

Report Area	Cause of Death						
	Heart Disease	Cerebrovascular Diseases	Accidents and Adverse Effects	Alzheimer's Disease	Chronic Lower Respiratory	Diabetes	Influenza and Pneumonia
Shelby	228.7	57.5	41.7	41.9	40.3	30.5	21.7
Wayne (MI)	277.9	43.7 (Stroke)	34.5	14.5	46.4	27.4	20.6
TN	225.5	51.4	51.2	38.2	54.6	26.5	22.2

Sources: http://health.state.tn.us/statistics/data.htm and http://www.michigan.gov/mdch/0,4612,7-132-2944_4669_34839---,00.html

Table 10

Key public health indicators reflect that undesirable conditions in Shelby County are above average in terms of disease incidence and prevalence and their long-term effects. This is evidenced in terms of chronic disease and its precursors, cancer, infant mortality, various social determinants of health:

Chronic Diseases and Cancer: Far too often, communities within the Methodist Healthcare service area exceed state and national incidence, prevalence and mortality rates, in terms of various chronic diseases. This is true for both heart disease and stroke, where all geographic areas were underperforming 2020 goals (see Table 11). At least in part, this can be explained by the high prevalence of certain precursors to chronic disease, such as smoking, excessive drinking, and obesity (see Table 12).

Key Public Health Indicators

Report Area	Heart Disease		Stroke	
	Annual Deaths	Age-Adjusted *Death Rate	Annual Deaths	Age-Adjusted *Death Rate
DeSoto	221	193.22	45	38.38
Fayette	70	181.96	19	51.99
Shelby	1,409	177.6	467	59.43
MS	4,741	160.86	1,544	53.27
TN	11,329	175.58	3,315	52.47
USA	432,552	134.65	133,107	41.78
Healthy People 2020 Target		≤100.8		≤33.8
*Rate per 100,000				

Source: *http://healthindicators.gov/Indicators/*

Table 11

Health Behaviors by County

Report Area	Premature Death[1]	Poor/Fair Health[2]	Poor Mental Health Days[3]	Adult Smoking	Adult Obesity	Excessive Drinking[4]	Chamydia[5]	Teen Birth Rate[6]	Primary Care Physicians[7]
DeSoto	7,607	16%	3.5	24%	33%	11%	465	43	3,8521:1
Fayette	83,112	16%	3	24%	36%	8%	312	56	5,494:1
Shelby	9,835	15%	2.7	19%	34%	14%	1,076	62	1,274:1
MS	10,214	22%	4.1	24%	36%	11%	722	62	1,920:1
TN	8,790	19%	3.3	23%	32%	10%	446	50	1,409:1
*Rate per 100,000									

[1] Premature Death Years of potential life lost before age 75 per 100,000
[2] Poor or Fair Health Percent of adults reporting poor or fair health
[3] Poor Mental Health Days Average number of poor mental health days in last 30 days
[4] Excessive Drinking Binge or heavy drinking
[5] Chlamydia rate per 100,000
[6] Per 1,00 females ages 15-19
[7] Ratio of population to PCPs

Source: http://www.countyhealthrankings.org/app/home

Table 12

Additionally, this is true for various cancers, as shown via Tables 13 and 14X. For instance, Shelby County has higher rates than Tennessee for all cancers and specifically colorectal, breast, and cervical. However, just as—if not even more—significant is the racial disparities among these diseases. The secondary research showed that African Americans tend to have higher occurrences of disease, compared to Caucasians. This was a common theme throughout secondary findings. For example, the

kidney diseases death rate for African Americans in Shelby County was almost three times that of Caucasians in Shelby County (Table 15).

Cancer Mortality by Race and Gender

Demographics	Age-Adjusted Death Rates (per 100,000)							
	All Cancers		Colorectal Cancer		Lung Cancer		Breast Cancer	
	Shelby	TN	Shelby	TN	Shelby	TN	Shelby	TN
Total	210.5	205	22.2	19	56.1	65.3	16.9	13
Race								
White	180	201	17.6	18	51.2	65.6	11.1	12
Black	255.6	246	28.9	28	63	28	25.8	21
Other	94.4	103	8.5	8.5	13.5	65.7	1.3	3.6
Gender								
Male	276.1	270	27.2	23	81.9	91.7		
Female	173.7	163	19.1	16	40.4	47		
Race & Gender								
White, Male	233	236	20.5	22	69.5	90.9		
Black, Male	347.1	339	38	36	101.6	103		
Other, Male	135.2	121	7.4	5.7	16.6	28		
White, Female	150.6	159	15.9	15	40.6	47.9		
Black, Female	205	193	23.6	22	39.7	42.5		
Other, Female	68.1	94.2	7.8	10	10.5	28.7		

Source: http://statecancerprofiles.cancer.gov/cgi-bin/quickprofiles/profile.pl?47&047

Table 13

Given the prevalence of cancer in Shelby County, we analyzed differences between mortality rates for types of cancer and race. Comparing all-cause cancer mortality rates to colorectal, lung and breast cancer in Shelby County, we observed African Americans die disproportionately from all three cancers when compared to Caucasians (see Table 13). [1] Breast cancer screening and cervical cancer incidence rates suggest significant opportunities for improvement compared to Health People 2020 goals (see Table 14).

Breast and Cervical Cancer Incidence per 100,000

Report Area	Breast Cancer		Breast Cancer Screening (Mammogram)		Cervical Cancer	
	Annual Incidence	Annual Incidence Rate	Number Medicare Regularly Screened	Percent Medicare Regularly Screened	Annual Incidence	Annual Incidence Rate
Desoto	161	107.9	699	58.4%	13	9
Fayette	35	94.3	177	57.7%	N/A	N/A
Shelby	1,172	127.6	3,826	58.4%	90	9.8
Mississippi	3,320	113.6	14,126	56.5%	283	9.7
Tennessee	7,366	119.6	30,284	62.2%	536	8.7
United States	367,783	12.2	2,660,626	63.3%	24,117	8
Healthy People 2020						≤7.1

Source: http://statecancerprofiles.cancer.gov/cgi-bin/quickprofiles/profile.pl?47&047

Table 14

Kidney Diseases Mortality by Race

Report Area	Kidney Diseases Deaths per 100,000 (2008-10)		
	All Races	White	Black
Desoto	8.2	10.8	N/A
Fayette*	13.3	N/A	N/A
Shelby	13.3	9.3	24.4
Mississippi	24.4	18.3	40.0
Tennessee	15.0	12.9	27.8
United States	16.1	13.8	29.7
*Data Range = 2006-2010			

Source: *http://healthindicators.gov/Indicators/*

Table 15

Sickle Cell: Although the exact number of people living with sickle cell disease (SCD) in the United States is currently unknown, the CDC estimates that SCD affects about 90,000 to 100,000 Americans. It is particularly common among African Americans. According to the CDC, SCD occurs in 1 out of every 500 African American births; while 1 in 12 African Americans has the sickle cell trait (SCT). Although carriers of the SCT may not exhibit symptoms of the disease, if two individuals with the SCT have a child, there is a 25% chance that the child will have SCD. While exact statistics remain unknown, based on CDC estimates of SDC and SCT prevalence and population demographic data, the MLH service area is home to approximately 1,100 individuals with SCD and almost 45,000 carriers of the SCT. The MLH Sickle Cell Center was created to serve the needs of this unique population.

Pediatric Asthma: Pediatric asthma is a critical problem in the MLH Service Area, with high levels of morbidity and mortality, as well as high health care costs. Methodist Le Bonheur Children's Hospital receives more than 3,500 asthma-related visits each year, and it is Le Bonheur's most common diagnosis. Moreover, annual pediatric asthma hospitalizations in Shelby County cost Tennessee's Medicaid-funded TennCare program $2.1 million in avoidable hospitalizations and an additional $2.6 million for Emergency Department visits, for a total of $4.7 million in TennCare costs *(Source: Tennessee Hospital Discharge Data Set, 2010).*

Minority and low-income children are especially vulnerable to asthma due to associated environmental, economic, and psycho-social factors (Tables 16a and 16b). MLH serves a significant number of both populations: racial minorities make up approximately 57 percent of its primary service area and nearly one out of three Shelby County children live below the poverty level. Accordingly, pediatric asthma has been identified as a high-priority need.

Pediatric and Adult Asthma Prevalence

Report Area, Race	Pediatric Asthma	
	Child Current Asthma Prevalence	Child Lifetime Asthma Prevalence
Tennessee	6.4%	10.5%
White	5.1%	8.7%
Black	8.7%	18.3%
Mississippi	8.6%	13.2%
White	5.3%	9.4%
Black	12.1%	17.6%
United States	8.4%	12.6%

Report Area, Income	Adult Asthma	
	Current Asthma Prevalence	Lifetime Asthma Prevalence
Tennessee		
<$15,000	11.7%	16.2%
$15 -$24,999	10.3%	14.3%
$25-$49,999	5.7%	9.2%
$50-$74,999	5.3%	8.2%
$75,000 +	3.5%	6.9%
Mississippi		
<$15,000	10.6%	16.7%
$15 -$24,999	11.5%	15.7%
$25-$49,999	5.7%	10.0%
$50-$74,999	5.4%	9.0%
$75,000 +	3.3%	8.1%

Source: http://apps.nccd.cdc.gov/brfss/page.asp?cat=XX&yr=2010&state=All#XX

Tables 16a and 16b

Infant Mortality: Infant mortality was identified as a significant health need by the secondary research. In the case of infant mortality, all geographic areas of analysis, with the exception of Fayette County, were underperforming Healthy People 2020 goals (see Table 17). Moreover, it should be noted that Shelby County's infant mortality rate is more than twice that of the Healthy People 2020 goal, indicating a definite community health need.

As noted by The Urban Child Institute, the health and well-being of our children determines the future of our community. [iii] By this standard, Shelby County's future is somewhat dim. However, since 2008, the infant mortality rate declined between 2009 and 2011 from 13 to 9.6 infant deaths per 1,000 live births. While an encouraging trend, the health needs of this most vulnerable population continue to be paramount. The Memphis child poverty rate (39 percent) is nearly double the national rate (21.9 percent). Over half of Shelby County children face economic hardship where 30 percent of children in Shelby County live in poverty. Of this 30 percent, half of the children are in extreme poverty.

Infant Mortality

Report Area	Infant Mortality		Low Birth Weight	
	Total Infant Deaths	Infant *Death Rate	Total Low Birth Weight	Percent Low Birth Weight
DeSoto	108	7.31	1,184	8.22%
Fayette	18	5.44	313	9.83%
Shelby	1,340	13.02	11,344	11.08%
MS	3,190	10.36	36,160	11.80%
TN	4,946	8.54	53,649	9.35%
USA	393,074	6.71	2,359,843	8.10%
Healthy People 2020		≤6.0		
*Rate per 1,000 births				
**Rate per 100,000				

Source: *http://healthindicators.gov/Indicators/*

Table 17

Health Determinants: According to the World Health Organization, many factors combine to affect individual and community health. To a large extent, circumstantial and environmental factors, like income- and education-levels, combine to influence health in a very significant way. We know from the Urban Child Institute that children are better off when their parents are educated. As a leading determinant of health, the educational system plays a critical role in the long-term health of the community. In Fayette County, though, more than half of the population has a high school degree or less (see Table 6). Likewise, higher income is linked to better health. However, 56 percent of Shelby County households earn $50,000 or less annually (see Table 7). Factors such as these will certainly influence individual and community health.

According to the CDC, more than ten percent of people in the United States aged 20 years or older have chronic kidney disease; and prevalence is higher among those with diabetes (35 percent) and hypertension (20 percent). According to our primary and secondary research, the MLH service area is characterized by a relatively high prevalence of diabetes and hypertension, the two most significant co-morbid conditions of kidney disease. Moreover, the death rate for kidney disease is higher among African Americans in Shelby County (24.4/100,000) as compared to Shelby County as a whole (13.3/100,000) suggesting that access to care for and treatment of kidney disease disproportionately affects the African American population in our Service Area.

Prioritized Community Health Needs

The summary of primary and secondary research details the analysis of the data used to determine the highest priority community health needs in the MLH service area. The Strategic Planning and Marketing division formed a subcommittee of the MLH CHNA Committee to prepare the analytics and proposed the priority ranking of the needs for approval. The needs were ranked as follows:

1. Chronic Disease and the Precursors to Chronic Disease
    a. Obesity
    b. High Blood Pressure
    c. High Cholesterol
    d. Cardiovascular Disease
    e. Diabetes
    f. Smoking / Use of tobacco products
    g. Kidney Disease
    h. Sickle cell
    i. Arthritis
2. Cancer Care
3. Infant Mortality / Teen Pregnancy
4. Childhood Asthma
5. End of Life
6. Mental Health
7. Dental Care
8. Access to Care
9. Poverty / Unemployment
10. Education
11. Crime

The list of community health needs was presented to the MLH CHNA Committee. The committee used an organic process of listening to subject matter experts to derive the prioritization of needs in addition to reviewing the findings from the qualitative and quantitative methods. The community health needs with the greatest risk of mortality to persons within the population were prioritized at the top of the list.

The pre-determinants of health – poverty/unemployment, education and crime – are all drivers impacting access to care so they all held equal weight in the list of priorities. MLH is well positioned to address access to care, yet determined poverty/unemployment, education and crime were better left to local organizations structured specifically to address those needs, therefore they were ranked at the end of the list.

Implementation Strategy

The MLH Implementation Strategy draws on decades of experience and knowledge gained from a disciplined and proactive approach to strategic planning. MLH, centered in Memphis, Tennessee, serves a diverse socio-economic population across a large geographic area spanning West Tennessee, North Mississippi and East Arkansas. As a tri-state provider, MLH must continuously monitor changing trends in health status as well as demographic, epidemiologic, behavioral, and economic characteristics of the population served to remain an informed and reliable community contributor. MLH is committed to meeting the healthcare needs of the varied communities it serves by maintaining/ expanding/ transforming existing services, developing new programs and aligning with other regional and national partners in health.

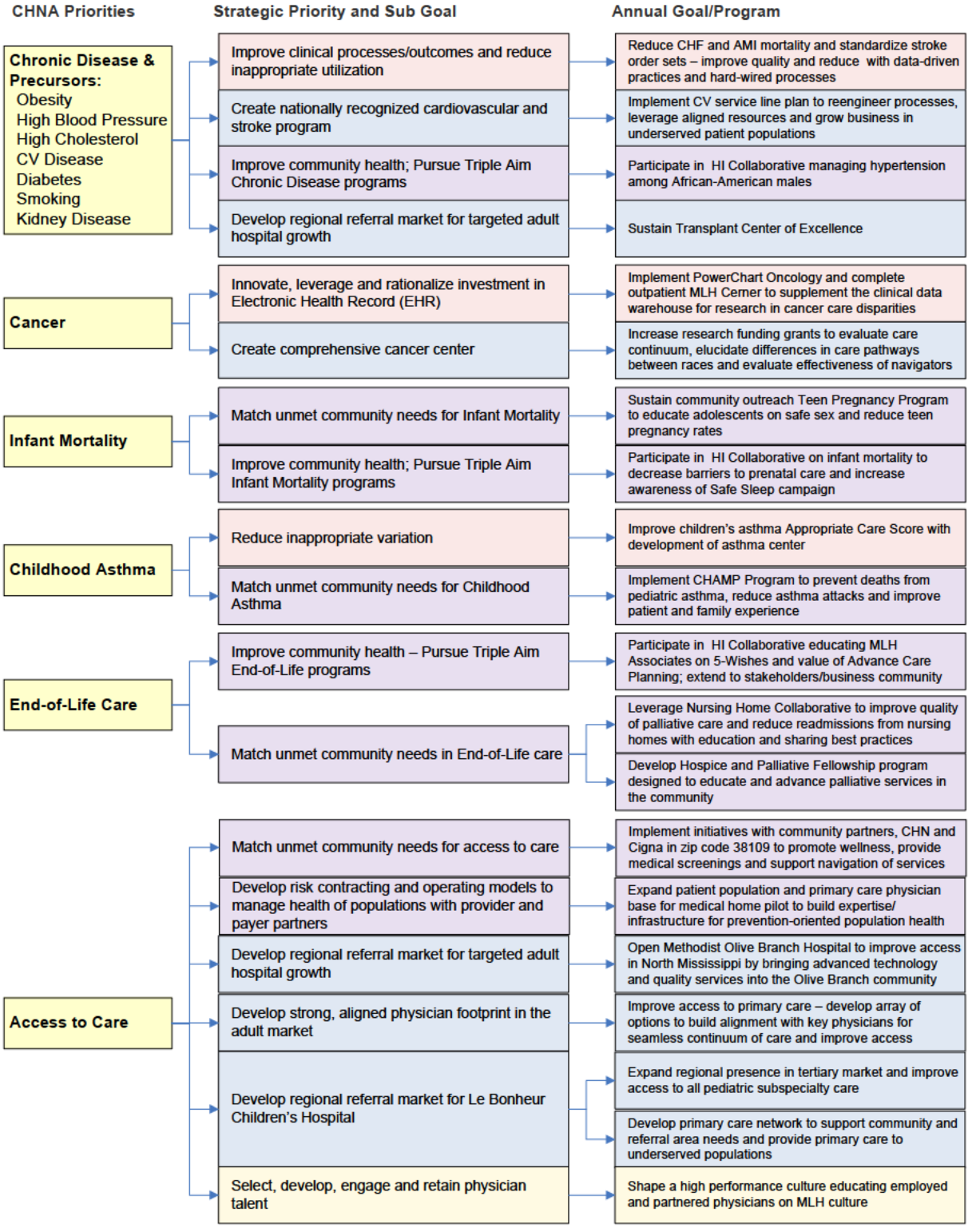
The process of envisioning the MLH long-term strategy is driven by senior management and the MLH Board of Directors and facilitated by Corporate Strategic Planning. Our annual planning process is cyclical whereby the environment is continually scanned for changes that may significantly impact organizational success or failure and our ability to meet the needs of our community. The planning process is rooted in the mission, vision and values of the organization.

The established longer-term strategic plan is validated annually then the process transitions from long-term planning to fiscal year execution. Our Deployment Map documents the execution strategy connecting strategic priorities to annual goals, projects and executive champions. The findings from the CHNA were incorporated into the planning process and will be key inputs in the environmental assessment phase of the planning process going forward. See attached excerpts from the 2013 System Deployment Map outlining strategic priorities and projects aligned with the prioritized Community Health Needs (see Figure 4).

MLH's mission and identity compels it to support the health of all people in the community. The commitment is grounded in the Methodist Church's social principle of *Nurturing Community:* "The community provides the potential for nurturing human beings into the fullness of their humanity. We believe we have a responsibility to innovate, sponsor, and evaluate new forms of community that will encourage development of the fullest potential in individuals. Primary for us is the gospel understanding that all persons are important—because they are human beings created by God and loved through and by Jesus Christ and not because they have merited significance. We therefore support social climates in which human communities are maintained and strengthened for the sake of all persons and their growth."

The Nurturing Community principle is found throughout the MLH culture, services and outreach programs. The following provides more description for existing, well established programs as well as highlights of projects from the 2013 Deployment Map that target the prioritized community health needs identified by our assessment.

Community Health Needs Strategic Implementation Plan



Source: MLH Strategic Planning and Marketing

Figure 4

Strategic Implementation Plan
Methodist Healthcare-Memphis Hospitals

Chronic Disease

Shelby County is one of the least healthy communities in the country, yet, one with significant health assets, providers and academic partners all well aligned with Methodist's mission and vision. MLH views the tremendous needs in the community as opportunities. As a faith-based healthcare provider committed to meet our community's health care needs, we have an obligation to explore building smart, integrated partnerships of aligned community assets.

While we have numerous ongoing services and programs targeting chronic disease and the precursors to such conditions, such as obesity, smoking and high blood pressure, the following highlights some of most recent strategic priorities in quality and collaboration for annual execution over the next year.

Cardiac Institute The Cardiovascular Institute at Methodist University Hospital partners with Columbia University Medical Center and the UTHSC to offer the latest in treatment for heart failure, arrhythmia, congenital heart disease and other heart conditions. In 2009, MHMH partnered with Columbia University Medical Center (CUMC) to improve the quality of heart care available in the Mid-South. The institute supports the Cardiovascular Resource Center at Methodist University Hospital which promotes cardiac and vascular care in an effort to help increase awareness. The Center helps enhance quality of life by providing limited financial resources and a supportive environment for cardiac and vascular patients, caregivers as well as family members.

Reduce Inappropriate Variation / Improve Quality We believe in order maintain our commitment to quality excellence and thrive under health care reform, MLH must advance the discipline of managing clinical data and improving performance by applying thought processes considered leading practice by the industry. We must educate all of our Associates to understand how to employ data-driven practices in their everyday roles and to "hard wire" processes that reduce variation in error. We call this creating a "learning organization." MLH has built its delivery systems using clinical management best practices, and has adapted and implemented evidence-based clinical practice guidelines when available. It is our mission to reduce mortality rates particularly in Congestive Heart Failure (CHF) and Acute Myocardial Infarction (AMI), improve care pathways including stroke and standardize quality improvements at all MHMH locations throughout the community.

Cardiovascular Strategic Planning In March 2013, MHMH engaged a national consulting leader in cardiovascular (CV) service line planning, to assist us in the development of a system-wide strategic plan for CV services. The strategic planning process created a forum for organizing and

aligning the interests of all stakeholders, including hospitals, physicians, patients and families. The planning process examined our current CV services and evaluated opportunities to grow business in the underserved patient populations with heart failure and peripheral vascular disease. The implementation plan is underway to reengineer processes and leverage aligned resources. Existing MHMH resources include CV programs at all of our acute care facilities in Memphis, a partnership with Columbia Heartsource[SM] which provides clinical and quality guidance, two valve clinics and a transcatheter aortic valve replacement (TAVR) program at Methodist University Hospital in partnership with Sutherland Cardiology and UTHSC, JACHO accreditation in Stroke and AMI and Chest Pain Center Accreditation at each of our adult acute facilities in Memphis and multiple outreach clinics in Tennessee, Mississippi and Arkansas.

Shelby County Triple Aim Initiative – Healthy Shelby (Chronic Disease) as noted previously, is a local collaborative supported by IHI to tackle three of the most critical health problems, one of which is chronic disease. The Chronic Disease Team has chosen to focus on a target population of African-American males with undiagnosed/untreated hypertension (approximately 1,200 men in 400 churches). The hypothesis is that many African-American men with hypertension are asymptomatic and have no regular primary care provider relationship. Engagement within the context of a trusted relationship (fellow congregants) will increase the likelihood men with undiagnosed/untreated hypertension will seek medical care within one month after referral. The team is focusing on recuing the incidence of untreated hypertension and improving medication adherence among African-American makes. The initiative includes a church-based project and a neighborhood based project.

Diabetes MHMH offers a variety of educational classes led by registered nurses and dietitians which are designed to teach patients how to manage their diabetes. Our diabetes education coordinators are also available for one-on-one counseling for insulin administration and diet instruction. There is a plan to place a diabetes center located on the campus of Methodist South.

Sickle Cell We have one of the largest populations of sickle cell patients in the country. For these patients, daily life is often interrupted by unpredictable bouts of pain that threaten their family life, career, education and social life. The Methodist Healthcare Comprehensive Sickle Cell Center provides a preventive outpatient clinic and Memphis' first dedicated emergency infusion unit. The center is focused on delivering treatment advance through on-site research. We are committed to providing continuity of care that will help enhance the quality of life for sickle cell disease patients across the Mid-South.

Arthritis In 2013, MLH aligned with The Arthritis Group as part of the physician alignment strategy to address community health needs. The rheumatology group has been in existence since 1970 in the Memphis area, and specializes in several areas of arthritis: osteoarthritis, rheumatoid arthritis, lupus and osteoporosis. The practice has two locations, one centrally

located in the Memphis Medical Center and one in the eastern part of Shelby County making services easily accessible to patients in the tri-state area.

Obesity / Bariatric Program MHMH has an established bariatric program with a dedicated physician to address the surgical weight loss needs of our obese population. The program received the CIGNA distinction in bariatric surgery and has been provisionally accredited by the American Society for Metabolic and Bariatric Surgery (ASMBS) – full accreditation is pending a sight visit in fourth quarter 2013. While surgical weight loss is not the solution for all cases of obesity, the provision of these procedures is important to our patient population and addresses a specific need.

Smoking MHMH strives to educate the public, patients and Associates on health related issues and when possible, offer classes, trainings and other forms of assistance to members of our community. The most recent initiative targeting smoking and the use of tobacco products is the addition of quality measures for our aligned primary care physicians in 2013. Our physicians will soon be monitored on their adherence to guidelines on counseling and educating patients in smoking cessation.

Transplant

Nationally recognized for its success with kidney, liver, kidney-pancreas and pancreas transplants, the Methodist University Hospital Transplant Institute has been a leader in the field for more than forty years. The program offers hope to patients with conditions such as kidney failure and end-stage liver diseases such as cirrhosis, Hepatitis C and diabetes. The institute includes the Transplant Resource Center which supports the educational, emotional, spiritual and financial needs of transplant recipients, organ donors and their families.

Partnering with the University of Tennessee, the program is dedicated to improving the quality of life and the life expectancy for its organ transplant patients through research breakthroughs, excellence in surgical techniques and meticulous post-operative care. Based on volume the institute ranks in the 90th percentile for liver programs and almost at the 75th percentile for kidney programs. Given the prevalence of high blood pressure in our community, and the impact of elevated blood pressure on kidneys, this program is a key part of the care continuum.

Cancer

MLH, The West Clinic and the UTHSC entered into a partnership in 2011 to transform cancer care in the Mid-South. The West Clinic is the region's premier cancer practice and is a nationally-recognized leader

in cancer research. The West Clinic currently has over thirty physicians in multidisciplinary specialties and multiple locations in Tennessee, Mississippi and Arkansas providing services to include medical oncology/hematology, gynecologic oncology, blood cell transplants, diagnostic and interventional radiology, metabolic bone disease/endocrinology, clinical psychology, pain and palliative care, radiation oncology, comprehensive breast center, nutritional counseling, ACORN research and the WINGS Cancer Foundation. As part of that partnership, UTHSC moved its Oncology Fellowship Program to The West Clinic and was provided funding to enhance cancer research, care programs and innovation. In 2013, the partnership was named the West Cancer Center. Together, the three organizations are advancing efforts to provide leading-edge treatment, extensive clinical trials and cutting-edge research in the fight against cancer.

Breast Cancer Disparity Grant Funding One of the most recent initiatives designed to leverage the strengths of the partnership is a research collaborative targeting the high disparities in breast cancer mortality for African-American women in Memphis. Disparities in cancer care result from gaps along the entire continuum of care; however, due to multiple organizations and disparate data sources evaluating the entire continuum for a large population is rarely achieved. In January 2013, Methodist Healthcare Foundation was awarded a planning grant from Avon Foundation to establish a clinical data warehouse to enable the evaluation of women with breast cancer from pre-screening through treatment. The next phase of the research includes elucidating the differences in care pathways between races and evaluating the effectiveness of patient navigation in order to reduce/eliminate disparities in care of breast cancer in our community.

Infant Mortality and Teen Pregnancy

As one of the largest providers of maternity and infant care in the service area, MHMH is a key player in the fight against infant mortality in the Memphis market and surrounding counties. MHMH offers a variety of maternity services with labor and delivery services, board certified neonatologists, Level III NICU beds and prenatal education. MHMH leads and participates in numerous efforts created to reduce infant mortality – three of the most notable are outlined here in more detail.

Le Bonheur Children's Fetal Center It is the only center of its kind in the area that offers a complete range of services from prenatal diagnosis through fetal interventions. As one of less than thirty centers in the country focused entirely on babies diagnosed in utero with a congenital anomaly, the Fetal Center has helped more than six hundred families since opening in 2009. The medical team includes board certified maternal fetal medicine specialists and pediatric physicians, counselors, parent mentors, lactation consultants and a program director that help navigate delivery planning and care for the baby care after birth.

The Le Bonheur Be Proud! Be Responsible! Memphis! Teen pregnancy program The program is an outreach initiative which aims to prevent teen pregnancy and is led by Le Bonheur Community Health and Well-Being (LBCHWB), a division of Le Bonheur Children's Hospital. The division's mission is "to promote the physical, mental, emotional and social well-being of children and families by collaborating with the community to provide a coordinated system of family-centered prevention, education, early intervention, support services and advocacy that extends beyond the hospital walls."

The interactive pregnancy program is designed to educate adolescents about safe sex practices and help them develop a sense of pride, self-confidence and self-respect. The program collaborates with partners such as Shelby County Schools, City of Memphis Parks services, Girls Inc., Memphis Teen Vision and other Le Bonheur programs. Classes empower youth to build and maintain healthy relationships throughout their entire lives. The program served over three thousand kids in targeted zip codes across Memphis, Tennessee during its 2012-2013 campaign. These geographic areas include the highest rates of adolescent pregnancy, sexually transmitted diseases and infant mortality in the City of Memphis, Shelby County and the State of Tennessee. There was a 6 percent reduction in teen pregnancy in Memphis and Shelby County in 2011. The percentage decrease has tripled to 26 percent at present.

Shelby County Triple Aim Initiative – Health Shelby (Infant Mortality) Health Shelby is a collaborative of hospitals, health care providers, social service providers and local government leaders working with the Institute for Health Improvement (IHI), to address the county's most critical health problems: Infant Mortality, End-of-Life Care and Chronic Disease. MLH joins the Regional Medical Center, Baptist Memorial Healthcare and Saint Francis Hospital as health care leaders in this collaborative housed at the Healthy Memphis Common Table (the regional health improvement collaborative significantly supported by the Robert Wood Johnson Foundation). Two-year funding was secured to launch these projects for better population health, improved patients' experience of care, and lower healthcare costs. The infant mortality initiatives are targeting the high rates of infant mortality in Shelby County. The two areas of focus are to decrease the barriers to prenatal care, specifically obtaining presumptive eligibility and TennCare coverage and to increase awareness of Tennessee Department of Health's Safe Sleep campaign by enhancing social media and targeting the most vulnerable populations.

Childhood Asthma

Chronic disease linked to health disparities will continue to burden our region without sustained research and improved quality of care. We are both called and have opportunity to build our research

enterprise. We hope to improve how we deliver clinical care by focusing our applied research on issues confronting children – using a clear bench-to-bedside-to-community focus.

Asthma Appropriate Care Score / Improve Quality To meet the needs of our community's children, we must develop relationship-centered, innovative clinical care models. We will differentiate our pediatric services by improving quality and efficiencies for both inpatient and outpatient services. Le Bonheur Children's Hospital plans to develop a center of excellence in asthma to complement the research efforts in this area with a focus on developing a departmental quality improvement program to improve outcomes, reduce costs and develop efficiencies. The center of excellence will work in tandem with the Le Bonheur CHAMP program (a program for Children with High-Risk Asthma not to be confused with CHAMP – the Community Health Asset Mapping Partnership discussed previously).

CHAMP Program The LBCHWB, the UTHSC Department of Pediatrics and other community partners, received a CMS Innovation Grant to implement a comprehensive program to "close the loop" in the current continuum of care for pediatric asthma patients in Memphis and Shelby County. The CHAMP Program targets high-risk pediatric asthma patients, ages two to eighteen served by Le Bonheur. The program goals are to: prevent deaths from pediatric asthma; reduce emergency department visits and avoidable hospitalizations; reduce asthma attacks; lower overall health care costs; and improve patient and family experience with the health care system. Grant funds will be used for three years to address the program goals through three system and service delivery changes: (1) create a pediatric asthma registry to enhance access to data and information for disease management; (2) add health care coordinators to improve patient care, follow-up, education for patients and caregivers and coordinated access to community services; and (3) establish an asthma collaborative which can be a vehicle for workforce development across systems, promote information sharing, identify needed service and system improvements, and advocate for policy or system change. Agencies committed to participating in this Collaborative include the local health department, school systems, housing departments, federally funded health clinics, primary care provider and others.

End-of-Life Care

We have made advances in medical care and coordination of care, yet there are still unaddressed needs and unnecessary suffering at the end of life for many. Current strategies address the lack of awareness and understanding of end-of-life options through general and specific education models for patients, physicians, providers, patients and families.

Shelby County Triple Aim Initiative – Healthy Shelby (End-of-Life Care) Under the Healthy Shelby initiative, MLH is co-leading a community effort to engage faith groups, physician groups and

community organizations in educating the community about the need and value of Advance Care Planning. To date, over twenty thousand employees across Shelby County have been educated on end-of-life planning and provided with the Five Wishes Planning tool. An additional five thousand Five Wishes documents have been distributed throughout the community via churches, colleges, businesses and physician practices in an effort to raise awareness and help facilitate conversations or document a patient's wishes before well before a serious illness strikes.

Nursing Home Collaborative MLH established a Nursing Home Collaborative in 2012 between the health system and local nursing homes to decrease readmissions from nursing homes, share best practices and improve quality of palliative care provided within the nursing home setting. The success of the collaborative attracted Baptist Memorial Healthcare to join the group in 2013 as a co-host for the meetings; thus forming a true community-based approach with the two largest health systems in the service area participating with over thirty local nursing homes. Quarterly meetings focus on sharing best practices which are targeted at establishing improved, consistent palliative care across the community and reporting quality measures.

Residential Hospice We focus on the social, emotional and spiritual needs of the patient and family. MLH has a well established hospice program that provides care in the home, in a nursing home, at an assisted living facility or in the MLH Hospice Residence. The Hospice Residence expanded to twenty-five beds in June 2013 offering residential, inpatient and respite care. We also have a bereavement outreach program, Camp Bravehearts, for the greater Memphis area which achieved the highest participation since inception in 2013.

The goal to formalize the Hospice and Palliative Fellowship was achieved in January 2013 when the program was approved for two adult and two pediatric fellows by the Accreditation Council for Graduate Medical Education (ACGME). The new program is one of five in the country educating pediatric palliative fellows. To further palliative services in the community, Le Bonheur Children's Hospital developed, in conjunction with St. Jude Children's Research Hospital, the Quality of Life for All Kids (QoLA Kids) palliative program for seriously ill children. Hospice staff, both in the home and in the hospice residence, provides interdisciplinary care to children throughout the illness trajectory and concurrent therapies.

Mental Health

At MLH, we want to help reduce the stigma attached to mental health problems by providing information that might prevent major depression or anxiety in someone's life. We have developed as part of the Dennis H. Jones Living Well Network a virtual front porch where patients can connect with someone, learn about depression and anxiety and get in touch with resources and tools to help with life's journey. Behavioral health assessments are available in all adult hospital emergency departments,

and behavioral health consultation/liaison services are available for all adult hospital inpatient units. In addition, Methodist University Hospital has a dedicated psychiatric inpatient unit that works in partnership with other ambulatory and inpatient services in the community. These behavioral health services are intended to navigate patients to the appropriate level of care. All services are supported by 24/7 on-call psychiatrists. Moreover, Alliance Health Services has access for referral to a full continuum of care throughout the community.

Dental Care

MHMH does not have extensive dental care programs, yet there are programs in place to connect patients with more comprehensive dental care providers such as our Wellness without Walls events and other health fairs. One closely aligned partner with substantial dental programs targeting the underserved community is Christ Community Health Services. Christ Community has three dental centers strategically located in the areas with the most need. They recognize poor dental health not only affects your teeth, but can increase your risk for disease, heart attack, stroke and even preterm pregnancy.

In addition to navigating patients to dental services, the Le Bonheur East Surgery Center also has a joint partnership with local oral surgeons and dentists that provide ambulatory services at the surgery center and Le Bonheur Children's Hospital to pediatric patients with extensive dental needs. We supplement these services with educational materials to promote awareness of the importance of dental care.

Access to Care

The MLH mission is to provide high quality, cost-effective patient- and family-centered health care to all sectors of the greater Memphis service area. As part of its mission, MLH has strategically placed and maintained hospitals and ambulatory facilities in Fayette County, DeSoto County and all quadrants of Shelby County. Its geographical distribution makes MLH the area provider with the largest number of entry points and the most socio-economically diverse patient population.

While MLH has expanded into new areas in need, we know the most vulnerable populations reside in the north, central and south quadrants of Shelby County. MHMH has remained committed to the inner city and mission markets even as competitors and other healthcare resources followed the population shift to the east. Our flagship hospital, Methodist University Hospital, and our pediatric hospital, Le Bonheur Children's Hospital, are centrally located in the downtown Memphis Medical Center making high-end tertiary services easily accessible to patients and families in the tri-state area. Methodist North Hospital and Methodist South Hospital are located in the heart of their respective quadrants maintaining

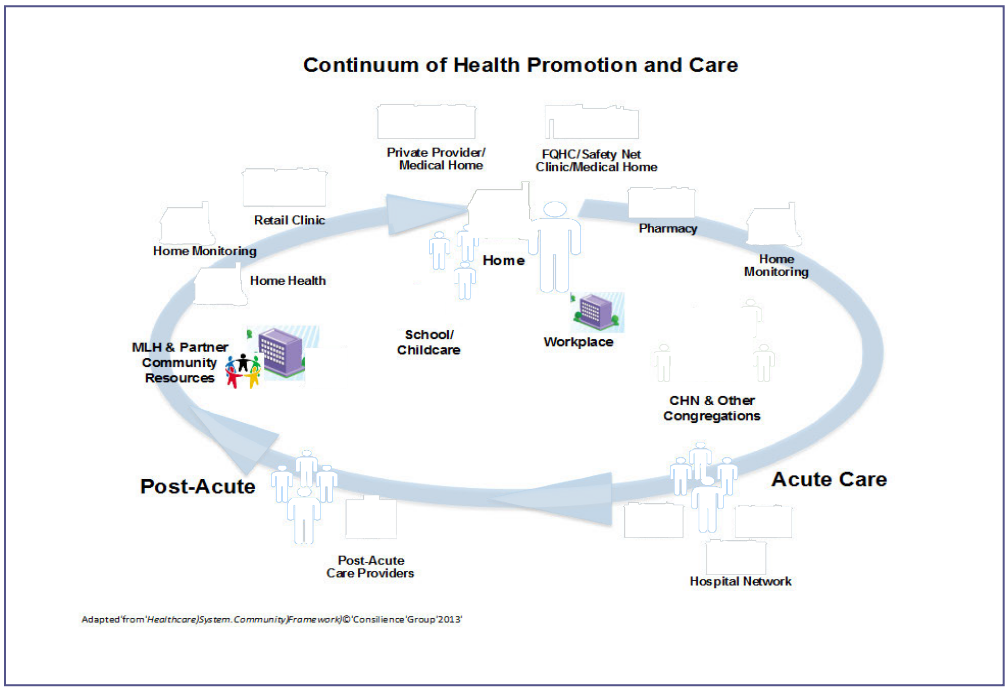
acute care services in the communities in which our patients live. In keeping with the mission, access to healthcare services is not restricted by existing health status, employment, income, geography or culture.

Congregation Health Network (CHN) In order to improve the community's health, we will need to ensure access to health care and preventive services. We must partner with other health care providers, especially our closely aligned faith-based providers, the Church Health Center and Christ Community Health Services as well as ACOs, and other community partners, to create an efficient network of services with multiple points of patient access and optimal navigation. The Congregational Health Network (CHN) is a covenant relationship between MLH hospitals, Mid-South congregations and community health organizations. The CHN provides a network of nearly five hundred congregations and faith communities that are partnering with us to share the ministry of caring for our patients. The goal of this program is to build stronger relationships with local faith communities in order to improve the patient journey through the MLH system and more broadly to build healthier communities. CHN is the infrastructure supporting our faith-based outreach projects including our work in zip code 38109.

Community Partnership in 38109 MHMH can build on its identity, assets and momentum to deliver breakthrough healthcare innovation for urban population health. With grant funding from Cigna, MHMH is testing a *geographic* population health model in 38109, one of our largest zip codes with significant health disparities and high levels of uninsured, as a microcosm of the MLH vision for service delivery continuums. The MLH vision is to build an infrastructure, including culture, integrated data systems, community resource database, mechanisms for collaboration, supportive public policy and sustainable funding which will support a seamless patient-and family-centered service delivery continuum (see Figure 13).

In 2013, the system used grant funds to pilot a "Wellness without Walls" concept with multiple events throughout the 38109 community to promote wellness, provide medical screenings and support navigation of health services. The events were led by MLH and held in conjunction with community volunteers, local congregational leaders, Memphis Area Legal Services, United Way of the Mid-South, G.W. Carver High School alumni and multiple other health related organizations including Walgreen's, UT College of Pharmacy, Shelby County Health Department, Health Spring (Medicare Advantage payer), TennDer Care (information on immunizations and well-child check-ups), Just Care Family Network (information on Mental Health) and Firestone Dental Group.

Population Health Model



Source: MLH Planning and Marketing, Consilience Group

Figure 13

Population Health through Medical Homes / ACOs Health Choice, a joint venture with MLH and Metrocare Physicians, is uniquely structured in this community to drive alignment models between the hospital and key physicians. Health Choice has developed a Medical Home model (MACH1) and is in the process of developing an Accountable Care Organization (ACO) pilot project with Cigna Healthcare, the area's largest commercial payer, to enable us to learn and to build expertise and infrastructure as we transition care from traditional models to prevention-oriented population health. The new care models have a patient-centered approach establishing care teams to coordinate care, engaging patients in their health and providing more integrated clinical and utilization data for providers.

Methodist Olive Branch Hospital Our DeSoto facility was opened in August 2013 in response to rapid population growth and increasing community need. The new hospital will significantly improve access to inpatient care and emergency care in North Mississippi. It reduces drive times and travel expense for healthcare services, improves access, promotes wellness in the community, attracts a full continuum of health care providers and physician specialists to the service area and improves the health of patients by bringing advanced technology and quality services into the community.

Physician Alignment Physician alignment has been a strategic priority for the last several years and will continue to be an access to care strategy. To better align with physicians, we developed a continuum of options allowing physicians to strategically engage with us in more effective ways. Our array of strategies and options are designed to build alignment with key physicians for a seamless continuum of care for patients and families as we react to structural changes in the health care industry and improve access.

Le Bonheur Referral Market There is a great burden of pediatric chronic disease in our region related to health disparities. Many underserved communities have limited access to primary care providers, and we have been unable, as a community, to address core prevention and health maintenance issues. Without medical homes, many children develop uncontrolled illnesses that require periodic hospitalization. Under Le Bonheur Children's Hospital leadership, we will develop a pediatric primary care network to provide primary care to underserved populations. We will also continue to align with regional partners to strengthen primary and secondary care in local communities while ensuring appropriate referrals for tertiary care for complex subspecialty patients. Regional strategic plans include innovation in clinical care delivery with telemedicine and advanced communications to improve the patient experience, streamline care and strengthen subspecialty care in the region.

Aligned Physician Culture Shaping A critical first step in building a culture that allows us to be at our best for our patients and families is hiring/aligning and retaining people who demonstrate our values and culture. Through clearly defining desired behaviors and implementing rigorous selection processes, we will hire/align only with those who fit our employer brand. We will continue to shape our culture to be a conduit for driving strategic priorities by incorporating MLH principles throughout the organization and establishing a consistent work environment: an environment where Associates are valued, have work satisfaction and opportunity for growth; and where the organization's commitment to high ethical standards in providing quality care and service to the community is clearly demonstrated.

Prioritized Health Needs Not Addressed

While MHMH has strategic plans to address the majority of health needs in the community either on a larger scale or smaller scale through pilots or tests of change, there are a few priority needs identified in our assessment that MHMH does not plan to tackle. The high priority needs are all pre-determinants of health: poverty, unemployment, education and crime. MHMH will focus on the rest of the community's health needs and will support groups that are designed and resourced to positively impact these three areas of need such as Memphis Fast Forward.

The Memphis Fast Forward steering committee is jointly chaired by the Memphis and Shelby County Mayors and a designated local business leader. The committee's purpose is to set a strategic agenda to accelerate economic growth and improve the quality of life of the region. Memphis Fast Forward supports a portfolio of initiatives that facilitate economic growth and prosperity and improved quality of life by getting the basics right -- good jobs, an educated workforce, safe neighborhoods, healthy citizens and government fiscal strength. To that end, Memphis Fast Forward develops and implements strategic action plans in the following areas: (1) growing jobs and fostering expansion of key industry clusters including biosciences, healthcare, logistics, and manufacturing; (2) building a competitive workforce for the new economy by strengthening education from early childhood through college attainment; (3) reducing crime through data-driven strategies for law enforcement and intervention; (4) promoting good stewardship of tax revenues, efficient operations, strategic investments and sound financial management; and (5) improving community health and the patient experience of care while reducing the per capita cost of health care (i.e. Health Shelby Initiatives).[iv]

Strategic Implementation Plan
Methodist Healthcare – Fayette Hospital

Chronic Disease

While MFH has numerous ongoing services and programs targeting chronic disease and the precursors to such conditions, the following highlights some of most recent strategic priorities in quality and collaboration for annual execution over the next year at MFH.

Reduce Inappropriate Variation / Improve Quality We believe in order to maintain our commitment to quality excellence and thrive under health care reform, MFH must advance the discipline of managing clinical data and improving performance by applying thought processes considered leading practice by the industry. We must educate all of our Associates to understand how to employ data-driven practices in their everyday roles and to "hard wire" processes that reduce variation in error. We call this creating a "learning organization." MLH has built its delivery systems using clinical management best practices, and has adapted and implemented evidence-based clinical practice guidelines when available. It is our mission to reduce mortality rates particularly in Congestive Heart Failure (CHF) and Acute Myocardial Infarction (AMI), improve care pathways including stroke and standardize quality improvements at all MLH locations throughout the community. As of now, MFH has medical staff specializing in the following areas: family medicine, internal medicine, oncology, radiology, and cardiology.

Diabetes MFH offers a variety of educational classes led by registered nurses and dietitians which are designed to teach patients how to manage their diabetes. Our diabetes education coordinators are also available for one-on-one counseling for insulin administration and diet instruction. A dietician sees patients at MFH two days per week to address needs such as obesity and diabetes. Also, diabetes is discussed during "Lunch and Learn" sessions at MFH, where participants can learn about health-related topics while making connections with others in the community over lunch.

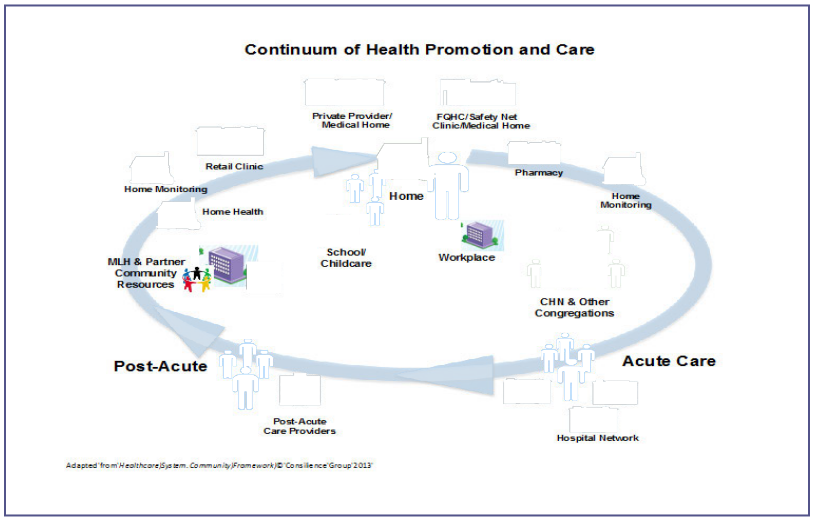
Obesity MFH strives to educate the public, patients and Associates on health related issues and when possible, offer classes, trainings and other forms of assistance to members of our community. At MFH, educational initiatives regularly pertain to obesity. For example, in addition to the availability of the dietician, Weight Watchers is onsite at MFH each Saturday. Also, "Lunch and Learn" topics often address healthy eating and healthy life-styles promoting the maintenance of a healthy weight.

Access to Care

The MLH mission is to provide high quality, cost-effective patient- and family-centered health care to all sectors of the Mid-South. As part of its mission, MLH has strategically placed and maintained a hospital in Fayette County. Methodist Fayette Hospital, located in rural Somerville, Tennessee, is a 46-bed community hospital offering inpatient and outpatient services, including a 24-hour emergency care. Methodist Fayette Hospital is the only hospital in Fayette County.

Congregation Health Network (CHN) In order to improve the community's health, we will need to ensure access to health care and preventive services. We must partner with other health care providers, especially our closely aligned faith-based providers as well as ACOs and other community partners to create an efficient network of services with multiple points of patient access and optimal navigation. The Congregational Health Network (CHN) is a covenant relationship between all MLH hospitals Mid-South congregations and community health organizations. The CHN provides a network of congregations and faith communities that are partnering with us to share the ministry of caring for our patients. Four Fayette County congregations are active CHN members. The goal of this program is to build stronger relationships with local faith communities in order to improve the patient journey through the MLH system and more broadly to build healthier communities. CHN is the infrastructure supporting our faith-based outreach projects.

Population Health Model



Source: MLH Planning and Marketing, Consilience Group

Figure 13

Health Fairs and Community Events Methodist Fayette Hospital offers health fairs and community events throughout the year. These events provide educational activities for the family in addition to free health screenings, where participants can be screened for high blood pressure and high cholesterol.

End-of-Life Care

We have made advances in medical care and coordination of care, yet there are still unaddressed needs and unnecessary suffering at the end of life for many. Current strategies address the lack of awareness and understanding of end-of-life options through general and specific education models for patients, physicians, providers, patients and families.

Nursing Home Collaborative MLH established a Nursing Home Collaborative in 2012 between the health system and local nursing homes to decrease readmissions from nursing homes, share best practices and improve quality of palliative care provided within the nursing home setting. The success of the collaborative attracted Baptist Memorial Healthcare to join the group in 2013 as a co-host for the meetings; thus forming a true community-based approach with the two largest health systems in the service area participating with over thirty local nursing homes. Quarterly meetings focus on sharing best practices which are targeted at establishing improved, consistent palliative care across the community and reporting quality measures.

Residential Hospice We focus on the social, emotional and spiritual needs of the patient and family. MLH has a well established hospice program that provides care in the home, in a nursing home, at an assisted living facility or in the MLH Hospice Residence. The Hospice Residence expanded to twenty-five beds in June 2013 offering residential, inpatient and respite care. We also have a bereavement outreach program, Camp Bravehearts, for the greater Memphis area which achieved the highest participation since inception in 2013.

The goal to formalize the Hospice and Palliative Fellowship was achieved in January 2013 when the program was approved for two adult and two pediatric fellows by the Accreditation Council for Graduate Medical Education (ACGME). The new program is one of five in the country educating pediatric palliative fellows. To further palliative services in the community, Le Bonheur Children's Hospital developed, in conjunction with St. Jude Children's Research Hospital, the Quality of Life for All Kids (QoLA Kids) palliative program for seriously ill children. Hospice staff, both in the home and in the hospice residence, provides interdisciplinary care to children throughout the illness trajectory and concurrent therapies.

Mental Health

At MLH, we want to help reduce the stigma attached to mental health problems by providing information that might prevent major depression or anxiety in someone's life. We have developed as part of the Dennis H. Jones Living Well Network a virtual front porch where patients can connect with someone, learn about depression and anxiety and get in touch with resources and tools to help with life's journey. Behavioral health assessments are available in MFH's emergency department, and behavioral health consultation/liaison services are available in MFH inpatient units. These behavioral health services are intended to navigate patients to the appropriate level of care. All services are supported by 24/7 on-call psychiatrists. Moreover, Alliance Health Services has access for referral to a full continuum of care throughout the community.

Dental Care

MFH does not have extensive dental care programs, yet there are programs in place to connect patients with more comprehensive dental care providers such as our health fairs. One closely aligned partner with substantial dental programs targeting the underserved community is Christ Community Health Services. Christ Community has three dental centers strategically located in the areas with the most need. They recognize poor dental health not only affects your teeth, but can increase your risk for disease, heart attack, stroke and even preterm pregnancy.

Prioritized Health Needs Not Addressed

While MFH has a strategic plan that specifically addresses chronic disease, access to care and end-of-life care, there are some community health needs that MFH defers to MLH to address and still others that other community organizations are best equipped to address. MFH, working in concert with the greater MLH system, helps to navigate patients to the more comprehensive healthcare resources of the MLH system as necessary. The health needs addressed by MLH are detailed in the MHMH Implementation Strategy (2013) available online at www.methodisthealth.org.

Additionally, the following pre-determinants of health were identified as high-priority community health needs: poverty, education, and crime. However, MLH will defer to and support community organizations designed, resourced and better equipped to positively impact these pre-determinants of health.

Strategic Implementation Plan
Methodist Extended Care Hospital

Chronic Disease

Shelby County is one of the least healthy communities in the country, yet, one with significant health assets, providers and academic partners all well aligned with Methodist's mission and vision. MLH views the tremendous needs in the community as opportunities. As a faith-based healthcare provider committed to meet our community's health care needs, we have an obligation to explore building smart, integrated partnerships of aligned community assets.

The Mid-South has a very high prevalence of chronic diseases and conditions. Frequently, individuals suffering from chronic illnesses require long term acute care. MECH serves the needs of this unique population and has a specially trained staff to provide highly individualized care to patients who are medically fragile and require specialized nursing care and intensive therapies through an extended hospital stay. While at MECH, patients get the acute care they need to ensure a smooth transition to home, skilled care, nursing home, rehabilitation facility or to home health care.

Disease groups served by MECH include Chronic Obstructive Pulmonary Disease (COPD) patients who frequently have a history of smoking, ventilated patients who may suffer from asthma or other breathing related conditions, kidney disease such as End Stage Renal Disease (ESRD), and those that require hemodialysis. Additionally, MECH provides care for patients who require wound therapy, antibiotic therapy and or nutritional therapy frequently as a result of complications from co-morbidities such as obesity, diabetes and stroke (cerebrovascular accident or CVA).

The patient care team includes physicians, nurses, pharmacists, medical social workers, rehabilitation therapists, respiratory therapists, specialized case managers, chaplain and patient educators. Together they develop and implement comprehensive programs and focused care to assist the patient and family to the highest functional level.

Our specialized programs include, but are not limited to:

> *Rehabilitation Program* The MECH rehabilitation team consists of highly trained physical therapists, physical therapist assistants, occupational therapists, and speech pathologists who are dedicated to helping each patient reach his or her goals and return to a higher quality of life. All patients admitted to our hospital receive individualized care that includes one-on-one visits by each discipline of the rehabilitation team to determine the best strategy for optimal care.
>
> We provide skilled evaluations and custom treatments for the following conditions, which directly relate to identified community health needs: stroke and neurological conditions, congestive heart failure (CHF), chronic obstructive pulmonary disease (COPD), and general

conditioning. Also, this program cares for those with other conditions not necessarily identified as a community health need: traumatic brain injury, post-surgical orthopedic injury, prosthetic orthotic training, and balance training.

Ventilator Weaning Program MECH's ventilator program uses evidence-based protocols to provide a progressive customized plan of care for our patients. We provide individualized programs for patients with acute or chronic respiratory disorders who may have artificial airways, ventilators or require extensive respiratory treatments to maintain normal breathing without mechanical support. We also offer basic ventilator and tracheotomy care training for those who will be caring for the needs of a loved one. A three-year study of ventilator patients was conducted within our facility to determine the best patient-to-therapist ratio and to develop a standard protocol of care following best practice models. As a result, we have had tremendous success in ventilator weaning, which has lowered 30 days on the ventilator to an average of less than 8 days. Patients with the following conditions are seen in this program: chronic obstructive pulmonary disease (COPD), pneumonia, asthma, and acute respiratory failure. All of which are associated with chronic disease needs of the community.

Our clinical interdisciplinary team works together to provide individualized care. Physician-directed treatment plans are enhanced by a bedside evaluation, assessment and plan performed by a respiratory therapist. This program is overseen by the Mid-South Pulmonary Specialists, P.C. group.

Wound Care Program The MECH wound care program treats patients with impaired tissue integrity who are at high risk for complications. The program utilizes the latest in evidence-based medical and technological treatment of wounds, customized specifically to the individual patient. The goal is to help wounds heal, ultimately allowing the patient greater comfort and improved quality of life.

After a comprehensive evaluation of the history and current status of the wound, our specially trained wound care team develops an individualized treatment plan and carefully monitors the patient's progress. Types of wounds that would benefit from the MECH wound care program include arterial and venous ulcers, pressure ulcers, diabetic and neuropathic ulcers, surgical debridement, and post-surgical or amputation complications.

End-of-Life Care

We have made advances in medical care and coordination of care, yet there are still unaddressed needs and unnecessary suffering at the end of life for many. Current strategies address the lack of awareness and understanding of end-of-life options through general and specific education models for patients, physicians, providers, patients and families.

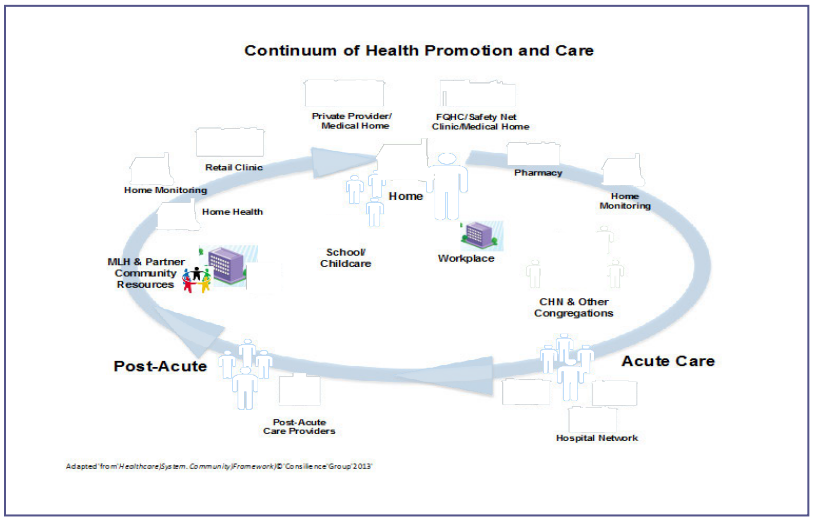
Nursing Home Collaborative MLH established a Nursing Home Collaborative in 2012 between the health system and local nursing homes to decrease readmissions from nursing homes, share best practices and improve quality of palliative care provided within the nursing home setting. The success of the collaborative attracted Baptist Memorial Healthcare to join the group in 2013 as a co-host for the meetings; thus forming a true community-based approach with the two largest health systems in the service area participating with over thirty local nursing homes. Quarterly meetings focus on sharing best practices which are targeted at establishing improved, consistent palliative care across the community and reporting quality measures.

Access to Care

The MLH mission is to provide high quality, cost-effective patient- and family-centered health care to all sectors of the Mid-South.

Congregation Health Network (CHN) In order to improve the community's health, we will need to ensure access to health care and preventive services. We must partner with other health care providers, especially our closely aligned faith-based providers as well as ACOs and other community partners to create an efficient network of services with multiple points of patient access and optimal navigation. The Congregational Health Network (CHN) is a covenant relationship between all MLH hospitals Mid-South congregations and community health organizations. The CHN provides a network of congregations and faith communities that are partnering with us to share the ministry of caring for our patients. The goal of this program is to build stronger relationships with local faith communities in order to improve the patient journey through the MLH system and more broadly to build healthier communities. CHN is the infrastructure supporting our faith-based outreach projects.

Population Health Model



Source: MLH Planning and Marketing, Consilience Group

Figure 13

Health Fairs and Community Events Methodist Extended Care Hospital participates in health fairs and community events throughout the year. These events provide educational activities for the family in addition to free health screenings, where participants can be screened for high blood pressure and high cholesterol.

Prioritized Health Needs Not Addressed

MECH is strategically positioned to address a select scope of community health needs. MECH, working in concert with the greater MLH system, helps to navigate patients to the more comprehensive healthcare resources of the MLH system to address the majority of remaining prioritized needs. MLH resources pertaining to the following are available to the population served by MECH: sickle cell, arthritis, cancer care, infant mortality and teen pregnancy. These additional resources are detailed in the MHMH Implementation Strategy (2013) available online at www.methodisthealth.org.

Even still, there are identified community needs that even the MLH system does not plan to address directly. The following pre-determinants of health were all identified as high-priority needs: poverty, education, and crime. However, MLH is not as well-suited to address these pre-determinants of health as it is the other health needs. Therefore MLH will focus on the rest of the community's health needs

MLH Communications Plan

The IRS guidelines for the CHNA call for making the results of the process widely available. To meet this requirement, MLH will publish this document on its website and make hard copies available to the public upon request. These results will be incorporated into the annual IRS tax form 990 submissions for each MLH entity.

MLH Impact Evaluation Process

MLH has taken measures to continuously monitor progress. A key component of this is the use of additional, ongoing primary and secondary research data. MLH plans to survey our service area population annually. Moreover, we are partnering with other health organizations, such as the Shelby County and Tennessee Health Departments and the Centers for Disease Control and Prevention (CDC), to share data. Two existing and ongoing projects specifically targeting collaboration with these health organizations on community health are the development of the Community Health Record and the MAPP process as described previously.

In May 2013, MLH implemented the Community Benefits Inventory for Social Accountability (CBISA) software to track corporate contributions, MLH led community activities and MLH Associate participation in events throughout our service area. The tool provides facility level detail and is used to determine where we are effectively meeting community needs and where we have opportunities to strengthen community outreach and contributions.

Upon implementation, we retroactively collected data from 2012 and have seen a significant increase as we document community benefits real-time in 2013. In 2012, we served over 33,000 persons in the community and invested over $1.2 million in financial donations, Associate time, supplies/equipment, education and other community efforts. The CBISA software will continue to provide invaluable information to better meet the needs of the communities we serve.

Table 18 summarizes the community needs as summarized in this CHNA and the related contributions MLH made and reported in CBISA as a donation or event (see Table 18).

Community Benefits

Identified Need	Donation/Event
Access to Care	Board positions; Corporate contributions; Free prescriptions for 132+ persons; Free home equipment or cardiac life vest rentals for 23 persons; Free home health visits for 52 persons; Transportation vouchers for 489+ persons; Transplant education for 186+ persons; Nurse/nursing student education for 199+ persons; Other health profession education for 5,229 persons; Physician/medical student education for 357 persons
Chronic Disease:	
Obesity	Corporate contributions; Fitness/exercise for an unknown # of persons
Congestive Heart Failure	Board positions; Corporate contributions; Education expenses for 77+ persons
Stroke	Education expenses for 51 persons; Support group expenses for 305 persons
Diabetes	Corporate contributions; Education expenses for 3,777+ persons
Sickle Cell	Corporate contributions
Cancer Care	Board positions; Corporate contributions; Education for 81+ persons
Infant Mortality	Board positions; Corporate contributions
Mental Health	Board positions; Corporate contributions
End-of-Life Care	Board positions; Education for 83+ persons
Childhood Asthma	
Kidney Disease/Liver Failure	$5,650 in corporate contributions

Source: MLH CBISA Software

Table 18

Conclusions

MLH will continue to use this CHNA and Strategic Implementation Plan during its annual strategic planning process to establish strategic priorities and allocate resources to improve the health of its service area. This is in keeping with the MLH Mission and in its best interest because improving population health will ultimately reduce healthcare costs in the long term.

A significant outcome of this process is that MLH will work more closely with the Shelby County Health Department and continue participate in the formulation of goals/strategies and action cycle phases on a going-forward basis. We hope to translate the experience with other health departments in our service area.

References

[i] U.S. Census Bureau, 2006-2010 American Community survey 5-Year estimates. Retrieved from www.chna.org.

[ii] State of Tennessee, Office of the Governor. (March 2013). *Healthy Tennessee: The Governor's Campaign for Health and Wellness*.

[iii] The Urban Child Institute. (2013). *The State of Children in Memphis and Shelby County: Data Book.* Memphis, TN: The Urban Child Institute.

CHNA 2016

Community Health Needs Assessment



Methodist Le Bonheur Healthcare

OUR **MISSION**

Methodist Le Bonheur Healthcare, in partnership with its medical staffs, will collaborate with patients and their families to be the leader in providing high quality, cost-effective patient-and family-centered care. Services will be provided in a manner which supports the health ministries and Social Principles of The United Methodist Church to benefit the communities we serve.

OUR **VISION**

Methodist Le Bonheur Healthcare is a faith-based healthcare system that, in partnership with its physicians, will be nationally recognized for delivering outstanding care to each patient, achieved through collaboration with patients and their families.

OUR **VALUES**

SERVICE - Patients and families are at the heart of all we do.

QUALITY - We consistently provide the highest quality of care through safe, proven practices.

INTEGRITY - We accept and honor the trust placed in us through our faith-based mission.

TEAMWORK - Together we are better.

INNOVATION - We are a learning organization and embrace new ways to get better results.

Be treated well.

A MESSAGE FROM OUR **LEADERS**

We are delighted to present our 2016 Community Health Needs Assessment. Like other hospitals across the country, we have used this document to determine areas of need within the community, and will use it to gain insight into how we can best meet those needs moving forward. But we believe our approach to this process is different from many others because of our unique Power of One culture and the Mission that guides the work of all 13,000+ Methodist Le Bonheur Healthcare (MLH) associates.

Our MLH service model calls on all of our Associates, whether they are in clinical roles or not, to approach their work with the following behaviors; Make a connection, Listen to understand needs and Honor commitments.

In developing the CHNA, we took purposeful steps to identify the health needs in our community by Making a connection and Listening to understand needs, and our plan for how we'll meet those needs is our way of Honoring our commitment to the community. Here's how that worked:

Make a Connection: We connected with patients, family members, health leaders and other influencers in Memphis and the surrounding communities. We are committed to serving all corners of our community, so we made sure to listen to voices across our service area from all walks of life.

Listen to Understand Needs: We listened carefully to all those involved in the process, paying close attention to the challenges they face in becoming and maintaining their healthiest selves. We also "listened" carefully to what we could learn from statistics about our community's demographics, social determinants of health, and health outcomes.

Honor Commitments: We will collaborate with key partners to create strategies and programs that make a real difference in the health and well being of those we serve, responding specifically to the health needs we identified.

As the preeminent healthcare system in an area that faces significant socio-economic, educational and health challenges, we remain dedicated to improving the health of our community using innovative strategies to truly make a difference. Moving forward, this document will be an important tool in helping us do exactly that.

Sincerely,

Gary Shorb, CEO
Methodist Le Bonheur Healthcare

Michael Ugwueke, President and COO
Methodist Le Bonheur Healthcare



Pictured left to right:
Michael Ugwueke, President and COO and Gary Shorb, CEO of Methodist Le Bonheur Healthcare

EXECUTIVE **SUMMARY**

To MLH, community health goes beyond providing treatment to those within the walls of our hospital. While we take pride in our ability to provide quality healthcare to all, regardless of ability to pay, we as a system also recognize the importance of addressing the needs of those within this community in a more holistic way. To that end, we have completed a rigorous assessment process that has allowed us to identify the following three areas, around which our system will galvanize efforts to impact the quality of life for all within our community.

Sponsor and evaluate innovative community healthcare solutions that in turn, lead to good life chances to learn, play, work and worship, and live life with hope.

Address the needs of **children**, **particularly those at risk**, through preventive community strategies, investments and partnerships

Improve **access to health care** and **health-promoting services**

Focus action on **two high-priority disease areas (cancer and heart disease)**, where there is evidence of disparity in outcome



Maternal, Infant & Child Health



Access to Health Services



Adult Cancer & Heart Disease

Moving forward, our **Implementation Plan** will outline the strategies we will use to deliver upon these identified health needs.

OVERVIEW

At **MLH**, we welcome the federal requirement to complete a Community Health Needs Assessment, because it helps us create a comprehensive picture of community needs through both statistical analysis and purposeful, facilitated conversations with patients, consumers, providers and partner organizations. This dialogue helps us more effectively develop targeted strategies for maximizing our benefit to the community. Assessing the needs of our community is good practice and will be critical as we look to improve the health and wellbeing of the population we serve.

WHO **WE ARE**

- With 1,650 licensed beds and 64,621 inpatient discharges in 2015, we provide care for 368,480 emergency department visits.
- MLH is the second largest private employer in our community, employing nearly 14,000 Associates, including 3,500 nurses.
- Our clinical areas of focus include cardiology, oncology, neurosciences, women's services, pediatrics and transplant services.
- Our work is grounded in our mission.
- As a faith-based institution, the Social Principles of the United Methodist Church challenge us to establish an environment where:
  The community provides potential for nurturing human beings into the fullness of their humanity. We believe we have a responsibility to innovate, sponsor and evaluate new forms of community that will encourage development of the fullest potential in individuals.

OUR **COMMUNITY**

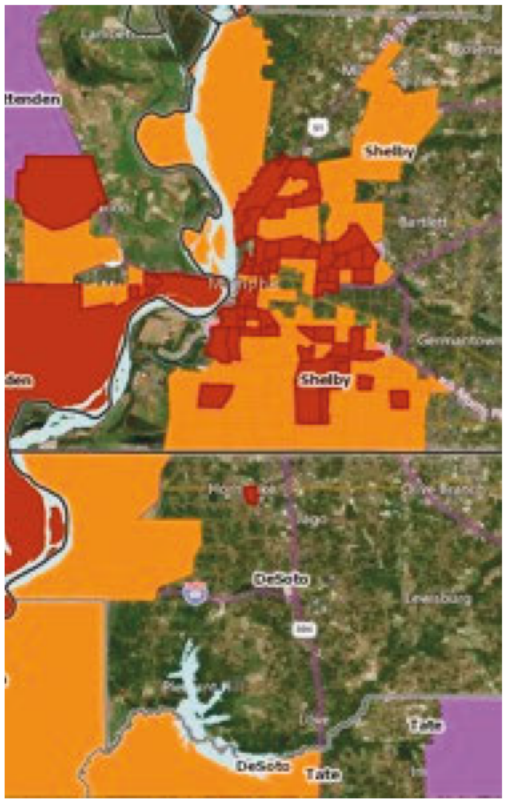
We believe that where a person lives, works and plays has a vast, undeniable influence on health, and understanding this relationship is fundamental to improving the health of the community at large. Here in the Mid-South, we're anchored by Memphis, a city renowned for its barbecue, blues and a grit-and-grind mentality. While our community has much to be proud of, it's also a place where many people are affected by poverty, poor educational opportunities, and a lack of health insurance. These factors, among others, have a significant impact on the health of our community.

According to a study from the Shelby County Health Department in collaboration with the Tennessee Department of Health and others, residents of certain Shelby County neighborhoods have, on average, a lower life expectancy than wealthier neighborhoods in the county. For example, residents of the 38106 and 38126 ZIP codes—located just south of downtown Memphis—have an average life expectancy of 68.7 years. The average for 38017 residents—located in the eastern part of the county—is 81.6 years.

Research has shown that socioeconomic status and educational attainment are highly linked to health outcomes. In our community, we know that the same areas afflicted by poverty and lower education are those faced with shorter life expectancy.

Of particular significance is the fact that these health disparities tend to fall along racial lines. The 38106 and 38126 ZIP codes, for example, are 96 percent African American, and this same trend is true across many neighborhoods within our community. For too many African Americans, health is an uphill battle.
Yet remarkably, despite all of its challenges, the Mid-South is home to many hard-working and caring individuals who are willing to invest in the improvement and wellbeing of their community. For evidence of this, look no further than the fact that Memphis consistently ranks among the most generous cities for philanthropic giving. Memphians on average gave more than 5 percent of income to charity. We invest in our community and its residents to make it a place that we're proud to call home.

Source: "Life expectancy study highlights plight of Shelby County's poorest residents", Commercial Appeal



Source: Vulnerable Populations Footprint, Community Commons

- Both Poverty and Education above thresholds
- > 20% of population living at-or-below 100% of the Federal Poverty Level (FPL)
- > 25% of population with no high school diploma

DEFINITION OF **COMMUNITY SERVED**

MLH serves a population of 1.25 million people in East Arkansas, West Tennessee and North Mississippi.. We serve a broad cross section of our community, reaching many disadvantaged areas. Patients from around the country and all over the world find their way to us for care, but for the purposes of the Community Health Needs Assessment (CHNA), we identified Shelby County, Tennessee and DeSoto County, Mississippi as our primary service area. These two counties makeup more than 75 percent of inpatient discharges across our system and is a representative sample of our patient population. *See the Appendix for more detailed demographic information.*

THIS IS **OUR COMMITMENT**

Methodist Le Bonheur Healthcare's longstanding culture of compassion is part of a legacy that began with Mississippi planter John Sherard and his commitment to caring for all members of the community by establishing a hospital in the heart of the community. Today, our commitment to this city and its people is evident in the countless forms of community benefit Methodist has provided throughout the years. In 2015 MLH's emergency departments had the largest share of TennCare and uninsured visits in the state. Our role in serving the at-risk community has been a focal point of our enterprise, highlighted by the fact that our investment in community benefit increased to over $200 million in the last three years. In addition to serving patients, MLH contributes to the community in a variety of ways, including:

- **Associate giving**
  As the largest United Way supporter of any Memphis health system, it's clear that our Associates have a tremendous spirit for giving. We see this every day in their selfless giving of their time with volunteer work as well as their donations to the American Cancer Society, American Heart Association, Mid-South Food Bank, Shelby Farms Park, the Salvation Army, and the Humanitarian Fund, which supports Methodist Le Bonheur Associates in times of medical or financial crisis.
- **Community Care Clinics**
  We give our assistance with free patient care, program funding and proactive work to create a more supportive safety net within our community.
- **Community education**
  We train EMS and other external medical professionals in order to improve overall care in the region.
- **Faith and Health Division**
  Partnership through the Congregational Health Network with more than 600 congregations and faith communities helps patients navigate their medical care.
- **Le Bonheur Community Outreach**
  We use our resources, such as screenings, education and support, we to improve the everyday lives of children in our community.
- **Medical education and research**
  University of Tennessee graduate medical residents and fellows.
- **Methodist Healthcare Foundation/Le Bonheur Foundation**
  Funding for a variety of projects, including the Methodist Comprehensive Sickle Cell Center, Methodist Hospice Residence and FedExFamilyHouse, a home away from home for out-of-town families with children receiving treatment at Le Bonheur.

> "Methodist University is the recipient of Methodist's biggest capital investment to date. Some $280 million over the next two years has been committed to building an outstanding facility for the people in our community. As critical as these new buildings and the services that will be provided in them are, this investment is also a statement that we are truly committed to this place."
>
> **- Jeffrey Liebman**, *CEO, Methodist University Hospital*

"For nearly 40 years, Le Bonheur Children's Hospital has gone outside the walls of the hospital to address barriers that prevent children from thriving. Forty-seven percent of children in our community live in poverty which creates unsettling health disparities. To reach these children, Le Bonheur is actively present in the community, helping children and families in their environments – schools, community centers, child care facilities and homes."

- Meri Armour, *President/CEO, Le Bonheur Children's Hospital*

"At Methodist South, we take pride in being a community hospital and serving as a beacon of resources for preventive care to help individuals and families live healthy and fulfilling lives. We are committed to matching our services to the most prominent healthcare challenges faced by our patients and take pride in delivering a high quality of care to manage their needs."

- Jay Robinson, *CEO, Methodist South Hospital*

"Since the founding of Methodist Healthcare Foundation over 30 years ago, we have remained committed to supporting innovation, enhancement and expansion throughout Methodist Le Bonheur Healthcare to impact the health of our entire community – especially of our most underserved neighborhoods. From the building of the Methodist Hospice Residence, to the creation of Memphis' first sickle cell center, to the donation that will help transform the Methodist University Hospital Transplant Institute, the Methodist Healthcare Foundation is grateful to partner with donors, businesses, and foundations to support the mission of MLH and the wellbeing of Mid-Southeners."

- Paula Jacobson, *President of Methodist Healthcare Foundation*

"Five years ago, West started a partnership with Methodist University and with the University of Tennessee to make a cancer center so Memphis patients didn't have to go anywhere – they could stay at home and get wonderful care… [Upon completion, the Methodist University] tower will be an incredible cancer center that will be right Downtown, uniting all of Memphis so we can take care of all of Memphis."

- Kurt Tauer, MD, *Chief of Staff, West Cancer Center*

"We realize hospitalization is only a brief stop for many patients during a complex healthcare journey. We take seriously our obligation and commitment to partner with the Memphis community to improve the health of our neighbors along the whole continuum, especially by addressing health and healthcare disparities."

- Robin Womeodu, MD, *Chief Medical Officer, Methodist University Hospital*

Our 2013 CHNA identified and prioritized several community health needs:

- Access
- Cancer
- Chronic Disease & Precursors
- Child Health
- End-of-Life
- Mental Health
- Transplant

Since that time, a lot of work has gone into addressing these community health needs. Here are examples of just some of what we've accomplished.



Our commitment to driving progress in these areas has remained powerful since the journey began in 2013. Over the past three years, our level of engagement in health-promoting activities has been a testament to the wide-reaching commitment the MLH team has to making a difference in the health of our community.



38109

The work of the community health navigation team and the intersection of faith and health are evident in the tremendous work being done in one of the nations' poorest zip codes, located right here in Memphis: 38109. Memphis has high obesity and diabetes rates, as well high instances of other complications, or co-morbidities that typically accompany those conditions. Residents in 38109 zip code face daily struggles that directly impact personal health, ranging from living in a "food desert" (as noted by the CDC) to dealing with extreme poverty.

The Mid-South also has some of the highest prevalence of chronic disease in America, including heart disease, stroke, lung disease, and asthma. In many cases, residents suffer from multiple conditions and don't have health insurance, access to a health provider or reliable transportation. For these reasons, among many others, many don't seek proper medical attention for their conditions. Many also don't have a primary care physician, so they use Emergency Departments (EDs) as their main source of healthcare.

In 2015, Methodist continued to expand and enhance the Wellness Without Walls community health events and Familiar Faces direct patient navigation program to serve more residents in 38109.

With funding support from Cigna Foundation, these community-based initiatives offered opportunities for 38109 community members to access healthcare resources, improve their health awareness, and receive healthcare screenings, referrals and follow up care when needed.

In 2015, 1,179 community members attended Wellness Without Walls events, and 371 individuals received health screenings. The Familiar Faces program provided personal navigation to 186 highly complex patients from 38109, which resulted in a significant reduction in the patients' total hospital encounters.

"We are committed to this work for the long-term. As long as we are needed, we will continue to work alongside the community and our valued partners to develop and offer meaningful programs to impact the health of our 38109 neighbors," shared Joy Sharp, Community Health Program Manager, about Methodist's efforts to improve the health of the 38109 community.

> **"We now know that personal relationships are the key differentiator for accessing, building trust, and impacting the wellness of this community. We are dedicated to not only addressing the health needs of these individuals but also to meeting their holistic needs, We know that personal relationships are the key differentiator for accessing, building trust, and impacting the wellness of this community."**
>
> **- Joy Sharp**, *Community Health Program Manager*

CHANGING HIGH-RISK ASTHMA IN MEMPHIS THROUGH PARTNERSHIP (CHAMP)



The most frequent reason for children visiting our emergency department is breathing difficulties. Four years ago, Le Bonheur launched a program to target the most chronic disease of childhood. CHAMP, Changing High-Risk Asthma in Memphis through Partnership, developed a team of physicians, nurses, a respiratory therapist and community health workers who walk alongside families of children with poorly-controlled asthma.

They teach the family how to better manage the disease and help reduce the triggers that cause attacks. Of the nearly 600 children in the program, hospitalizations are down 70 percent, and the cost to care for each child has been cut in half. The program was created with a grant from Health Care Innovation Award from the Centers for Medicare and Medicaid Services (CMS).

> "If you look at the asthma statistics for Tennessee, we don't have the highest prevalence of asthma in Shelby County (Memphis), but we clearly have the highest Emergency Department utilization and hospitalization for asthma. It's particularly weighted among socio-economically disadvantaged and the African American inner-city population."
>
> **- Christie Michael, MD**, *CHAMP Medical Director*

CONGREGATIONAL HEALTH NETWORK

At MLH, faith drives everything we do. We believe that healing is more than treating specific medical symptoms. Healing begins with people, families and entire neighborhoods. This is why we created the Congregational Health Network (CHN), a collaborative, multi-faith partnership between MLH and more than 600 Mid-South congregations. We know that religious congregations often function as a surrogate family when a member needs help. We also know that 70 percent of our patients belong to a congregation. With these two factors in mind, the CHN was formed for the purpose of improving the health of our region.

We believe that both healing institutions - hospital and congregation - can create a healthier community through a full-circle program of preventative health care, education, intervention, treatment and aftercare.

"We hope to help churches and congregations see themselves as a community resource and not just a resource for their members, while also helping the community see the church as a resource for them, not just church members. We're looking for people in the community who need assistance with healthcare issues, who have navigation or resource issues," said Rev. Bobby Baker, director of the CHN and Faith and Health Community Partnerships.

We partner with congregations to provide a network of health support. Members of CHN congregations have access to a wealth of support on issues such as preventive medicine and follow up care. The CHN works with congregations to educate and provide a supportive network to help patients navigate the healthcare system.

> "We're looking for people in the community who need assistance with healthcare issues, who have navigation or resource issues."
>
> **- Rev. Bobby Baker**, *Director, CHN*

ADDRESSING THE GAP IN BREAST CANCER SURVIVAL

The Mid-South faces a vast and varied set of socioeconomic hurdles. In the midst of these community challenges, MLH, in partnership with the West Cancer Center (WCC), is faced with the daunting task of equipping the community with the necessary resources to alleviate the barriers that produce the alarming disparities in cancer outcomes.

In 2011, more than five years after the CHN was established, MLH hired its first Cancer Nurse Navigator as part of its cancer navigation program. With this role, focus was placed on addressing access-related issues contributing to the Black-White disparity in breast cancer outcomes. Then, in 2013, MLH partnered with WCC to, among other things, bolster existing efforts with the high clinical quality and resources of WCC.

To date the cancer navigation program has provided more than 1,000 breast cancer screenings through its faith and community partnerships—for many of these women, this was their first mammogram. A key reason for the program's success was its ability to leverage the trust built by the CHN.

With a focus on efforts surrounding breast cancer and overall breast health and wellness, the team has built a grassroots, boots on the ground approach to breaking the cycle and eliminating the myths around this disease –empowering participants to take control of their own health. This approach also helps address the comprehensive health care needs of the patient.

According to Keesha Green, a Community Outreach Coordinator at the West Cancer Center, "We are closing the loop to make sure we are taking care of the person as a whole – comprehensively – rather than just focusing on those with a breast cancer diagnosis." 'Closing the loop' can mean anything from providing women with information on the importance of self-exams and screenings to helping eliminate barriers – like lack of transportation – to ensure these women are able to go to their screening and diagnostic appointments. "We can provide screenings," said Green, "but if you don't have transportation, how do you access this service?"



With an emphasis on providing women not only the necessary resources but also a central point of contact for their breast health, the team is fine-tuning a seamless model for navigation through the complex system of health care – a system that becomes even more complex in the field of oncology. "More often than not, if you just pass the patient off and provide them with a phone number – without a contact or individual to help them – they may not follow through. To eliminate the possibility of them getting lost in the system, we provide them with a direct point of contact so they have a true navigator – and partner – that helps them through the system."



To complement existing work around breast cancer, in September 2015, Methodist unveiled the healthcare system's first Mobile Mammography Bus with the mission to improve access to breast health screenings for more women throughout the Mid-South.

> "The Mobile Mammography Bus is a truly valuable resource that supports our collaborative efforts with West Cancer Center to navigate more women to breast health screenings in order to reduce the breast cancer mortality rate in Memphis through earlier detection and prompt follow up care. As a native Memphian I know all too well the challenges that are faced in our communities that prohibit access to quality care. The mission to serve individuals in underserved areas is one that I share. Our community navigation approach leverages relationships and fosters trust, which is the best way to meet individuals where they are with the resources they need. The cancer navigation program and partnership with WCC exemplifies that."
>
> **- Armika Berkley**, *Congregational Health Network Program Manager*

LESSONS **LEARNED**

We're very proud of our accomplishments since our initial CHNA in 2013. The numerous initiatives we implemented to address each of the community health needs identified in 2013 have positively impacted our community. For a more comprehensive list and description of specific initiatives implemented to address community health needs identified in our 2013 CHNA, please see the Appendix. Over the past three years, though, we've also learned many lessons that will allow us to be that much more impactful moving forward. Broadly speaking, these lessons can be summarized as follows:

We've found we need the following three key components to allow us to address even more community needs:

1. **Strategic Partners to Deliver Effective Results**
   We learned from our 2013 CHNA, we couldn't do it all, and we couldn't do it alone. Based on these lessons, we've realized the best results stem from partners that help us using their unique assets with shared priorities. With partners, we have the opportunity to dramatically increase our impact.

2. **"Systemness" Within MLH to Drive Results**
   Since 2013, evidence of the enormous will to address community need has been recognized throughout the organization. This will has established a solid foundation to effectuate change; however our organization's ability to achieve the greatest level of impact will only be realized when the willingness and enthusiasm throughout our system is galvanized around prioritized and aligned efforts.

3. **Shared Metrics to Evaluate Results**
   Potentially the greatest lesson learned from our 2013 CHNA is the need for more metrics based on the impact of our programs. Over the past three years, we've addressed and prioritized areas of need, but our measurement of outcomes is still limited. Set metrics, aligned with system priorities and strategic partners, will drive change and let us know where we're succeeding and where we need more work.

IDENTIFICATION & PRIORITIZATION OF **COMMUNITY HEALTH NEEDS**

The CHNA refers to the process of:

- Engaging the community to listen to their perspective on their health needs.
- Collecting, analyzing, and interpreting data on health outcomes and health determinants correlating to outcomes.
- Identifying any health disparities.
- Analyzing the above to identify and prioritize needs.
- Identifying resources that can be used to address prioritized needs.

MLH formed a multidisciplinary team to conduct the 2016 CHNA.

We used a variety of data to ensure the assessment process was as accurate and comprehensive as possible. This included primary data, like focus groups and informal interviews with community members and key stakeholders, as well as secondary data, such as public health information and our own internal figures. The primary data was assessed for themes, while the secondary data was analyzed to determine how our community compared to peer counties (i.e., similar outcomes in morbidity and mortality, and similar drivers of health, such as social/economic factors, physical environment, health behaviors, and clinical access). Using Healthy People 2020 as a framework, we sought to answer the question: *what are the health needs of our community?*

A health need was identified where these two criteria were met: 1) it was a theme among the primary data, and 2) related secondary data compared unfavorably to other communities. Additional information, like health disparity, severity, and number affected, was also incorporated where available.

Using this approach several health needs were identified, to varying degrees:

- Access to Health Services
- Cancer
- Diabetes
- Heart Disease & Stroke
- Injury & Violence
- Maternal, Infant, & Child Health
- Mental Health
- Nutrition & Weight Status
- Respiratory Diseases

Additionally, we considered whether our system had the ability to impact the identified need, which further enabled us to prioritize our results. To do this, we took into account many factors, such as whether we already offer services to address the need, our ability to build upon existing initiatives, and any partners with whom collaboration would be possible.



HP 2020 Topic	Perceived Need or Gap		Impact
	* Secondary	Primary	Ability to Impact
Access to Health Services	High	High	Strong
Cancer	High	Moderate	Strong
Chronic Kidney Disease	Moderate	Low	Moderate
Diabetes	High	Moderate	Strong
Environmental Health	Moderate	Moderate	Low
Heart Disease & Stroke	High	High	Strong
Injury & Violence	High	High	Low
Maternal, Infant, & Child Health	High	High	Strong
Mental Health	Moderate	High	Moderate
Nutrition & Weight Status	High	High	Moderate
Respiratory Diseases	High	Moderate	Moderate
Sexually Transmitted Diseases	Moderate	Low	Low
Substance Abuse	Moderate	Low	Low

**Based on data from: Community Commons CHNA Indicator Report, CDC Community Health Status Indicators (CHSI 2015), County Health Rankings & Roadmaps, Kids Count Data Center, Shelby County Health Department Community Health Assessment, MSDH DeSoto County Health Profile, Internal data (e.g., volumes, quality)*

Using this methodology meant the prioritized needs have the following characteristics:

- It's considered by our community to be a significant health need.
- It's a health need in which, based on a collection of key indicators identified by public health experts, our community compares unfavorably to similar communities as well as national and state benchmarks.
- Health disparities, particularly racial disparities, exist within this health need.
- Compared to other health needs, more people are affected by this health need (e.g. prevalence), and/or they are affected more severely (e.g., mortality).
- MLH has the ability to impact the health need.

Five community health needs—Diabetes, Injury & Violence, Mental Health, Nutrition & Weight Status, and Respiratory Diseases— were identified but not prioritized. For each of these, relative to other community health needs:

- MLH, either directly or through partnership, did not have the ability to adequately impact this community health need (e.g., Injury & Violence); or
- The need would likely be addressed through initiatives intended to impact other, prioritized community health needs (e.g., addressing Nutrition & Weight Status as a means to impacting Cardiovascular Disease).

PRIORITIZATION OF **COMMUNITY NEEDS**

The prioritized needs of our community were identified as:

MATERNAL, INFANT & CHILD

The well-being of mothers, infants, and children determines the health of the next generation and can help predict future health challenges for families and communities. Moreover, healthy birth outcomes and early identification and treatment of health conditions among infants can enable children to reach their full potential.

Percent Low Birth Weight Births



- Community (10.85%)
- Tennessee (9.2%)
- United States (8.2%)

In Our Community:

- Black: 14.04%
- White: 7.02%

Infant Mortality Rate (Per 1,000 Births)

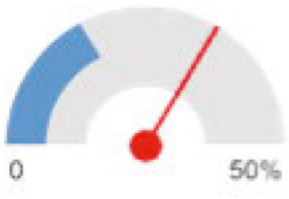


- Community (11.9)
- Tennessee (8.2)
- United States (6.5)

In Our Community:

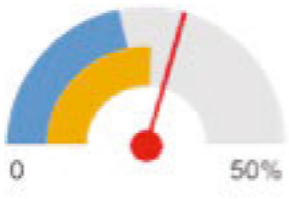
- DeSoto: 8.0
- Shelby: 12.5

Percentage Mothers with Late or No Prenatal Care



- Community (33.6%)
- United States (17.3%)

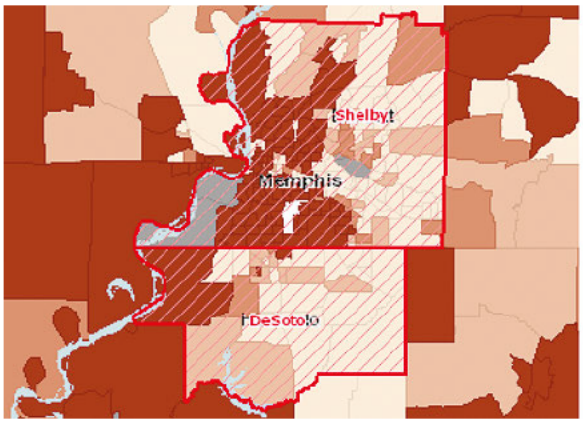
Percent Population Under Age 18 in Poverty



- Community (29.45%)
- Tennessee (25.76%)
- United States (21.9%)

In Our Community:

- Black: 40.66%
- White: 8.14%



Population Below the Poverty Level, Children (Age 0-17), Percent by Tract, ACS 2010-14

- Over 30.0%
- 22.6 - 30.0%
- 15.1 - 22.5%
- Under 15.1%
- No Population Age 0-17 Reported
- No Data or Data Suppressed
- Report Area

Action Area: Address the needs of children, particularly those at risk, through preventative community strategies, investments, and partnerships

ACCESS TO HEALTH SERVICES

Access to comprehensive, quality health services is a crucial component in ensuring an increased quality of life and health equity for all.

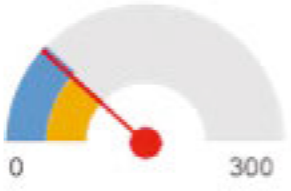
Percent Uninsured Population



- Community (15.15%)
- Tennessee (13.62%)
- United States (14.2%)

In Our Community:
- Black: 17.11%
- White: 9.31%

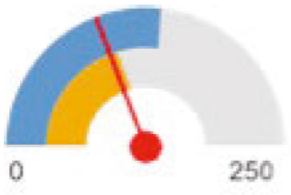
Primary Care Physicians, Rate per 100,000 Pop.



- Community (69.9)
- Tennessee (72.1)
- United States (74.5)

In Our Community:
- DeSoto: 27.7
- Shelby: 77.4

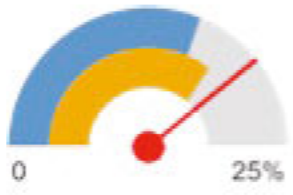
Mental Health Care Provider, Rate per 100,000 Pop.



- Community (95.9)
- Tennessee (103)
- United States (134.1)

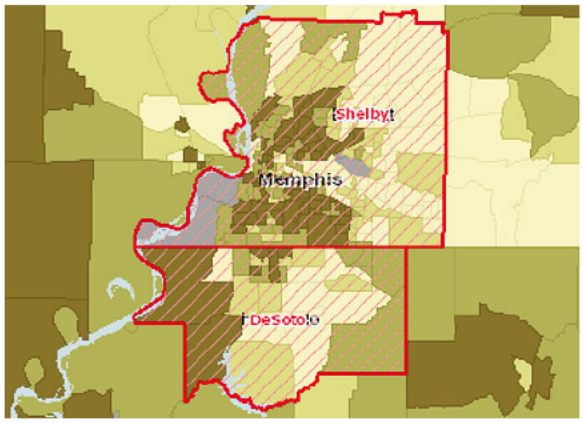
In Our Community:
- DeSoto: 46.2
- Shelby: 104.6

Percent Population in Poverty



- Community (19.55%)
- Tennessee (17.83%)
- United States (15.59%)

In Our Community:
- Black: 28.63%
- White: 9.34%



Uninsured Population, Percent by Tract, ACS 2010-14

- Over 20.0%
- 15.1 - 20.0%
- 10.1 - 15.0%
- Under 10.1%
- No Data or Data Suppressed
- Report Area

Action Area: Improve access to health care and health-promoting services.

ADULT CANCER

In a community with high cancer incidence and one of the largest gaps in mortality in the nation, focused action is necessary to address this ever-growing issue.

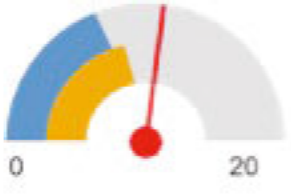
Cancer Mortality, Age-Adjusted Death, Rate per 100,000 Pop.



- Report Area (201.1)
- Tennessee (190.9)
- United States (168.9)

In Our Community:
- Black: 242.66
- White: 179.59

Annual Cervical Cancer Incidence, Rate per 100,000 Pop.



- Report Area (10.84)
- Tennessee (8.7)
- United States (7.7)

In Our Community:
- Black: 13.7
- White: 8.4

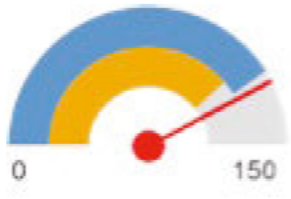
Annual Prostate Cancer Incidence, Rate per 100,000 Pop.



- Report Area (160.27)
- Tennessee (135.5)
- United States (131.7)

In Our Community:
- Black: 199.2
- White: 139.5

Annual Breast Cancer Incidence, Rate per 100,000 Pop.



- Report Area (126.42)
- Mississippi (116.8)
- United States (123)

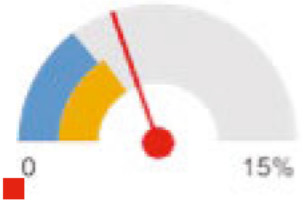
In Our Community:
- Black: 124.2
- White: 125.4

Action Area: Reduction of the impact of adult cancer.

CARDIOVASCULAR DISEASE

High prevalence of associated risk factors, high blood pressure, diabetes, and obesity, is contributing to too many heart disease and stroke deaths in our community.

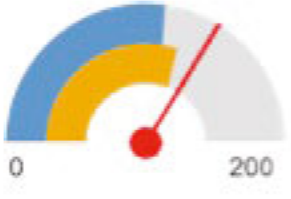
Percent Adults with Heart Disease



- Report Area (5.9%)
- Mississippi (4.8%)
- United States (4.4%)

In Our Community:
- DeSoto: 6.4%
- Shelby: 5.9%

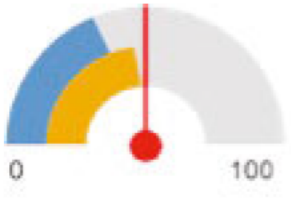
Coronary Heart Disease Mortality, Age-Adjusted Death Rate per 100,000 Pop.



- Report Area (135.2)
- Mississippi (121.6)
- United States (109.5)

In Our Community:
- Black: 143.88
- White: 133.01

Stroke Mortality, Age-Adjusted Death Rate per 100,000 Pop.



- Report Area (49.9)
- Tennessee (46.8)
- United States (37.9)

In Our Community:
- Black: 68.09
- White: 38.77

Percent Adults with BMI > 30.0 (Obese)



- Report Area (33.7%)
- Tennessee (32.1%)
- United States (27.1%)

In Our Community:
- DeSoto: 36.7%
- Shelby: 33.2%

Action Area: Reduction of the impact of coronary heart disease.

MOVING **FORWARD**

We recognize that this process of methodically assessing need is important, and we stand by the priorities identified in this CHNA. Our assessment led us to areas where focused effort will make the most impact. Our community's needs are great, and we will continue to work with our many partners to maximize our ability to address these needs.

We understand that in order to make a difference, MLH cannot simply view community health strategy as philanthropic giving, but as an evolution from community health activity to community health impact. By shifting our focus from episodic interventions within the walls of our hospitals to a core business strategy of integrated systems of care for each individual we serve, we have the opportunity to lay the foundation for change within our community, a change that will only be accomplished by partnering with and following other great organizations.

Methodist Le Bonheur is proud to be one of a small number of health systems invited to partner with the Institute for Healthcare Improvement to tackle the national issue of healthcare inequity and drive measurable change. This will be a two-year intensive learning and action network of collaboration with other organizations that have already demonstrated a strong commitment to addressing disparities.

With all of this in mind, the next stage of this process will be preparing our implementation plan. To do this, there are certain conditions that will create a platform to help maximize success and drive execution:

Conditions for Success

1. Clear **priorities**
2. MLH **Internal alignment**, including a refocusing of resources on agreed priorities
3. Clear **metrics** allowing us to demonstrate impact
4. **Leadership**, a senior leader and Office for Community Health
5. Defined **governance** arrangements
6. **Primary care** and other **partnerships** which help us meet our goal of improving care for the underserved
7. **Communications**; keeping all stakeholders informed and engaged. A commitment to partnering in future assessment of Community need

"Our organization was founded by one man, John Sherard, who saw a need in our community for high-quality healthcare regardless of ability to pay and immediately stepped in to address that need. That thread of unconditional concern for those in our care has survived and thrived from one generation to the next, and is what continues to drive us forward today.

From John Sherard to Gary Shorb, each of our leaders has understood and been steadfastly committed to our mission. I hope to strengthen this commitment to our neighbors in every corner of this community.

The result of our Community Health Needs Assessment is now in our hands, and will help guide strategic decision-making within our system. Gary and I have worked closely for many years and we're confident that along with this CHNA, the coinciding transition in leadership will not merely be one leader retiring and the position being filled by another. We shared both a commitment and a vision for MLH to make a conscious effort to improve the health of our community."

- Michael Ugwueke, *President and COO, Methodist Le Bonheur Healthcare*

SUMMARY

Community

- Woven into **the fabric of our organization**
- Manifest in our investments, our mission, and **our statement of faith**
- Part of our future in the drive toward **increased population health management**

Health

- We have **completed the prioritization process** through our CHNA, and we will publish our implementation strategy in early 2017

Impact

- We have the **opportunity to maximize impact** for our community, but we will **need to partner and align** to ensure we **deliver** our agreed priority Action Areas

APPENDIX

Thank you to everyone involved!

Primary Research

BankPlus
Christ Community Health Services
Church Health Center
Community Bank
Edwin Jones
Flowers Properties, LLC
Memphis Child Advocacy Center
Memphis Health Center
Methodist Le Bonheur Healthcare Associates, Leadership & Physicians
Methodist Le Bonheur Healthcare Patient & Family Partners
Michael Hatcher & Associates
Northcentral Electric
Porter Leath
Shelby County Health Department
Shelby County Schools
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United Way of the Mid-South
University of Memphis
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Oversight

Methodist Le Bonheur Healthcare Disparity Council

Governance

Methodist Le Bonheur Healthcare Faith & Health Board Committee

Demographics Expert 2.7
2015 Demographic Snapshot
Area: Shelby and De Soto County
Level of Geography: ZIP Code

DEMOGRAPHIC CHARACTERISTICS

	Selected Area	USA
2010 Total Population	1,091,261	308,745,538
2015 Total Population	1,115,626	319,459,991
2020 Total Population	1,143,530	330,689,365
% Change 2015 - 2020	2.5%	3.5%
Average Household Income	$66,530	$74,165

	2015	2020	% Change
Total Male Population	534,955	550,161	2.8%
Total Female Population	580,671	593,369	2.2%
Females, Child Bearing Age (15-44)	235,567	234,120	-0.6%

POPULATION DISTRIBUTION

	Age Distribution				
Age Group	2015	% of Total	2020	% of Total	USA 2015 % of Total
0-14	235,292	21.1%	232,971	20.4%	19.1%
15-17	49,741	4.5%	49,331	4.3%	4.0%
18-24	112,517	10.1%	113,386	9.9%	9.9%
25-34	153,697	13.8%	153,957	13.5%	13.3%
35-54	295,524	26.5%	291,168	25.5%	26.3%
55-64	136,102	12.2%	140,722	12.3%	12.7%
65+	132,753	11.9%	161,995	14.2%	14.7%
Total	1,115,626	100.0%	1,143,530	100.0%	100.0%

HOUSEHOLD INCOME DISTRIBUTION

	Income Distribution		
2015 Household Income	HH Count	% of Total	USA % of Total
<$15K	63,880	15.2%	12.7%
$15-25K	49,474	11.8%	10.8%
$25-50K	103,420	24.7%	23.9%
$50-75K	74,450	17.8%	17.8%
$75-100K	46,471	11.1%	12.0%
Over $100K	81,316	19.4%	22.8%
Total	419,011	100.0%	100.0%

EDUCATION LEVEL

	Education Level Distribution		
2015 Adult Education Level	Pop Age 25+	% of Total	USA % of Total
Less than High School	31,323	4.4%	5.9%
Some High School	61,586	8.6%	8.0%
High School Degree	199,221	27.7%	28.1%
Some College/Assoc. Degree	226,084	31.5%	29.1%
Bachelor's Degree or Greater	199,862	27.8%	28.9%
Total	718,076	100.0%	100.0%

RACE/ETHNICITY

	Race/Ethnicity Distribution		
Race/Ethnicity	2015 Pop	% of Total	USA % of Total
White Non Hispanic	464,406	41.6%	61.8%
Black Non-Hispanic	537,509	48.2%	12.3%
Hispanic	68,409	6.1%	17.6%
Asian & Pacific Is. Non-Hispanic	26,552	2.4%	5.3%
All Others	18,750	1.7%	3.1%
Total	1,115,626	100.0%	100.0%

2013 Health Need	Initiative	Description of Activities Taken Since 2013 CHNA
Access	Community Navigation	Deployed intensive navigation, place-based navigation, primary care access navigation
	Congregational Health Network	Maintained an asset-based, faith-centered, social support intervention
	MLH/Christ Community Health Services ED Decompression	Connected patients with necessary channels to receive follow up care in most appropriate location
Cancer	Improving Access and Follow-Up through Care Support (Avon)	Enabled CCHS Tenncare patients as well as unengaged patients to be a part of CCHS PCMH
	Mammography Screening	Provided mammograms to underserved at West and MLH locations
	Navigating Underserved Women to Better Breast Help (Komen)	Provided outreach and education to women, as well as access to breast health services
Chronic Disease & Precursors	Diabetes Wellness & Prevention Center	Provided classes to improve understanding and self-management of diabetes
	Improving Self-Care Decisions of Medically Underserved African Americans with Uncontrolled Diabetes	Assessed the effectiveness of well Motivational Messages (text messages from the doctor's office), Diabetes Wellness Coaches, and diabetes education materials
	Sickle Cell Center (in partnership with St. Jude Children's Hospital)	Maintained preventive outpatient clinic and Memphis' first dedicated emergency infusion units specifically for sickle cell patients
	Sickle Cell grant (in partnership with St. Jude Children's Hospital)	Jointly developed, assessed and integrated mobile health application to manage hydroxyurea treatments in the patient community
	Mobile Stroke Unit (in partnership with UTHSC)	Conducted and Produced advanced quality imaging for stroke diagnosis, shortening door to needle of tPA administration via mobile unit
End-of-Life	Hospice and Palliative Fellowship (in partnership with UTHSC)	Provided intensive training in the management of patients with life-limiting serious illnesses
	Plan, Wish, Live (in partnership with Healthy Shelby)	Collaborated to improve end-of-life care in Shelby County
	Nursing Home Collaborative	Collaborated to improve quality of palliative care and reduce readmissions from nursing homes with education and sharing best practices
	QoLA Kids program (in partnership with St. Jude Children's Hospital)	Provided specialized medical care for children with chronic and complex illnesses
Mental Health	Living Well Network	Provided resources for depression, anxiety, risky drinking and suicidal feelings
	Mental Health First Aid	Helped lay people understand the basics of mental health disorders
Transplant	Transplant Center of Excellence	Improved quality of life and life expectancy of organ transplant patients through research breakthroughs and excellence in surgical techniques
	Transplant Institute grant	Bolstered, in partnership with UTHSC, Transplant program through the advancement of research, equipment and facility improvements

2013 Health Need	Initiative	Description of Activities Taken Since 2013 CHNA
Children's Health	Be Proud, Be Responsible	Increased knowledge and eliminate or reduce risky sexual behaviors among adolescent populations.
	Breastfeeding Clinic	Offered through telemedicine in primary care settings
	Changing High-Risk Asthma in Memphis through Partnership (CHAMP)	Developed a care coordination team for pediatric asthma patients
	Child Care Resources & Referral	Provided assistance for families in finding child care services
	Community HIV	Provided HIV prevention/early diagnosis and treatment
	CRPC/Trauma Pediatric Education for Community Hospitals	Instructed other community hospitals on stabilization of emergency pediatric patients
	Early Intervention Program (LEAD)	Provided rehab services in community child care centers
	Early Success Coalition	Improved the lives of families with young children via community consortium of early child care providers
	Healthy Families	Provided home visitation program for new mothers/babies
	Healthy Home Partnership	Actively participated in public/private consortium of service providers promoting healthy living environments
	Healthy Lifestyles	Reduced obesity
	Inclusion Support at Community Child Care Centers	Assisted child care centers in providing services to children with medical needs
	Memphis CHILD	Addressed legal and social issues through direct legal services, education, and advocacy
	Mobile Health	Provided affordable, accessible health care services for children who don't have pediatricians.
	Nurse Family Partnership	Improved pregnancy outcomes, child health and development, and families' economic sufficiency through home visitation
	Nurturing Parenting	Taught parenting skills
	Parent Support Warm-Line	Provided parenting support services
	Safe Kids	Prevented accident and trauma
	Safe Sleep Campaign	Reduced sleep-related infant deaths
	Healthy Shelby (infant mortality)	Partnered to improve population health through focus on infant mortality

HP 2020 Topic	Importance to Community	CHSI Indicators – Includes indicators worse than benchmark	Community Commons - Primary Indicators – Includes indicators worse than benchmark
Access to Health Services	High	Primary care provider access; Uninsured	Access to Primary Care; Lack of a Consistent Source of Primary Care (Adult); Access to Mental Health Providers; *Insurance - Uninsured Population; Federally Qualified Health Centers; Health Professional Shortage Area - Primary Care
Cancer	Moderate	*Cancer death rate	Cancer Incidence - Breast; *Mortality - Cancer; *Cancer Incidence - Cervical; *Cancer Incidence - Colon and Rectum; *Cancer Incidence - Prostate; *Cancer Incidence - Lung
Diabetes	Moderate	Adult diabetes; *Diabetes death rate	Obesity (Adults); Diabetes Prevalence
Heart Disease & Stroke	High	*Coronary heart disease deaths; *Stroke deaths	Heart Disease Prevalence; *Mortality - Ischemic Heart Disease; *Mortality - Stroke
Injury & Violence	High	Unintentional injury; Violent crime rate	*Mortality - Homicide; Mortality - Motor Vehicle Accidents; Mortality - Pedestrian Accident; Violence - Assault; Violence - Robbery
Maternal, Infant, & Child Health	High	*Preterm births; Children living in single-parent households; Teen birth rate	*Low Birth Weight; Infant Mortality; Lack of Prenatal Care; *Teen Births (Age 15-19)
Mental Health	High	(none)	Access to Mental Health Providers
Nutrition & Weight Status	High	Adult obesity; Adult inactivity; Access to parks; Limited access to healthy food	Obesity (Adult); Diabetes Prevalence
Respiratory Diseases	Moderate	Chronic lower respiratory disease deaths	Air Quality - Ozone (O3); Climate & Health - Heat Index Days
*Indicates like racial health disparity based on secondary data			

METHODIST LE BONHEUR HEALTHCARE

FOCUS GROUP DISCUSSIONS: COMMUNITY HEALTH SERVICES

Prepared for:

Methodist Le Bonheur Healthcare

by:

Jackie Nerren Research

July 2016

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- Adult health needs and resources within Shelby County/Methodist Healthcare affiliated physicians
- Maternal and pediatric health needs and resources within Shelby & DeSoto Counties/Non-profits

BACKGROUND & OBJECTIVES

Methodist Healthcare is conducting a CHNA (Community Health Needs Assessment) which is a systematic process of involving the community to identify and analyze community health needs and assets.

One phase of the assessment is Qualitative – discussing community needs with providers and others involved in the healthcare process on a day-by-day basis.

Following is the report on this phase, which consisted of six Focus Group Discussions as described in the following section.

METHODOLOGY

Six Focus Group Discussions were held in Shelby and DeSoto County for this phase.

Respondents were invited to participate by Methodist Le Bonheur Healthcare. The sessions were conducted between June 27 and June 30 and included:

- Adult health needs and resources within Shelby County (two groups with community non-profit representatives)
- Adult health needs and resources within DeSoto County (one group with DeSoto County community leaders)
- Maternal and pediatric health needs and resources within Shelby & DeSoto Counties (one group with Le Bonheur affiliated physicians)
- Adult health needs and resources within Shelby County (one group with Methodist Healthcare affiliated physicians)
- Maternal and pediatric health needs and resources within Shelby & DeSoto Counties (one group with community non-profit representatives from agencies that serve children and mothers)

EXECUTIVE SUMMARY

Respondents in all six sessions were asked four basic questions about the community – what are the top critical healthcare needs, what resources are available now, major gaps and the most important ways in which Methodist/Le Bonheur Healthcare System can help. Following are the highest priorities for each group. The report explains these in greater detail and includes less critical needs as well:

Group	Top Critical Healthcare Needs	Major Gaps	How Methodist Le Bonheur Can Help
Adult Non-Profits 1st Group	Hypertension, heart disease, diabetes, obesity, stroke Mental health/violence Adverse childhood experiences (ACEs)	Access Managed Care/Insurance Coverage Health Literacy Lack of Transportation Not enough mental health providers	Help get people who need help to the right place (NOT the ER) Mental health – more professionals Education – ad campaigns, media that the people who need it will see and understand

EXECUTIVE SUMMARY *(cont'd)*

Group	Top Critical Healthcare Needs	Major Gaps	How Methodist Le Bonheur Can Help
Adult Non-Profits 2nd Group	Poverty Coordinated system of care for the under-served. Bringing partners together with collaboration. Private, public.	Coordination/Care management Access to specialty services Access to mental health services TNCare gaps and insurance problems (deductibles, issues with providers not knowing about cost increases with meds)	#1 thing to do is robust model of care coordination (partnerships, models, etc.) Assist in data-sharing. Be a thought leader and be humble about it. Someone has to be willing to try the model.
Community Leaders in DeSoto County	DeSoto providers do not take Medicaid Go to ER too much Not enough preventive care; health fairs	People with no insurance Surgery centers Vision centers/other specialists (eye surgery/need specialists go to Memphis) Better job in educating the young. (Elderly are going to fry chicken!)	Access to Primary care or urgent care (such as mobile unit, telemedicine, providing non-critical transportation) Need urgent care in all 4 DeSoto County cities (to keep non-emergencies from going to ER) County Wellness/ Prevention Expo Cooperation with other hospitals/healthcare to help community
Le Bonheur Physicians	Violence Lack of education Mental health lack of access Lack of primary care, healthcare deserts	It takes a long time to get child psychological help. Parenting program needs & discipline without going to classes. Parents get frustrated & kids do too. Lack of preventive care – violence, tooth decay, obesity. All melts into healthcare desert. Places not accessible to a lot of people, lack of transportation.	Community building. Mental health integration. Address health deserts. Try to have healthier practices in schools/taught in schools. More health-care in schools.
Methodist Physicians	Lifestyle will help people feel better/longer. Chronic illness is social illness. Walking trails, community support for health. Economic issues (access, insurance, transportation, meds).	Referrals, where we can refer after hospital. Transportation Uninsured & underinsured have nowhere to go.	Take a lead in lifestyle change. We already have Congregational Health Network. Need community gardens, healthy food. Have a Care Coordinator. A go-to person helping to navigate the system Have meds available at time of discharge. EMS that actually works.

EXECUTIVE SUMMARY *(cont'd)*

Group	Top Critical Healthcare Needs	Major Gaps	How Methodist Le Bonheur Can Help
Pediatric and Maternal Non-Profits	Early access to prenatal care, teaching how to have a healthy child. Mental health Insurance Nutrition information for parents	Mental health Universal post-natal health visits. Funding/sustainability Get funding. Funding goes away & program goes away. How do we sustain? Communicate/collaborate better (all agencies, hospitals, etc.)	Have first contacts ask mental health questions. PCPs, ERs, others. Open up the conversation about mental health issues. We need a central storehouse of knowledge about how to find things/services for kids. There should be more brand allegiance of Le Bonheur with Methodist so can increase awareness of children's services among all users.

Group	Healthcare Resources Mentioned
Adult Non-Profits 1st Group	FQHC/Safety net Christ Community Memphis Health Center Memphis Muslim Medical Clinic Resurrection Health Church Health Center Health Dept./Public health clinics Tri-State/CAAPS ERs at all hospitals Baptist & Methodist primary care groups St. Francis Delta Minor meds Non-affiliated, private primary care groups and private practices St. Jude Regional One UT Mental health/psychiatric hospitals Compass Mental Health Also there are Prevention & Education Resources including: Churches Memphis Business Group on Health All associations (Breast, cancer, heart, diabetes, etc.) Q Source does teaching Congregational Health Network (CHN) Healthy Shelby UofM School of Public Health YMCA - diabetes Southern College of Optometry Le Bonheur Support groups Jail (our biggest mental health provider)

EXECUTIVE SUMMARY *(cont'd)*

Group	Healthcare Resources Mentioned
Adult Non-Profits 2nd Group	Growing role of health department Hospitals Safety net providers Resurrection Tri-State Regional One Christ Community Church Health Center (network of volunteers) Memphis Health Center Churches UT UofM Southern College of Optometry Dept. of Human Services Commission on Aging MIFA Pharmacies VA (great resources but hard to navigate). Minor med/Urgent care Fire dept., Police, EMS CIT mental health Child Advocacy Family Safety Center Exchange Club (domestic violence) Foundations ACEs St. Jude
Community Leaders in DeSoto County	Methodist Olive Branch The Med – best Level 1 trauma Medivac (helicopter, transportation) Pediatric dentist/orthodontist YMCA Baptist cardiac care in Southaven City school nurse Baptist/ Methodist can get it done in DeSoto County Decent access to minor med but not enough Health Dept. (not sure what they do) mostly juvenile; immunizations; clinic pre-natal St Jude proximity Le Bonheur Youth sports programs to get kids active Methodist churches were doing prevention (leader left) Landers Center has a food bank every month. Folks have to register to come & get meals. Food bank in Olive Branch.

EXECUTIVE SUMMARY *(cont'd)*

Group	Healthcare Resources Mentioned
Le Bonheur Physicians	Great children's hospital. But many kids not sick enough to be in the hospital. If they are, we find resources for them. Mobile unit – have 2. One to service charter schools; other goes to rural counties, Dyer, Jackson, etc. Inner city hospitals buying up blighted properties…way to build those areas without excluding poor people. Make it better but not excluding the poor who live there now. Strong non-profit network. Area is known for high giving per capita. (Non Profits that stand out to them): United Way Church Health Center Congregational Health Network Le Bonheur LEAD program – early childhood development The Urban Child Institute It is helpful that we have all these outlying rural areas. Satellite clinics in Jonesboro, Dyersburg, Tupelo. Strong early intervention services through Dept. of Education, TEIS. Free books. Memphis Child Advocacy Center – doctor/lawyer partnership UofM Universal Parenting Place at Le Bonheur (first of its kind in nation, walk -in for parenting & mental health services)
Methodist Physicians	Methodist/Le Bonheur, other hospitals Christ Community Health Services Resurrection Church Health Center Memphis Health Center Health Loop Clinics (they have to refer to RegionalOne) Hope Lodge (stay for cancer treatment) Transportation for patients. Union Mission paired with doctors

EXECUTIVE SUMMARY *(cont'd)*

Group	Healthcare Resources Mentioned
Pediatric and Maternal Non-Profits	Hospitals Home visitation programs (health dept./hospitals). Community health & well-being is part of LEB (all child-focused; partner with St Jude). Health Department Child death fatality review is sent to the State. FIMR – review infant deaths Infant safe sleep sessions (free car seats, cribs) Health Dept. can get TN Care same day if someone self declares for pregnancy. Child Advocacy Center Review child murders, etc. Child sexual abuse (stewards for children) Making adults aware of who is keeping their child. Church Health Center Pediatric Wellness Program. (From nutrition to activity, safety, self-esteem). Whole child health. Pediatric referrals. Many don't know about this resource. State of TN mandates health screenings, BMI, BP, dental, scoliosis (K thru High School) Lots of early childhood screenings available at School District. Has 4 health clinics strategically located in areas of city. Well Child – Agency who provides screening EPSDT. Free glasses. TN early intervention. How do we get the word out? Health Dept. collaborated with Children's Special Services. One by One program pairs pregnant women with person who counsels through their pregnancy. Neighborhood Christian Center



Shelby County, TN

The following Summary Comparison Report provides an "at a glance" summary of how the selected county compared with peer counties on the full set of Primary Indicators. Peer county values for each indicator were ranked and then divided into quartiles.

	Better (most favorable quartile)	Moderate (middle two quartiles)	Worse (least favorable quartile)
Mortality		Chronic kidney disease deaths Coronary heart disease deaths Diabetes deaths Female life expectancy Male life expectancy	Alzheimer's disease deaths Cancer deaths Chronic lower respiratory disease (CLRD) deaths Motor vehicle deaths Stroke deaths Unintentional injury (including motor vehicle)
Morbidity	Alzheimer's diseases/dementia HIV Older adult asthma Older adult depression	Adult diabetes Adult overall health status Cancer Syphilis	Adult obesity Gonorrhea Preterm births
Health Care Access and Quality		Cost barrier to care Older adult preventable hospitalizations Primary care provider access Uninsured	
Health Behaviors	Adult binge drinking Adult female routine pap tests	Adult physical inactivity Adult smoking	Teen Births
Social Factors	High housing costs Inadequate social support On time high school graduation	Children in single-parent households Poverty Unemployment	Violent crime
Physical Environment	Housing stress	Annual average PM2.5 concentration Living near highways	Access to parks Limited access to healthy food



DeSoto County, MS

The following Summary Comparison Report provides an "at a glance" summary of how the selected county compared with peer counties on the full set of Primary Indicators. Peer county values for each indicator were ranked and then divided into quartiles.

	Better (most favorable quartile)	Moderate (middle two quartiles)	Worse (least favorable quartile)
Mortality	Chronic kidney disease deaths	Alzheimer's disease deaths Chronic lower respiratory disease (CLRD) deaths Stroke deaths	Cancer deaths Coronary heart disease deaths Diabetes deaths Female life expectancy Male life expectancy Motor vehicle deaths Unintentional injury (including motor vehicle)
Morbidity	Alzheimer's diseases/dementia Cancer Older adult depression	Adult diabetes Older adult asthma Preterm births Syphilis	Adult obesity Adult overall health status Gonorrhea HIV
Health Care Access and Quality		Cost barrier to care Older adult preventable hospitalizations	Primary care provider access Uninsured
Health Behaviors	Adult binge drinking	Adult female routine pap tests	Adult physical inactivity Adult smoking Teen Births
Social Factors		High housing costs On time high school graduation Unemployment Violent crime	Children in single-parent households Inadequate social support Poverty
Physical Environment		Access to parks Annual average PM2.5 concentration Housing stress Living near highways	Limited access to healthy food

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FORTUNE Magazine "Great Place to Work" Recognition

BEST CHILDREN'S HOSPITALS U.S.News & WORLD REPORT RANKED IN 7 SPECIALTIES 2016-17

BEST REGIONAL HOSPITALS U.S.News & WORLD REPORT MEMPHIS, TN RECOGNIZED IN 7 TYPES OF CARE 2016-17



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Community Health Improvement Plan
Le Bonheur Children's Hospital

Methodist Le Bonheur Healthcare (MLH) is an integrated, not-for-profit healthcare delivery system based in Memphis, Tennessee, with 1,650 total licensed beds. Our hospital system includes home health services, outpatient surgery centers, minor medical centers, diagnostic centers, sleep centers and a hospice residence that serve the entire Mid-South. Areas of expertise include The Brain and Spine Institute, The Transplant Institute, The Cancer Center, The Cardiovascular Institute and pediatrics at Le Bonheur Children's Hospital. MLH has been affiliated with The United Methodist Church since 1918, and combines a dedication to clinical excellence with a faith-based commitment to care.

At MLH, community health goes beyond providing treatment to those within the walls of the hospital. MLH takes pride in providing quality healthcare to all, regardless of ability to pay. Methodist also recognizes the importance of addressing the needs of those within the community in a more holistic manner. The 2016 Community Health Needs Assessment was used to identify health needs around which the system can galvanize efforts to impact the quality of life for all in the community:

- **Maternal, Infant, & Child Health**
- **Access to Health Services**
- **Cancer**
- **Cardiovascular Disease & Stroke**

This Implementation Plan is designed to be system-minded and focused on addressing the above community health needs. It assumes all hospital facilities will work together in addressing needs, and does not include an exhaustive list of current community health initiatives. The "signature initiatives" addressed within this plan are specific programs of focus which will be used to measure progress of how this system is working to address the needs of the community. All initiatives included are underway as of 2017.

This plan in particular focuses on **Le Bonheur Children's Hospital**. Le Bonheur is a Magnet-designated 255 bed facility recognized among the nations "Best Children's Hospitals" by U.S. News & World Report for six consecutive years. With 45 pediatric specialties, Le Bonheur Children's Hospital serves as the teaching hospital the University of Tennessee Health Science Center. With a well-established presence in community, Le Bonheur's expertise and resources extend beyond hospital walls. Le Bonheur Community Outreach is a 503(c)(3) organization that was created to address some of this community's greatest needs, such as safety, teen pregnancy, and access to healthcare.

Identified Health Need: Maternal, Infant, & Child Health

Goal: Address the needs of at-risk children through sustainable systemic change within the community

For more than 40 years, Le Bonheur Children's Hospital has gone beyond our hospital's walls to address the barriers that prevent children from thriving. Our community is home to the poorest metropolitan service area (population greater than 1 million) in the country. Forty-seven percent of children live in a household with income below the federal poverty level and half of these children live at extreme poverty levels. Poverty creates unsettling health disparities among the children we serve. To reach these children, Le Bonheur is actively present in the community, helping children and families in their environments – schools, community centers, clinics, child care facilities and homes. Annually we serve more than 250,000 children.

Strategy 1: Risk reduction for children and adolescents

We plan to accomplish the following:

- Improve asthma self-management and address the triggers that cause attacks
- Build student understanding and awareness of sexual diseases, safe-sex practices, and life skills

Signature Initiatives:

Changing High-Risk Asthma in Memphis (CHAMP)

The most frequent reason for children visiting our emergency department is breathing difficulties. Four years ago, Le Bonheur launched a program to target the most chronic disease of childhood. CHAMP, Changing High-Risk Asthma in Memphis through Partnership, developed a team of physicians, nurses, a respiratory therapist and community health workers who walk alongside families of children with poorly- controlled asthma, teaching them how to better manage the disease and help reduce the triggers that cause attacks.

Serving residents of: Shelby County, TN

Hospital facilities involved: Le Bonheur Children's Hospital

How we'll measure success: The targeted reach for this initiative is 525 people in three years. Through initiatives such as technical assistance from the Green and Healthy Homes Initiative, preventive healthcare management in the Le Bonheur asthma clinic, and the provision of legal services from the Le Bonheur legal-medical partnership, the goal of this tactic is to increase the

family's ability to manage asthma. Success for this goal will be measured by capturing a decrease in number of hospitalizations and emergency department visits by enrolled children.

Be Proud! Be Responsible!

The main strategy of Be Proud! Be Responsible! is to influence beliefs by increasing knowledge on the prevention of STIs, HIV, and pregnancy. This is done by using medically sound information to teach students about the benefits of safer sex behaviors or abstinence with a series of interactive learning experiences in a school- or community-based setting. The program places emphasis on helping adolescents utilize the knowledge and skills learned to real-life experiences by helping them build the skills needed to negotiate safer sex behaviors and give them a stronger sense of pride and responsibility in making these decisions.

Serving residents of: Shelby County, TN

Hospital facilities involved: Le Bonheur Children's Hospital

New Action Step: Community Advisory Groups will be established with the collaboration of the Memphis Teen Vision (MemTV). The community advisory group members will include parents, teachers, healthcare providers, government officials and other public servants who strongly believe and support the teen pregnancy prevention initiatives. The Youth Leadership Council (YLC) will be established with youths from communities served via recruitment of community organizations, youth groups, former BPBR! Memphis! participants, and teens interested in preventing teen pregnancy in their respective communities and across Shelby County. The teens will participate in surveys, focus groups, the Annual Youth Conference (AYC), and other designated group activities surrounding teen pregnancy prevention.

How we'll measure success: The goal of this program is to empower teenagers to develop a sense of pride, self-confidence and self-respect through sexual disease education, safe-sex practices and life skills-building activities. Through the use of pre and post-course evaluations, success of this tactic will be demonstrated through reported increased confidence in teen's ability to negotiate safer sex and a change in beliefs on HIV before/after completion of the program. The targeted reach for this initiative is 11,500 people in three years.

Strategy 2: Promote sound child development and support for effective parenting

We plan to accomplish the following:

- Provision of early intervention services with children with complex and chronic medical and developmental conditions

- Provide evidence-based early home visitation services to increase healthy births and build social, emotional, and cognitive skills

Signature Initiatives:

Community Developmental Services

Le Bonheur Developmental Services will provide support to families, child care centers, and partner agencies that have young children with developmental, health, medical, or behavioral needs. Our team of developmental, behavioral, occupational, physical, and speech therapists; nurses; support facilitators; and coordinators will partner with daily caregivers to help each child reach their full developmental potential in their natural daily environment: family home, caregiver home, and/or child care setting.

Serving residents of: Shelby County, TN and surrounding counties in the Memphis, TN and Jackson, TN Metro Areas

Hospital(s) involved: Le Bonheur Children's Hospital

New Action Steps: This program plans to strengthen their role in the social service system of care in order to better benefit the people served by partnering with Bioworks – Strengthening, Working Families and with Porter-Leath. A new service shift to align with Social Work in Le Bonheur will have Inclusion Support staff working alongside Le Bonheur's Family Support Services (Resource Center & Social Work) to offer assessment. Referrals to other community agencies will be made using CoactionNet. The financial well-being of the families should be improved by their ability to return back to work/school and to address health needs in order to maintain employment.

How we'll measure success: This goal of Community Developmental Services is to engage families in care and improve access to services for children with chronic and/or complex needs. Success will be demonstrated by increased family engagement and improved ability to return to work or school after receiving consistent high quality childcare. The targeted reach for these services is 4,000 children in the next three years.

Nurse Family Partnership (NFP)

In the NFP, specially trained nurses visit low-income mothers in their homes; families are enrolled prenatally and receive regular visits by a nurse until the child's second birthday.

Serving residents of: Shelby County, TN and possibly expanding to Desoto County, MS by 2019

Hospital(s) involved: Le Bonheur Children's Hospital

How we'll measure success: The goal of NFP is to improve pregnancy outcomes, child health & development, and families' economic self-sufficiency. The targeted reach for this initiative is 275 to 350 people in three years. Program success is demonstrated by a decrease in the number of preterm birth for enrolled clients.

Strategy 3: Promote children's health & wellbeing through impactful, sustainable community partnerships

We plan to accomplish the following:

- Expand direct legal services, education and advocacy for children and their families
- Increase trauma-informed pediatric practices at regional adult hospitals through trauma education and training

Signature Initiatives:

Memphis CHiLD Medical Legal Partnership

A medical-legal partnership, including the University of Memphis Cecil C. Humphreys School of Law, Memphis Area Legal Services, University of Tennessee HSC – Department of Pediatrics and Le Bonheur Children's Hospital. The partnership will focus on providing legal services, education, and advocacy for children and their families.

Serving residents of: Shelby County, TN and inpatients clients who are residents of surrounding counties

Hospital(s) involved: Le Bonheur Children's Hospital

How we'll measure success: The goal of the MLP is to eliminate the legal and social barriers impacting patient health. To that end, success of this program will be measured by an increase in the number of referrals to legal services made by participating partners and an increase in the number of professionals trained. The targeted reach for this initiative is 900 people referred in three years.

Trauma Outreach Education

As the region's only comprehensive children's hospital, Le Bonheur provides education and training for adult hospitals in West Tennessee on ways to care for the unique needs of pediatric patients

Serving residents of: Shelby County, TN and surrounding West Tennessee counties

Hospital(s) involved: Le Bonheur Children's Hospital

How we'll measure success: The goal of trauma outreach education is to ensure that health care professionals within adult hospitals have the capacity to stabilize and treat critically ill or injured children. Success for this program will be demonstrated by an improvement in outcomes of pediatric trauma patients transferred from regional hospitals.

Identified Need: Access to Health Services
Goal: Improve access to health care and health-promoting services

Access to comprehensive, quality health services is a crucial component in ensuring an increased quality of life and health equity for all.

Strategy 1: Increase access to primary and behavioral health care for underserved populations

We plan to do the following:

- Establish patient-centered pathways among community-based providers through formal partnerships, alignment and mutual accountability

Signature Initiatives:

Partnerships with Community Clinics

MLH will partner with community clinics to improve access to primary care services.

Serving residents of: Shelby County, TN and Desoto County, MS, plus other surrounding counties

Hospital facilities involved: Methodist University Hospital, Methodist South Hospital, Methodist North Hospital, Methodist Le Bonheur Germantown, Methodist Olive Branch Hospital, Le Bonheur Children's Hospital

How we'll measure success: The goal of the partnership is to establish patient-centered pathways for underserved populations among community-based providers through formal partnerships, alignment, and mutual accountability by 2019. Success for this program will be demonstrated by increased primary care visits, particularly for underserved populations.

Strategy 2: Leverage existing trust within community congregations to improve community health

We plan to accomplish the following:

- Strengthen linkages between congregations, the healthcare system, and primary care to improve health outreach, screenings, and referrals

Signature Initiatives:

Congregational Health Network (CHN)

The CHN is a collaborative, multi-faith partnership between MLH and more than 600 Mid-South congregations. This partnership focuses on providing legal services, education, and advocacy for children and their families. Members of CHN congregations have access to support on issues such as preventive medicine and follow up care. The CHN works with congregations to educate and provide a supportive network to help patients navigate the healthcare system. The CHN is also heavily involved in cancer screenings and navigation, as well as cardiovascular-related initiatives.

Serving residents of: Shelby County, TN and Desoto County, MS, plus other surrounding counties

Hospital(s) involved: Methodist University Hospital, Methodist South Hospital, Methodist North Hospital, Methodist Le Bonheur Germantown, Methodist Olive Branch Hospital, Le Bonheur Children's Hospital

New Action Step: CHN will provide more resources addressing primary care, cancer and cardiovascular disease. CHN has developed new partnerships to expand access in North Mississippi.

How we'll measure success: With an overall goal of increasing access to screenings for high-risk populations, and through the use of such initiatives as community wellness events and education courses, the CHN's success will be marked by attaining 70% PCP alignment/referral and by the number of individuals trained.

Appendix 1: MLH Summary Table of System Implementation Plan

Need	Initiative	Counties Served	Hospitals Involved
Maternal, Infant, & Child Health	Changing High-Risk Asthma in Memphis	Shelby	Le Bonheur
	Be Proud! Be Responsible!	Shelby	Le Bonheur
	Community Developmental Services	Shelby, plus surrounding TN counties	Le Bonheur
	Nurse Family Partnership	Shelby, possibly expanding to DeSoto	Le Bonheur
	Childbirth Classes	Shelby, DeSoto, plus surrounding	South, Germantown
	Memphis CHiLD Medical Legal Partnership	Shelby, plus surrounding	Le Bonheur
	Trauma Outreach Education	Shelby, plus surrounding West TN counties	Le Bonheur
Access to Health Services	Partnerships with Community Clinics	Shelby, DeSoto, plus surrounding	All Hospitals
	The Living Well Network	Shelby, DeSoto, plus surrounding	All Adult Hospitals
	Congregational Health Network	Shelby, DeSoto, plus surrounding	All Hospitals
	Consistent Site-Based Outreach	Shelby, DeSoto, plus surrounding	All Adult Hospitals
	Primary Care Navigation	Shelby, DeSoto, plus surrounding	All Adult Hospitals
	Intensivist Navigation	Shelby, DeSoto, plus surrounding	All Adult Hospitals
	Population Navigation	Shelby, DeSoto, plus surrounding	All Adult Hospitals
	Sickle Cell Partnership	Shelby, DeSoto, plus surrounding	University
	Community Outreach – Health Fair	Shelby, DeSoto, plus surrounding	Hospital-specific
Cancer	Cancer Navigation	Shelby, DeSoto, plus surrounding	All Adult Hospitals
	Cancer Program Specialist	Shelby, DeSoto, plus surrounding	All Adult Hospitals
	Mobile Mammography	Shelby, DeSoto, plus surrounding	All Adult Hospitals
Cardiovascular Disease & Stroke	CHN DEEP Diabetes Education	Shelby, DeSoto, plus surrounding	South, North
	Diabetes Education Classes	Shelby, DeSoto, plus surrounding	South, Germantown
	Diabetes Wellness & Prevention Center	Shelby, DeSoto, plus surrounding	South
	Comprehensive Stroke Center	Shelby, DeSoto, plus surrounding	University
	Stroke Support Groups	Shelby, DeSoto, plus surrounding	South, North, Germantown
	Diabetes Self-Management in Primary Care	Shelby, DeSoto, plus surrounding	All Adult Hospitals

The table above shows a comprehensive view of initiatives included across all MLH hospital facility implementation plans. All hospital facilities are working together to address the health needs of the community.

Community Health Improvement Plan
Methodist Le Bonheur Germantown Hospital

Methodist Le Bonheur Healthcare (MLH) is an integrated, not-for-profit healthcare delivery system based in Memphis, Tennessee, with 1,650 total licensed beds. Our hospital system includes home health services, outpatient surgery centers, minor medical centers, diagnostic centers, sleep centers and a hospice residence that serve the entire Mid-South. Areas of expertise include The Brain and Spine Institute, The Transplant Institute, The Cancer Center, The Cardiovascular Institute and pediatrics at Le Bonheur Children's Hospital. MLH has been affiliated with The United Methodist Church since 1918, and combines a dedication to clinical excellence with a faith-based commitment to care.

At MLH, community health goes beyond providing treatment to those within the walls of the hospital. MLH takes pride in providing quality healthcare to all, regardless of ability to pay. Methodist also recognizes the importance of addressing the needs of those within the community in a more holistic manner. The 2016 Community Health Needs Assessment was used to identify health needs around which the system can galvanize efforts to impact the quality of life for all in the community:

- **Maternal, Infant, & Child Health**
- **Access to Health Services**
- **Cancer**
- **Cardiovascular Disease & Stroke**

This Implementation Plan is designed to be system-minded and focused on addressing the above community health needs. It assumes all hospital facilities will work together in addressing needs, and does not include an exhaustive list of current community health initiatives. The “signature initiatives” addressed within this plan are specific programs of focus which will be used to measure progress of how this system is working to address the needs of the community. All initiatives included are underway as of 2017.

This plan in particular focuses on **Methodist Le Bonheur Germantown Hospital** (MGH). MGH is a nationally recognized, 309-bed, full service hospital located in a community setting. Also located on campus is the Women’s and Children’s Pavilion, a Maternity Center with a Level 3 NICU, a comprehensive cardiology program, critical care services, an orthopedic surgery program, an outpatient diagnostic imaging center and a 24 hour emergency department staffed and equipped to meet the healthcare needs of both children and adults.

Identified Health Need: Maternal, Infant, & Child Health

Goal: Address the needs of at-risk children through sustainable systemic change within the community

For more than 40 years, Le Bonheur Children's Hospital has gone beyond our hospital's walls to address the barriers that prevent children from thriving. Our community is home to the poorest metropolitan service area (population greater than 1 million) in the country. Forty-seven percent of children live in a household with income below the federal poverty level and half of these children live at extreme poverty levels. Poverty creates unsettling health disparities among the children we serve. To reach these children, Le Bonheur is actively present in the community, helping children and families in their environments – schools, community centers, clinics, child care facilities and homes. Annually we serve more than 250,000 children.

Strategy 2: Promote sound child development and support for effective parenting

We plan to accomplish the following:

- Provision of early intervention services with children with complex and chronic medical and developmental conditions
- Provide evidence-based early home visitation services to increase healthy births and build social, emotional, and cognitive skills

Signature Initiatives:

Childbirth Classes

MLH offers classes to prepare the entire family—from parents and grandparents to siblings. Class topics include: childbirth, breastfeeding, infant safety and CPR, new fathers, grandparents, siblings, gestational diabetes, and more.

Serving residents of: Shelby County, TN and Desoto County, MS, plus other surrounding counties

Hospital(s) involved: Methodist South Hospital, Methodist Le Bonheur Germantown

How we'll measure success: The success of this program will primarily be based on the number of those educated on childbirth and related topics.

Identified Need: Access to Health Services
Goal: Improve access to health care and health-promoting services

Access to comprehensive, quality health services is a crucial component in ensuring an increased quality of life and health equity for all.

Strategy 1: Increase access to primary and behavioral health care for underserved populations

We plan to do the following:

- Establish patient-centered pathways among community-based providers through formal partnerships, alignment and mutual accountability

Signature Initiatives:

Partnerships with Community Clinics

MLH will partner with community clinics to improve access to primary care services.

Serving residents of: Shelby County, TN and Desoto County, MS, plus other surrounding counties

Hospital facilities involved: Methodist University Hospital, Methodist South Hospital, Methodist North Hospital, Methodist Le Bonheur Germantown, Methodist Olive Branch Hospital, Le Bonheur Children's Hospital

How we'll measure success: The goal of the partnership is to establish patient-centered pathways for underserved populations among community-based providers through formal partnerships, alignment, and mutual accountability by 2019. Success for this program will be demonstrated by increased primary care visits, particularly for underserved populations.

The Living Well Network

Through a collaborative relationship with the Dennis H. Jones Living Well Network, several Methodist Medical Group providers now provide depression screenings to patients during their annual exams, resulting in referrals to the Living Well Network where appropriate.

Serving residents of: Shelby County, TN and Desoto County, MS, plus other surrounding counties

Hospital facilities involved: Methodist University Hospital, Methodist South Hospital, Methodist North Hospital, Methodist Le Bonheur Germantown, Methodist Olive Branch Hospital

New Action Step: Services are expected to be expanded to additional primary care practices and possibly emergency departments.

How we'll measure success: A goal for this initiative is to increase screening for behavioral health issues in a setting where the patient is most comfortable and can connect those in need with the necessary resources. Success is currently based on the number of referrals from primary care providers to the Living Well Network, the number of behavioral health resources provided, and hours of phone support.

Strategy 2: Leverage existing trust within community congregations to improve community health

We plan to accomplish the following:

- Strengthen linkages between congregations, the healthcare system, and primary care to improve health outreach, screenings, and referrals

Signature Initiatives:

Congregational Health Network (CHN)

The CHN is a collaborative, multi-faith partnership between MLH and more than 600 Mid-South congregations. This partnership focuses on providing legal services, education, and advocacy for children and their families. Members of CHN congregations have access to support on issues such as preventive medicine and follow up care. The CHN works with congregations to educate and provide a supportive network to help patients navigate the healthcare system. The CHN is also heavily involved in cancer screenings and navigation, as well as cardiovascular-related initiatives.

Serving residents of: Shelby County, TN and Desoto County, MS, plus other surrounding counties

Hospital(s) involved: Methodist University Hospital, Methodist South Hospital, Methodist North Hospital, Methodist Le Bonheur Germantown, Methodist Olive Branch Hospital, Le Bonheur Children's Hospital

New Action Step: CHN will provide more resources addressing primary care, cancer and cardiovascular disease. CHN has developed new partnerships to expand access in North Mississippi.

How we'll measure success: With an overall goal of increasing access to screenings for high-risk populations, and through the use of such initiatives as community wellness events and education courses, the CHN's success will be marked by attaining 70% PCP alignment/referral and by the number of individuals trained.

Strategy 3: Provide services and social supports to empower patients to make appropriate and efficient care decisions

We plan to accomplish the following:

- Expand access to social and health services through a comprehensive, place-based model
- Enhance person-centered navigation models targeted to sub-populations

Signature Initiatives:

Consistent Site-Based Outreach (Wellness Without Walls)

Wellness Without Walls is a regular "health clinical event" scheduled every other month on various Wednesdays in the Riverview Kansas Community Center and other locations. It is designed to perform basic screening tests, flu shots and connect the community to needed health and social resources, while also serving as a consistent touch point with the rising risk population.

Serving residents of: Shelby County, TN and Desoto County, MS, plus other surrounding counties

Hospital(s) involved: Methodist University Hospital, Methodist South Hospital, Methodist North Hospital, Methodist Le Bonheur Germantown, Methodist Olive Branch Hospital

New Action Step: This program is exploring the possibility of expanding to additional neighborhoods.

How we'll measure success: The goal of the program is to serve as a consistent touch point with the rising risk population, provide screenings and health education, and connect the community

with needed health services. Success will be measured by an increase in education, screenings, and resources provided.

Primary Care Navigation

Primary Care Navigation seeks to route patients from higher acuity settings to primary care. By aligning community care and coordination and including our safety net partners, MLH provides more efficient care for our underserved population.

Serving residents of: Shelby County, TN and Desoto County, MS, plus other surrounding counties

Hospital(s) involved: Methodist University Hospital, Methodist South Hospital, Methodist North Hospital, Methodist Le Bonheur Germantown, Methodist Olive Branch Hospital

New Action Step: The program will strengthen partnerships with safety net providers.

How we'll measure success: The goal of the program is to navigate patients to the most appropriate point of care, with a particular focus on increasing primary care visits. Success will be measured, in part, by increasing primary care visits and decreasing hospital and emergency department readmissions.

Intensivist Navigation **(Familiar Faces, in partnership with community clinics)**

The Familiar Faces program provides additional, non-clinical support frequent users of MLH emergency departments and tests the impact of navigator intervention on improving health behaviors and appropriate healthcare utilization among members of each cohort.

Serving residents of: Shelby County, TN and Desoto County, MS, plus other surrounding counties

Hospital(s) involved: Methodist University Hospital, Methodist South Hospital, Methodist North Hospital, Methodist Le Bonheur Germantown, Methodist Olive Branch Hospital

New Action Step: The program will continue to expand to include additional at-risk patients.

How we'll measure success: The goal of the program is to redirect patients to the most appropriate point of care thereby reducing ED encounters, IP readmissions and, as needed, increasing primary and specialty care physician visits.

Population Navigation

This project will test MLH's approach to community health within the Hispanic and Latino community. The population of Hispanic and Latino Memphis residents continues to grow and maintains many disparities including high levels of poverty, unemployment and lack of health insurance. Through analysis of the population's use of MLH hospitals over six years, significant opportunities were identified to make lifestyle changes, including improving health literacy, appropriate utilization of health resources, and health outcomes. MLH's two bilingual Navigators will use the successful 38109 initiative as a blueprint to engage the target community and then implement tailored, culturally-sensitive programs to address their unique needs.

Serving residents of: Shelby County, TN and Desoto County, MS, plus other surrounding counties

Hospital(s) involved: Methodist University Hospital, Methodist South Hospital, Methodist North Hospital, Methodist Le Bonheur Germantown, Methodist Olive Branch Hospital

How we'll measure success: The primary goal of the program is to improve access to healthcare resources in order to impact the overall health and well-being of the Hispanic and Latino community members residing in 38122 (22% of total Hispanic and Latino population), 38108 (20.7% of total population), 38115 (9.8% of total population), and 38133 (12.6% of total population) through innovative, ground-level, community engagement and navigation programming. A combination of encounter, length of stay, and readmissions will be used to evaluate program success.

Community Outreach—Health Fair

MGH frequently partners with local communities to provide health screenings, education, and other resources to community members.

Serving residents of: Shelby County, TN and Desoto County, MS, plus other surrounding counties

Hospital(s) involved: (Hospital facility-specific)

New Action Step: Health fairs will be more focused on maternal, child, and infant health; access to health services; cancer; and cardiovascular disease.

How we'll measure success: Success will be measured by an increase in education, screenings, and resources provided.

Identified Needs: Cancer, Cardiovascular Disease & Stroke
Goal: Address effects of two high-priority diseases

In a community with high cancer incidence and one of the largest gaps in mortality in the nation, focused action is necessary to address this ever-growing issue. High prevalence of associated risk factors, high blood pressure, diabetes, and obesity, is contributing to too many heart disease and stroke deaths in our community.

Strategy 1: Reduce impact of adult cancer

We plan to accomplish the following:

- Improve access to screening and treatment by addressing barriers that contribute to racial disparity in cancer outcomes

Signature Initiatives:

Cancer Navigation

One of the Mid-South's most notable disparities is the tremendous gap in breast cancer survival between white and black women. In the midst of these community challenges, MLH, through the CHN and in partnership with the West Cancer Center, is faced with the daunting task of equipping the community with the necessary resources to alleviate the barriers that produce the alarming disparities in cancer outcomes. Through navigation, and with an emphasis on providing women a central point of contact for their breast health, the breast cancer navigation team continues to fine-tune and expand their model of care delivery to ensure patients receive seamless care despite the complex system.

Serving residents of: Shelby County, TN and Desoto County, MS, plus other surrounding counties

Hospital(s) involved: Methodist University Hospital, Methodist South Hospital, Methodist North Hospital, Methodist Le Bonheur Germantown, Methodist Olive Branch Hospital

New Action Step: CHN and West Cancer Center will continue to expand the scope beyond breast cancer to other types of cancer, such as cervical, colorectal, and lung.

How we'll measure success: The goal of this initiative is to distribute appropriate information and access regarding early detection and screening, provide screenings, and to navigate patients through the healthcare system.

Cancer Program Specialist

MLH hired its first-ever Cancer Program Specialist to bolster its commitment to reduce cancer disparities. The Cancer Program Specialist will focus on four primary cancers: Lung Cancer, HPV/Cervical Cancer, Colon and Prostate Cancer, and Breast Cancer. The specialist will seek to support consistency, quality, and innovation within every aspect of the program, including educational classes, collaboration with West Cancer Center, the Congregational Health Network and other community-based efforts.

Serving residents of: Shelby County, TN and Desoto County, MS, plus other surrounding counties

Hospital(s) involved: Methodist University Hospital, Methodist South Hospital, Methodist North Hospital, Methodist Le Bonheur Germantown, Methodist Olive Branch Hospital

How we'll measure success: The goal of the specialist is to increase information and understanding, dispel fear and to increase access to available resources.

Mobile Mammography

Methodist Mobile Mammography features the latest breast screening technology in the convenience of a mobile unit. The Mobile Mammography Bus is a resource that supports MLH's collaborative efforts with the Congregational Health Network and West Cancer Center to navigate more women to breast health screenings in order to reduce the breast cancer mortality rate in Memphis through earlier detection and prompt follow up care.

Serving residents of: Shelby County, TN and Desoto County, MS, plus other surrounding counties

Hospital(s) involved: Methodist University Hospital, Methodist South Hospital, Methodist North Hospital, Methodist Le Bonheur Germantown, Methodist Olive Branch Hospital

New Action Step: CHN has partnered to expand access in North Mississippi.

How we'll measure success: Success will primarily be measured by the number of screenings provided.

Strategy 2: Reduce impact of cardiovascular disease

We plan to do the following:

- Advance self-management knowledge and skills for individuals with uncontrolled diabetes to improve cardiovascular outcomes

Signature Initiatives:

Diabetes Education Classes

Based on the recommendations from the American Diabetes Association, classes are offered in which patients meet with a certified diabetes educator to determine educational goals and the teaching plan. Patients are actively involved in the shared decision making process. Classes cover topics including diabetes overview, nutrition planning and management, physical activity, emotions and stress management, medication therapies, risk reduction and problem solving. A Gestational Diabetes Class is also available, in which expectant mothers receive a management plan that focuses on nutrition and maintenance of normal blood glucose levels.

Serving residents of: Shelby County, TN and Desoto County, MS, plus other surrounding counties

Hospital(s) involved: Methodist South Hospital, Methodist Le Bonheur Germantown

How we'll measure success: The success of this program will primarily be based on the number of those educated on diabetes management and maintenance.

Stroke Support Groups

Stroke Support Groups meet three times each month at different locations around the city. These meetings provide education and support to caregivers and stroke survivors.

Serving residents of: Shelby County, TN and Desoto County, MS, plus other surrounding counties

Hospital(s) involved: Methodist South Hospital, Methodist North Hospital, Methodist Le Bonheur Germantown

How we'll measure success: The goal of the program is the increase education and support to caregivers and stroke survivors.

Diabetes Self-Management in Primary Care (in partnership with UTHSC)

With efforts in nine primary care clinics throughout several rural and urban Mid-South communities, the goal of this initiative is to bolster primary care's ability to support diabetes care of African-American adults with uncontrolled diabetes. We recognize the difficulties individuals face with uncontrolled diabetes and their additional co-morbid chronic diseases. There is limited access to primary care, and this research study seeks to identify which self-care improvement methods (motivational messaging, diabetes wellness coaching, and usual care with diabetes educational materials) proves most effective for underserved patient populations.

Serving residents of: Shelby County, TN and Desoto County, MS, plus other surrounding counties

Hospital(s) involved: Methodist University Hospital, Methodist South Hospital, Methodist North Hospital, Methodist Le Bonheur Germantown, and Methodist Olive Branch Hospital

How we'll measure success: This initiative will target 1,000 people within the next few years. Over the course of this time, success will be demonstrated through improvements in A1C levels, blood sugar levels, as well as improved survey results in quality of life, diabetes self-care decisions, and improved feelings around primary care.

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	Nurse Family Partnership	Shelby, possibly expanding to DeSoto	Le Bonheur
	Childbirth Classes	Shelby, DeSoto, plus surrounding	South, Germantown
	Memphis CHiLD Medical Legal Partnership	Shelby, plus surrounding	Le Bonheur
	Trauma Outreach Education	Shelby, plus surrounding West TN counties	Le Bonheur
Access to Health Services	Partnerships with Community Clinics	Shelby, DeSoto, plus surrounding	All Hospitals
	The Living Well Network	Shelby, DeSoto, plus surrounding	All Adult Hospitals
	Congregational Health Network	Shelby, DeSoto, plus surrounding	All Hospitals
	Consistent Site-Based Outreach	Shelby, DeSoto, plus surrounding	All Adult Hospitals
	Primary Care Navigation	Shelby, DeSoto, plus surrounding	All Adult Hospitals
	Intensivist Navigation	Shelby, DeSoto, plus surrounding	All Adult Hospitals
	Population Navigation	Shelby, DeSoto, plus surrounding	All Adult Hospitals
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	Cancer Program Specialist	Shelby, DeSoto, plus surrounding	All Adult Hospitals
	Mobile Mammography	Shelby, DeSoto, plus surrounding	All Adult Hospitals
Cardiovascular Disease & Stroke	CHN DEEP Diabetes Education	Shelby, DeSoto, plus surrounding	South, North
	Diabetes Education Classes	Shelby, DeSoto, plus surrounding	South, Germantown
	Diabetes Wellness & Prevention Center	Shelby, DeSoto, plus surrounding	South
	Comprehensive Stroke Center	Shelby, DeSoto, plus surrounding	University
	Stroke Support Groups	Shelby, DeSoto, plus surrounding	South, North, Germantown
	Diabetes Self-Management in Primary Care	Shelby, DeSoto, plus surrounding	All Adult Hospitals

The table above shows a comprehensive view of initiatives included across all MLH hospital facility implementation plans. All hospital facilities are working together to address the health needs of the community.

Community Health Improvement Plan
Methodist North Hospital

Methodist Le Bonheur Healthcare (MLH) is an integrated, not-for-profit healthcare delivery system based in Memphis, Tennessee, with 1,650 total licensed beds. Our hospital system includes home health services, outpatient surgery centers, minor medical centers, diagnostic centers, sleep centers and a hospice residence that serve the entire Mid-South. Areas of expertise include The Brain and Spine Institute, The Transplant Institute, The Cancer Center, The Cardiovascular Institute and pediatrics at Le Bonheur Children's Hospital. MLH has been affiliated with The United Methodist Church since 1918, and combines a dedication to clinical excellence with a faith-based commitment to care.

At MLH, community health goes beyond providing treatment to those within the walls of the hospital. MLH takes pride in providing quality healthcare to all, regardless of ability to pay. Methodist also recognizes the importance of addressing the needs of those within the community in a more holistic manner. The 2016 Community Health Needs Assessment was used to identify health needs around which the system can galvanize efforts to impact the quality of life for all in the community:

- **Maternal, Infant, & Child Health**
- **Access to Health Services**
- **Cancer**
- **Cardiovascular Disease & Stroke**

This Implementation Plan is designed to be system-minded and focused on addressing the above community health needs. It assumes all hospital facilities will work together in addressing needs, and does not include an exhaustive list of current community health initiatives. The “signature initiatives” addressed within this plan are specific programs of focus which will be used to measure progress of how this system is working to address the needs of the community. All initiatives included are underway as of 2017.

This plan in particular focuses on **Methodist North Hospital** (MNH). MNH is a 246-bed community hospital committed to providing personalized, compassionate and high-quality care to patients and families. Located in northeast Shelby County, MNH serves the residents of Raleigh/Bartlett, Frayser, Millington and Tipton County by offering a Certified chest pain center, a certified stroke center, and the provision of comprehensive cardiac care.

Identified Need: Access to Health Services
Goal: Improve access to health care and health-promoting services

Access to comprehensive, quality health services is a crucial component in ensuring an increased quality of life and health equity for all.

Strategy 1: Increase access to primary and behavioral health care for underserved populations

We plan to do the following:

- Establish patient-centered pathways among community-based providers through formal partnerships, alignment and mutual accountability

Signature Initiatives:

Partnerships with Community Clinics

MLH will partner with community clinics to improve access to primary care services.

Serving residents of: Shelby County, TN and Desoto County, MS, plus other surrounding counties

Hospital facilities involved: Methodist University Hospital, Methodist South Hospital, Methodist North Hospital, Methodist Le Bonheur Germantown, Methodist Olive Branch Hospital, Le Bonheur Children's Hospital

How we'll measure success: The goal of the partnership is to establish patient-centered pathways for underserved populations among community-based providers through formal partnerships, alignment, and mutual accountability by 2019. Success for this program will be demonstrated by increased primary care visits, particularly for underserved populations.

The Living Well Network

Through a collaborative relationship with the Dennis H. Jones Living Well Network, several Methodist Medical Group providers now provide depression screenings to patients during their annual exams, resulting in referrals to the Living Well Network where appropriate.

Serving residents of: Shelby County, TN and Desoto County, MS, plus other surrounding counties

Hospital facilities involved: Methodist University Hospital, Methodist South Hospital, Methodist North Hospital, Methodist Le Bonheur Germantown, Methodist Olive Branch Hospital

New Action Step: Services are expected to be expanded to additional primary care practices and possibly emergency departments.

How we'll measure success: A goal for this initiative is to increase screening for behavioral health issues in a setting where the patient is most comfortable and can connect those in need with the necessary resources. Success is currently based on the number of referrals from primary care providers to the Living Well Network, the number of behavioral health resources provided, and hours of phone support.

Strategy 2: Leverage existing trust within community congregations to improve community health

We plan to accomplish the following:

- Strengthen linkages between congregations, the healthcare system, and primary care to improve health outreach, screenings, and referrals

Signature Initiatives:

Congregational Health Network (CHN)

The CHN is a collaborative, multi-faith partnership between MLH and more than 600 Mid-South congregations. This partnership focuses on providing legal services, education, and advocacy for children and their families. Members of CHN congregations have access to support on issues such as preventive medicine and follow up care. The CHN works with congregations to educate and provide a supportive network to help patients navigate the healthcare system. The CHN is also heavily involved in cancer screenings and navigation, as well as cardiovascular-related initiatives.

Serving residents of: Shelby County, TN and Desoto County, MS, plus other surrounding counties

Hospital(s) involved: Methodist University Hospital, Methodist South Hospital, Methodist North Hospital, Methodist Le Bonheur Germantown, Methodist Olive Branch Hospital, Le Bonheur Children's Hospital

New Action Step: CHN will provide more resources addressing primary care, cancer and cardiovascular disease. CHN has developed new partnerships to expand access in North Mississippi.

How we'll measure success: With an overall goal of increasing access to screenings for high-risk populations, and through the use of such initiatives as community wellness events and education courses, the CHN's success will be marked by attaining 70% PCP alignment/referral and by the number of individuals trained.

Strategy 3: Provide services and social supports to empower patients to make appropriate and efficient care decisions

We plan to accomplish the following:

- Expand access to social and health services through a comprehensive, place-based model
- Enhance person-centered navigation models targeted to sub-populations

Signature Initiatives:

Consistent Site-Based Outreach (Wellness Without Walls)

Wellness Without Walls is a regular "health clinical event" scheduled every other month on various Wednesdays in the Riverview Kansas Community Center and other locations. It is designed to perform basic screening tests, flu shots and connect the community to needed health and social resources, while also serving as a consistent touch point with the rising risk population.

Serving residents of: Shelby County, TN and Desoto County, MS, plus other surrounding counties

Hospital(s) involved: Methodist University Hospital, Methodist South Hospital, Methodist North Hospital, Methodist Le Bonheur Germantown, Methodist Olive Branch Hospital

New Action Step: This program is exploring the possibility of expanding to additional neighborhoods.

How we'll measure success: The goal of the program is to serve as a consistent touch point with the rising risk population, provide screenings and health education, and connect the community

with needed health services. Success will be measured by an increase in education, screenings, and resources provided.

Primary Care Navigation

Primary Care Navigation seeks to route patients from higher acuity settings to primary care. By aligning community care and coordination and including our safety net partners, MLH provides more efficient care for our underserved population.

Serving residents of: Shelby County, TN and Desoto County, MS, plus other surrounding counties

Hospital(s) involved: Methodist University Hospital, Methodist South Hospital, Methodist North Hospital, Methodist Le Bonheur Germantown, Methodist Olive Branch Hospital

New Action Step: The program will strengthen partnerships with safety net providers.

How we'll measure success: The goal of the program is to navigate patients to the most appropriate point of care, with a particular focus on increasing primary care visits. Success will be measured, in part, by increasing primary care visits and decreasing hospital and emergency department readmissions.

Intensivist Navigation **(Familiar Faces, in partnership with community clinics)**

The Familiar Faces program provides additional, non-clinical support frequent users of MLH emergency departments and tests the impact of navigator intervention on improving health behaviors and appropriate healthcare utilization among members of each cohort.

Serving residents of: Shelby County, TN and Desoto County, MS, plus other surrounding counties

Hospital(s) involved: Methodist University Hospital, Methodist South Hospital, Methodist North Hospital, Methodist Le Bonheur Germantown, Methodist Olive Branch Hospital

New Action Step: The program will continue to expand to include additional at-risk patients.

How we'll measure success: The goal of the program is to redirect patients to the most appropriate point of care thereby reducing ED encounters, IP readmissions and, as needed, increasing primary and specialty care physician visits.

Population Navigation

This project will test MLH's approach to community health within the Hispanic and Latino community. The population of Hispanic and Latino Memphis residents continues to grow and maintains many disparities including high levels of poverty, unemployment and lack of health insurance. Through analysis of the population's use of MLH hospitals over six years, significant opportunities were identified to make lifestyle changes, including improving health literacy, appropriate utilization of health resources, and health outcomes. MLH's two bilingual Navigators will use the successful 38109 initiative as a blueprint to engage the target community and then implement tailored, culturally-sensitive programs to address their unique needs.

Serving residents of: Shelby County, TN and Desoto County, MS, plus other surrounding counties

Hospital(s) involved: Methodist University Hospital, Methodist South Hospital, Methodist North Hospital, Methodist Le Bonheur Germantown, Methodist Olive Branch Hospital

How we'll measure success: The primary goal of the program is to improve access to healthcare resources in order to impact the overall health and well-being of the Hispanic and Latino community members residing in 38122 (22% of total Hispanic and Latino population), 38108 (20.7% of total population), 38115 (9.8% of total population), and 38133 (12.6% of total population) through innovative, ground-level, community engagement and navigation programming. A combination of encounter, length of stay, and readmissions will be used to evaluate program success.

Community Outreach—Health Fair

MNH frequently partners with local communities to provide health screenings, education, and other resources to community members.

Serving residents of: Shelby County, TN and Desoto County, MS, plus other surrounding counties

Hospital(s) involved: (Hospital facility-specific)

New Action Step: Health fairs will be more focused on access to health services, cancer, and cardiovascular disease.

How we'll measure success: Success will be measured by an increase in education, screenings, and resources provided.

Identified Needs: Cancer, Cardiovascular Disease & Stroke
Goal: Address effects of two high-priority diseases

In a community with high cancer incidence and one of the largest gaps in mortality in the nation, focused action is necessary to address this ever-growing issue. High prevalence of associated risk factors, high blood pressure, diabetes, and obesity, is contributing to too many heart disease and stroke deaths in our community.

Strategy 1: Reduce impact of adult cancer

We plan to accomplish the following:

- Improve access to screening and treatment by addressing barriers that contribute to racial disparity in cancer outcomes

Signature Initiatives:

Cancer Navigation

One of the Mid-South's most notable disparities is the tremendous gap in breast cancer survival between white and black women. In the midst of these community challenges, MLH, through the CHN and in partnership with the West Cancer Center, is faced with the daunting task of equipping the community with the necessary resources to alleviate the barriers that produce the alarming disparities in cancer outcomes. Through navigation, and with an emphasis on providing women a central point of contact for their breast health, the breast cancer navigation team continues to fine-tune and expand their model of care delivery to ensure patients receive seamless care despite the complex system.

Serving residents of: Shelby County, TN and Desoto County, MS, plus other surrounding counties

Hospital(s) involved: Methodist University Hospital, Methodist South Hospital, Methodist North Hospital, Methodist Le Bonheur Germantown, Methodist Olive Branch Hospital

New Action Step: CHN and West Cancer Center will continue to expand the scope beyond breast cancer to other types of cancer, such as cervical, colorectal, and lung.

How we'll measure success: The goal of this initiative is to distribute appropriate information and access regarding early detection and screening, provide screenings, and to navigate patients through the healthcare system.

Cancer Program Specialist

MLH hired its first-ever Cancer Program Specialist to bolster its commitment to reduce cancer disparities. The Cancer Program Specialist will focus on four primary cancers: Lung Cancer, HPV/Cervical Cancer, Colon and Prostate Cancer, and Breast Cancer. The specialist will seek to support consistency, quality, and innovation within every aspect of the program, including educational classes, collaboration with West Cancer Center, the Congregational Health Network and other community-based efforts.

Serving residents of: Shelby County, TN and Desoto County, MS, plus other surrounding counties

Hospital(s) involved: Methodist University Hospital, Methodist South Hospital, Methodist North Hospital, Methodist Le Bonheur Germantown, Methodist Olive Branch Hospital

How we'll measure success: The goal of the specialist is to increase information and understanding, dispel fear and to increase access to available resources.

Mobile Mammography

Methodist Mobile Mammography features the latest breast screening technology in the convenience of a mobile unit. The Mobile Mammography Bus is a resource that supports MLH's collaborative efforts with the Congregational Health Network and West Cancer Center to navigate more women to breast health screenings in order to reduce the breast cancer mortality rate in Memphis through earlier detection and prompt follow up care.

Serving residents of: Shelby County, TN and Desoto County, MS, plus other surrounding counties

Hospital(s) involved: Methodist University Hospital, Methodist South Hospital, Methodist North Hospital, Methodist Le Bonheur Germantown, Methodist Olive Branch Hospital

New Action Step: CHN has partnered to expand access in North Mississippi.

How we'll measure success: Success will primarily be measured by the number of screenings provided.

Strategy 2: Reduce impact of cardiovascular disease

We plan to do the following:

- Advance self-management knowledge and skills for individuals with uncontrolled diabetes to improve cardiovascular outcomes

Signature Initiatives:

Congregational Chronic Disease Support Model: CHN DEEP Diabetes Education & Empowerment Program

The CHN provides regular education on diabetes management and maintenance within the walls of the hospital.

Serving residents of: Shelby County, TN and Desoto County, MS, plus other surrounding counties

Hospital(s) involved: Methodist South Hospital, Methodist North Hospital

How we'll measure success: The following objectives will guide project strategies to improve population health and patient engagement among a projected 100 high risk diabetes DEEP participants (number based on participants completing DEEP course; overall reach of program may be higher through congregation and community-based outreach and education through the Congregational Health Network):

- Patient Participation: Increase patient participation in active self-management of diabetes by 30%. Through expansion of the DEEP course to two additional sites, participant attendance and completion will increase by 30%.
- Medication Safety: Increase medication safety among participants by 40%. Forty percent of course participants will report a higher level of competence in self-medication management as a result of participation in the DEEP course, to include the ability to access immediate medications that support diabetes management.
- Length of Stay: Reduce LOS among high utilizer diabetic patients by 10%.
- Readmission Rates: Reduce readmission rates among high utilizer diabetic patients by 10% over course of grant cycle.
- To increase patient participation in self-management of diabetes, the proposed project will provide hands-on, practical education for high-risk diabetes patients, including culturally-responsive instruction in Spanish for the large population of

Spanish-speaking patients at Methodist North. All participants will receive ongoing support, navigation, and access to resources via CHN navigators and the Methodist Diabetes Wellness and Prevention Center, ensuring that high-risk, low-income, and/or uninsured patients have access to education, medication management, and ongoing care.

Stroke Support Groups

Stroke Support Groups meet three times each month at different locations around the city. These meetings provide education and support to caregivers and stroke survivors.

Serving residents of: Shelby County, TN and Desoto County, MS, plus other surrounding counties

Hospital(s) involved: Methodist South Hospital, Methodist North Hospital, Methodist Le Bonheur Germantown

How we'll measure success: The goal of the program is the increase education and support to caregivers and stroke survivors.

Diabetes Self-Management in Primary Care (in partnership with UTHSC)

With efforts in nine primary care clinics throughout several rural and urban Mid-South communities, the goal of this initiative is to bolster primary care's ability to support diabetes care of African-American adults with uncontrolled diabetes. We recognize the difficulties individuals face with uncontrolled diabetes and their additional co-morbid chronic diseases. There is limited access to primary care, and this research study seeks to identify which self-care improvement methods (motivational messaging, diabetes wellness coaching, and usual care with diabetes educational materials) proves most effective for underserved patient populations.

Serving residents of: Shelby County, TN and Desoto County, MS, plus other surrounding counties

Hospital(s) involved: Methodist University Hospital, Methodist South Hospital, Methodist North Hospital, Methodist Le Bonheur Germantown, and Methodist Olive Branch Hospital

How we'll measure success: This initiative will target 1,000 people within the next few years. Over the course of this time, success will be demonstrated through improvements in A1C levels, blood sugar levels, as well as improved survey results in quality of life, diabetes self-care decisions, and improved feelings around primary care.

Appendix 1: MLH Summary Table of System Implementation Plan

Need	Initiative	Counties Served	Hospitals Involved
Maternal, Infant, & Child Health	Changing High-Risk Asthma in Memphis	Shelby	Le Bonheur
	Be Proud! Be Responsible!	Shelby	Le Bonheur
	Community Developmental Services	Shelby, plus surrounding TN counties	Le Bonheur
	Nurse Family Partnership	Shelby, possibly expanding to DeSoto	Le Bonheur
	Childbirth Classes	Shelby, DeSoto, plus surrounding	South, Germantown
	Memphis CHiLD Medical Legal Partnership	Shelby, plus surrounding	Le Bonheur
	Trauma Outreach Education	Shelby, plus surrounding West TN counties	Le Bonheur
Access to Health Services	Partnerships with Community Clinics	Shelby, DeSoto, plus surrounding	All Hospitals
	The Living Well Network	Shelby, DeSoto, plus surrounding	All Adult Hospitals
	Congregational Health Network	Shelby, DeSoto, plus surrounding	All Hospitals
	Consistent Site-Based Outreach	Shelby, DeSoto, plus surrounding	All Adult Hospitals
	Primary Care Navigation	Shelby, DeSoto, plus surrounding	All Adult Hospitals
	Intensivist Navigation	Shelby, DeSoto, plus surrounding	All Adult Hospitals
	Population Navigation	Shelby, DeSoto, plus surrounding	All Adult Hospitals
	Sickle Cell Partnership	Shelby, DeSoto, plus surrounding	University
	Community Outreach – Health Fair	Shelby, DeSoto, plus surrounding	Hospital-specific
Cancer	Cancer Navigation	Shelby, DeSoto, plus surrounding	All Adult Hospitals
	Cancer Program Specialist	Shelby, DeSoto, plus surrounding	All Adult Hospitals
	Mobile Mammography	Shelby, DeSoto, plus surrounding	All Adult Hospitals
Cardiovascular Disease & Stroke	CHN DEEP Diabetes Education	Shelby, DeSoto, plus surrounding	South, North
	Diabetes Education Classes	Shelby, DeSoto, plus surrounding	South, Germantown
	Diabetes Wellness & Prevention Center	Shelby, DeSoto, plus surrounding	South
	Comprehensive Stroke Center	Shelby, DeSoto, plus surrounding	University
	Stroke Support Groups	Shelby, DeSoto, plus surrounding	South, North, Germantown
	Diabetes Self-Management in Primary Care	Shelby, DeSoto, plus surrounding	All Adult Hospitals

The table above shows a comprehensive view of initiatives included across all MLH hospital facility implementation plans. All hospital facilities are working together to address the health needs of the community.

Community Health Improvement Plan
Methodist Olive Branch Hospital

Methodist Le Bonheur Healthcare (MLH) is an integrated, not-for-profit healthcare delivery system based in Memphis, Tennessee, with 1,650 total licensed beds. Our hospital system includes home health services, outpatient surgery centers, minor medical centers, diagnostic centers, sleep centers and a hospice residence that serve the entire Mid-South. Areas of expertise include The Brain and Spine Institute, The Transplant Institute, The Cancer Center, The Cardiovascular Institute and pediatrics at Le Bonheur Children's Hospital. MLH has been affiliated with The United Methodist Church since 1918, and combines a dedication to clinical excellence with a faith-based commitment to care.

At MLH, community health goes beyond providing treatment to those within the walls of the hospital. MLH takes pride in providing quality healthcare to all, regardless of ability to pay. Methodist also recognizes the importance of addressing the needs of those within the community in a more holistic manner. The 2016 Community Health Needs Assessment was used to identify health needs around which the system can galvanize efforts to impact the quality of life for all in the community:

- **Maternal, Infant, & Child Health**
- **Access to Health Services**
- **Cancer**
- **Cardiovascular Disease & Stroke**

This Implementation Plan is designed to be system-minded and focused on addressing the above community health needs. It assumes all hospital facilities will work together in addressing needs, and does not include an exhaustive list of current community health initiatives. The “signature initiatives” addressed within this plan are specific programs of focus which will be used to measure progress of how this system is working to address the needs of the community. All initiatives included are underway as of 2017.

This plan in particular focuses on **Methodist Olive Branch Hospital** (MOBH). MOBH is the newest hospital in the Methodist system, designed to improve access in North Mississippi by bringing advanced technology and quality services into the Olive Branch community. Services offered within MOBH include cardiology, nephrology, maternity, and oncology. The 67-bed hospital opened in 2013 and features an innovative, environmentally friendly design.

Identified Need: Access to Health Services
Goal: Improve access to health care and health-promoting services

Access to comprehensive, quality health services is a crucial component in ensuring an increased quality of life and health equity for all.

Strategy 1: Increase access to primary and behavioral health care for underserved populations

We plan to do the following:

- Establish patient-centered pathways among community-based providers through formal partnerships, alignment and mutual accountability

Signature Initiatives:

Partnerships with Community Clinics

MLH will partner with community clinics to improve access to primary care services.

Serving residents of: Shelby County, TN and Desoto County, MS, plus other surrounding counties

Hospital facilities involved: Methodist University Hospital, Methodist South Hospital, Methodist North Hospital, Methodist Le Bonheur Germantown, Methodist Olive Branch Hospital, Le Bonheur Children's Hospital

How we'll measure success: The goal of the partnership is to establish patient-centered pathways for underserved populations among community-based providers through formal partnerships, alignment, and mutual accountability by 2019. Success for this program will be demonstrated by increased primary care visits, particularly for underserved populations.

The Living Well Network

Through a collaborative relationship with the Dennis H. Jones Living Well Network, several Methodist Medical Group providers now provide depression screenings to patients during their annual exams, resulting in referrals to the Living Well Network where appropriate.

Serving residents of: Shelby County, TN and Desoto County, MS, plus other surrounding counties

Hospital facilities involved: Methodist University Hospital, Methodist South Hospital, Methodist North Hospital, Methodist Le Bonheur Germantown, Methodist Olive Branch Hospital

New Action Step: Services are expected to be expanded to additional primary care practices and possibly emergency departments.

How we'll measure success: A goal for this initiative is to increase screening for behavioral health issues in a setting where the patient is most comfortable and can connect those in need with the necessary resources. Success is currently based on the number of referrals from primary care providers to the Living Well Network, the number of behavioral health resources provided, and hours of phone support.

Strategy 2: Leverage existing trust within community congregations to improve community health

We plan to accomplish the following:

- Strengthen linkages between congregations, the healthcare system, and primary care to improve health outreach, screenings, and referrals

Signature Initiatives:

Congregational Health Network (CHN)

The CHN is a collaborative, multi-faith partnership between MLH and more than 600 Mid-South congregations. This partnership focuses on providing legal services, education, and advocacy for children and their families. Members of CHN congregations have access to support on issues such as preventive medicine and follow up care. The CHN works with congregations to educate and provide a supportive network to help patients navigate the healthcare system. The CHN is also heavily involved in cancer screenings and navigation, as well as cardiovascular-related initiatives.

Serving residents of: Shelby County, TN and Desoto County, MS, plus other surrounding counties

Hospital(s) involved: Methodist University Hospital, Methodist South Hospital, Methodist North Hospital, Methodist Le Bonheur Germantown, Methodist Olive Branch Hospital, Le Bonheur Children's Hospital

New Action Step: CHN will provide more resources addressing primary care, cancer and cardiovascular disease. CHN has developed new partnerships to expand access in North Mississippi.

How we'll measure success: With an overall goal of increasing access to screenings for high-risk populations, and through the use of such initiatives as community wellness events and education courses, the CHN's success will be marked by attaining 70% PCP alignment/referral and by the number of individuals trained.

Strategy 3: Provide services and social supports to empower patients to make appropriate and efficient care decisions

We plan to accomplish the following:

- Expand access to social and health services through a comprehensive, place-based model
- Enhance person-centered navigation models targeted to sub-populations

Signature Initiatives:

Consistent Site-Based Outreach (Wellness Without Walls)

Wellness Without Walls is a regular "health clinical event" scheduled every other month on various Wednesdays in the Riverview Kansas Community Center and other locations. It is designed to perform basic screening tests, flu shots and connect the community to needed health and social resources, while also serving as a consistent touch point with the rising risk population.

Serving residents of: Shelby County, TN and Desoto County, MS, plus other surrounding counties

Hospital(s) involved: Methodist University Hospital, Methodist South Hospital, Methodist North Hospital, Methodist Le Bonheur Germantown, Methodist Olive Branch Hospital

New Action Step: This program is exploring the possibility of expanding to additional neighborhoods.

How we'll measure success: The goal of the program is to serve as a consistent touch point with the rising risk population, provide screenings and health education, and connect the community

with needed health services. Success will be measured by an increase in education, screenings, and resources provided.

Primary Care Navigation

Primary Care Navigation seeks to route patients from higher acuity settings to primary care. By aligning community care and coordination and including our safety net partners, MLH provides more efficient care for our underserved population.

Serving residents of: Shelby County, TN and Desoto County, MS, plus other surrounding counties

Hospital(s) involved: Methodist University Hospital, Methodist South Hospital, Methodist North Hospital, Methodist Le Bonheur Germantown, Methodist Olive Branch Hospital

New Action Step: The program will strengthen partnerships with safety net providers.

How we'll measure success: The goal of the program is to navigate patients to the most appropriate point of care, with a particular focus on increasing primary care visits. Success will be measured, in part, by increasing primary care visits and decreasing hospital and emergency department readmissions.

Intensivist Navigation **(Familiar Faces, in partnership with community clinics)**

The Familiar Faces program provides additional, non-clinical support frequent users of MLH emergency departments and tests the impact of navigator intervention on improving health behaviors and appropriate healthcare utilization among members of each cohort.

Serving residents of: Shelby County, TN and Desoto County, MS, plus other surrounding counties

Hospital(s) involved: Methodist University Hospital, Methodist South Hospital, Methodist North Hospital, Methodist Le Bonheur Germantown, Methodist Olive Branch Hospital

New Action Step: The program will continue to expand to include additional at-risk patients.

How we'll measure success: The goal of the program is to redirect patients to the most appropriate point of care thereby reducing ED encounters, IP readmissions and, as needed, increasing primary and specialty care physician visits.

Population Navigation

This project will test MLH's approach to community health within the Hispanic and Latino community. The population of Hispanic and Latino Memphis residents continues to grow and maintains many disparities including high levels of poverty, unemployment and lack of health insurance. Through analysis of the population's use of MLH hospitals over six years, significant opportunities were identified to make lifestyle changes, including improving health literacy, appropriate utilization of health resources, and health outcomes. MLH's two bilingual Navigators will use the successful 38109 initiative as a blueprint to engage the target community and then implement tailored, culturally-sensitive programs to address their unique needs.

Serving residents of: Shelby County, TN and Desoto County, MS, plus other surrounding counties

Hospital(s) involved: Methodist University Hospital, Methodist South Hospital, Methodist North Hospital, Methodist Le Bonheur Germantown, Methodist Olive Branch Hospital

How we'll measure success: The primary goal of the program is to improve access to healthcare resources in order to impact the overall health and well-being of the Hispanic and Latino community members residing in 38122 (22% of total Hispanic and Latino population), 38108 (20.7% of total population), 38115 (9.8% of total population), and 38133 (12.6% of total population) through innovative, ground-level, community engagement and navigation programming. A combination of encounter, length of stay, and readmissions will be used to evaluate program success.

Community Outreach—Health Fair

MOBH frequently partners with local communities to provide health screenings, education, and other resources to community members.

Serving residents of: Shelby County, TN and Desoto County, MS, plus other surrounding counties

Hospital(s) involved: (Hospital facility-specific)

New Action Step: Health fairs will be more focused on maternal, child, and infant health; access to health services; cancer; and cardiovascular disease.

How we'll measure success: Success will be measured by an increase in education, screenings, and resources provided.

Identified Needs: Cancer, Cardiovascular Disease & Stroke
Goal: Address effects of two high-priority diseases

In a community with high cancer incidence and one of the largest gaps in mortality in the nation, focused action is necessary to address this ever-growing issue. High prevalence of associated risk factors, high blood pressure, diabetes, and obesity, is contributing to too many heart disease and stroke deaths in our community.

Strategy 1: Reduce impact of adult cancer

We plan to accomplish the following:

- Improve access to screening and treatment by addressing barriers that contribute to racial disparity in cancer outcomes

Signature Initiatives:

Cancer Navigation

One of the Mid-South's most notable disparities is the tremendous gap in breast cancer survival between white and black women. In the midst of these community challenges, MLH, through the CHN and in partnership with the West Cancer Center, is faced with the daunting task of equipping the community with the necessary resources to alleviate the barriers that produce the alarming disparities in cancer outcomes. Through navigation, and with an emphasis on providing women a central point of contact for their breast health, the breast cancer navigation team continues to fine-tune and expand their model of care delivery to ensure patients receive seamless care despite the complex system.

Serving residents of: Shelby County, TN and Desoto County, MS, plus other surrounding counties

Hospital(s) involved: Methodist University Hospital, Methodist South Hospital, Methodist North Hospital, Methodist Le Bonheur Germantown, Methodist Olive Branch Hospital

New Action Step: CHN and West Cancer Center will continue to expand the scope beyond breast cancer to other types of cancer, such as cervical, colorectal, and lung.

How we'll measure success: The goal of this initiative is to distribute appropriate information and access regarding early detection and screening, provide screenings, and to navigate patients through the healthcare system.

Cancer Program Specialist

MLH hired its first-ever Cancer Program Specialist to bolster its commitment to reduce cancer disparities. The Cancer Program Specialist will focus on four primary cancers: Lung Cancer, HPV/Cervical Cancer, Colon and Prostate Cancer, and Breast Cancer. The specialist will seek to support consistency, quality, and innovation within every aspect of the program, including educational classes, collaboration with West Cancer Center, the Congregational Health Network and other community-based efforts.

Serving residents of: Shelby County, TN and Desoto County, MS, plus other surrounding counties

Hospital(s) involved: Methodist University Hospital, Methodist South Hospital, Methodist North Hospital, Methodist Le Bonheur Germantown, Methodist Olive Branch Hospital

How we'll measure success: The goal of the specialist is to increase information and understanding, dispel fear and to increase access to available resources.

Mobile Mammography

Methodist Mobile Mammography features the latest breast screening technology in the convenience of a mobile unit. The Mobile Mammography Bus is a resource that supports MLH's collaborative efforts with the Congregational Health Network and West Cancer Center to navigate more women to breast health screenings in order to reduce the breast cancer mortality rate in Memphis through earlier detection and prompt follow up care.

Serving residents of: Shelby County, TN and Desoto County, MS, plus other surrounding counties

Hospital(s) involved: Methodist University Hospital, Methodist South Hospital, Methodist North Hospital, Methodist Le Bonheur Germantown, Methodist Olive Branch Hospital

New Action Step: CHN has partnered to expand access in North Mississippi.

How we'll measure success: Success will primarily be measured by the number of screenings provided.

Strategy 2: Reduce impact of cardiovascular disease

We plan to do the following:

- Advance self-management knowledge and skills for individuals with uncontrolled diabetes to improve cardiovascular outcomes

Signature Initiatives:

Diabetes Self-Management in Primary Care (in partnership with UTHSC)

With efforts in nine primary care clinics throughout several rural and urban Mid-South communities, the goal of this initiative is to bolster primary care's ability to support diabetes care of African-American adults with uncontrolled diabetes. We recognize the difficulties individuals face with uncontrolled diabetes and their additional co-morbid chronic diseases. There is limited access to primary care, and this research study seeks to identify which self-care improvement methods (motivational messaging, diabetes wellness coaching, and usual care with diabetes educational materials) proves most effective for underserved patient populations.

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Hospital(s) involved: Methodist University Hospital, Methodist South Hospital, Methodist North Hospital, Methodist Le Bonheur Germantown, and Methodist Olive Branch Hospital

How we'll measure success: This initiative will target 1,000 people within the next few years. Over the course of this time, success will be demonstrated through improvements in A1C levels, blood sugar levels, as well as improved survey results in quality of life, diabetes self-care decisions, and improved feelings around primary care.

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Community Health Improvement Plan
Methodist South Hospital

Methodist Le Bonheur Healthcare (MLH) is an integrated, not-for-profit healthcare delivery system based in Memphis, Tennessee, with 1,650 total licensed beds. Our hospital system includes home health services, outpatient surgery centers, minor medical centers, diagnostic centers, sleep centers and a hospice residence that serve the entire Mid-South. Areas of expertise include The Brain and Spine Institute, The Transplant Institute, The Cancer Center, The Cardiovascular Institute and pediatrics at Le Bonheur Children's Hospital. MLH has been affiliated with The United Methodist Church since 1918, and combines a dedication to clinical excellence with a faith-based commitment to care.

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- **Maternal, Infant, & Child Health**
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- **Cancer**
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This Implementation Plan is designed to be system-minded and focused on addressing the above community health needs. It assumes all hospital facilities will work together in addressing needs, and does not include an exhaustive list of current community health initiatives. The “signature initiatives” addressed within this plan are specific programs of focus which will be used to measure progress of how this system is working to address the needs of the community. All initiatives included are underway as of 2017.

This plan in particular focuses on **Methodist South Hospital** (MSH). MSH is a 156-bed community hospital committed to providing personalized, compassionate and high-quality care to patients and families. South provides a full complement of general acute care services, including maternity, cancer care, critical care, same day surgery, 24-hour emergency care, full dialysis services, and includes a Level 2 neonatal intensive care unit (NICU). Located in Whitehaven, MSH also serves the residents of south Memphis by offering a Certified chest pain center, a certified stroke center, and the provision of comprehensive cardiac care.

Identified Health Need: Maternal, Infant, & Child Health

Goal: Address the needs of at-risk children through sustainable systemic change within the community

For more than 40 years, Le Bonheur Children's Hospital has gone beyond our hospital's walls to address the barriers that prevent children from thriving. Our community is home to the poorest metropolitan service area (population greater than 1 million) in the country. Forty-seven percent of children live in a household with income below the federal poverty level and half of these children live at extreme poverty levels. Poverty creates unsettling health disparities among the children we serve. To reach these children, Le Bonheur is actively present in the community, helping children and families in their environments – schools, community centers, clinics, child care facilities and homes. Annually we serve more than 250,000 children.

Strategy 2: Promote sound child development and support for effective parenting

We plan to accomplish the following:

- Provision of early intervention services with children with complex and chronic medical and developmental conditions
- Provide evidence-based early home visitation services to increase healthy births and build social, emotional, and cognitive skills

Signature Initiatives:

Childbirth Classes

MLH offers classes to prepare the entire family—from parents and grandparents to siblings. Class topics include: childbirth, breastfeeding, infant safety and CPR, new fathers, grandparents, siblings, gestational diabetes, and more.

Serving residents of: Shelby County, TN and Desoto County, MS, plus other surrounding counties

Hospital(s) involved: Methodist South Hospital, Methodist Le Bonheur Germantown

How we'll measure success: The success of this program will primarily be based on the number of those educated on childbirth and related topics.

Identified Need: Access to Health Services
Goal: Improve access to health care and health-promoting services

Access to comprehensive, quality health services is a crucial component in ensuring an increased quality of life and health equity for all.

Strategy 1: Increase access to primary and behavioral health care for underserved populations

We plan to do the following:

- Establish patient-centered pathways among community-based providers through formal partnerships, alignment and mutual accountability

Signature Initiatives:

Partnerships with Community Clinics

MLH will partner with community clinics to improve access to primary care services.

Serving residents of: Shelby County, TN and Desoto County, MS, plus other surrounding counties

Hospital facilities involved: Methodist University Hospital, Methodist South Hospital, Methodist North Hospital, Methodist Le Bonheur Germantown, Methodist Olive Branch Hospital, Le Bonheur Children's Hospital

How we'll measure success: The goal of the partnership is to establish patient-centered pathways for underserved populations among community-based providers through formal partnerships, alignment, and mutual accountability by 2019. Success for this program will be demonstrated by increased primary care visits, particularly for underserved populations.

The Living Well Network

Through a collaborative relationship with the Dennis H. Jones Living Well Network, several Methodist Medical Group providers now provide depression screenings to patients during their annual exams, resulting in referrals to the Living Well Network where appropriate.

Serving residents of: Shelby County, TN and Desoto County, MS, plus other surrounding counties

Hospital facilities involved: Methodist University Hospital, Methodist South Hospital, Methodist North Hospital, Methodist Le Bonheur Germantown, Methodist Olive Branch Hospital

New Action Step: Services are expected to be expanded to additional primary care practices and possibly emergency departments.

How we'll measure success: A goal for this initiative is to increase screening for behavioral health issues in a setting where the patient is most comfortable and can connect those in need with the necessary resources. Success is currently based on the number of referrals from primary care providers to the Living Well Network, the number of behavioral health resources provided, and hours of phone support.

Strategy 2: Leverage existing trust within community congregations to improve community health

We plan to accomplish the following:

- Strengthen linkages between congregations, the healthcare system, and primary care to improve health outreach, screenings, and referrals

Signature Initiatives:

Congregational Health Network (CHN)

The CHN is a collaborative, multi-faith partnership between MLH and more than 600 Mid-South congregations. This partnership focuses on providing legal services, education, and advocacy for children and their families. Members of CHN congregations have access to support on issues such as preventive medicine and follow up care. The CHN works with congregations to educate and provide a supportive network to help patients navigate the healthcare system. The CHN is also heavily involved in cancer screenings and navigation, as well as cardiovascular-related initiatives.

Serving residents of: Shelby County, TN and Desoto County, MS, plus other surrounding counties

Hospital(s) involved: Methodist University Hospital, Methodist South Hospital, Methodist North Hospital, Methodist Le Bonheur Germantown, Methodist Olive Branch Hospital, Le Bonheur Children's Hospital

New Action Step: CHN will provide more resources addressing primary care, cancer and cardiovascular disease. CHN has developed new partnerships to expand access in North Mississippi.

How we'll measure success: With an overall goal of increasing access to screenings for high-risk populations, and through the use of such initiatives as community wellness events and education courses, the CHN's success will be marked by attaining 70% PCP alignment/referral and by the number of individuals trained.

Strategy 3: Provide services and social supports to empower patients to make appropriate and efficient care decisions

We plan to accomplish the following:

- Expand access to social and health services through a comprehensive, place-based model
- Enhance person-centered navigation models targeted to sub-populations

Signature Initiatives:

Consistent Site-Based Outreach (Wellness Without Walls)

Wellness Without Walls is a regular "health clinical event" scheduled every other month on various Wednesdays in the Riverview Kansas Community Center and other locations. It is designed to perform basic screening tests, flu shots and connect the community to needed health and social resources, while also serving as a consistent touch point with the rising risk population.

Serving residents of: Shelby County, TN and Desoto County, MS, plus other surrounding counties

Hospital(s) involved: Methodist University Hospital, Methodist South Hospital, Methodist North Hospital, Methodist Le Bonheur Germantown, Methodist Olive Branch Hospital

New Action Step: This program is exploring the possibility of expanding to additional neighborhoods.

How we'll measure success: The goal of the program is to serve as a consistent touch point with the rising risk population, provide screenings and health education, and connect the community

with needed health services. Success will be measured by an increase in education, screenings, and resources provided.

Primary Care Navigation

Primary Care Navigation seeks to route patients from higher acuity settings to primary care. By aligning community care and coordination and including our safety net partners, MLH provides more efficient care for our underserved population.

Serving residents of: Shelby County, TN and Desoto County, MS, plus other surrounding counties

Hospital(s) involved: Methodist University Hospital, Methodist South Hospital, Methodist North Hospital, Methodist Le Bonheur Germantown, Methodist Olive Branch Hospital

New Action Step: The program will strengthen partnerships with safety net providers.

How we'll measure success: The goal of the program is to navigate patients to the most appropriate point of care, with a particular focus on increasing primary care visits. Success will be measured, in part, by increasing primary care visits and decreasing hospital and emergency department readmissions.

Intensivist Navigation **(Familiar Faces, in partnership with community clinics)**

The Familiar Faces program provides additional, non-clinical support frequent users of MLH emergency departments and tests the impact of navigator intervention on improving health behaviors and appropriate healthcare utilization among members of each cohort.

Serving residents of: Shelby County, TN and Desoto County, MS, plus other surrounding counties

Hospital(s) involved: Methodist University Hospital, Methodist South Hospital, Methodist North Hospital, Methodist Le Bonheur Germantown, Methodist Olive Branch Hospital

New Action Step: The program will continue to expand to include additional at-risk patients.

How we'll measure success: The goal of the program is to redirect patients to the most appropriate point of care thereby reducing ED encounters, IP readmissions and, as needed, increasing primary and specialty care physician visits.

Population Navigation

This project will test MLH's approach to community health within the Hispanic and Latino community. The population of Hispanic and Latino Memphis residents continues to grow and maintains many disparities including high levels of poverty, unemployment and lack of health insurance. Through analysis of the population's use of MLH hospitals over six years, significant opportunities were identified to make lifestyle changes, including improving health literacy, appropriate utilization of health resources, and health outcomes. MLH's two bilingual Navigators will use the successful 38109 initiative as a blueprint to engage the target community and then implement tailored, culturally-sensitive programs to address their unique needs.

Serving residents of: Shelby County, TN and Desoto County, MS, plus other surrounding counties

Hospital(s) involved: Methodist University Hospital, Methodist South Hospital, Methodist North Hospital, Methodist Le Bonheur Germantown, Methodist Olive Branch Hospital

How we'll measure success: The primary goal of the program is to improve access to healthcare resources in order to impact the overall health and well-being of the Hispanic and Latino community members residing in 38122 (22% of total Hispanic and Latino population), 38108 (20.7% of total population), 38115 (9.8% of total population), and 38133 (12.6% of total population) through innovative, ground-level, community engagement and navigation programming. A combination of encounter, length of stay, and readmissions will be used to evaluate program success.

Community Outreach—Health Fair

MSH frequently partners with local communities to provide health screenings, education, and other resources to community members.

Serving residents of: Shelby County, TN and Desoto County, MS, plus other surrounding counties

Hospital(s) involved: (Hospital facility-specific)

New Action Step: Health fairs will be more focused on maternal, child, and infant health; access to health services; cancer; and cardiovascular disease.

How we'll measure success: Success will be measured by an increase in education, screenings, and resources provided.

Identified Needs: Cancer, Cardiovascular Disease & Stroke
Goal: Address effects of two high-priority diseases

In a community with high cancer incidence and one of the largest gaps in mortality in the nation, focused action is necessary to address this ever-growing issue. High prevalence of associated risk factors, high blood pressure, diabetes, and obesity, is contributing to too many heart disease and stroke deaths in our community.

Strategy 1: Reduce impact of adult cancer

We plan to accomplish the following:

- Improve access to screening and treatment by addressing barriers that contribute to racial disparity in cancer outcomes

Signature Initiatives:

Cancer Navigation

One of the Mid-South's most notable disparities is the tremendous gap in breast cancer survival between white and black women. In the midst of these community challenges, MLH, through the CHN and in partnership with the West Cancer Center, is faced with the daunting task of equipping the community with the necessary resources to alleviate the barriers that produce the alarming disparities in cancer outcomes. Through navigation, and with an emphasis on providing women a central point of contact for their breast health, the breast cancer navigation team continues to fine-tune and expand their model of care delivery to ensure patients receive seamless care despite the complex system.

Serving residents of: Shelby County, TN and Desoto County, MS, plus other surrounding counties

Hospital(s) involved: Methodist University Hospital, Methodist South Hospital, Methodist North Hospital, Methodist Le Bonheur Germantown, Methodist Olive Branch Hospital

New Action Step: CHN and West Cancer Center will continue to expand the scope beyond breast cancer to other types of cancer, such as cervical, colorectal, and lung.

How we'll measure success: The goal of this initiative is to distribute appropriate information and access regarding early detection and screening, provide screenings, and to navigate patients through the healthcare system.

Cancer Program Specialist

MLH hired its first-ever Cancer Program Specialist to bolster its commitment to reduce cancer disparities. The Cancer Program Specialist will focus on four primary cancers: Lung Cancer, HPV/Cervical Cancer, Colon and Prostate Cancer, and Breast Cancer. The specialist will seek to support consistency, quality, and innovation within every aspect of the program, including educational classes, collaboration with West Cancer Center, the Congregational Health Network and other community-based efforts.

Serving residents of: Shelby County, TN and Desoto County, MS, plus other surrounding counties

Hospital(s) involved: Methodist University Hospital, Methodist South Hospital, Methodist North Hospital, Methodist Le Bonheur Germantown, Methodist Olive Branch Hospital

How we'll measure success: The goal of the specialist is to increase information and understanding, dispel fear and to increase access to available resources.

Mobile Mammography

Methodist Mobile Mammography features the latest breast screening technology in the convenience of a mobile unit. The Mobile Mammography Bus is a resource that supports MLH's collaborative efforts with the Congregational Health Network and West Cancer Center to navigate more women to breast health screenings in order to reduce the breast cancer mortality rate in Memphis through earlier detection and prompt follow up care.

Serving residents of: Shelby County, TN and Desoto County, MS, plus other surrounding counties

Hospital(s) involved: Methodist University Hospital, Methodist South Hospital, Methodist North Hospital, Methodist Le Bonheur Germantown, Methodist Olive Branch Hospital

New Action Step: CHN has partnered to expand access in North Mississippi.

How we'll measure success: Success will primarily be measured by the number of screenings provided.

Strategy 2: Reduce impact of cardiovascular disease

We plan to do the following:

- Advance self-management knowledge and skills for individuals with uncontrolled diabetes to improve cardiovascular outcomes

Signature Initiatives:

Congregational Chronic Disease Support Model: CHN DEEP Diabetes Education & Empowerment Program

The CHN provides regular education on diabetes management and maintenance within the walls of the hospital.

Serving residents of: Shelby County, TN and Desoto County, MS, plus other surrounding counties

Hospital(s) involved: Methodist South Hospital, Methodist North Hospital

How we'll measure success: The following objectives will guide project strategies to improve population health and patient engagement among a projected 100 high risk diabetes DEEP participants (number based on participants completing DEEP course; overall reach of program may be higher through congregation and community-based outreach and education through the Congregational Health Network):

- Patient Participation: Increase patient participation in active self-management of diabetes by 30%. Through expansion of the DEEP course to two additional sites, participant attendance and completion will increase by 30%.
- Medication Safety: Increase medication safety among participants by 40%. Forty percent of course participants will report a higher level of competence in self-medication management as a result of participation in the DEEP course, to include the ability to access immediate medications that support diabetes management.
- Length of Stay: Reduce LOS among high utilizer diabetic patients by 10%.
- Readmission Rates: Reduce readmission rates among high utilizer diabetic patients by 10% over course of grant cycle.
- To increase patient participation in self-management of diabetes, the proposed project will provide hands-on, practical education for high-risk diabetes patients, including culturally-responsive instruction in Spanish for the large population of

Spanish-speaking patients at Methodist North. All participants will receive ongoing support, navigation, and access to resources via CHN navigators and the Methodist Diabetes Wellness and Prevention Center, ensuring that high-risk, low-income, and/or uninsured patients have access to education, medication management, and ongoing care.

Diabetes Education Classes

Based on the recommendations from the American Diabetes Association, classes are offered in which patients meet with a certified diabetes educator to determine educational goals and the teaching plan. Patients are actively involved in the shared decision making process. Classes cover topics including diabetes overview, nutrition planning and management, physical activity, emotions and stress management, medication therapies, risk reduction and problem solving. A Gestational Diabetes Class is also available, in which expectant mothers receive a management plan that focuses on nutrition and maintenance of normal blood glucose levels.

Serving residents of: Shelby County, TN and Desoto County, MS, plus other surrounding counties

Hospital(s) involved: Methodist South Hospital, Methodist Le Bonheur Germantown

How we'll measure success: The success of this program will primarily be based on the number of those educated on diabetes management and maintenance.

Diabetes Wellness & Prevention Center

The Center will provide patients with comprehensive exams, self-monitoring and management tools, care coordination services, targeted educational materials and personal check-up calls between visits.

Serving residents of: Shelby County, TN and Desoto County, MS, plus other surrounding counties

Hospital(s) involved: Methodist South Hospital

How we'll measure success: The success of this program will be determined by the number of patients served, resources provided, and an improvement in outcomes.

Stroke Support Groups

Stroke Support Groups meet three times each month at different locations around the city. These meetings provide education and support to caregivers and stroke survivors.

Serving residents of: Shelby County, TN and Desoto County, MS, plus other surrounding counties

Hospital(s) involved: Methodist South Hospital, Methodist North Hospital, Methodist Le Bonheur Germantown

How we'll measure success: The goal of the program is the increase education and support to caregivers and stroke survivors.

Diabetes Self-Management in Primary Care **(in partnership with UTHSC)**

With efforts in nine primary care clinics throughout several rural and urban Mid-South communities, the goal of this initiative is to bolster primary care's ability to support diabetes care of African-American adults with uncontrolled diabetes. We recognize the difficulties individuals face with uncontrolled diabetes and their additional co-morbid chronic diseases. There is limited access to primary care, and this research study seeks to identify which self-care improvement methods (motivational messaging, diabetes wellness coaching, and usual care with diabetes educational materials) proves most effective for underserved patient populations.

Serving residents of: Shelby County, TN and Desoto County, MS, plus other surrounding counties

Hospital(s) involved: Methodist University Hospital, Methodist South Hospital, Methodist North Hospital, Methodist Le Bonheur Germantown, and Methodist Olive Branch Hospital

How we'll measure success: This initiative will target 1,000 people within the next few years. Over the course of this time, success will be demonstrated through improvements in A1C levels, blood sugar levels, as well as improved survey results in quality of life, diabetes self-care decisions, and improved feelings around primary care.

Appendix 1: MLH Summary Table of System Implementation Plan

Need	Initiative	Counties Served	Hospitals Involved
Maternal, Infant, & Child Health	Changing High-Risk Asthma in Memphis	Shelby	Le Bonheur
	Be Proud! Be Responsible!	Shelby	Le Bonheur
	Community Developmental Services	Shelby, plus surrounding TN counties	Le Bonheur
	Nurse Family Partnership	Shelby, possibly expanding to DeSoto	Le Bonheur
	Childbirth Classes	Shelby, DeSoto, plus surrounding	South, Germantown
	Memphis CHiLD Medical Legal Partnership	Shelby, plus surrounding	Le Bonheur
	Trauma Outreach Education	Shelby, plus surrounding West TN counties	Le Bonheur
Access to Health Services	Partnerships with Community Clinics	Shelby, DeSoto, plus surrounding	All Hospitals
	The Living Well Network	Shelby, DeSoto, plus surrounding	All Adult Hospitals
	Congregational Health Network	Shelby, DeSoto, plus surrounding	All Hospitals
	Consistent Site-Based Outreach	Shelby, DeSoto, plus surrounding	All Adult Hospitals
	Primary Care Navigation	Shelby, DeSoto, plus surrounding	All Adult Hospitals
	Intensivist Navigation	Shelby, DeSoto, plus surrounding	All Adult Hospitals
	Population Navigation	Shelby, DeSoto, plus surrounding	All Adult Hospitals
	Sickle Cell Partnership	Shelby, DeSoto, plus surrounding	University
	Community Outreach – Health Fair	Shelby, DeSoto, plus surrounding	Hospital-specific
Cancer	Cancer Navigation	Shelby, DeSoto, plus surrounding	All Adult Hospitals
	Cancer Program Specialist	Shelby, DeSoto, plus surrounding	All Adult Hospitals
	Mobile Mammography	Shelby, DeSoto, plus surrounding	All Adult Hospitals
Cardiovascular Disease & Stroke	CHN DEEP Diabetes Education	Shelby, DeSoto, plus surrounding	South, North
	Diabetes Education Classes	Shelby, DeSoto, plus surrounding	South, Germantown
	Diabetes Wellness & Prevention Center	Shelby, DeSoto, plus surrounding	South
	Comprehensive Stroke Center	Shelby, DeSoto, plus surrounding	University
	Stroke Support Groups	Shelby, DeSoto, plus surrounding	South, North Germantown
	Diabetes Self-Management in Primary Care	Shelby, DeSoto, plus surrounding	All Adult Hospitals

The table above shows a comprehensive view of initiatives included across all MLH hospital facility implementation plans. All hospital facilities are working together to address the health needs of the community.

Community Health Improvement Plan
Methodist University Hospital

Methodist Le Bonheur Healthcare (MLH) is an integrated, not-for-profit healthcare delivery system based in Memphis, Tennessee, with 1,650 total licensed beds. Our hospital system includes home health services, outpatient surgery centers, minor medical centers, diagnostic centers, sleep centers and a hospice residence that serve the entire Mid-South. Areas of expertise include The Brain and Spine Institute, The Transplant Institute, The Cancer Center, The Cardiovascular Institute and pediatrics at Le Bonheur Children's Hospital. MLH has been affiliated with The United Methodist Church since 1918, and combines a dedication to clinical excellence with a faith-based commitment to care.

At MLH, community health goes beyond providing treatment to those within the walls of the hospital. MLH takes pride in providing quality healthcare to all, regardless of ability to pay. Methodist also recognizes the importance of addressing the needs of those within the community in a more holistic manner. The 2016 Community Health Needs Assessment was used to identify health needs around which the system can galvanize efforts to impact the quality of life for all in the community:

- **Maternal, Infant, & Child Health**
- **Access to Health Services**
- **Cancer**
- **Cardiovascular Disease & Stroke**

This Implementation Plan is designed to be system-minded and focused on addressing the above community health needs. It assumes all hospital facilities will work together in addressing needs, and does not include an exhaustive list of current community health initiatives. The “signature initiatives” addressed within this plan are specific programs of focus which will be used to measure progress of how this system is working to address the needs of the community. All initiatives included are underway as of 2017.

This plan in particular focuses on **Methodist University Hospital** (MUH). MUH is the largest, most comprehensive hospital in the MLH system. It is a 617-bed facility located in the heart of the Memphis Medical Center. As the major academic campus and principal teaching hospital of the University of Tennessee Health Science Center, MUH brings together research, medicine and innovation. This partnership supports multidisciplinary collaboration among doctors and clinical team members, leading to more advanced medical care for our patients.

Identified Need: Access to Health Services
Goal: Improve access to health care and health-promoting services

Access to comprehensive, quality health services is a crucial component in ensuring an increased quality of life and health equity for all.

Strategy 1: Increase access to primary and behavioral health care for underserved populations

We plan to do the following:

- Establish patient-centered pathways among community-based providers through formal partnerships, alignment and mutual accountability

Signature Initiatives:

Partnerships with Community Clinics

MLH will partner with community clinics to improve access to primary care services.

Serving residents of: Shelby County, TN and Desoto County, MS, plus other surrounding counties

Hospital facilities involved: Methodist University Hospital, Methodist South Hospital, Methodist North Hospital, Methodist Le Bonheur Germantown Hospital, Methodist Olive Branch Hospital, Le Bonheur Children's Hospital

How we'll measure success: The goal of the partnership is to establish patient-centered pathways for underserved populations among community-based providers through formal partnerships, alignment, and mutual accountability by 2019. Success for this program will be demonstrated by increased primary care visits, particularly for underserved populations.

The Living Well Network

Through a collaborative relationship with the Dennis H. Jones Living Well Network, several Methodist Medical Group providers now provide depression screenings to patients during their annual exams, resulting in referrals to the Living Well Network where appropriate.

Serving residents of: Shelby County, TN and Desoto County, MS, plus other surrounding counties

Hospital facilities involved: Methodist University Hospital, Methodist South Hospital, Methodist North Hospital, Methodist Le Bonheur Germantown, Methodist Olive Branch Hospital

New Action Step: Services are expected to be expanded to additional primary care practices and possibly emergency departments.

How we'll measure success: A goal for this initiative is to increase screening for behavioral health issues in a setting where the patient is most comfortable and can connect those in need with the necessary resources. Success is currently based on the number of referrals from primary care providers to the Living Well Network, the number of behavioral health resources provided, and hours of phone support.

Strategy 2: Leverage existing trust within community congregations to improve community health

We plan to accomplish the following:

- Strengthen linkages between congregations, the healthcare system, and primary care to improve health outreach, screenings, and referrals

Signature Initiatives:

Congregational Health Network (CHN)

The CHN is a collaborative, multi-faith partnership between MLH and more than 600 Mid-South congregations. This partnership focuses on providing legal services, education, and advocacy for children and their families. Members of CHN congregations have access to support on issues such as preventive medicine and follow up care. The CHN works with congregations to educate and provide a supportive network to help patients navigate the healthcare system. The CHN is also heavily involved in cancer screenings and navigation, as well as cardiovascular-related initiatives.

Serving residents of: Shelby County, TN and Desoto County, MS, plus other surrounding counties

Hospital(s) involved: Methodist University Hospital, Methodist South Hospital, Methodist North Hospital, Methodist Le Bonheur Germantown, Methodist Olive Branch Hospital, Le Bonheur Children's Hospital

New Action Step: CHN will provide more resources addressing primary care, cancer and cardiovascular disease. CHN has developed new partnerships to expand access in North Mississippi.

How we'll measure success: With an overall goal of increasing access to screenings for high-risk populations, and through the use of such initiatives as community wellness events and education courses, the CHN's success will be marked by attaining 70% PCP alignment/referral and by the number of individuals trained.

Strategy 3: Provide services and social supports to empower patients to make appropriate and efficient care decisions

We plan to accomplish the following:

- Expand access to social and health services through a comprehensive, place-based model
- Enhance person-centered navigation models targeted to sub-populations

Signature Initiatives:

Consistent Site-Based Outreach (Wellness Without Walls)

Wellness Without Walls is a regular "health clinical event" scheduled every other month on various Wednesdays in the Riverview Kansas Community Center and other locations. It is designed to perform basic screening tests, flu shots and connect the community to needed health and social resources, while also serving as a consistent touch point with the rising risk population.

Serving residents of: Shelby County, TN and Desoto County, MS, plus other surrounding counties

Hospital(s) involved: Methodist University Hospital, Methodist South Hospital, Methodist North Hospital, Methodist Le Bonheur Germantown, Methodist Olive Branch Hospital

New Action Step: This program is exploring the possibility of expanding to additional neighborhoods.

How we'll measure success: The goal of the program is to serve as a consistent touch point with the rising risk population, provide screenings and health education, and connect the community

with needed health services. Success will be measured by an increase in education, screenings, and resources provided.

Primary Care Navigation

Primary Care Navigation seeks to route patients from higher acuity settings to primary care. By aligning community care and coordination and including our safety net partners, MLH provides more efficient care for our underserved population.

Serving residents of: Shelby County, TN and Desoto County, MS, plus other surrounding counties

Hospital(s) involved: Methodist University Hospital, Methodist South Hospital, Methodist North Hospital, Methodist Le Bonheur Germantown, Methodist Olive Branch Hospital

New Action Step: The program will strengthen partnerships with safety net providers.

How we'll measure success: The goal of the program is to navigate patients to the most appropriate point of care, with a particular focus on increasing primary care visits. Success will be measured, in part, by increasing primary care visits and decreasing hospital and emergency department readmissions.

Intensivist Navigation **(Familiar Faces, in partnership with community clinics)**

The Familiar Faces program provides additional, non-clinical support frequent users of MLH emergency departments and tests the impact of navigator intervention on improving health behaviors and appropriate healthcare utilization among members of each cohort.

Serving residents of: Shelby County, TN and Desoto County, MS, plus other surrounding counties

Hospital(s) involved: Methodist University Hospital, Methodist South Hospital, Methodist North Hospital, Methodist Le Bonheur Germantown, Methodist Olive Branch Hospital

New Action Step: The program will continue to expand to include additional at-risk patients.

How we'll measure success: The goal of the program is to redirect patients to the most appropriate point of care thereby reducing ED encounters, IP readmissions and, as needed, increasing primary and specialty care physician visits.

Population Navigation

This project will test MLH's approach to community health within the Hispanic and Latino community. The population of Hispanic and Latino Memphis residents continues to grow and maintains many disparities including high levels of poverty, unemployment and lack of health insurance. Through analysis of the population's use of MLH hospitals over six years, significant opportunities were identified to make lifestyle changes, including improving health literacy, appropriate utilization of health resources, and health outcomes. MLH's two bilingual Navigators will use the successful 38109 initiative as a blueprint to engage the target community and then implement tailored, culturally-sensitive programs to address their unique needs.

Serving residents of: Shelby County, TN and Desoto County, MS, plus other surrounding counties

Hospital(s) involved: Methodist University Hospital, Methodist South Hospital, Methodist North Hospital, Methodist Le Bonheur Germantown, Methodist Olive Branch Hospital

How we'll measure success: The primary goal of the program is to improve access to healthcare resources in order to impact the overall health and well-being of the Hispanic and Latino community members residing in 38122 (22% of total Hispanic and Latino population), 38108 (20.7% of total population), 38115 (9.8% of total population), and 38133 (12.6% of total population) through innovative, ground-level, community engagement and navigation programming. A combination of encounter, length of stay, and readmissions will be used to evaluate program success.

Sickle Cell Center Partnership with St. Jude Children's Research Hospital

MLH will partner with St. Jude Children's Research Hospital to advance sickle cell care for adult patients through the Comprehensive Sickle Cell Center. The Sickle Center provides a range a services, including helping patients ages 18-25 transition from pediatric to adult care.

Serving residents of: Shelby County, TN and Desoto County, MS, plus other surrounding counties

Hospital(s) involved: Methodist University Hospital

How we'll measure success: Goals of the program include improving quality of life for patients and their families, delivering treatment advances through on-site research, and reducing emergency room visits for sickle cell patients by providing specialized care.

Identified Needs: Cancer, Cardiovascular Disease & Stroke
Goal: Address effects of two high-priority diseases

In a community with high cancer incidence and one of the largest gaps in mortality in the nation, focused action is necessary to address this ever-growing issue. High prevalence of associated risk factors, high blood pressure, diabetes, and obesity, is contributing to too many heart disease and stroke deaths in our community.

Strategy 1: Reduce impact of adult cancer

We plan to accomplish the following:

- Improve access to screening and treatment by addressing barriers that contribute to racial disparity in cancer outcomes

Signature Initiatives:

Cancer Navigation

One of the Mid-South's most notable disparities is the tremendous gap in breast cancer survival between white and black women. In the midst of these community challenges, MLH, through the CHN and in partnership with the West Cancer Center, is faced with the daunting task of equipping the community with the necessary resources to alleviate the barriers that produce the alarming disparities in cancer outcomes. Through navigation, and with an emphasis on providing women a central point of contact for their breast health, the breast cancer navigation team continues to fine-tune and expand their model of care delivery to ensure patients receive seamless care despite the complex system.

Serving residents of: Shelby County, TN and Desoto County, MS, plus other surrounding counties

Hospital(s) involved: Methodist University Hospital, Methodist South Hospital, Methodist North Hospital, Methodist Le Bonheur Germantown, Methodist Olive Branch Hospital

New Action Step: CHN and West Cancer Center will continue to expand the scope beyond breast cancer to other types of cancer, such as cervical, colorectal, and lung.

How we'll measure success: The goal of this initiative is to distribute appropriate information and access regarding early detection and screening, provide screenings, and to navigate patients through the healthcare system.

Cancer Program Specialist

MLH hired its first-ever Cancer Program Specialist to bolster its commitment to reduce cancer disparities. The Cancer Program Specialist will focus on four primary cancers: Lung Cancer, HPV/Cervical Cancer, Colon and Prostate Cancer, and Breast Cancer. The specialist will seek to support consistency, quality, and innovation within every aspect of the program, including educational classes, collaboration with West Cancer Center, the Congregational Health Network and other community-based efforts.

Serving residents of: Shelby County, TN and Desoto County, MS, plus other surrounding counties

Hospital(s) involved: Methodist University Hospital, Methodist South Hospital, Methodist North Hospital, Methodist Le Bonheur Germantown, Methodist Olive Branch Hospital

How we'll measure success: The goal of the specialist is to increase information and understanding, dispel fear and to increase access to available resources.

Mobile Mammography

Methodist Mobile Mammography features the latest breast screening technology in the convenience of a mobile unit. The Mobile Mammography Bus is a resource that supports MLH's collaborative efforts with the Congregational Health Network and West Cancer Center to navigate more women to breast health screenings in order to reduce the breast cancer mortality rate in Memphis through earlier detection and prompt follow up care.

Serving residents of: Shelby County, TN and Desoto County, MS, plus other surrounding counties

Hospital(s) involved: Methodist University Hospital, Methodist South Hospital, Methodist North Hospital, Methodist Le Bonheur Germantown, Methodist Olive Branch Hospital

New Action Step: CHN has partnered to expand access in North Mississippi.

How we'll measure success: Success will primarily be measured by the number of screenings provided.

Strategy 2: Reduce impact of cardiovascular disease

We plan to do the following:

- Advance self-management knowledge and skills for individuals with uncontrolled diabetes to improve cardiovascular outcomes

Signature Initiatives:

Comprehensive Stroke Center

Methodist University Hospital has received Advanced Comprehensive Stroke Certification from the American Heart Association/American Stroke Association and the Joint Commission. This certification is the highest level of stroke care accreditation. The Comprehensive Stroke Center at MUH has dedicated neuro-intensive care unit beds for complex stroke patients with 24/7 neuro-critical care; uses advanced imaging capabilities; treats a high volume of complex stroke cases; coordinates post hospital care for patients; uses a peer review process to evaluate and monitor care of complex cases; and participates in stroke research.

Serving residents of: Shelby County, TN and Desoto County, MS, plus other surrounding counties

Hospital(s) involved: Methodist University Hospital

How we'll measure success: The success of this program will be determined by the number of patients served, resources provided, and an improvement in outcomes.

Diabetes Self-Management in Primary Care (in partnership with UTHSC)

With efforts in nine primary care clinics throughout several rural and urban Mid-South communities, the goal of this initiative is to bolster primary care's ability to support diabetes care of African-American adults with uncontrolled diabetes. We recognize the difficulties individuals face with uncontrolled diabetes and their additional co-morbid chronic diseases. There is limited access to primary care, and this research study seeks to identify which self-care improvement methods (motivational messaging, diabetes wellness coaching, and usual care with diabetes educational materials) proves most effective for underserved patient populations.

Serving residents of: Shelby County, TN and Desoto County, MS, plus other surrounding counties

Hospital(s) involved: Methodist University Hospital, Methodist South Hospital, Methodist North Hospital, Methodist Le Bonheur Germantown, and Methodist Olive Branch Hospital

How we'll measure success: This initiative will target 1,000 people within the next few years. Over the course of this time, success will be demonstrated through improvements in A1C levels, blood sugar levels, as well as improved survey results in quality of life, diabetes self-care decisions, and improved feelings around primary care.

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	Community Outreach – Health Fair	Shelby, DeSoto, plus surrounding	Hospital-specific
Cancer	Cancer Navigation	Shelby, DeSoto, plus surrounding	All Adult Hospitals
	Cancer Program Specialist	Shelby, DeSoto, plus surrounding	All Adult Hospitals
	Mobile Mammography	Shelby, DeSoto, plus surrounding	All Adult Hospitals
Cardiovascular Disease & Stroke	CHN DEEP Diabetes Education	Shelby, DeSoto, plus surrounding	South, North
	Diabetes Education Classes	Shelby, DeSoto, plus surrounding	South, Germantown
	Diabetes Wellness & Prevention Center	Shelby, DeSoto, plus surrounding	South
	Comprehensive Stroke Center	Shelby, DeSoto, plus surrounding	University
	Stroke Support Groups	Shelby, DeSoto, plus surrounding	South, North Germantown
	Diabetes Self-Management in Primary Care	Shelby, DeSoto, plus surrounding	All Adult Hospitals

The table above shows a comprehensive view of initiatives included across all MLH hospital facility implementation plans. All hospital facilities are working together to address the health needs of the community.

2019 Community Health Needs Assessment



Methodist Le Bonheur Healthcare

Report Contents

This report is the technical research document that describes the methodologies and results of Methodist Le Bonheur Healthcare's 2019 Community Health Needs Assessment (CHNA). It includes an individual report of each methodology undertaken by the Methodist Le Bonheur Healthcare (MLH) Program Evaluation Team and partners within the Shelby County Community Health Assessment Collaborative. Each report is formatted so that it can stand alone and be shared by itself with our stakeholders. The introduction and executive summary sections are also formatted to be shared individually depending on the needs of the audience. All together this report covers everything our team identified regarding the health needs of the residents of Shelby County, Tennessee and DeSoto County, Mississippi.

As researchers, documentation of our methods is as important as the results of the research itself. All source material is cited and can be found in the references at the end of each report. It is our intent for this full technical document to be used as a resource for our grant writers, foundation staff, marketing staff, and anyone wanting to know where to start in understanding the current health needs of our community.

The following reports are included in the 2019 Community Health Needs Assessment:

- Executive Summary
- Introduction to MLH Community Needs Assessment Process
    - Organizational Background
    - Summary of Results
    - Overview of Methodologies
    - Health Priorities for 2016 and 2019
- Secondary Data Report
- Key Informant Survey Report from Regional One Health
- Community Survey Results Report
- Focus Group Report with Additional Research on Community Themes
- Congregational Health Survey Report

Introduction

A community health needs assessment is a critical tool which aids various agencies to identify the most pressing health issues of a community, while providing a contextual foundation of how an agency can raise awareness and implement an action plan to combat certain community health problems. The Internal Revenue Service (IRS) requires all non-profit hospitals to complete a CHNA every three years, and to complete minimum elements within the assessment. Though there is no standardized method in the report submission, each individual reporting agency may select the modes of collecting information for this assessment, as long as methods are thoroughly described. At the completion of each CHNA an agency must also submit an Implementation Plan which details how the agency and its staff plan to prioritize and embark upon resolving health issues identified within the assessment.

MLH views the undertaking of the CHNA as an opportunity which affords our system the opportunity to better listen and learn of the community's health needs, and to enhance a strategy that improves and protects the health and wellbeing of patients and their families. The CHNA also equips MLH with a chance to focus on the Social Determinants of Health (SDOH), those external factors (or conditions) which extend beyond the clinical environment, and affect the health outcome of patients. To fulfill its endeavors to conduct a proficient CHNA, MLH reached out to various health care agencies within Shelby County.

This is the first year that MLH, Shelby County Health Department (SCHD), Baptist Memorial Health Care, Regional One Health, and St. Jude Children's Research Hospital have come together to conduct a joint CHNA for Shelby County. While each agency's reporting deadline and service populations differed, partners came together to leverage current resources, establish organizational contributions, and to strategize a plan to identify which components of the assessment could be conducted together.

In January 2019 these five agencies convened with the purpose to conduct a joint CHNA. Subsequent meetings and conference calls led to the division of tasks among the agencies so that the required CHNA steps by the IRS could be completed. (See Table 1.) Although each agency compiles its own CHNA report, all agencies contributed expertise and tasks towards the process, and shared data and reports for deeper insight of findings within community.

From this cooperative effort the ultimate goal of the Joint Shelby County CHNA is to coordinate community–wide health improvement efforts, and to build upon the collaboration's strengths and resources to tackle community health issues together.

IRS Required Elements of CHNA and Strategies of Collaboration

1. Define the community population and geographic area it serves.
    - All agencies had Shelby County, Tennessee in common.
    - Every agency had additional areas they served unique to them, differing approval deadlines.

2. Assess the health needs of that community through a minimum of three methods; one should include soliciting input received from persons with special knowledge of or expertise in public health.

    A. Analyze secondary data (e.g., previously collected data).
        - Agencies submitted their request for secondary data to Shelby County Health Department and received a common report on just Shelby County, TN.
        - MLH used this report and heavily supplemented information from the Tennessee and Mississippi Departments of Health, Community Commons, County Health Rankings, Kids Count, and Centers for Disease Control and Prevention.

    B. Administer a community health survey.
        - One survey tool was developed and made available via paper or electronic in English, Spanish, and Arabic.
        - Agencies distributed the link to the survey among their company's websites, social media, and email.
        - Initial results were shared with partners to accommodate their deadlines.
        - MLH continued data collection to get a more representative sample.
        - Each agency analyzed the data independently.

    C. Administer a key informant/stakeholder survey.
        - Utilized a survey from Regional One's CHNA contractor.
        - All agencies provided a list of key informant contact information to form a master contact list.
        - Regional One Health administered the survey, shared raw data and written summary of results.

    D. Conduct focus groups.
        - The MLH Program Evaluation team facilitated groups within targeted underserved populations.
        - In the past, MLH did not speak to the community directly regarding needs, only providers were consulted.
        - Through these focus groups, we identified more in-depth information about barriers to health that were not fully captured via the surveys.

3. Document results in a written report that which is adopted for the hospital system by an authorized body.
    - Each agency wrote their own CHNA document and identified its own priorities.
    - Top health needs could be different depending on other collection methods employed.

4. Develop a plan to share with executive leadership to aid in the process of:
    - Identifying top health priorities to address.
    - Developing an implementation plan to address these priorities at each major system facility.

5. Make the agency's CHNA report widely available to the public.

MLH Mission/Vision/Values

Mission

Methodist Le Bonheur Healthcare, in partnership with its medical staff, will collaborate with patients and their families to be the leader in providing high quality, cost-effective patient-and family-centered care. Services will be provided in a manner which supports the health ministries and Social Principles of The United Methodist Church to benefit the communities we serve.

Vision

Methodist Le Bonheur Healthcare will be nationally recognized for excellence in clinical quality, patient safety, and compassionate care to improve every life we touch.

Values

Service: Patients and families are at the heart of all we do.
Quality: We consistently provide the highest quality of care through safe, proven practices.
Integrity: We accept and honor the trust placed in us through our faith-based mission.
Teamwork: Together we are better.
Innovation: We are a learning organization and embrace new ways to get better results.

Service Area

This report presents information that describes the demographics and health status of residents within Shelby County, Tennessee and DeSoto County, Mississippi, Methodist Le Bonheur Healthcare's (MLH) primary service area. Shelby County has a population of 937,847 and DeSoto County has a population of 173,267. The racial split for Shelby County consists of almost 57% African American and 38% Caucasian, while DeSoto County, has a mix of 70% Caucasians and 25% African Americans. Hispanic ethnicity makes up 6% of Shelby County and 4% of DeSoto County. About a quarter of the populations of both counties are children under age 18.

About Methodist Le Bonheur Healthcare

Based in Memphis, Tennessee, Methodist Le Bonheur Healthcare has been caring for patients and families regardless of ability to pay for more than 100 years. Guided by roots in the United Methodist Church and founded in 1918 to help meet the growing need for quality healthcare in the greater Memphis area, MLH has grown from one hospital into a comprehensive healthcare system with 13,000 Associates supporting six hospitals, ambulatory surgery centers, outpatient facilities, hospice residence and physician practices serving communities across the Mid-South. From transplants and advanced heart procedures to expert neurology services and compassionate cancer care, MLH offers clinical expertise with a focus on improving every life we touch.

For nine consecutive years, Methodist Memphis Hospitals has been named a Best Regional Hospital in Memphis by U.S. News and World Report. For three consecutive years, MLH has earned a spot on the Great Place to Work® and FORTUNE magazine list of 100 Best Companies to Work For. MLH is also recognized by a Great Place to Work® and FORTUNE as a Best Workplace in Healthcare, and Biopharma and a Best Workplace for Women. MLH is also on the Forbes list of Best Employers for Diversity and is recognized by Becker's Hospital Review as one of the 150 Top Places to Work in Healthcare.

Visit us at methodisthealth.org.

Methodist University Hospital

Methodist University Hospital is the largest, most comprehensive hospital in the Methodist system. It is a 583 licensed acute bed facility in the heart of the Memphis Medical District. As an academic campus and principal teaching hospital of the University of Tennessee Health Science Center (UTHSC), we bring together research, medicine and innovation. This partnership supports multidisciplinary collaboration among doctors and clinical team members, leading to more advanced medical care for our patients. At Methodist University, a staff of more than 2,500 Methodist Associates focuses on providing patient and family-centered healthcare services. The following specialty areas provide cutting-edge technology and offer the latest and most advanced procedures in the Mid-South: The James D. Eason Transplant Institute, with a nationally ranked Liver Transplant Program; The Brain and Spine Institute; cardiology and cardiovascular services, with a Comprehensive Stroke Center; oncology; the Blood and Marrow Transplant Center and Center for Emergency Medicine. Methodist University Hospital has established areas of focus to provide comprehensive regional tertiary care for cardiac, cancer, neurologic and transplant patients.

Methodist South Hospital

Methodist South Hospital was opened in the Whitehaven community in 1973 and serves south Shelby County and the surrounding areas. Methodist South currently has 156 licensed acute beds and provides a full complement of general acute care services, including maternity services with a Level-II neonatal intensive care unit (NICU), critical care, surgery, 24-hour emergency department, cardiac, orthopedic, dialysis, and wound healing.

Methodist North Hospital

Methodist North was opened in 1978 in the Raleigh community to support the needs of north Shelby County and neighboring Tipton County. Methodist North currently has 280 licensed acute beds. Methodist North provides general acute care services including critical care, same-day surgery, 24-hour emergency care, limb preservation and wound care; cardiac services; orthopedic surgery and a Behavioral Health Center.

Methodist Le Bonheur Germantown Hospital

Methodist Le Bonheur Germantown Hospital is a 319-bed, full service hospital located in a community setting and serving east Shelby County and surrounding communities. Among the many services offered by Methodist Germantown are maternity services with a Level-III neonatal intensive care unit (NICU), comprehensive cardiology program, critical care services, orthopedic surgery program, rehabilitation services, an outpatient diagnostic imaging center and a 24-hour emergency department staffed and equipped to meet the healthcare needs of both children and adults.

Le Bonheur Children's Hospital

Located in Memphis, Tennessee, Le Bonheur Children's Hospital treats more than 250,000 children each year through community programs, regional clinics and a 255-bed state-of-the-art hospital. A medical staff of more than 240 physicians provides expert care in 45 subspecialties. Le Bonheur Children's Hospital has consistently been ranked as a "Best Children's Hospital" by U.S. News and World Report, including ranking in eight specialties with a Top 10 honor in Cardiology and Heart Surgery for 2019-20. The Mid-South's only comprehensive pediatric facility, Le Bonheur operates the only pediatric ACS Level 1 trauma center and Level IV NICU in the region. The hospital provides numerous specialty services including heart, liver and kidney transplantation, brain tumor resections, cardiothoracic surgery and invasive and non-invasive cardiac laboratories. Various outpatient centers provide urgent care, outpatient surgery and subspecialty clinics throughout the Mid-South in ambulatory settings and partners with various West Tennessee school systems to provide school-based nursing services, health screenings and health education. Le Bonheur Children's partnerships include St. Jude Children's Research Hospital, Semmes Murphey and Campbell Clinic Orthopedics.

Le Bonheur Children's is also committed to educating the next generation of pediatric providers, as the primary pediatric teaching hospital for the University of Tennessee Health Science Center. In addition, the Children's Foundation Research Institute, a partnership of the University of Tennessee Health Science Center, Le Bonheur and the Children's Foundation of Memphis, works to further the prevention, treatment and elimination of pediatric disease by supporting researchers looking for new discoveries in pediatrics. Medical scientists perform research in many areas including neuroscience and infectious and respiratory diseases.

University of Tennessee Methodist Physicians

UT Methodist Physicians (UTMP) is an academic physician practice group. As a partnership between Methodist Le Bonheur Healthcare and the University of Tennessee Health Science Center, UTMP includes UTHSC physicians who have a strong history of affiliation with Methodist.

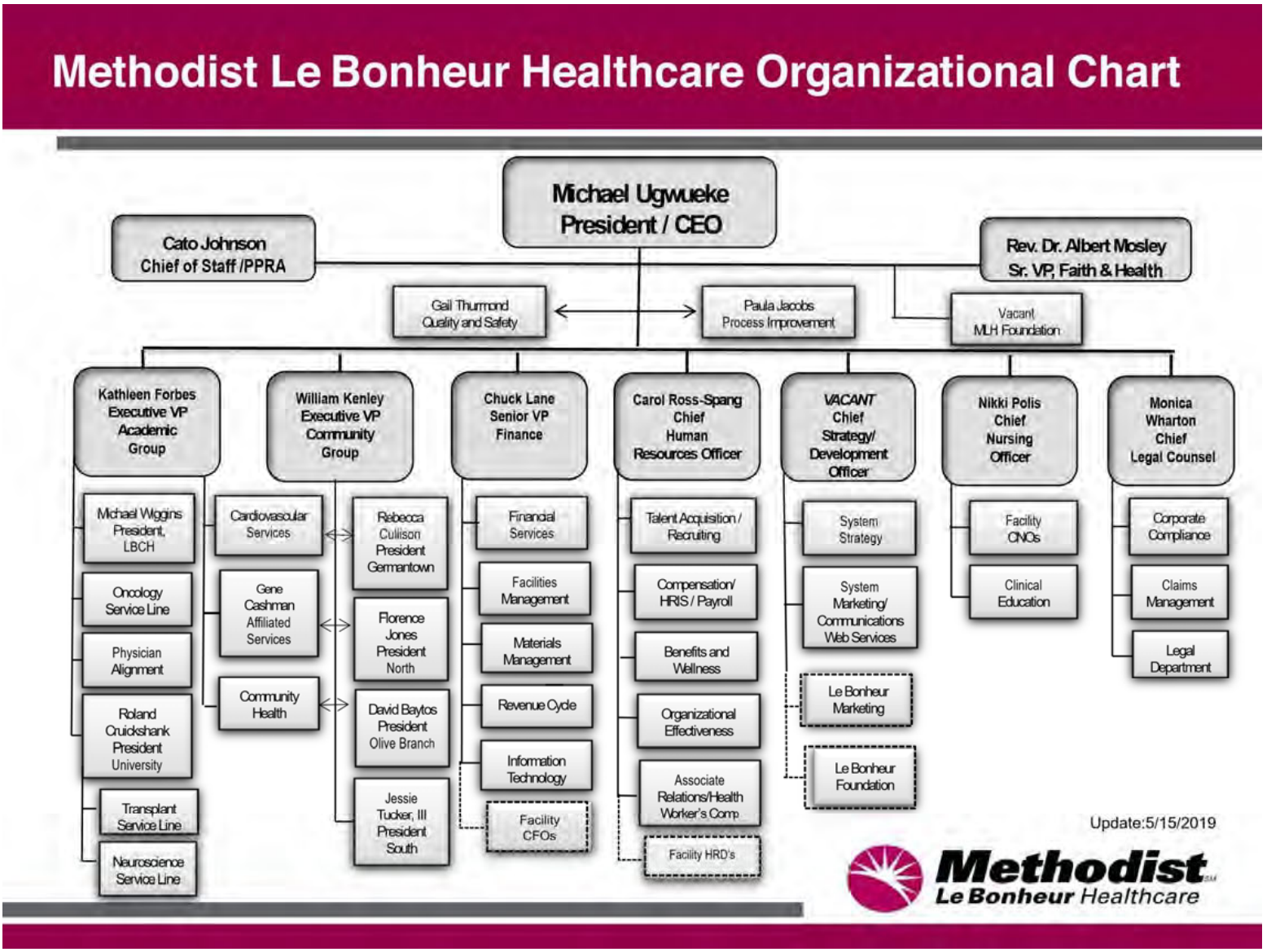
Methodist Olive Branch Hospital

Methodist Olive Branch opened in 2013 and is a five-story, 69-bed hospital designed to care for the community of north Mississippi. Methodist Olive Branch Hospital provides emergency services, obstetrics, cardiology, gastroenterology, nephrology, rehabilitation services and imaging and diagnostic services. The hospital also supports MLH's commitment to sustainability by being designed in accordance with U.S. Green Building Council (USGBC) Leadership in Energy and Environmental Design (LEED) certification.

Methodist Medical Group

Methodist Le Bonheur Healthcare (MLH) formed Primary Care Group (PCG) LLC, which is now called Methodist Medical Group (MMG), in January 2011. MMG brings together internal, family medicine and specialty physicians in a collaborative effort to provide premier comprehensive patient-center care.

Organizational Chart



Methodology Abstracts

Secondary Data

Each agency within the CHNA collaboration obtained secondary data via request to the Shelby County Health Department (SCHD). This type of data analysis helps partners to receive a comprehensive perspective of the current health status of Shelby County's residents, to tell where and which populations are primarily affected by certain health outcomes, and to learn how Shelby County's health indicators compare to other geographic areas as designated by local, state and federal health sources. While secondary data analysis supports health agencies to accomplish the IRS' task to "assess the health need of a community," it also sets the social and health context to determine how people's health is impacted by the Social Determinants of Health (SDOH). To better understand the populations which it serves, MLH conducted secondary data analyses on both Shelby County Tennessee and DeSoto County Mississippi.

Key Informant Survey

Regional One Health spearheaded the administration of the Key Informant (KI) Survey so that KIs would only be contacted once by one organization within this portion of the CHNA process. KIs were emailed the survey during April 1 through April 15, and were asked questions focused around health issues/ barriers for people in the community, health care access, underserved populations, and how to increase the overall health of Shelby County and the surrounding area. A total of 26 key informants completed the survey, with the largest percentage of informants being affiliated with Health Care/Public Health Organizations (48%), Non-profit/social services (20%) and Education (16%). Among the informants, the majority identify themselves as primarily serving traditionally underserved populations, with 85% stating that they would not consider the communities in the area as "healthy," and 58% stating that the communities overall health status as "Poor." Nevertheless, 96% of key informants feel that their organization collaborates with other organizations/institutions on local efforts to improve health in the community.

Community Health Survey

The Community Health Survey plays a vital role within the CHNA to ensure that an agency accomplishes the task to "assess the health need of a community," as indicated by the IRS. This survey was constructed in collaboration with all partners, and the final format of the survey asked participants 48 questions about

several health topics related to community health. In addition to survey formation, each partnering agency conducted a hospital/service analysis concerning the top languages utilized within the various health systems to determine the top three languages in which the Community Health Survey would be translated. From service analyses the top three languages: English, Spanish, and Arabic, respectively. Administration of this survey methodology varied, with both passive and active approaches performed to obtain community participation. Within the distribution of the Community Health Survey, MLH took a specific role to ensure that the diverse clientele of its system participated in the needs assessment.

Focus Groups

Methodist Le Bonheur Community Outreach (MLCO) held 11 focus groups with 139 community members of varying age, race, and gender over a 3 month period. The discussion in the groups revolved around community health, including identifying and discussing the most prevalent health issues in the community and barriers to care. Across all the groups, many similar themes emerged. First was a need for improved healthcare navigation and cultural humility. Second was a need for improved mental health resources and a decrease in stigma surrounding mental health. Third was the issue of uninsured or underinsured populations being unable to find or afford health care. Fourth was the need to increase the community's knowledge of already-available resources. The final theme was the barrier of poverty and health. These themes revealed the community's concern and understanding of the impact these seemingly non-health-related factors can have on the community's health. Overall, participants felt that offering assistance with healthcare navigation and addressing these other barriers was an opportunity for healthcare organizations to improve upon and increase patient engagement, trust, and ultimately improve health outcomes.

Congregational Health Survey

The Mid-South Congregational Health Survey (MSCHS) is a church needs assessment conducted in collaboration with Methodist Le Bonheur Healthcare's Congregational Health Network (CHN) and other academic and community health institutions within Memphis, TN. The primary focus of the MSCHS is to identify congregations' health needs. During February 2019 to July 2019, 76 faith-based congregations within Shelby and DeSoto Counties provided 622 participants to complete the survey. A remarkable finding within secondary data analysis of this survey displays that participants ranked the topic of mental health among one of the most significant health need/issue, especially the topic of *Anxiety or Depression*. This assessment not only presents the opportunity of how health care organizations can partner with church leaders in order to address congregations' health needs, but also produces insight of the various Social Determinants of Health associated with particular community health needs/issues.

Health Priorities

In the 2016 MLH Community Health Needs Assessment, we identified four priority areas for our work: maternal, infant, and child health, cardiovascular disease and stroke, cancer and access to health services. Below are the initiatives, programs, and activities the hospital system undertook between 2016 and 2019 to serve the pressing needs of our community.

Maternal, Infant and Child Health

Starting within our core group of practitioners, we continued to recruit pediatricians, pediatric specialists, neonatologists and neonatal/pediatric nurse practitioners to serve our children's medical needs and grew educational conferences for Neonatal and Pediatric Practitioners. A multidisciplinary group within Le Bonheur Children's Hospital implemented a hospital-based Safe Sleep program. The community, hospital based practitioners and local stakeholders came together to launch the Family Resiliency Initiative for children at risk for adverse child experiences. We served 230 at-risk families and connected them to a variety of resources to address their needs.

During this time, we also launched and conducted a parent support warm line and a Tennessee statewide breastfeeding 24/7 hotline. We served 437 families through the parent support warm line and addressed 15,512 calls across our area regarding breastfeeding concerns. Community lactation consultants worked with local pediatricians to establish a breastfeeding clinic within the pediatric offices, serving 488 people to date.

MLH also continued to support several intensive long-term programs to support mothers and babies as well as families with children who have severe asthma. Our home visitation programs for new mothers living below the poverty line served 400 families a year. Participation in these programs can last until the child is 5 years of age. Our multi-disciplinary team who helps families manage their children's asthma served 480 children a year. Community childbirth classes held at hospitals served 239 families. Methodist Le Bonheur Community Outreach educated 10,619 Shelby County middle and high school students on teen pregnancy prevention through the "Be Proud! Be Responsible! program.

Cardiovascular Disease & Stroke

Le Bonheur Children's Hospital launched a Cardiovascular Intensive Care Unit and a catheter lab expansion and expanded the pediatric heart failure program to include transplant and device implantation. We recruited pediatric and adult heart failure subspecialists and an internationally recognized structural heart specialist for adult program expansion. System-wide clinical pathways for adult heart failure and atrial fibrillation patients were established. MLH implemented tele-stroke technology to provide support to community hospitals.

Education and support groups are important services for our community members living with or taking care of people with chronic diseases. Our Chronic Disease Self-Management Program served 198 participants and our diabetes education programs served 400 adults. We provided cardiac education to 384 community members. More than 100 people participated in our stroke education and support groups. Our fitness education groups served 440 overweight or obese adults. MLH also recruited 2 bariatric surgeons and expanded accredited program to offer both medical and surgical weight loss treatments.

Cancer

During this time, MLH also developed a formal cardio-oncology clinic to treat and study heart failure in children/young adults with cancer and recruited a cardio-oncologist to advance multidisciplinary integrative adult care model. Our facilities conducted 133,628 mammograms screenings and 89,957 diagnostic tests. Through our mobile mammography unit there were 9,183 screenings conducted in the community. MLH also conducted more than 1,800 lung cancer screenings.

Access to Health Services

Le Bonheur Children's added pediatricians to Le Bonheur Pediatrics to serve Shelby County children and expanded our regional presence by opening an outpatient clinic in Jackson, Tennessee and one in Tupelo, Mississippi, and another clinic in east Shelby County on Humphreys Boulevard. They also expanded subspecialty services in Jonesboro, Arkansas. At our Methodist Germantown Hospital, we opened pediatric Emergency Department. Our PediFlite transport services expanded to West Tennessee and East Arkansas. The system also expanded pediatric trauma education to providers in the region and added pediatric subspecialty fellowships to train next generation of specialists.

The new Shorb Tower at Methodist University Hospital opened with advanced comprehensive care for transplant, cardiology, blood and marrow transplant and oncology. We also established adult primary care clinics in South Memphis, North Mississippi and Collierville markets. Adult primary care successfully launched a new patient web portal, which has engaged 72% of patients in using the portal and led to connecting 20,000 new patients to a primary care physician.

Realizing the unmet need for behavioral health services in our community, we established an integrated behavioral health and primary care model in North Memphis market. The Living Well Network made 3,045 referrals to local mental and behavioral health providers. Our partnership with St. Jude Children's Research Hospital established The Sickle Cell Clinic, which has served 468 patients since its inception. MLH deployed educational and training to all ED clinicians/staff in order to decreased time from arrival to pain management by 60-minute average.

During this time, our system also facilitated 49 community health fairs serving more than 13,000 residents, two educational summits and seven community events including the My Sister's Keeper program, serving more than 300 individuals from Shelby and DeSoto Counties. Through our Wellness without Walls program, we screened 485 low-income residents for health concerns and provided connections to our chronic disease management programs and other resources.

Many of our programs seek to identify and connect individuals to needed health services. Our HIV identification and navigation programs provided testing services to nearly 10,000 individuals and facilitated approximately 700 referrals and connections to medical care. Transportation is an issue for many residents in our service area. More than 5,500 travel vouchers were given to residents to help access clinic and/or community-based programs and services. Overall, we made more 26,000 referrals to other community services.

2019 Health Priorities

In establishing system priorities to address the 2019 CHNA, the senior leadership of our system reviewed and discussed the report and established that, efforts to address 2016 priorities should continue. The top health concerns identified in 2016 are still relevant. Our plan is for leadership within all of our facilities to review the 2019 CHNA and develop facility-specific implementation plans to address the priority areas as well as specific needs applicable to their community. Our system will not only address specific diseases and top causes of death but will also work to address barriers and issues that have the greatest geographic/racial/gender disparities.

Health Issues by Cause of Death, Prevalence, and Disparities

Causes of Death	Prevalence of Condition	Issues of the Community
Cardiovascular*	High Blood Pressure	Mental Health
Cancer*	Obesity	High Blood Pressure
Neurological	Diabetes	Diabetes
Diabetes	Alcohol Excess	Heart Disease
Lower Respiratory	Heart Disease	Obesity
Unintentional Injuries	**Violent Crime**	Drug / Alcohol / Addiction
Mental Health / Suicide	**STIs**	Cancer
Maternal Infant Child Death*	**Cancer**	Violence
Homicide	**Teen Births**	Infant Mortality
	Teen STIs	Access to Services*

* 2016 Health Priorities; **BOLD** Racial Disparities

Barriers to Healthcare

- Lack of mental health resources
  - Ratio of mental health providers 1.5 X fewer In Shelby County and 2.6 X fewer in DeSoto than the US
- No or limited transportation
  - 10% of service area has no access to personal transportation
- Lack of financial resources to even pay basic living costs
  - 20% of the population lives in poverty
- Lack of health insurance or adequate coverage
  - Hispanic do not have health insurance at a rate 5.4 X greater than Caucasian
  - African American do not have health insurance at a rate 2.0 X greater than Caucasians
- Lack of provider cultural humility and trust
- Confusing and overwhelming health care navigation

2019 Community Health Needs Assessment Methodologies at a Glance

Secondary Data	Focus Groups	Congregational Survey	Community Survey	Stakeholder Survey
Shelby Co. Health Department	139 people/11 groups	622 responses	Over 700 responses	26 responses
State of Mississippi Health Department	48% African American; 40% Hispanic	87% African American	39% African American; 52% Caucasian	Health care providers
Tennessee Department of Health	91% between 18 and 64	84% older than 45 years	Even representation ages 25 to 64	Nonprofit leaders
Community Commons	Housing stakeholders	70% female	87% female	Business leaders
County Health Rankings	Families living in city-provided housing	82% have some college experience	88% have some college experience	Educational professionals
Centers for Disease Control	School Employees	71% private insurance	79% had employer sponsored health insurance	Public health officials
Kids Count	Latino community members of Hispanic decent	33% government insurance	56% married	Social service providers
	Parents and caregivers of children	Highest concentration of respondents from low income zip codes	Highest concentration of respondents from higher income zip codes	Government housing and transportation officials
	People living with HIV/AIDS		79% working full time	
	Residents of Olive Branch MS		62% made 50K or more	
	Senior citizens			
	Service providers for low income families			

Health Issues Identified through the 2019 Community Health Needs Assessment

Causes of Death in Shelby and DeSoto

Approximate order from highest to lowest

Secondary Data	Shelby Rate per 100,000	DeSoto Rate per 100,000
Cardiovascular	315	140.9
Heart Disease	117.4	174.5
Stroke	51.2	35.8
Cancers	192	199
Prostate	30	20.1
Lung	49	52.2
Colon	19	14.2
Breast	28	32.2
Neurological	110	42.5
Diabetes	77.1	91
Lower Respiratory	37.6	59.6
Unintentional Injuries	23.3	48.7
MVA	4.1	13.2
Suicide	28.3	14.5
	9.2	35.5
Drug Overdose	17.1	14.6
	21	
Child Deaths	26.3	
Homicides	18.7	5.3
Infant Mortality	12.5	3.3

Prevalence in Shelby and DeSoto Counties

In order of number of people affected

Secondary Data	Shelby Percentage or Rate	Shelby Number of People	DeSoto Percentage or Rate	DeSoto Number of People
High Blood Pressure				
All adults	36.2%	245,721	33.3%	37,858
Medicare	63%	55,265	64%	12,660
Obesity				
adult	35%	236,551	32%	39,661
child	39%		26%	
Diabetes				
All	12%	83,505	11.2%	14,461
Medicare	28%	24,623	28.0%	24,623
Alcohol Excess	12.6%	84,848	12.20%	13,643
Heart Disease				
All	6%	31,293	6.4%	4,841
Medicare	27%	23,442	31.3%	6,204
Violent Crime per 100,000	1,286.10	11,500	186.9	26.8
STIs				
Chlmydia	835.5	7,838	491.6	852
Gonorrhea	311.7	2,924	311.7	2,924
HIV AIDS	749.7	5,731	206.3	292
All Cancers	520.5	new cases	503.5	new cases
Prostate	148.6	642	121	98
Lung	64.5	586	78.1	126
Colon	43	399	43.3	72
Breast	128.7	679	114.9	106
Low birth weight	11.2%	11,528	8.4%	1,242
Teen Births per 1,000	58	2,065	39.4	226
Teen STIs per 1,000	39	1,453		

Community Perceived Health Issue

In order of Importance

Health Issue	Sources
Mental Health	Congregational Survey
Anxiety	Stakeholder Survey
Stress	Focus Groups
Depression	
Cardiovascular Disease	Community Survey
Heart Disease	Congregational Survey
High Blood Pressure	
Stroke	
Diabetes	Community Survey
	Congregational Survey
Overweight/Obesity	Community Survey
	Congregational Survey
	Stakeholder Survey
Drug/Alcohol/Addiction	Community Survey
Cancers	Congregational Survey
Violence	Stakeholder Survey
	Congregational Survey
Maternal Child Infant	Stakeholder Survey
Dental Health	Community Survey
	Stakeholder Survey
Unintentional Injuries	Stakeholder Survey

2019 Top Health Disparities

Health Issues	Shelby County	DeSoto County
Gonorrhea (Morbidity)	Shelby 2.0 X worse than TN and US	
Gonorrhea (Morbidity)	African American 11.0 X greater than Caucasian	
HIV New Cases (Morbidity)	Shelby 2.1 X worse than US	
HIV New Cases (Morbidity)	African American 5.0 X greater than Caucasian	African American 3.8 X greater than Caucasian
Chlamydia (Morbidity)	Shelby is 1.7 X worse than US	
Teen Births	African American 4.5 X greater than Caucasian	
Teens with STDs	Shelby 2.3 X worse than TN	
Violent Crime (Morbidity)	Shelby 2.7 X worse than TN	
Homicide	Shelby 3.4 X worse than US	African American 3.3 X greater than Caucasian
Homicide	African American 7.3 X greater than Caucasian	
Infant (Mortality)	Shelby 1.9 X worse than US	
Infant (Mortality)	African American 2.6 X greater than Caucasian	African American 1.8 X greater than Caucasian
Preterm Births	Shelby 2.2 X worse than US	
Preterm Births	African American 1.5 X greater than Caucasian	African American 1.3 X greater than Caucasian
Low Birth Weight	African American 2.1 X greater than Caucasian	African American 1.8 X greater than Caucasian
High Blood Pressure (Mortality)	African American 2.0 X greater than Caucasian	African American 1.5 X greater than Caucasian
Stroke (Mortality)	African American 1.7 X greater than Caucasian	African American 1.3 X greater than Caucasian
Diabetes (Mortality)	African American 1.8 X greater than Caucasian	African American 2.6 X greater than Caucasian
Prostate Cancer (Morbidity)	Shelby 1.5 X worse than US	
Prostate Cancer (Morbidity)	African American 1.4 X greater than Caucasian	African American 2.1 X greater than Caucasian
Prostate Cancer (Mortality)	African Americans 3.0 X greater than Caucasian	African Americans 2.3 X greater than Caucasian
Colon Cancer (Morbidity)	African American 1.5 X greater than Caucasian	African American 1.6 X greater than Caucasian
Colon Cancer (Mortality)	African American 1.6 X greater than Caucasian	
Breast Cancer (Mortality)*	African Americans 1.4 X greater than Caucasian	African Americans 1.6 X greater than Caucasian

*Breast Cancer Morbidity rate between African Americans is the same as Caucasians but African Americans die at a rate 1.4 times greater than Caucasians.

Racial, Gender, and Geographic Disparities 1.0 means the rates/percentages of two groups are equal. Anything above 1.0 means one group is more greatly affected.

Ex: 1.5 X = 50% more of one group is affected than the other group; 2.0 = The rate for that group is twice that of the comparison group.

About the Program Evaluation Team

Christina M. Underhill, Ph.D. is the Director of Program Evaluation at Le Bonheur Children's Hospital where she has worked since 2008. She is a Research Psychologist with 15 years of experience in Organizational Research. She leads a team of program evaluators who design and implement research and evaluation projects for health outreach programs. In her prior positions, she was a Research Psychologist for the Department of the Navy and a Training Analyst with the Department of Homeland Security.

Veronica L. Calvin, MPH, possess over 7 years within the sectors of public health and health care. At MLH she works directly with the programs of Congregational Health Network and Wellness Without Walls. Before her tenure at MLH, she worked over five years with the Tennessee Department of Health, serving as a Disease Re-engagement Specialist and Data Manager, and as a Regional Assessment & Planning Coordinator for the West TN Region.

Cheyenne Medlock Cheyenne received both her B.S.Ed. in Exercise and Sport Science and her MPH from the University of Memphis in 2014 and 2016, respectively. She works with early childhood programs and coordinates the community benefit reporting process for Methodist Le Bonheur Healthcare. As System Administrator for MLH's community benefits, she trains reporters and compiles information across all system facilities for annual reporting.

August Marshall received her M.A. in Applied Anthropology from the University of Memphis in 2012. During graduate school, August worked with the Center for Research on Women doing research and focus groups for a teen pregnancy prevention program. August serves as a program evaluator for the organization's maternal child division, which hosts multiple programs focused on improving the health of mothers and babies in Memphis.

Kelsie Cox received her M.Ed. in Community Development and Action from Vanderbilt University in 2015. She is also a 2013 graduate of Rhodes College with a B.A. in Political Science and a minor in Gender and Sexuality Studies. Primarily, she works with a teen pregnancy prevention program focused on increasing teens' knowledge and skills surrounding HIV/STIs, abstinence and safer sex, and healthy relationships and negotiation.

Rowland D. Yancey has a M.Ed. in Education from the University of North Carolina at Greensboro, and a B.S. in Psychology from University of North Carolina at Chapel Hill. He develops and implements community based evaluation plans based on feedback of program staff, leadership, and community served. Prior to working with Le Bonheur, Rowland worked as a research data manager, where he specialized in submission oversight, focused on evaluating community-based outreach initiatives for multi-site research studies.



Executive Summary

2019 Community Health Needs Assessment Executive Summary

In January 2019, for the first time ever, Methodist Le Bonheur Healthcare (MLH) collaborated with Shelby County Health Department (SCHD), Regional One Health, Baptist Memorial Health Care, and St. Jude Children's Research Hospital to conduct a joint Community Health Needs Assessment (CHNA) for Shelby County. These five renowned healthcare agencies convened to share ideas, resources, data, and most importantly to decrease duplications of CHNA efforts even though our geographic service areas and reporting timelines differed. Regional One Health spearheaded a survey of key industry and stakeholder informants. The SCHD developed a community health needs survey that MLH translated to both Spanish and Arabic. Some of the partners promoted the surveys on social media platforms, while SCHD and Methodist went into the community to those not connected to social media.

MLH took an integrative approach to utilize various methods for this assessment for our primary geographic area including Shelby County, Tennessee and DeSoto County, Mississippi. In addition to publically available secondary data, MLH incorporated results from the Methodist Congregational Health Needs Survey, an assessment to learn health needs of faith-based communities in and around Shelby and DeSoto Counties. Program evaluation staff of Methodist Le Bonheur Community Outreach conducted 11 focus groups with 139 community members to gather more in-depth knowledge of health and barriers to health.

In summary, our CHNA reveled the following key information:

Most Common Causes of Death	Prevalence of Condition	Issues Identified by the Community
Cardiovascular*	High Blood Pressure	Mental Health
Cancer*	Obesity	High Blood Pressure
Neurological	Diabetes	Diabetes
Diabetes	Alcohol Excess	Heart Disease
Lower Respiratory	Heart Disease	Obesity
Unintentional Injuries	Violent Crime	Drug / Alcohol / Addiction
Mental Health / Suicide	STIs	Cancer
Maternal Infant Child Health*	Cancer	Violence
Homicide	Teen Births	Infant Mortality
	Teen STIs	Overall: Access to Health*

* Health Priorities Identified in the 2016 CHNA and Implementation Plan

Regardless of the health conditions, the community voiced several issues related to accessing healthcare which cut across all health conditions:

- Lack of mental health resources
- No or limited transportation
- Lack of financial resources to even pay basic living costs
- Lack of health insurance or adequate coverage
- Lack of provider cultural humility and trust
- Confusing and overwhelming health care navigation.

Although the secondary data, stakeholder and community surveys did not identify these barriers due to methodology, these issues were consistently voiced during the 11 focus groups that were held with community members as well as reflected in the congregational health surveys administered to local churches.

Issues prioritized in 2016 included: cardiovascular health, cancer and maternal child health. Efforts to address these issues have been and will continue to be deployed as these same issues continue to plague our community.

In establishing system priorities to address the 2019 CHNA, the senior leadership of our system reviewed and discussed the report and established that:

- Efforts to address 2016 priorities should continue.
- Leadership within all of our facilities should review the 2019 plan and develop their own, facility-specific implementation plan.
- Our system should not only address specific diseases and top causes of death but should also work to identify barriers and issues that have the greatest geographic, racial, or gender disparity within our service area.
    - African Americans die from heart disease, stroke, and lower respiratory diseases at a much higher rate than Caucasians. More information is provided in the Secondary Data Report.
    - While rate of infant mortality is lower than any of the other major causes of death, the racial disparity is staggering. The preterm birth rate for Shelby County is 2.2 times worse than Tennessee and the percent of mothers lacking prenatal care is 2.2 greater than the United States'. African Americans have a rate of premature births that is much higher than Caucasians and a death rate that is almost 3 times greater than Caucasians.
    - Although teen birth rates have dropped nationally and locally through pointed efforts to educate youth such as the "Be Proud Be Responsible" program, African American and Hispanic teens gave birth at rates 4 to 6 times greater than Caucasians in Shelby County. Shelby County has a teen STI rate that is 2 times greater than Tennessee. African Americans acquired new cases of HIV and Chlamydia at 5 times the rate of Caucasians and gonorrhea 11 times more often than Caucasians.

We increasingly understand that many health conditions are negatively affected by Social Determinants of Health, which are most prevalent among impoverished populations.
The poverty rate for our areas is 20%, which is higher than state and national averages. A third of all children live in poverty. A third of the populations of both counties have limited access to healthy foods while over 10% have no access to personal transportation. All these affect a person's ability to pay for their healthcare. Over 10% don't complete a high school education, which limits employment opportunities and drastically affects earning potential.
While changing the educational, economic climate of our service area is out of our scope, as a system we have a direct impact and control over where and how care is provided, type of care, physician and provider cultural sensitivity, and providing assistance to our community to navigate a complex health system of care.



Secondary Data

2019 COMMUNITY HEALTH NEEDS ASSESSMENT SECONDARY DATA

Methodist Le Bonheur Healthcare

Prepared by:

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[redacted]

Abstract

This report presents a presentation of secondary public data that describes the demographics and health status of residents within Shelby County, Tennessee and DeSoto County, Mississippi (Methodist Le Bonheur Healthcare's (MLH) primary service area). Given that disparities exist among residents within this service area, and these disparities impact health outcomes disproportionately, gender and racial data are identified, where possible. Information on the health issues of the MLH service area include examining population impact and disparities of specific health issues, and Social Determinants of Health such as education, economic stability, social context, transportation and housing, food security and physical activity. In addition to data tables, a comparison of certain health outcomes of Shelby and DeSoto Counties to their state and national rates were represented visually via dashboards.

Report Organization

This report presents an analysis of secondary public data that describes the demographics and health status of residents within Shelby County, Tennessee, and DeSoto County, Mississippi, Methodist Le Bonheur Healthcare's primary service area. Where possible gender and racial data are provided to understand the disparities among residents within this service area.

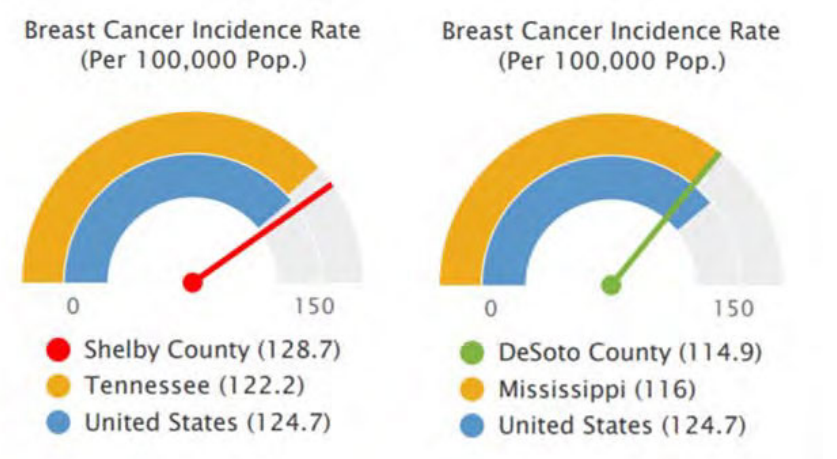
The report is organized into overarching categories beginning with population statistics and overall health of the primary service areas. Following is detailed information on specific health issues and behaviors presented in order of their impact on our communities. The remaining categories are devoted to additional Social Determinants of Health such as education, economic stability, social context, transportation and housing, food security and physical activity, all of which impact the health of both counties.

How to Read the Dashboards

The dashboards in this report serve as visual representation to demonstrate where certain health outcomes of Shelby and DeSoto Counties compared to their state and national rates.

To differentiate against the various health ratings among the national, state and local data:

- National health rates are displayed within the inner, blue arc of the dashboard.
- State health rates (either Tennessee or Mississippi) are displayed within the outer, yellow arc of the dashboard.
- The speedometer gauge stick displays the county health rates, demonstrating where the county health rate compares to the national and state rates. If a county's health measurement is equal to or less than its state rate, the speedometer gauge stick will appear green. (See below, Shelby County.) However, if the county's rate is greater than that of its state rate, the speedometer gauge stick will appear red. (See below, DeSoto County.)



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Demographics of Service Area

Shelby County, Tennessee has a racial split that consists of almost 57% African American and 38% Caucasian. In DeSoto County, there are more Caucasians (70%) than African Americans (25%). Hispanic ethnicity makes up 6% of Shelby County and 4% of DeSoto County. About a quarter of the populations of both counties are children under age 18.

TABLE 1. RACIAL COMPOSITION OF SHELBY COUNTY, TENNESSEE, 2013-2017

Race	Caucasian		African American		Asian		Other		Multiple Races	
	#	%	#	%	#	%	#	%	#	%
Shelby Co	341,880	38.2	498,510	56.6	23,452	2.7	2,857	.3	13,950	1.6
Tennessee	4,898,888	78.3	1,099,118	17.6	109,828	1.8	26,623	.4	122,861	2.0

Note: Data are from source [1].

TABLE 2.RACIAL COMPOSITION OF DESOTO COUNTY, MISSISSIPPI, 2013-2017

Race	Caucasian		African American		Asian		Other		Multiple Races	
	#	%	#	%	#	%	#	%	#	%
DeSoto Co	120,513	69.6	43,980	25.4	2,100	1.2	3,040	1.8	3,634	2.1
Mississippi	1,755,471	58.8	1,122,576	37.6	28,859	1.0	41,385	1.4	37,929	1.3

Note: Data are from source [1].

TABLE 3. PERCENT AND TOTAL OF ETHNICITY IN SHELBY AND DESOTO COUNTIES, 2013-2017

Ethnicity	Shelby County, TN		DeSoto County, MS	
	#	%	#	%
Hispanic	57,198	6.1	8,253	4.8
Non-Hispanic	880,649	93.9	165,014	95.2

Note: Data are from source [1].

TABLE 4. POPULATION BY AGE GROUPS WITHIN SHELBY COUNTY, 2013-2017

	Total Population	Under 18		18 to 64		65 and older	
	#	#	%	#	%	#	%
Shelby Co	937,847	237,605	25.3	585,825	62.5	114,417	12.2
Tennessee	6,597,381	1,497,647	22.7	4,086,378	61.9	1,013,356	14.9

Note: Data are from source [1].

TABLE 5. POPULATION BY AGE GROUPS WITHIN DESOTO COUNTY, 2013-2017

	Total Population	Under 18		18 to 64		65 and older	
	#	#	%	#	%	#	%
DeSoto Co	173,267	45,784	26.4	106,511	61.5	20,972	12.1
Mississippi	2,986,220	726,301	24.3	1,822,892	61	437,027	14.6

Note: Data are from source [1].

TABLE 6. CHILDREN UNDER 18 BY RACE AND ETHNICITY IN SHELBY AND DESOTO COUNTIES, 2013-2017

	Caucasian		African American		Hispanic	
	#	%	#	%	#	%
Shelby Co	74,387	20.1	138,310	27.6	23,953	10.1
DeSoto Co	29,047	24.1	13,157	29.9	3,127	6.8

Note: Data are from source [1].

Overall Health and Premature Deaths

Adults with Poor Health

In both Shelby and DeSoto Counties over 15% of the adult population report "poor" to "fair" to describe their overall health status. In Shelby County, this is about 110,642 people and 17,735 people in DeSoto County.[1] In Shelby County, adults report an average of 4.4 days of poor physical health each month, while in DeSoto County, an average of 3.4 days of poor physical health are reported each month.[2,3]

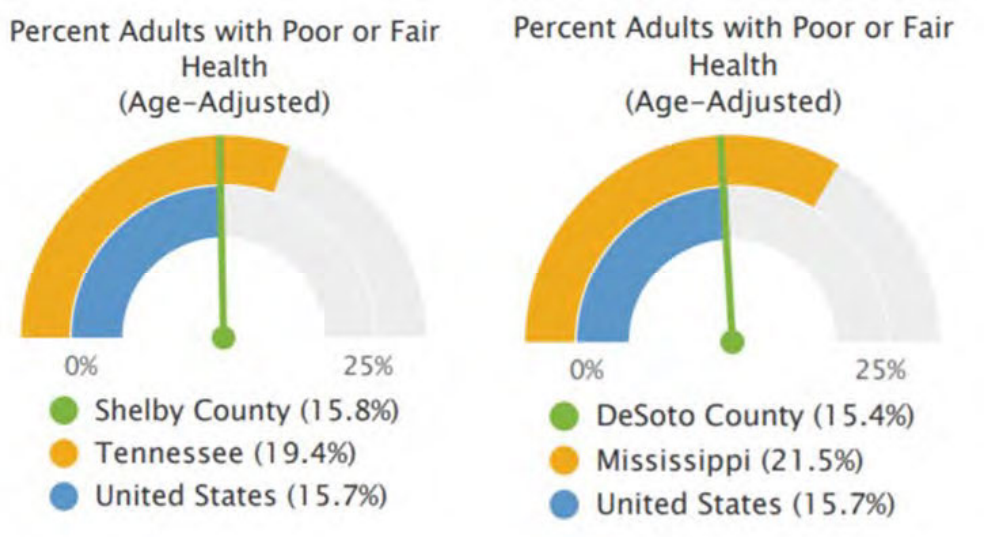

FIGURE 1. ADULTS WITH POOR OR FAIR HEALTH WITHIN SHELBY AND DESOTO COUNTIES, 2006-2012.[1]

Disabilities

The percentage of adults in both Shelby and DeSoto Counties with a disability is lower than the percentage within their respective states. In Shelby County, 12.6% (116,589 people) have a disability, where 11.7% (20,092 people) in DeSoto County have a disability.[1]

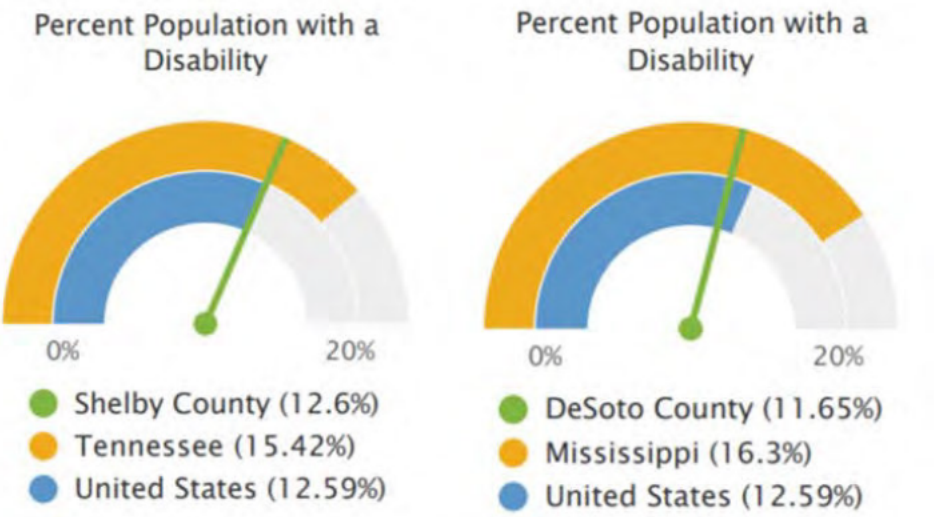

FIGURE 2. POPULATION WITH A DISABILITY WITHIN SHELBY AND DESOTO COUNTIES, 2013-2017.[1]

Life Expectancy

Life expectancy is the average number of years a person can expect to live. Life expectancy for Shelby County is 75.8 years, which is slightly lower than that of the 76.1 years for Tennessee. In DeSoto County, the life expectancy is 76.9 years compared to 74.8 years for Mississippi. Hispanics have a higher life expectancy than both Caucasians and African Americans in both Shelby and DeSoto Counties.[2,3]

TABLE 7. LIFE EXPECTANCY IN YEARS BY RACE AND LOCATION, 2018

Race/Ethnicity	Shelby County	DeSoto County
All	75.8	76.9
Caucasian	78	76
African American	73	79
Hispanic	92	102

Note: Data are from sources [2,3].

Years of Potential Life Lost

There are multiple ways to measure premature deaths. For years of potential life lost, if the average life expectancy is 75 and someone dies before they reach 75 then the difference between their age and 75 is calculated. This difference is summed for the entirety of people who die before 75 during the period being measured and rates are calculated per 100,000 people. The rate of potential years lost for DeSoto County (8,000) is better than the rate for Mississippi (10,400), while Shelby County (9,900) is slightly worse than the rate for Tennessee (9,100).[1]

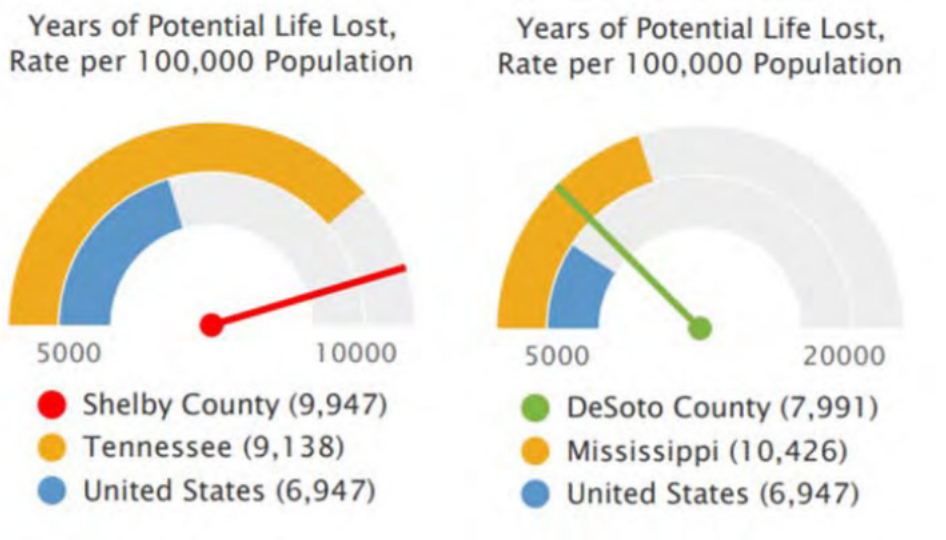

FIGURE 3. YEARS OF POTENTIAL LIFE LOST WITHIN SHELBY AND DESOTO COUNTIES, 2015-2017.[1]

In Shelby County, African Americans have a rate of years of life lost 1.59 timesworse than Caucasians. African Americans in DeSoto County have a rate 1.6 times worse than Caucasians and 2.41 times worse than Hispanics.[2,3]

TABLE 8. YEARS OF POTENTIAL LIFE LOST BY RACE AND LOCATION, 2018

Race/Ethnicity	Shelby County	DeSoto County
All	9,900	8,000
Caucasian	7,700	8,900
African American	12,300	6,800
Hispanic	5,100	4,800

Note: Data are from sources [2,3]. Rates are per 100,000 people.

Premature Deaths

Premature mortality refers to the number of deaths that occurred for people who were younger than 75 years of age, per 100,000 adults. In Shelby and DeSoto Counties, the premature mortality rate is 470 and 400, respectively. Shelby County's rate is slightly higher than Tennessee's rate at 450, while DeSoto County is much less than Mississippi's premature mortality rate of 500.[2,3]

Racial disparities exist in both Shelby and DeSoto Counties. In Shelby County, Caucasians have a premature death rate 1.68 times worse than Hispanics. African Americans have premature death rate 1.54 times the rate of than Caucasians and 2.59 times that of Hispanics. In DeSoto County, Caucasians have a premature death rate 2.38 times that of Hispanics. African Americans have a premature death rate 1.9 times the rate of Hispanics.[2,3]

TABLE 9. PREMATURE MORTALITY RATE BY RACE AND LOCATION, 2018

Race/Ethnicity	Shelby County	DeSoto County
All	470	400
Caucasian	370	430
African American	570	350
Hispanic	220	180

Note: Data are from sources [2,3]. Rates are per 100,000 people.

Cardiovascular Disease

The number one leading cause of death in the United States is cardiovascular disease, which encompasses high blood pressure/hypertension, heart disease, and stroke.[4] In 2017, there were 28.2 million adults or 11.5% of the adult population diagnosed with heart disease. There were 647,457 deaths due to cardiovascular disease, a rate of death 198.8 per 100,000 persons.[5] Cardiovascular disease accounted for 6.7% of physician office visits and 5.9% of all emergency department visits in this same year. Concerning the racial breakdown among the prevalence of coronary heart disease for the populations: 6.5% of Caucasians, 6.3% of Hispanics, and 3.7% of African Americans have heart disease.[6]

Heart Disease

Heart disease is the number one cause of death in Shelby County and the second leading cause of death in DeSoto County. In 2017, heart disease accounted for 22.3% (1,842 people) of all deaths in Shelby County and 22% (313 people) of all deaths in DeSoto County.[7,8]

Six percent (31,293 people) of all adults in Shelby County have heart disease, and of the county's Medicare population, 26.5% (23,442 adults) have been diagnosed with this condition. While the mortality rate for Shelby County is less than the rate for Tennessee, it is slightly higher than the rate for the United States.[1]

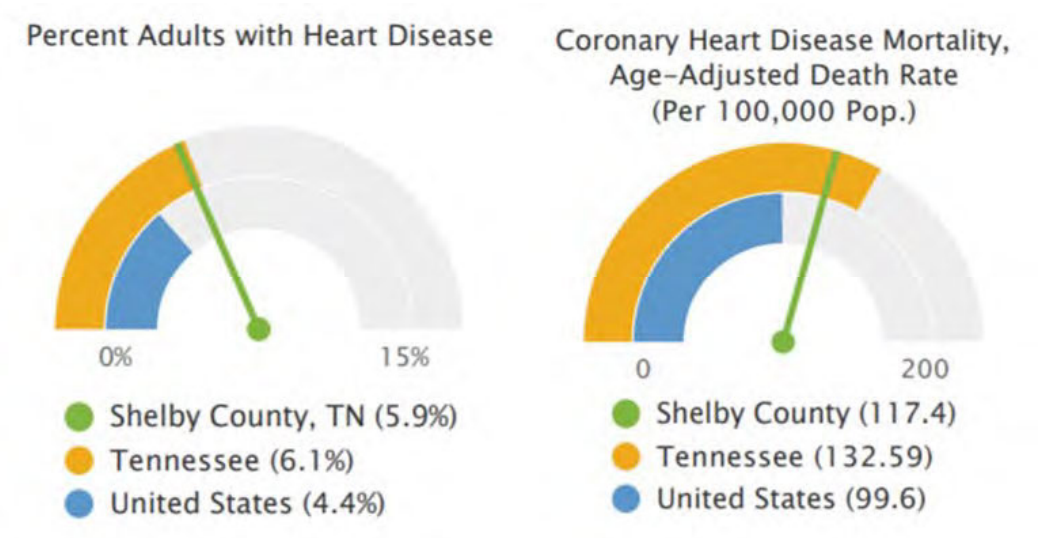

FIGURE 4. ADULTS WITH HEART DISEASE WITHIN SHELBY COUNTY, 2012-2016.[1]

Six percent (4,841 people) of DeSoto County adults have heart disease, and of the county's Medicare population, 31% (6,204 adults) have been diagnosed with this condition. DeSoto

County's heart disease mortality rate is 1.45 times worse than the U.S. and 1.3 times worse than Mississippi. DeSoto County has an average of 1,273 people die each year from coronary heart disease.[1]

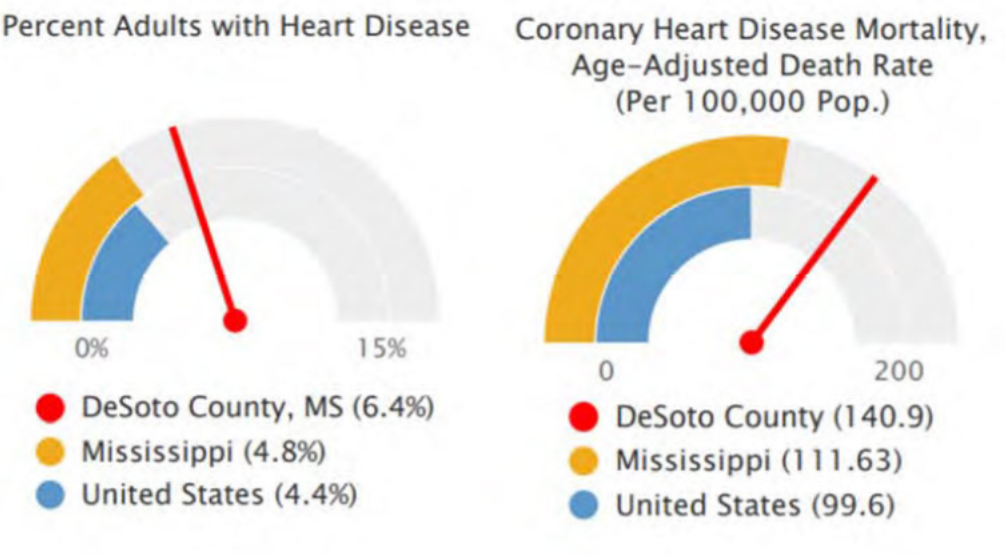

FIGURE 5. ADULTS WITH HEART DISEASE WITHIN DESOTO COUNTY, 2012-2016.[1]

Current data from 2017 indicates that Caucasians in DeSoto County die at a rate 1.96 times greater than African Americans. This disparity is greater than across Mississippi where Caucasians die from heart disease at a rate 1.38 times greater than African Americans.[8, 9]

TABLE 10. HEART DISEASE MORTALITY RATES BY RACE AND LOCATION, 2012-2016

Race/Ethnicity	Shelby County	Tennessee	DeSoto County[8]	Mississippi[9]
All Races	117.4	132.5	174.5	265.9
Caucasian	112.9	134.3	209	305.3
African American	124.6	136.0	106.5	220.6
Hispanic	38.5	42.1	-	-

Note: Data are from sources [1]. Rates are per 100,000 people.

Within both Shelby and DeSoto Counties, heart disease mortality rates are also different for males and females. In Shelby County, males die 1.9 times greater than that of females, while in DeSoto County males die of coronary heart disease at a rate 1.54 times higher than females.[1]

Across the United States, the disparity rate between genders is slightly different with accounting for race. Caucasian males die of heart disease 1.8 times greater than Caucasian females and African American males die 1.44 times greater than that of African American females.[5]

TABLE 11. HEART DISEASE MORTALITY RATES BY GENDER AND LOCATION, 2012-2016

Gender	Shelby County	Tennessee	DeSoto County	Mississippi
Male	163.2	175.9	175.3	153.4
Female	85.8	98.6	113.2	79.2

Note: Data from sources [1]. Rates are per 100,000 people.

High Blood Pressure/Hypertension

Hypertension is the 13th leading cause of death across the nation contributing to 35,316 deaths in 2017.[5] The mortality rate was 10.8 per 100,000 people. Almost a third of adults over 20 years of age, 33.2%, are on medications for hypertension, and this condition accounts for 32.8 million office visits and 1.0 million emergency department visits each year.[10]

In Shelby County, 36% (245,721) of the adult population has high blood pressure, and of the county's Medicare population, 63% (55,265) has high blood pressure. In DeSoto County, 33% (37,858) of the adult population has high blood pressure, and of its Medicare population, 31% (6,204) has high blood pressure.[1]

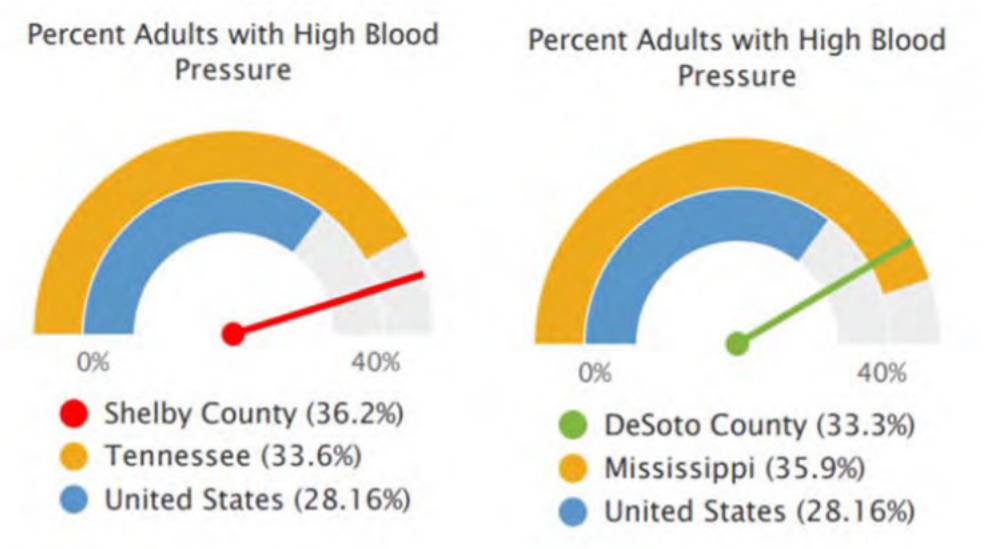

FIGURE 6. ADULTS WITH HIGH BLOOD PRESSURE WITHIN SHELBY AND DESOTO COUNTIES, 2006-2012.[1]

Death rates attributed to high blood pressure for all races across Tennessee is 264.6 and nationally, 221.7.[11] Shelby County's rate of death due to hypertension is greater than both the state and national rates. Hypertension is the eighth leading cause of death in DeSoto County accounting for 2.6% of all deaths in 2017.

Nationally African Americans have high blood pressure at a rate 1.36 times greater than Caucasians. Specifically African American females have high blood pressure 1.56 times greater than Caucasian females.[6] The racial disparity further increases when it comes to those that die from hypertension. In Shelby County, African Americans die at twice the rate of Caucasians from hypertension.[11] In DeSoto County in 2017, Caucasians died of hypertension at 1.7 the rate of African Americans. This trend of Caucasians dying at a higher rate than African Americans in DeSoto County is not consistent with the state rates where African Americans die at a slightly higher rate than Caucasians from hypertension.[8]

TABLE 12. HYPERTENSION MORTALITY RATES BY RACE WITHIN SHELBY COUNTY, 2014-2016, AND DESOTO COUNTY, 2017

Race/Ethnicity	Shelby County	Tennessee	DeSoto County	Mississippi
All	299.5	264.6	20.7	18.4
Caucasian	209.1	-	24.1	17
African American	422.8	-	14.1	21.9

Note: Data are from sources [8,11]. Rates are per 100,000 people.

Stroke/Cerebrovascular Disease

Stroke is the fifth leading cause of death in the United States and accounted for 146,383 deaths in 2017. The stroke mortality death rate is 44.9 per 100,000 people. As of 2017, 7.8 million adults have had a stroke. Stroke symptoms accounted for 2.2 million visits to a primary care office, and produced 590,000 emergency department visits.[12]

In Shelby County in 2017, cerebrovascular disease or stroke contributed to 6.3% of all deaths (517 people) for the third top cause of death.[7] In DeSoto County for this same year, cerebrovascular disease was the sixth leading cause of death, where 70 people died, accounting for 4.9% of all deaths.[8] The mortality rate for stroke is higher in Shelby County (51.2) than in DeSoto County (35.8).

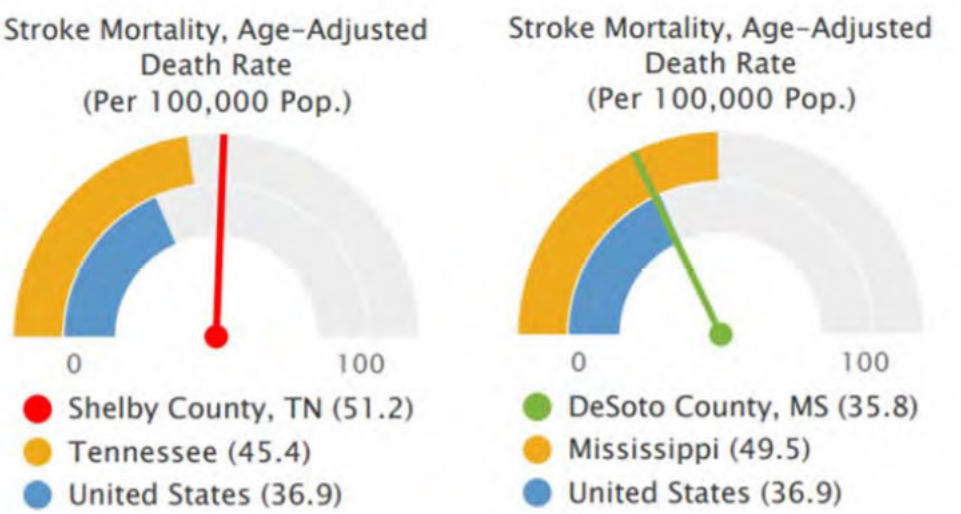

FIGURE 7. STROKE MORTALITY RATE WITHIN SHELBY AND DESOTO COUNTIES, 2012-2016.[1]

Nationally, African Americans have strokes 1.59 times greater than Caucasians. Between both counties, 505 people die from stroke every year. African Americans die from stroke at a rate 1.7 times higher than that of Caucasians in Shelby County, and in DeSoto County they die at a rate 1.3 times greater than Caucasians.[1]

TABLE 13. STROKE MORTALITY RATES BY RACE AND LOCATION, 2012-2016

Race/Ethnicity	Shelby County	Tennessee	DeSoto County	Mississippi
All	51.2	45.4	35.8	49.5
Caucasian	38.7	43.1	34.4	44.8
African American	67.0	63.1	45.6	60.9

Note: Data are from sources [1]. Rates are per 100,000 people.

When adding in gender, the rates for stroke are higher but also differ among genders. African American males die 1.46 greater than Caucasian males while African American females dies 1.65 times greater than Caucasian females.[6]

TABLE 14. STROKE MORTALITY RATES BY GENDER AND LOCATION, 2012-2016

Gender	Shelby County	Tennessee	DeSoto County	Mississippi
Male	55.8	46.2	32.4	51.6
Female	47.2	43.9	36.9	46.9

Note: Data are from sources [1]. Rates are per 100,000 people.

Cancer (all types)

Cancer, (of all types), is the second leading cause of death within the United States, with 23.2 million people or 9.4% of the population being diagnosed with cancer. The rate of cancer deaths is 183.9 per 100,000 people,[5] resulting in approximately 600,000 people dying from cancer each year. Cancer accounts for 24.7 million physician office visits annually.[7,13]

Cancer is the second leading cause of death in Shelby County and primary cause of death in DeSoto County.[1] In 2017, cancer contributed to 23% of all deaths (326 people) in DeSoto County and 20.2% of all deaths (1,665 people) in Shelby County.[7,8]

In Shelby County, the cancer incidence rate per 100,000 people is 520.5 and the mortality rate for all cancers is 192.2 per 100,000 people.[1]

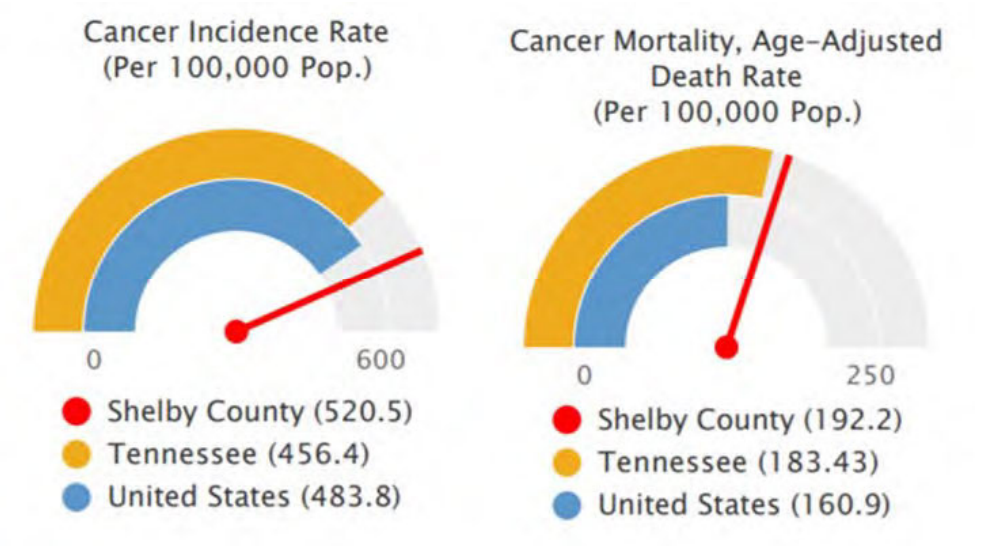

FIGURE 8. CANCER INCIDENCE AND MORTALITY RATES WITHIN SHELBY COUNTY, 2011 – 2015.[1]

In DeSoto County, the cancer incidence rate per 100,000 people is 503.5 and the mortality rate is 199.5 per 100,000 people.[1]

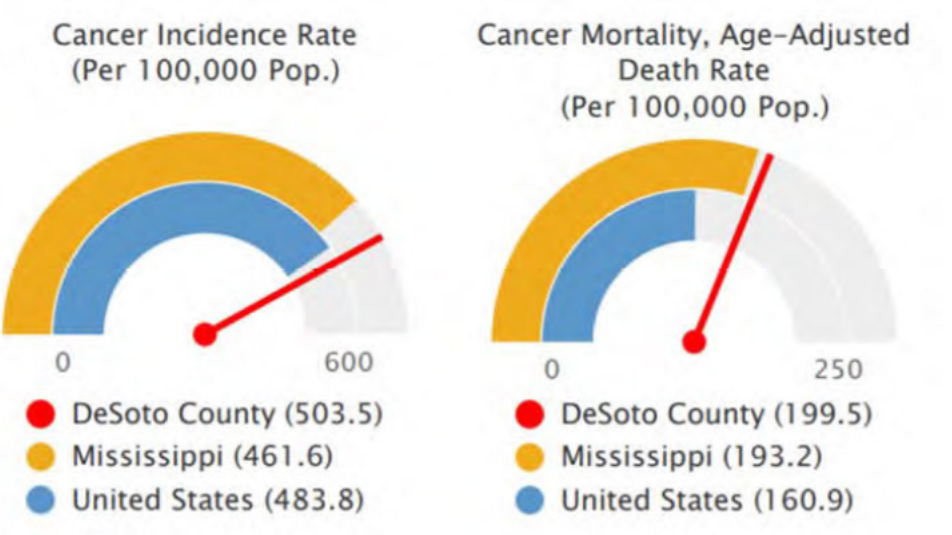

FIGURE 9. CANCER INCIDENCE AND MORTALITY RATE WITHIN DESOTO COUNTY, 2011 – 2015.[1]

While the prevalence (morbidity) rates for all cancers among African Americans and Caucasians are comparable in both counties, there is a smaller difference among cancer mortality rates. In Shelby County, African Americans die from cancer at a rate 1.35 times greater than Caucasians, while in DeSoto County Caucasians die at a rate 1.07 times greater than African Americans.

TABLE 15. ALL CANCER MORBIDITY AND MORTALITY RATES BY RACE AND LOCATION, 2011-2015

Race/Ethnicity	Shelby County – Morbidity	Shelby County – Mortality	DeSoto County – Morbidity	DeSoto County – Mortality
All	520.5	192.2	503.5	199.5
Caucasian	436.3	168.3	452.5	205.2
African American	465.2	226.9	413.2	191.1
Hispanic	289.2	91.1	302.4	-

Note: Data are from sources [1]. Rates are per 100,000 people.

There is a slight difference of cancer mortality rates between the genders, with males dying from cancer at a rate 1.5 times greater than that of females in both Shelby and DeSoto Counties.[1]

TABLE 16. ALL CANCER MORTALITY RATES BY GENDER AND LOCATION, 2011-2015

Gender	Shelby County	Tennessee	DeSoto County	Mississippi
Male	237.22	226.88	245.89	245.02
Female	162.48	151.6	166.86	156.27

Note: Data are from sources [1]. Rates are per 100,000 people.

Breast Cancer

Between 2012 and 2016, in Shelby County there were 3,432 new cases of breast cancer with a prevalence rate of 129 for every 100,000 women. Over those years, 770 people died of breast cancer for a death rate of 28 per 100,000 people.[16]

Between 2012 and 2016 in DeSoto County, there were 532 new cases of breast cancer.[16] The incidence rate for breast cancer in DeSoto County is 114.9, per 100,000 persons.[1] In DeSoto County 22 out of every 100,000 women die from breast cancer.[16]

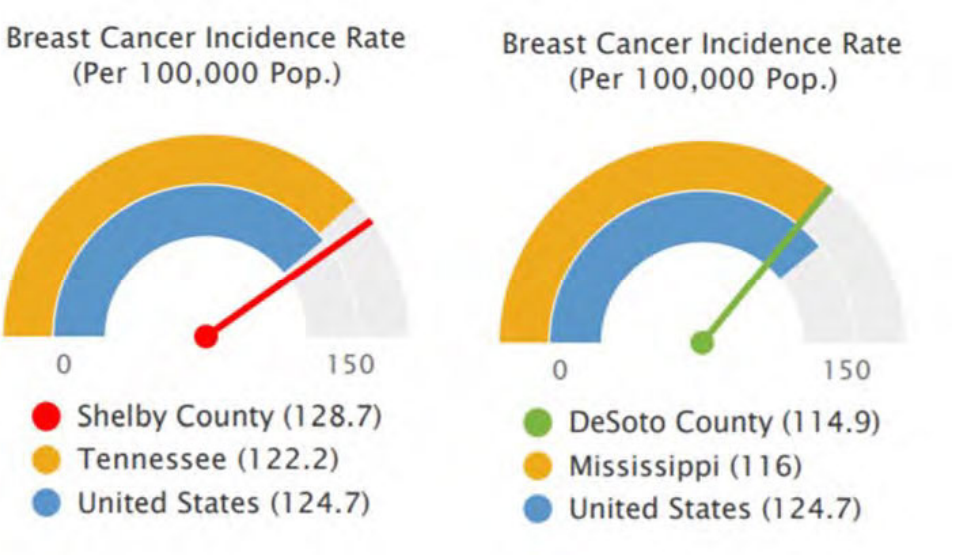

FIGURE 10. BREAST CANCER WITHIN SHELBY AND DESOTO COUNTIES, 2011 – 2015.[1]

The incidence rate of breast cancer is similar across races in Shelby County. Caucasians have a rate of 128.7 and African Americans have a rate of 128.5 per 100,000 women. The rates for Shelby County are similar to the national rates overall and by race where African Americans had breast cancer at a rate of 124 and Caucasians had a rate of 126.1. In DeSoto County, there is little difference between African Americans and Caucasian concerning the rate of new breast cancer incidences.[16]

While the incidence rates between African American and Caucasian women show little disparity, there is a very noticeable disparity when it comes to rate of death due to breast cancer. In Shelby County, African American women die at a rate 1.4 times greater than Caucasian women do, and in DeSoto County, they die at a rate 1.55 times greater than Caucasian women do. This difference is similar to the racial difference nationally between African Americans and Caucasians.[16]

TABLE 17. BREAST CANCER INCIDENCE AND DEATH RATES BY RACE AND LOCATION, 2012-2016

	Shelby County		DeSoto County		United States	
Race/Ethnicity	Incidence Rate	Death Rate	Incidence Rate	Death Rate	Incidence Rate	Death Rate
All	129	28	112	22	125.2	20.6
Caucasian	128.7	23.6	113.4	21.1	126.1	20.1
African American	128.5	33.2	99.1	32.7	124	28.1
Hispanic	101.1	-	-	-	93.9	14.2

Note: Data are from source [16]. Rates are per 100,000 people.

Breast Cancer Screening

Mammography screening is a vital tool in order to detect breast cancer at an early stage. In 2015 across the nation, 65.3% of women aged 40 and above received a mammogram in the last two years. These visits accounted for 17.3 million physician office visits.[14]

In Shelby County, 31% of all women receive a mammography screening, an amount less than the 40% of women across Tennessee who got a screening. In DeSoto County, 33% of women received a screening, which is slightly lower than 38% of all women across Mississippi. In both counties, Caucasian and African American women were more likely get a mammography screening than Hispanic women were.[2,3] Concerning Medicaid recipients, there is a higher percentage rate of mammography screening among women with Medicaid than those who do not have Medicaid. Fifty-seven percent of Medicare recipients in Shelby County and 59% of those in DeSoto County received a mammogram every two years.[1]

TABLE 18. BREAST CANCER SCREENING PERCENTAGES BY RACE AND LOCATION, 2015

Race/Ethnicity	Shelby County	Tennessee	DeSoto County	Mississippi
All	31%	40%	33%	38%
Caucasian	31%	-	32%	-
African American	30%	-	38%	-
Hispanic	25%	-	31%	-

Note: Data are from sources [2,3]. Rates are per 100,000 people.

Colon and Rectal Cancer

The incidence rate of colon and rectal cancer in both Shelby and DeSoto County is 43, but Shelby County's rate is higher than both the state and national rates.[1,8] The rate of death from colon and rectal cancer is 19 per 100,000 people in Shelby County[16] and 14 per 100,000 in DeSoto County.[8]

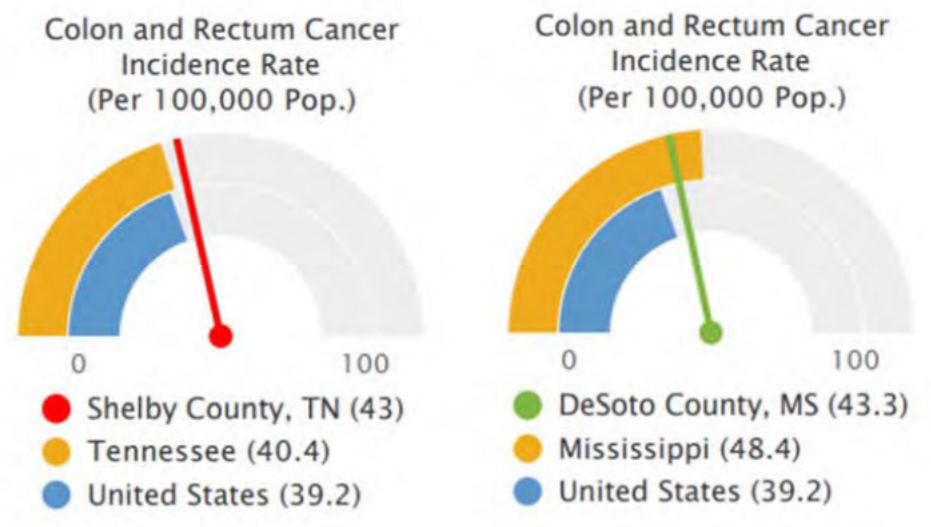

FIGURE 11. COLON AND RECTUM CANCER WITHIN SHELBY AND DESOTO COUNTIES, 2012-2015.[1]

In Shelby County, African Americans get colorectal cancer at a rate slightly higher than Caucasians, and males regardless of race get this type of cancer more often than females. Specifically, African American males get colorectal cancer 1.52 times more frequently than Caucasian males.

TABLE 19. RATE OF NEW COLORECTAL CANCERS BY GENDER AND RACE IN SHELBY COUNTY, 2012-2016

Race/Ethnicity	Shelby County All	Shelby County Male	Shelby County Female
All	43	50.5	37.7
Caucasian	37.1	41.6	32.9
African American	50.1	63.2	42.1
Hispanic	28	-	-

Note: Data are from source [16]. Rates are per 100,000 people.

In DeSoto County, African Americans get colorectal cancer at a rate 1.56 times greater than Caucasians, and males regardless of race get this type of cancer more often than females at a

rate 1.38 higher. Specifically, African American males get colorectal cancer 1.64 times more frequently than Caucasian males, and African American females get colorectal cancer at a rate 1.45 times greater than Caucasian females.[16]

TABLE 20. RATE OF NEW COLORECTAL CANCERS BY RACE AND GENDER IN DESOTO COUNTY, 2012-2016

Race/Ethnicity	DeSoto County All	DeSoto County Male	DeSoto County Female
All	40	47.2	34
Caucasian	37.2	43.3	31.7
African American	58.1	71.3	45.9
Hispanic	-	-	-

Note: Data are from source [16]. Rates are per 100,000 people.

The racial disparity is even greater when examinging rates of death in Shelby County due to colorectal cancer. African Americans die at a rate 1.64 greater than Caucasians. Males die at a rate of 1.64 times greater than females. African American males die 2.1 times more often from colorectal cancer than Caucasian males.[16] The racial and gender disparity of colorectal cancer death rates in DeSoto County is not as significant as it is in Shelby County.

TABLE 21. RATE OF COLORECTAL CANCER DEATHS BY RACE AND GENDER IN SHELBY COUNTY, 2012-2016

Race/Ethnicity	Shelby County All	Shelby County Male	Shelby County Female
All	19	24.7	15
Caucasian	14.9	17.3	12.7
African American	24.5	36.5	17.5
Hispanic	-	-	-

Note: Data are from source [16]. Rates are per 100,000 people.

TABLE 22. RATE OF COLORECTAL CANCER DEATHS BY RACE AND GENDER IN DESOTO COUNTY, 2012-2016

Race/Ethnicity	DeSoto County All	DeSoto County Male	DeSoto County Female
All	17	19.7	15.3
Caucasian	16.4	18.5	14.5
African American	21.6	-	-

Note: Data are from source [16]. Rates are per 100,000 people.

Lung Cancer

Annually, there are 586 new cases of lung cancer in Shelby County and 126 new cases in DeSoto County.[16] The lung cancer incidence rates are 65 and 78 per 100,000 persons for Shelby County and DeSoto County, respectively. For every 100,000 people, 49 in Shelby and 63 in DeSoto County die of lung cancer each year.[1,16]

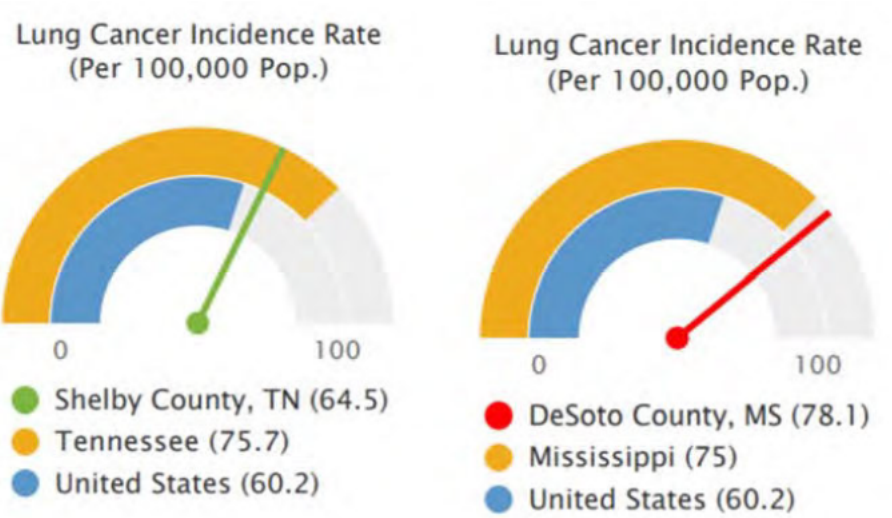

FIGURE 12. LUNG CANCER INCIDENCE RATES WITHIN SHELBY AND DESOTO COUNTIES, 2011-2015.[1]

In Shelby County, African Americans have lung cancer at a rate slightly greater than Caucasians and rate of death 1.32 times greater than Caucasians. Males in Shelby County die from lung cancer at a rate 1.71 times greater than females, which is an even higher disparity between genders than nationally.[16]

TABLE 23. RATE OF NEW LUNG CANCERS BY RACE AND GENDER IN SHELBY COUNTY, 2012-2016

Race/Ethnicity	Shelby County All	Shelby County Male	Shelby County Female	U.S. Male	U.S. Female
All	63	79.1	51.7	69.1	51.7
Caucasian	59	67.3	53.5	68.9	53.4
African American	66.2	93.7	48.7	80.4	47.7
Hispanic	33.3	-	-	37.8	24.7

Note: Data are from sources [16]. Rates are per 100,000 people.

Unlike Shelby County, Caucasians in DeSoto County have a lung cancer incidence and death rate greater than African Americans in DeSoto County. Caucasian have lung cancer at a rate 1.62 times higher than African Americans and their rate of death is 1.32 times greater than Caucasians. Males in DeSoto County die from lung cancer at a rate 1.93 times greater than females regardless of race.[16]

TABLE 24. RATE OF NEW LUNG CANCERS BY RACE AND GENDER IN DESOTO COUNTY, 2012-2016

Race/Ethnicity	DeSoto County All	DeSoto County Male	DeSoto County Female	U.S. Male	U.S. Female
All	78	95.8	63.7	69.1	51.7
Caucasian	83.7	102.6	69.2	68.9	53.4
African American	51.5	66.1	40.1	80.4	47.7
Hispanic	-	-	-	37.8	24.7

Note: Data are from sources [16]. Rates are per 100,000 people.

TABLE 25. RATE OF LUNG CANCERS DEATHS BY RACE AND GENDER IN SHELBY COUNTY, 2012-2016

Race/Ethnicity	Shelby County All	Shelby County Male	Shelby County Female
All	49	65.3	38.2
Caucasian	43.2	53.3	35.8
African American	57.9	83.2	41.5
Hispanic	-	-	-

Note: Data are from sources [16]. Rates are per 100,000 people.

TABLE 26. RATE OF LUNG CANCERS DEATHS BY RACE AND GENDER IN DESOTO COUNTY, 2012-2016

Race/Ethnicity	DeSoto County All	DeSoto County Male	DeSoto County Female
All	63	87.4	45.1
Caucasian	65.8	89.5	48.4
African American	49.7	81.8	27.8
Hispanic	-	-	-

Note: Data are from sources [16]. Rates are per 100,000 people.

Prostate Cancer

Annually, there are 642 new cases of prostate cancer in Shelby County and 98 new cases in DeSoto County. The rate of prostate cancer (per 100,000) for Shelby County is 148 and 121 for DeSoto County. In Shelby County, the prevalence rate is 1.5 higher than the national rate. For every 100,000 men, 30 die of prostate cancer.[1,13]

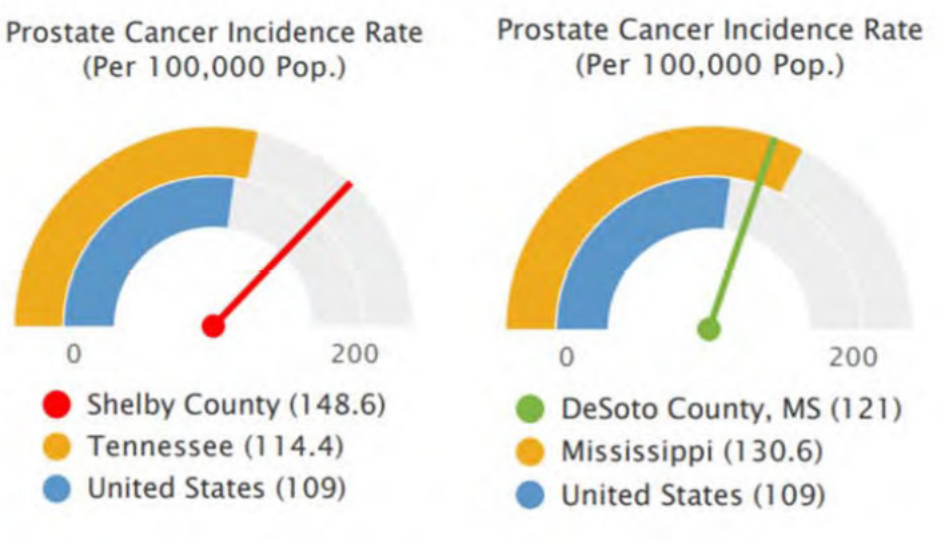

FIGURE 13. PROSTATE CANCER WITHIN SHELBY AND DESOTO COUNTIES, 2011-2015.[1]

Like many other cancers, there is a racial disparity in the incidence rate for prostate cancer. In Shelby County, the prostate cancer incidence rate for African Americans is 1.4 times higher than for Caucasians, and in DeSoto County, this rate is 2.1 times greater than Caucasians.[16] In Shelby County, African Americans die from prostate cancer at a rate almost 3 times greater than Caucasians. Nationally African Americans die 2.1 times more often than Caucasians from prostate cancer.[16]

TABLE 27. PROSTATE CANCER INCIDENCE AND DEATH RATES BY RACE AND LOCATION, 2012-2016

	Shelby County		DeSoto County		United States	
Race/Ethnicity	Incidence Rate	Death Rate	Incidence Rate	Death Rate	Incidence Rate	Death Rate
All	142.1	30.4	120.4	18.5	104.1	19.2
Caucasian	122.3	18.1	104.3	15.4	95.3	18
African American	172.2	53	221.6	-	168.8	38.9
Hispanic	82.5	-	-	-	86.8	15.8

Note: Data are from sources [16]. Rates are per 100,000 people.

Neurological Disease

With the increase in the aging population, 98.2 million is the projected population of people age 65 and older in 2060. With the exponential growth within this population there occurs an increase of health conditions that more commonly plague this group of individuals, including neurological diseases (i.e. Alzheimer Disease, Dementia, Parkinsons).[18]

In 2017, Alzheimer Disease was the sixth leading cause of deaths nationally. There were 121,404 people who died from the disease with a disease rate of 37.3 per 100,000. People with Alzheimer's make up 47.8% of all nursing home residents, 44.5% of all hospice patients, 32.3% of home health patients, and 41.9% of residential care community residents.[19]

Alzheimer's is the fifth leading cause of death in DeSoto and Shelby Counties.[7,8] In Shelby County in 2017, 2.3% (437 deaths) of all deaths were due to Alzheimer's. [5] In DeSoto County, Alzheimer Disease contributed to 5% (76 deaths) of all deaths.[9]

There is a significant racial disparity between Caucasians and African Americans who have Alzheimer's in Desoto County. Caucasians (58.5) die from Alzheimer's at a rate 7.3 times greater than African Americans (8).[8]

Diabetes

In 2017, 83,564 people in the United States died from diabetes. Diabetes is the seventh leading cause of death across the country with a death rate of 25.7 per 100,000 people. Diabetes accounted for 11.5% of all physician office visits and 11.4% emergency room visits across the country in 2017.[20]

In Shelby County and DeSoto County diabetes is the seventh leading cause of death. In 2017, diabetes contributed to 3.4% of deaths in Shelby County and 4% of deaths (65 deaths) in DeSoto County.[7,8] DeSoto County has a diabetes death rate of 36.4 per 100,000.[8]

Close to 98,000 people in Shelby and DeSoto Counties combined live with diabetes. Twelve percent (12%) of the population in Shelby County and 11% of DeSoto County live with diabetes. Shelby County's percentage of people living with diabetes is slightly greater than Tennessee (11.6%) and 1.28 times greater than the national percentage (9.3%). DeSoto County (11.2%) has a rate higher than the national percentage.[1]

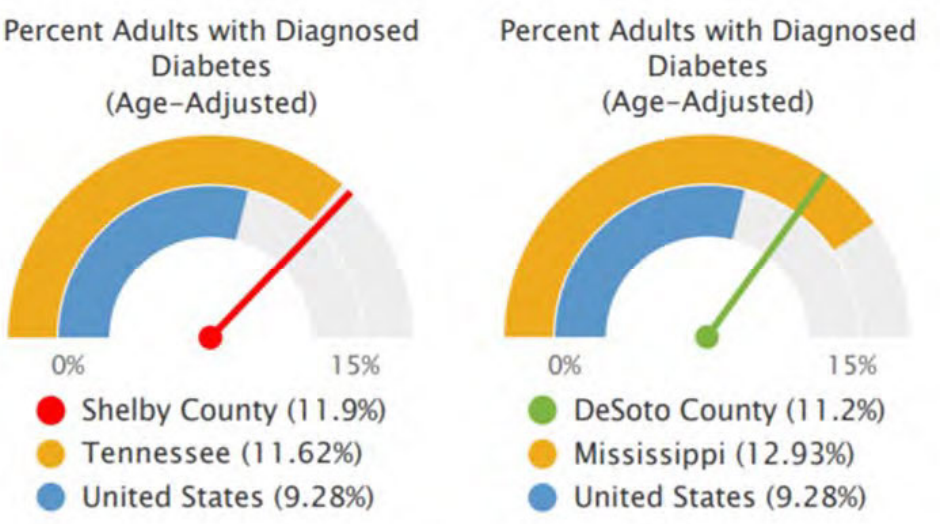

FIGURE 14. ADULTS WITH DIABETES WITHIN SHELBY AND DESOTO COUNTIES, 2015.[1]

Of the Medicare populations, 27.9% in Shelby County and 28.6% in DeSoto County have diabetes. These percentages are similar to the national percentage of Medicare recipients who have diabetes 27.2%.[1]

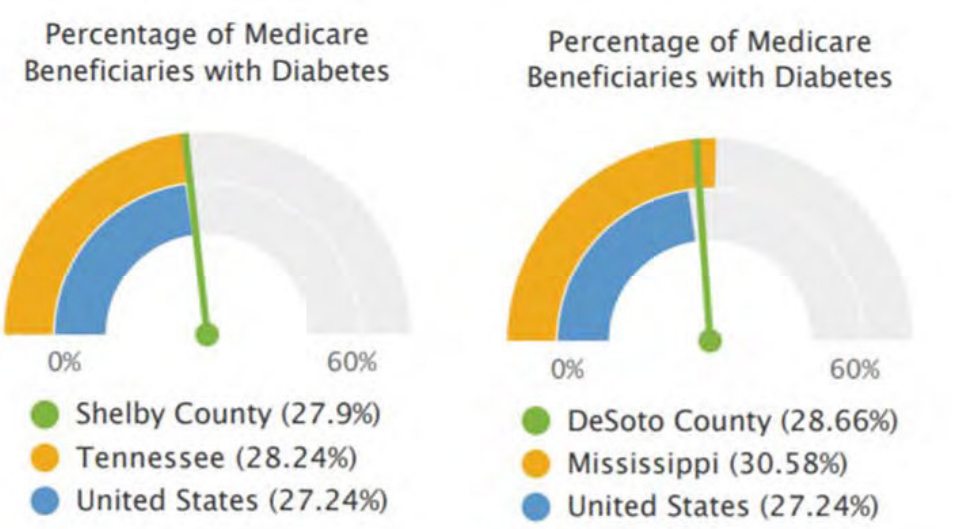

FIGURE 15. MEDICARE BENEFICIARIES WITH DIABETES WITHIN SHELBY AND DESOTO COUNTIES, 2017.[1]

Of the Medicare population with diabetes in both counties, 85% or more get their A1C checked annually. Recipients in DeSoto County are much better at getting an annual diabetic exam than those across Mississippi and the United States. Shelby County on the other hand, has a slightly smaller percentage of recipients who get an annual exam than those across Tennessee and the United States.[1]

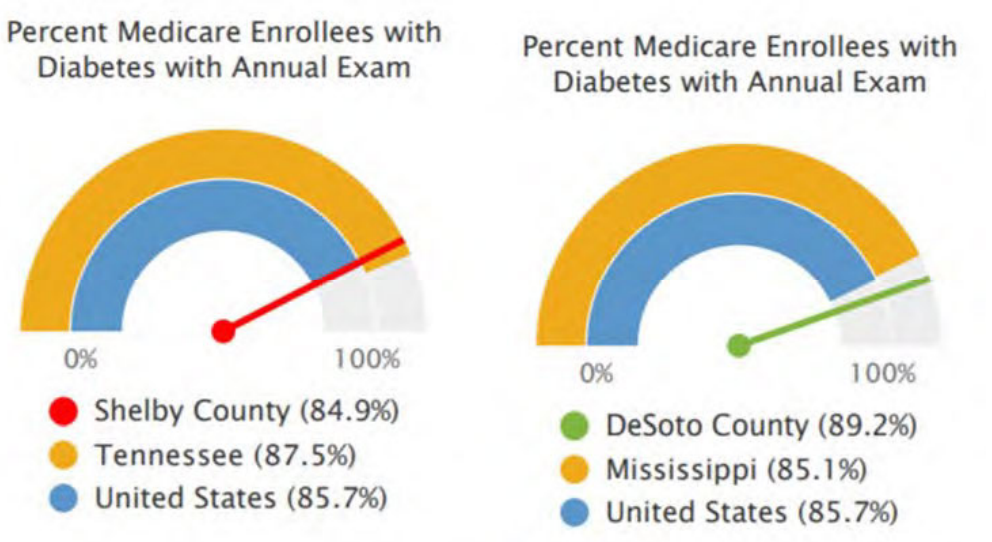

FIGURE 16. MEDICARE ENROLLEES WITH AN ANNUAL DIABETIC EXAM WITHIN SHELBY AND DESOTO COUNTIES, 2015.[1]

While there is limited access to the racial data of residents in both Shelby and DeSoto Counties who have diabetes, national data indicates a racial and gender disparity across the country. Hispanics are 1.59 times more likely than Caucasians to have diabetes, and African American females are 1.98 times more likely than Caucasian females to have diabetes.[6]

Unintentional Injuries

Unintentional injuries are the fourth leading cause of death for Shelby County, DeSoto County and the United States in 2017. In Shelby County, 499 people died of unintentional injuries, contributing to 6% of all county deaths. In DeSoto County, 85 people died from unintentional injuries (6% of all deaths.)[7,8] The death rate for unintentional injuries across the United States is 52.2 per 100,000 persons. Unintentional injuries account for 39.5 million visits to a primary care office and 29.2 million visits to an emergency department.[4,21]

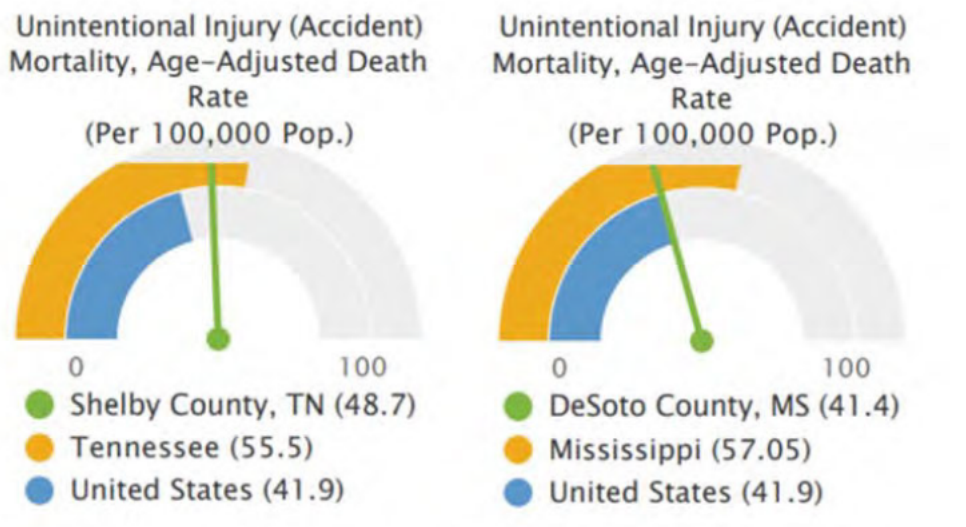

FIGURE 17. UNINTENTIONAL INJURY MORTALITY WITHIN SHELBY AND DESOTO COUNTIES, 2012-2016.[1]

The rate of deaths from unintentional injuries for males is twice the rate of females for Shelby and DeSoto Counties.

TABLE 28. UNINTENTIONAL INJURIES DEATHS BY GENDER AND LOCATION, 2012-2016

Gender	Shelby County	Tennessee	DeSoto County	Mississippi	United States
Males	68.86	73.24	58.62	78.34	56.87
Females	31.99	39.42	26.73	38.01	27.98

Note: Data are from sources [1]. Rates are per 100,000 people.

Alcohol Related Deaths

The percentage of deaths associated with alcohol in Shelby County (15%) are lower than both Tennessee (22%) and the country (26%). In DeSoto County, 9% of all deaths are alcohol related compared to Mississippi (14%).[2,3]

Pedestrian Motor Vehicle Accidents

The rate of accidents involving pedestrians and motor vehicles in Shelby County is 1.32 times greater than the United States and 1.64 times greater than Tennessee.[1]

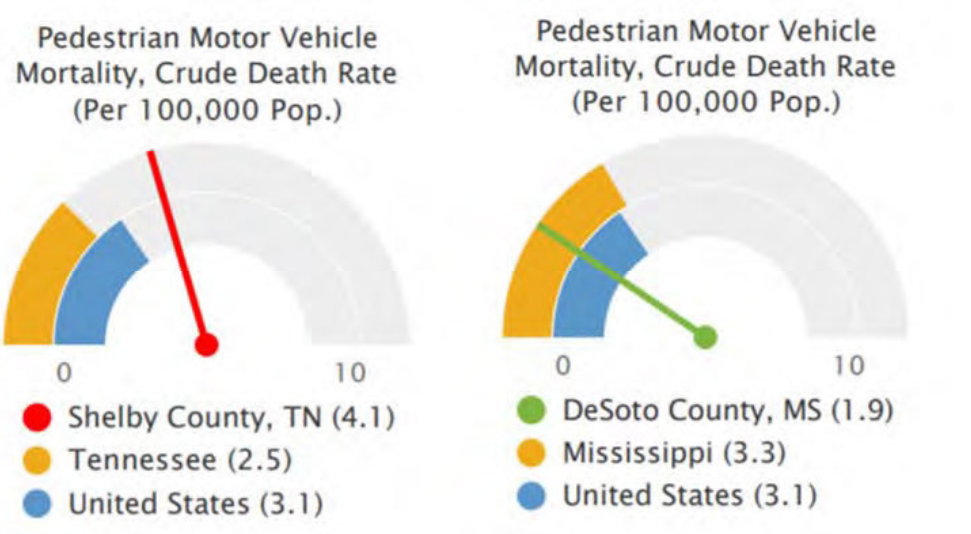

FIGURE 18. PEDESTRIAN MOTOR VEHICLE MORTALITY WITHIN SHELBY AND DESOTO COUNTIES, 2011-2015.[1]

Motor Vehicle

Across the United States, the rate for motor vehicle deaths is 12.4 per 100,000 people. The death rate in both Shelby and DeSoto Counties from motor vehicle deaths is 13 per 100,000. In Shelby County, males (20.39 per 100,000) die from motor vehicle accidents at a rate 2.87 times greater than females (7.08 per 100,000).[1]

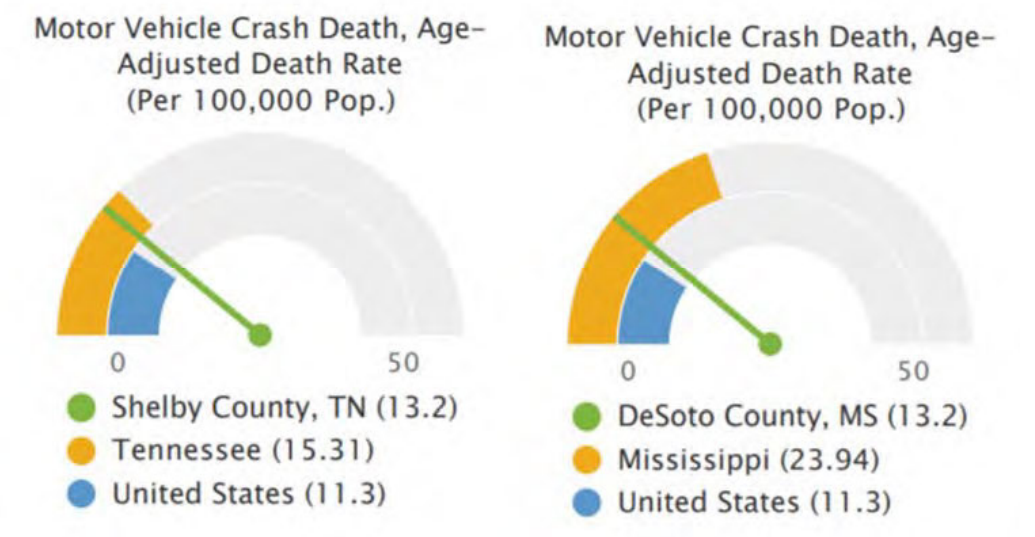

FIGURE 19. MOTOR VEHICLE CRASH DEATH RATE WITHIN SHELBY AND DESOTO COUNTIES, 2012-2016.[1]

Mental Health

There is great importance in assessing the mental health status of a community. Mental health plays a vital role affecting the overall health outcome of individuals and the community. Negative indicators of mental health are seen among high rates of suicide, depression, alcohol and substance abuse, where positive indicators of mental health are displayed with high rates of access to mental health providers, more utilization of mental health services, and an overall good perception of mental well-being.

Suicide

Across the United States in 2017, suicide was the 10th leading cause of death and accounted for 273,000 emergency department visits for suicide attempts. In 2017, 47,173 people died from suicide for a rate of 14.5 per 100,000 people nationally.[22]

The rate of suicide mortality in Shelby County is 9.2 deaths per 100,000 people and 13.2 deaths per 100,000 people in DeSoto County. Shelby County's suicide rate is less than the rate for Tennessee (15.3) and the rate of the United States (13). The suicide rate for DeSoto County is on par with that for Mississippi (13.2) and for the United States (13). In 2017, suicide was the eleventh leading cause of death in DeSoto County where Caucasians died of suicide at a rate 3.11 times greater than African Americans. The suicide rate per 100,000 was 18.7 for Caucasians and 6.0 for African Americans.[8]

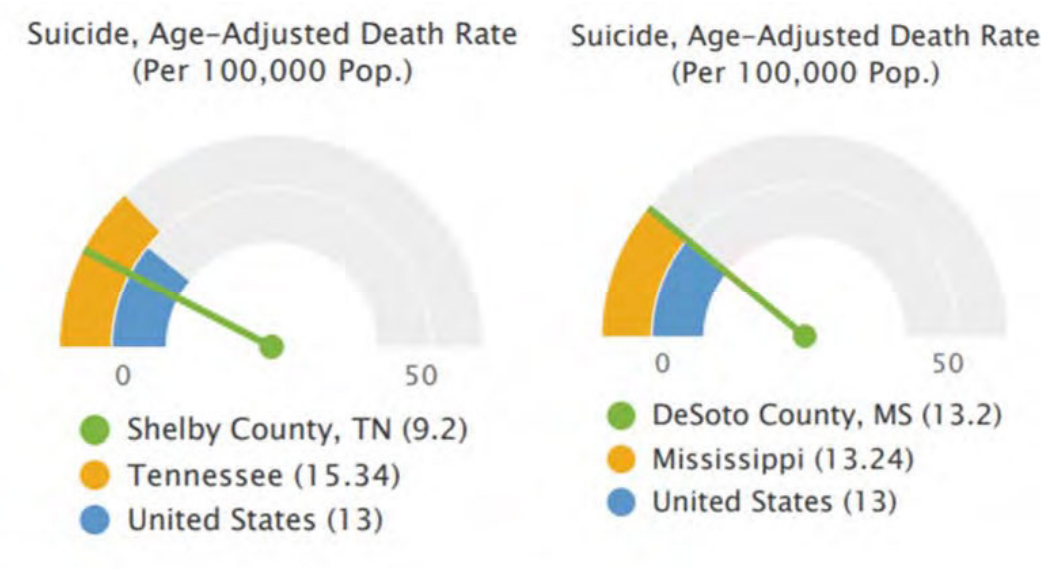

FIGURE 20. SUICIDE DEATH RATES WITHIN SHELBY AND DESOTO COUNTIES, 2012-2016. [1]

There is a significant difference between suicide rates between genders. Across the nation, males have a suicide rate 3.6 times greater than that of females. For Tennessee, the rate of suicide for males is 4.0 times greater than that of females. The suicide mortality rate in Shelby County for males is 4.5 times higher than that of females.[2] In DeSoto County, males commit suicide at a rate 3.4 times greater than females, compared to Mississippi where males have a rate 4.07 times greater than females.[1]

TABLE 29. SUICIDE RATES BY GENDER AND LOCATION, 2012-2016

Gender	Shelby County	Tennessee	DeSoto County	Mississippi	U.S.
All	9.2	15.3	13.2	13.2	13
Males	15.8	25.3	20.8	22	20.7
Females	3.5	6.2	6.1	5.4	5.7

Note: Data are from sources [1]. Rates are per 100,000 people.

Poor Mental Health

Across the United States 3.9% of adults (aged 18 years and older) reported serious psychological distress in the past 30 days. Mental, behavioral and neurodevelopmental disorders accounted for 56.8 million visits to a physician office and 5.5 million visits to an emergency department in 2017.[23]

In 2016, 14% of adults in Shelby County and 11% of adults in DeSoto County reported 14 or more days of poor mental health a month. Both counties are similar to their respective state's percentage of 14% for both Tennessee and Mississippi.[2,3] On average adults reported 3.8 mentally unhealthy days each month in DeSoto County and 4.5 days in Shelby County.[1]

Depression

Across the United States, individuals over the age of 12 years, 7.6% reported depression in any 2-week period. Depression accounted for 9.3% of physician office visits and 10.1% of visits to the emergency room.[24] Among the Medicare populations, 14.2% of Shelby County and 18% of DeSoto County enrollees reported being depressed. DeSoto is on par with the 17.7% of Mississippi enrollees who report being depression, while Shelby County's percentage is less than the 19.4% of Tennessee Medicare enrollees that reported being depressed.[1]

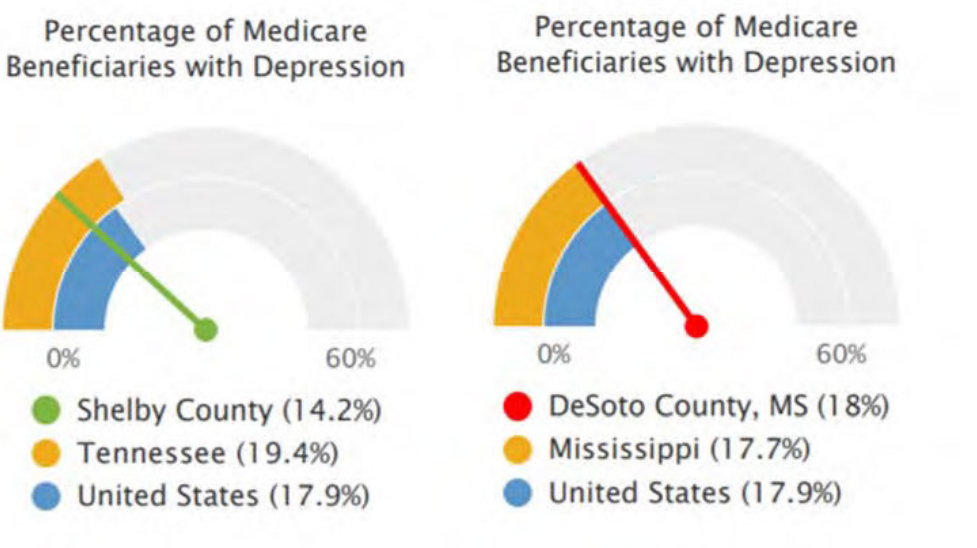

FIGURE 21. MEDICARE BENEFICIARIES WITH DEPRESSION WITHIN SHELBY AND DESOTO COUNTIES, 2017.[1]

Mental Health Providers

There is a lack of mental health providers across the country and within the service areas of both Shelby and DeSoto Counties. The ratio of providers to residents is 740:1 in Shelby County and 1290:1 in DeSoto County. In Tennessee and Mississippi, the ratio is 700:1.[2,3] Shelby County's rate of mental health providers is 1.49 times lower than the United States. DeSoto County's rate of mental health providers is 2.6 times less than the rate for the United States and 1.8 times lower than the rate for Mississippi.

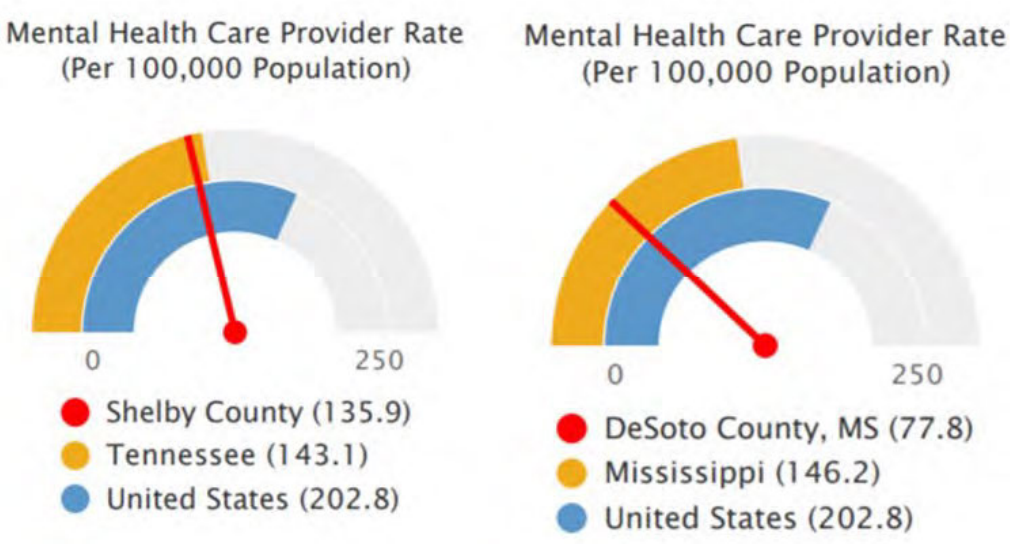

FIGURE 22. MENTAL HEALTH CARE PROVIDERS WITHIN SHELBY AND DESOTO COUNTIES, 2017.[1]

Drug and Alcohol Deaths

In Shelby County, the drug overdose rate is 21 deaths per 100,000 people, and the state of Tennessee has a rate of 24 per 100,000 people. In DeSoto County, there are 20 deaths for every 100,000 people, which is higher than the rate for Mississippi.[1]

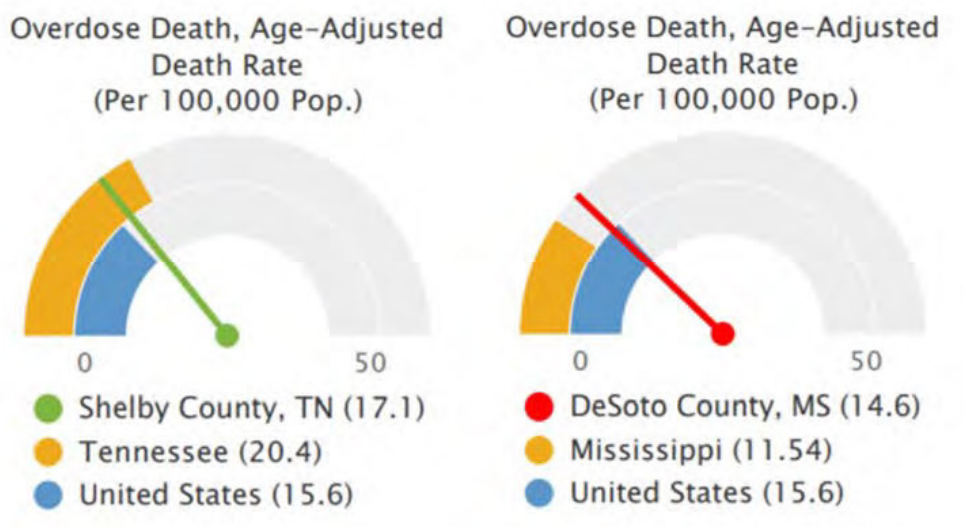

FIGURE 23. OVERDOSE DEATHS WITHIN SHELBY AND DESOTO COUNTIES, 2012-2016.[1]

Excessive alcohol use is also related to depression and suicide. Information from 2016 indicates that 13% of Shelby County and 16% of DeSoto County adults reported excessive drinking. In both states, the percentage is 14%.[2,3]

The mortality rate for mental health and substance abuse disorders has increased steadily since 1980s.[17] In Shelby County the rate of deaths per 100,000 due to mental health and substance abuse is 15.8 compared to 17.5 across Tennessee. Both Shelby County and Tennessee have rates higher than the national rate of 13.4. In DeSoto County, the rate is 10.6, which is lower than both the state of Mississippi (12.4) and the national rate.[17]

Violent Crime

Manifestations and prevalence of violent crimes indicate how threatening the social environment is on a person's well-being, and the incidence of violent crimes has a negative effect on health outcomes. Violent crime includes homicide, rape, assault, aggravated assault, and robbery. In 2017, within the United States there were 1.6 million emergency department visits due to assaults.[25]

In Shelby County, the violent crime rate is 1,286.1 per 100,000 people. In DeSoto County, this rate is 186.9. The rate for Shelby County is 2.7 times higher than Tennessee's rate. Data from 2017 shows the violent crime rate increased to 1,518.2 in Shelby County.[7] DeSoto County's rate is much lower than the rate for Mississippi and lower than the United States.[1]

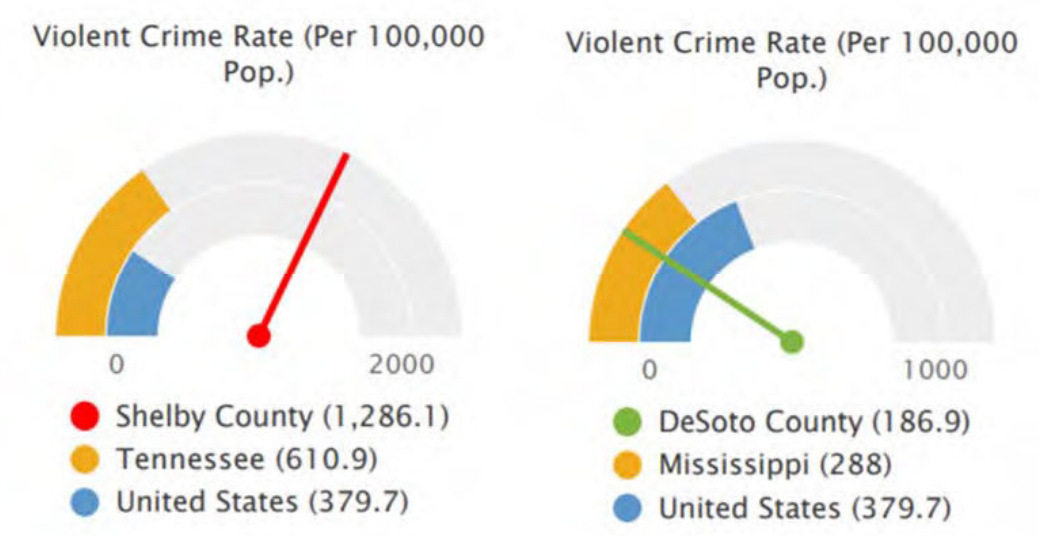

FIGURE 24. VIOLENT CRIME RATE WITHIN SHELBY AND DESOTO COUNTIES, 2012-2014.[1]

Homicides

Homicide is the 8th leading cause of death (195 deaths) in Shelby County, and the 14th cause of death (14 deaths) in DeSoto County.[7,8] The rate of homicides for Shelby County is 2.57 times greater than Tennessee and 3.4 times greater than the U.S.[1]

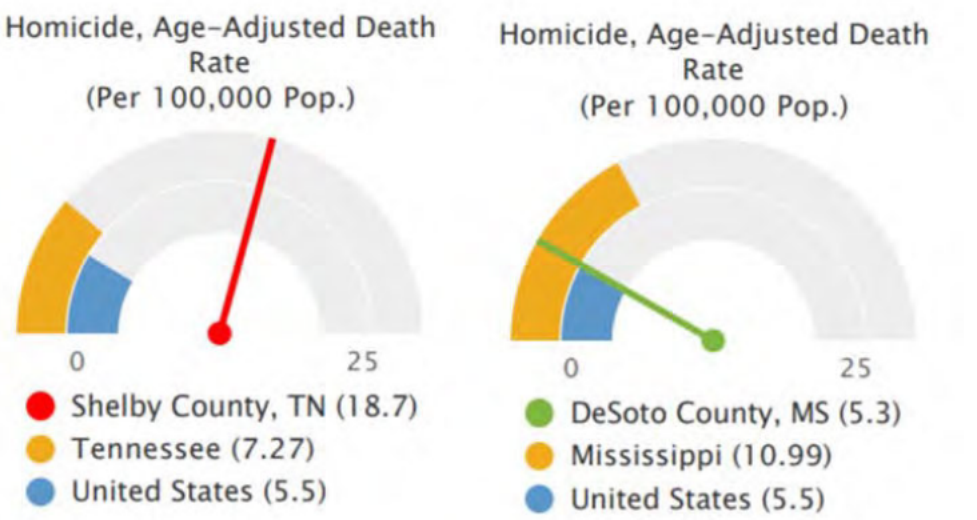

FIGURE 25. HOMICIDE RATE WITHIN SHELBY AND DESOTO COUNTIES, 2012-2016.[1]

There is a stark racial disparity between homicide crime victims in both counties. In Shelby County, African Americans are 7.26 times more likely than Caucasians and 2.37 times more likely than Hispanics to die from homicide.[1] In DeSoto County, African Americans die from homicide 3.3 times greater than Caucasians.[8] There is also a gender disparity in crime victims in Shelby and DeSoto County. Males in Shelby County are 6 times more likely to die from homicide than females.[1]

TABLE 30. HOMICIDE RATES BY RACE WITHIN SHELBY COUNTY, 2012-2016, AND DESOTO COUNTY, 2018

Race/Ethnicity	Shelby County	DeSoto County
All	18.7	5.3
Caucasian	4	5
African American	29.05	16.8
Hispanic	12.25	-

Note: Data are from sources [1,8]. Rates are per 100,000 people.

TABLE 31. HOMICIDE RATES BY GENDER AND LOCATION, 2012-2016

Gender	Shelby County	Tennessee	DeSoto County	Mississippi
Males	32.87	11.47	8.7	18.12
Females	5.44	3.1	-	4.09

Note: Data are from sources [1]. Rates are per 100,000 people.

Firearm Fatalities

Across the United States, the firearm homicide rate is 4.5 deaths per 100,000 persons.[25] Shelby County has a rate of firearm fatalities (24 deaths per 100,000) that is 1.4 greater than Tennessee (17 deaths per 100,000). DeSoto County's firearm fatality rate (15 deaths per 100,000) is less than Mississippi's (19 deaths per 100,000).[2,3]

Maternal, Infant, and Child Health

Adequate Prenatal Care

Access and utilization of adequate prenatal care helps to reduce the risk of complications before, during and after pregnancy. The lack of prenatal care contributes to maternal complications, which is the 3rd leading cause of infant deaths in the U.S.[4] Over one third (39%) of all pregnant women in Shelby County do not receive adequate prenatal care. This is 2.2 times worse than the United States.[1]

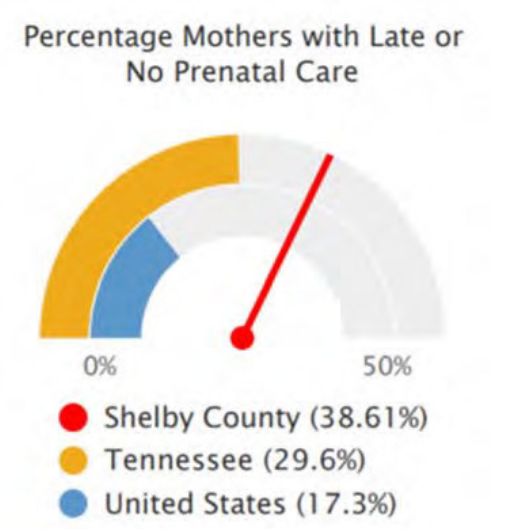

FIGURE 26. MOTHERS WITH LATE OR NO PRENATAL CARE WITHIN SHELBY COUNTY, 2007-2010.[1]

In Shelby County in 2017, 64% of Caucasian women received adequate prenatal care compared to only 48% of African Americans. In DeSoto County in 2017, 73% of Caucasian received prenatal care compared to 68% of non-Caucasians.[26,27]

Premature Births

In Shelby County, 13% of all live births are born preterm. The premature birth rate for Shelby County is 2.2 times worse than the United States and 1.3 times worse than the rate for Tennessee. Also, within Shelby County the percentage of preterm births for African Americans is 1.5 times that of Caucasians.[2,3] The percentage of premature births in 2017 for DeSoto County was 10.5%, and African Americans had premature births 1.3 times higher than that of Caucasians.[26,27]

TABLE 32. PERCENT OF PREMATURE BIRTHS BY RACE AND LOCATION, 2017

Race/Ethnicity	Shelby County	DeSoto County
All	13	10.5
Caucasian	10	9.6
African American	15	12.9

Note: Data are from sources [26,27].

Low Birthweight Babies

Low birth weight is the second leading cause of infant deaths across the US.[4] Shelby County has a rate of low birthweight babies 1.36 worse than the US and 1.21 worse than Tennessee. Since 2006, the percentage of low birth weight babies in Shelby County has remained the same, 11 to 12% of all live births are born low weight.[28]

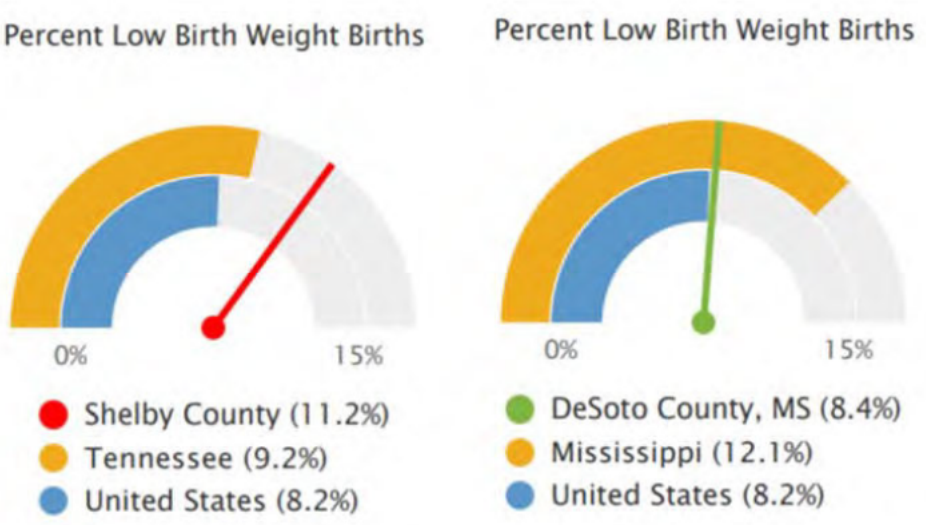

FIGURE 27. LOW BIRTH WEIGHT BIRTHS WITHIN SHELBY AND DESOTO COUNTIES, 2006-2012.[1]

In Shelby County, the percentage of babies with low birth weight is worse for African Americans who have low birth weight babies 2.1 times greater than that of Caucasians and 2.58 times that of Hispanics.[2,3] Since 2013, 8 to 9% of babies in DeSoto County were born with low birth weight. African Americans had low birth weight babies 1.79 times higher than Caucasians and 2.26 times higher than Hispanics.[1] Across the state of Mississippi, 12% of babies are born with low birth weight.[2,3]

TABLE 33. PERCENT OF BABIES BORN WITH LOW BIRTH WEIGHT BY RACE AND LOCATION, 2017

Race/Ethnicity	Shelby County	DeSoto County
All	12	9
Caucasian	7	7
African American	15	13
Hispanic	7	5

Note: Data are from sources [2,3].

Infant Mortality

National infant mortality rate for the US in 2017 was 5.79 per 1,000 births,[4] and this rate has implications of the medical, social and environmental factors that affect an infant's health, well-being, and ability to survive and thrive the first year of his/her life. Although Shelby County's infant mortality rate has decreased from 13.8 per 1,000 babies in 2006 to 9.3 in 2016, this county still possesses an infant mortality rate 1.92 times greater than the United States and 1.5 times higher than Tennessee.[28]

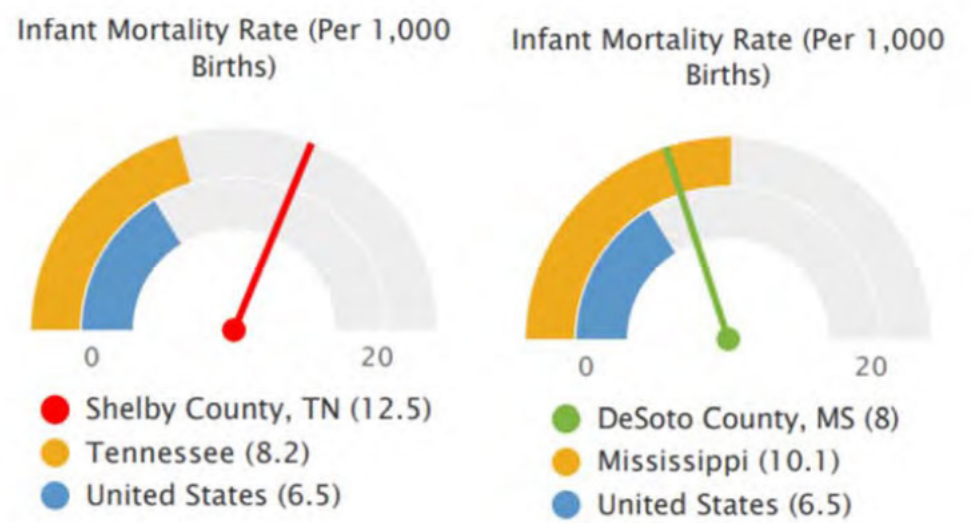

FIGURE 28. INFANT MORTALITY RATES WITHIN SHELBY AND DESOTO COUNTIES, 2006-2010.[1]

There exists a racial disparity for infant mortality in both Shelby and DeSoto Counties. African American babies in Shelby County die at a rate 3.2 times higher than Hispanic babies and 2.6 higher than Caucasian babies.[2,3] Since 2006, the rate of infant mortality has decreased for both African Americans and Hispanics, but has stayed the same for Caucasians in both counties.[17,29] In DeSoto County, African American babies die at a rate 1.7 times greater than Caucasian babies.[2,3]

TABLE 34. INFANT MORTALITY RATES BY RACE AND LOCATION, 2018

Race/Ethnicity	Shelby County	DeSoto County
All	12.5	8
Caucasian	5	6.8
African American	13	12
Hispanic	4	-

Note: Data are from sources [1]. Rates are per 1,000 births.

Child Mortality

The child mortality rate has implications of the medical, social and environmental factors that affect a child's health, well-being, and ability to survive and thrive throughout childhood and adolescence. The child mortality rate for Shelby County is 80 deaths per 100,000 children, a rate which is higher than the mortality rate across Tennessee of 60 deaths per 100,000 children. Also in Shelby County, African American children have a mortality rate of 100, and die 2 times more than the rate of Caucasian children and Hispanic children, which both have a mortality rate of 50. The child mortality rate for DeSoto County (40) is half that for the state of Mississippi (80). The child mortality rate for both African Americans and Caucasians is the same within DeSoto County.[2,3]

Lung and Respiratory Diseases

Across the country, chronic lower respiratory disease was the fourth leading cause of death in 2017 with a death rate of 49.2 per 100,000 people. Chronic Obstructive Pulmonary Disease (COPD), which includes bronchitis and emphysema, contributed to 5.6% of all emergency department visits and 3.6% of all visits to primary care offices. There were a total of 8.6 million people with bronchitis (3.5%) and 3.4 million (1.4%) people with emphysema.[4] Other chronic lower respiratory diseases (excluding asthma) rate is 45.8 deaths per 100,000 population.[30]

In 2017, lung and respiratory disease is the sixth leading cause of death in Shelby County[7] and third leading cause of death in DeSoto County.[8] Rate of death from lung disease per 100,000 people is 37.6 in Shelby County and 59.6 in DeSoto County. The rate is much greater in DeSoto County than in both Mississippi (56.1) and the United States (41.3) while the rate in Shelby County is less than both the national rate and for Tennessee (53.4).[1]

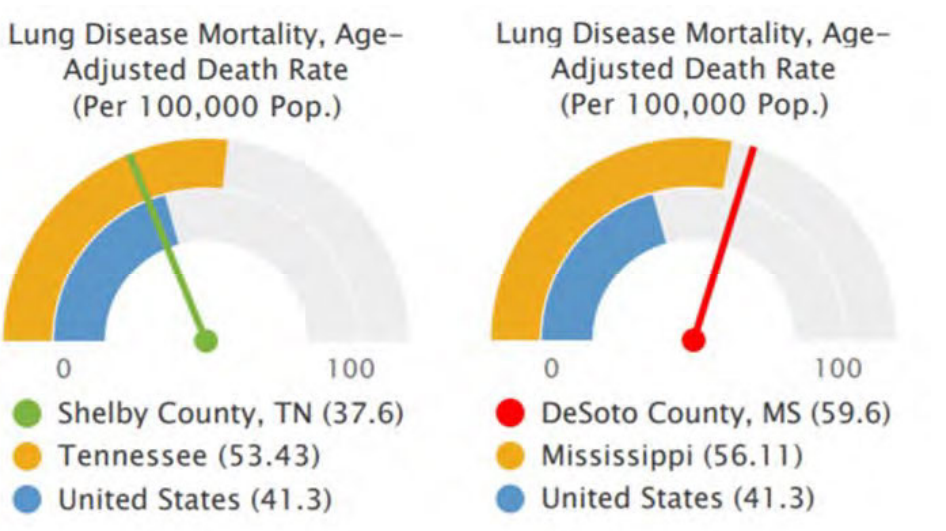

FIGURE 29. LUNG DISEASE MORTALITY WITHIN SHELBY AND DESOTO COUNTIES, 2012-2016.[1]

Caucasians have a much higher rate of lung disease than African Americans. In Shelby County, Caucasians (44.7) have lung disease 1.6 times greater than African Americans (27.8). Across Tennessee and Mississippi, Caucasians have lung disease 1.74 and 1.9 greater than African Americans, respectively. DeSoto County has a rate of lung disease 1.44 times worse than the rate for the US.[8]

Smoking

In Shelby County, 21% of adults smoke compared to 22% across Tennessee. In DeSoto County 19% of adults smoke, which is less than 23% of adults across Mississippi.[2,3]

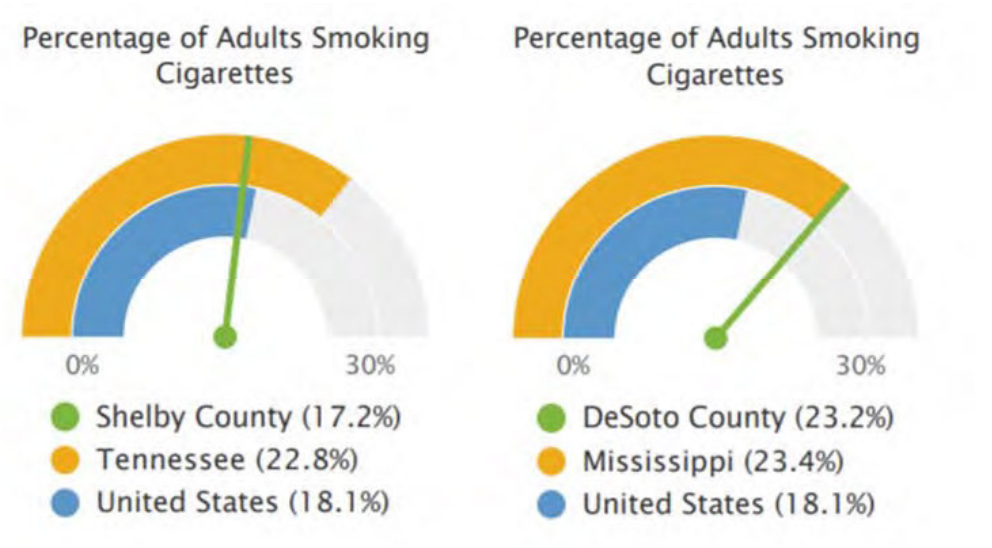

FIGURE 30. ADULTS SMOKING CIGARETTES WITHIN SHELBY AND DESOTO COUNTIES, 2006-2012.[1]

Asthma

In 2017, there are 19 million adults (7.7%) and 6.2 million children (8.4%) with asthma. Asthma accounted for 7.1% of physician office visits and 10.1% of emergency room visits. In 2017, 3,564 people died of asthma at a rate of 1.1 per 100,000 people.[31]

In Shelby County, 10.1% (53,969) of adults have asthma. The rate for Shelby County is lower than both the state (10.7%) and national percentage (13.4%) of adults with asthma. On the other hand, the percentage of adults who have asthma for DeSoto County (13.6%) is greater than both Mississippi (12%) and the national rate.[1]

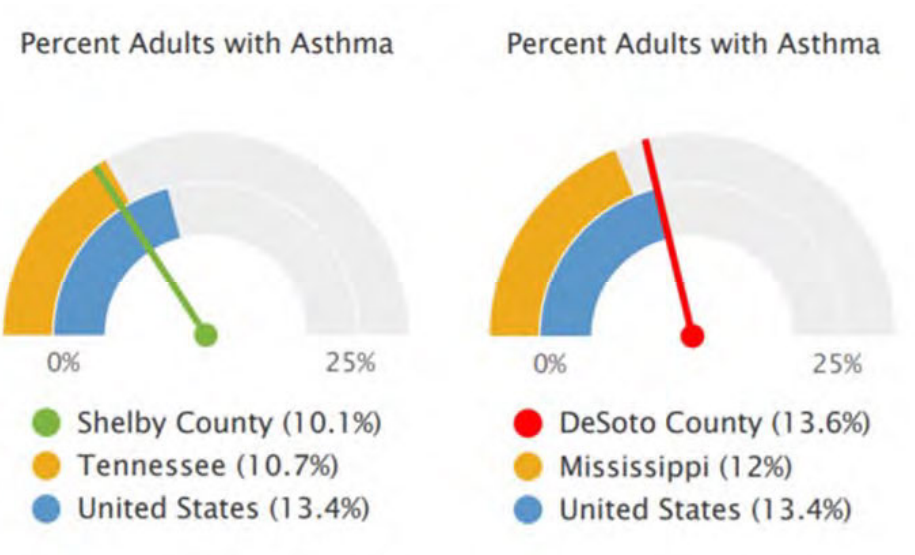

FIGURE 31. ADULTS WITH ASTHMA WITHIN SHELBY AND DESOTO COUNTIES, 2011-2012.[1]

Liver and Kidney Disease

Liver

Within the United States 4.5 million adults, or 1.8% of the population, live with liver disease. In 2017, 41,743 people died from this disease for a death rate of 12.8 per 100,000 people.[32] Liver disease was the 13th cause of death in DeSoto County with a rate of 10.1 per 100,000 people.[8]

Kidney Disease

There are 5.1 million adults in the United States (2.1% of the population) that have kidney disease. The death rate for kidney disease is 15.5 per 100,000. In 2017, 50,633 people died from kidney-related illnesses making kidney disease the 9th leading cause of death in the nation.[33]

Kidney disease was the 11th cause of death in Shelby County in 2017 contributing to 1.7% (144) of all deaths in the county.[7] Kidney disease was the 10th leading cause of death for DeSoto County with a death rate of 16.2 per 100,000.[19]

Alcohol Use

Alcohol use is a contributor to many health issues that, if not directly the cause of death, contribute to death. Twenty-five percent of adults report having had at least one heavy drinking day (five or more drinks for men and four or more drinks for women). In 2017, 22,246 people died from alcoholic liver disease and 35,823 people had alcohol-induced deaths, which exclude accidents and homicides.[34]

While the national percentage of adults (16.9%) who report drinking excessively is higher than Shelby (12.6%) and DeSoto Counties (12.2%), the percentage of adults who drink excessively is greater than that for each state.[1]

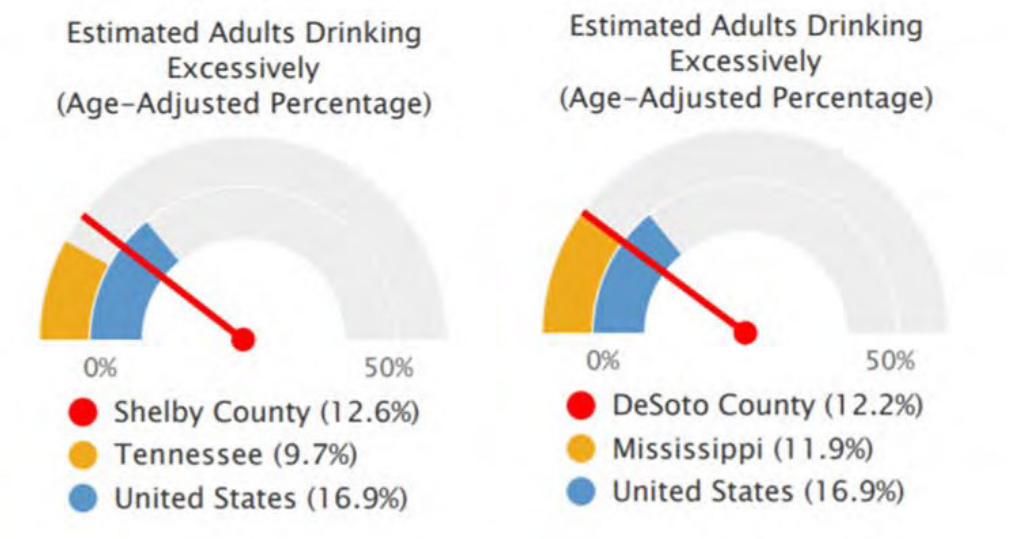

FIGURE 32. ADULTS DRINKING EXCESSIVELY WITHIN SHELBY AND DESOTO COUNTIES, 2006-2012.[1]

Sexually Transmitted Diseases and Pregnancy

Chlamydia

The rate of chlamydia in Shelby is 1.7 times the rate for Tennessee and 1.7 times the rate for the United States. Between 2010 and 2016, the chlamydia rate has increased steadily for Tennessee and the United States but has remained consistent for Shelby County.[1]

Rate of chlamydia for DeSoto County (491.6) is less than Mississippi (672.1).[1] In DeSoto County, the rate has increased from 2014 to 2016 but remains lower than the state (672.1) and the national rate (497.3).[1,3]

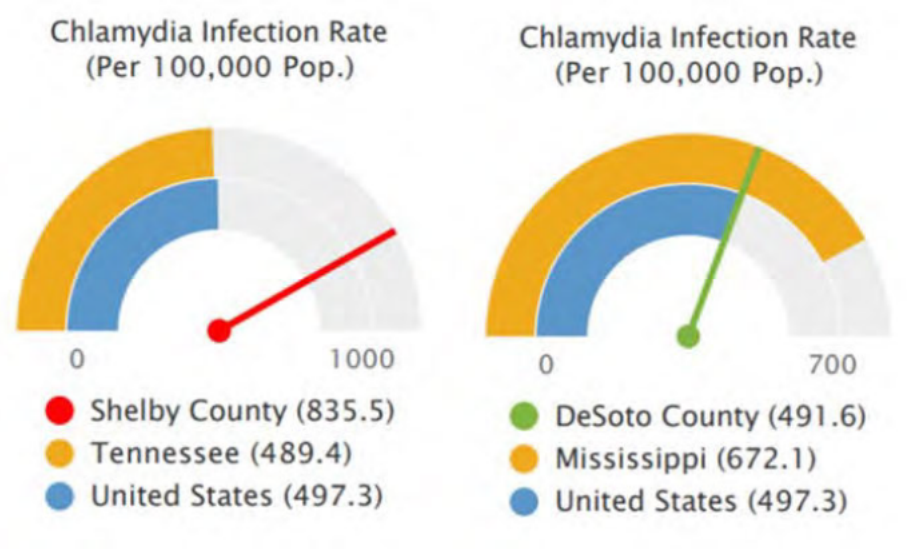

FIGURE 33. CHLAMYDIA INFECTION RATES WITHIN SHELBY AND DESOTO COUNTIES, 2016.[1]

African Americans in Tennessee have chlamydia at a rate 5.32 times higher than Caucasians and 3.64 times that of Latinos.[1] There is also a gender disparity, where the rate for females with chlamydia is 2.26 times that of males.

TABLE 35. CHLAMYDIA INFECTION RATES BY RACE AND GENDER WITHIN SHELBY COUNTY, 2016

Race/Ethnicity	Shelby County All	Shelby County Male	Shelby County Female	Tennessee All
All	835.5	524.1	1189.4	489.4
Caucasian	184.4	115.8	249.3	277
African American	1421.6	877.5	1888.5	1474.7
Hispanic	383.2	157	641.3	404.7

Note: Data are from source [29]. Rates are per 100,000 people.

HIV/AIDS

Shelby County has an HIV/AIDS prevalence rate 2.5 times greater than Tennessee and 2 times greater than the United States. In Shelby County, males acquired HIV 62% of the time through male-to-male sex, 16% from heterosexual sex, and 2% from intravenous drug use. Females on the other hand, acquired HIV through heterosexual sex 73% of the time and intravenous drug use 4% of the time.[29]

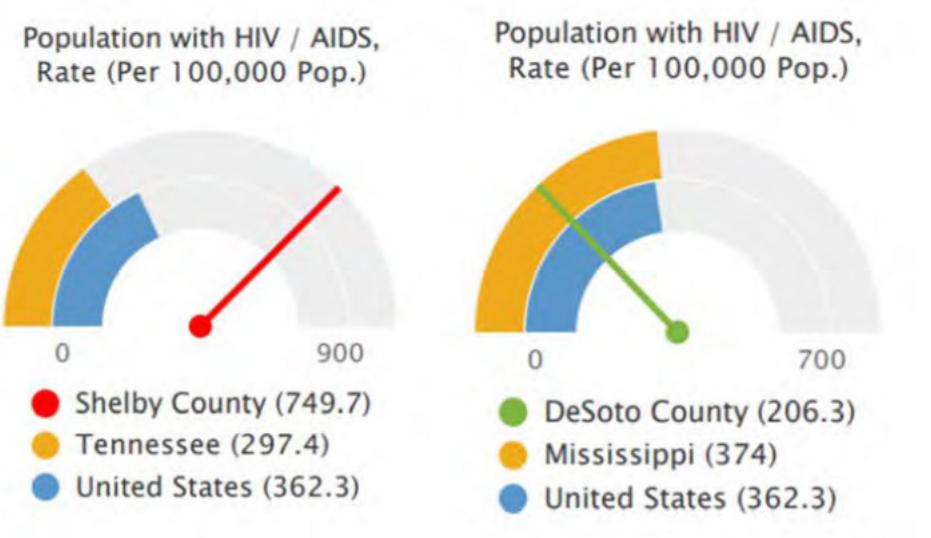

FIGURE 34. POPULATION WITH HIV/AIDS WITHIN SHELBY AND DESOTO COUNTIES, 2015.[1]

TABLE 36. HIV/AIDS PREVALENCE BY RACE AND LOCATION, 2015

Race/Ethnicity	Shelby County	Tennessee	DeSoto County	Mississippi
All	749.7	297.4	206.3	374
Caucasian	265.09	139.6	105.39	119.0
African American	1,317.42	1,026.12	406.12	726.12
Hispanic	422.91	462	151.69	404.56

Note: Data are from sources [1]. Rates are per 100,000 people.

TABLE 37. PEOPLE LIVING WITH HIV/AIDS (PLWHA) BY RACE AND GENDER WITHIN SHELBY COUNTY, 2016

Race/Ethnicity	Shelby County	Shelby County Male	Shelby County Female
All	675.9	979.2	400.5
Caucasian	195.7	339	60.2
African American	1047	1516.5	643.4

Hispanic	266.5	366.2	152.9

Note: Data are from source [29]. Rates are per 100,000 people.

In 2016 across the United States, there were 39,782 new HIV cases reported and 5,698 related deaths. African Americans contract the virus at a rate 1.7 times greater than Caucasians.[35] In Shelby County, the rate of new HIV cases for African Americans is 4.96 times greater than the rate for Caucasians and 3.11 times higher than the rate for Hispanics. The rate of new HIV cases for Hispanics is 1.59 times greater than the rate for Caucasians. In DeSoto County, the rate of new HIV cases for African Americans is 3.85 times the rate for Caucasians and 2.67 times greater than the rate for Hispanics. The rate of new HIV cases for Hispanics is 1.43 times greater than the rate for Caucasians.[29] Shelby County has a new HIV case rate 2.5 times higher than Tennessee and 2.07 times greater than the US.

TABLE 38. NEW HIV CASES BY RACE AND GENDER WITHIN SHELBY COUNTY, 2016

Race/Ethnicity	Shelby County	Shelby County Male	Shelby County Female
All	28.6	47.7	11.2
Caucasian	-	-	-
African American	47.7	81.1	19.1
Hispanic	-	-	-

Note: Data are from source [29]. Rates are per 100,000 people.

Gonorrhea

The rate of gonorrhea in Shelby County is twice that of Tennessee and 2.1 times that of the United States. In DeSoto County the rate of gonorrhea is more than half that of Mississippi but slightly higher than that of the United States.[1]

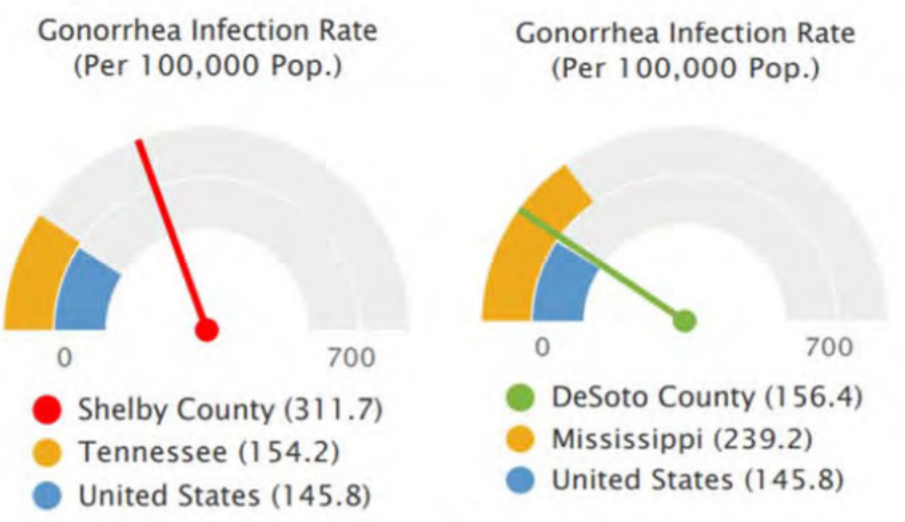

FIGURE 35. GONORRHEA INFECTION RATES WITHIN SHELBY AND DESOTO COUNTIES, 2016.[1]

One of the largest racial disparities in Shelby County health is the gonorrhea rate between African Americans and Caucasians. African Americans have gonorrhea at a rate 11 times greater than Caucasians and 12.1 greater than the rate for Hispanics.[29] When comparing genders, African American females' gonorrhea rate is 12.3 times higher than that for white females, while African American males have a rate 10.17 times greater than the rate for Caucasian men.

TABLE 39. GONORRHEA RATES BY RACE AND GENDER WITHIN SHELBY COUNTY, 2016

Race/Ethnicity	Shelby County All	Shelby County Male	Shelby County Female	State of Tennessee
All	323.6	345.8	303.4	154.2
Caucasian	49.9	58.8	41.1	-
African American	550.6	598	509.5	-
Hispanic	45.3	-	-	-

Note: Data are from source [29]. Rates are per 100,000 people.

Syphilis

In Shelby County, males acquire new cases of syphilis at a rate 6.37 times greater than females. African American males have a significantly greater rate of syphilis than all other races.[29]

TABLE 40. SYPHILIS RATES BY RACE AND GENDER WITHIN SHELBY COUNTY, 2016

Race/Ethnicity	Shelby County	Shelby County Male	Shelby County Female
All	15.3	27.4	4.3
Caucasian	-	-	-
African American	25.8	47.8	-
Hispanic	-	-	-

Note: Data are from source [29]. Rates are per 100,000 people.

Teen STDs

In Shelby County, the rate for teens with STDs is 39 for every 1,000 teens. This rate for Shelby County is 2.25 greater than the rate of teens across Tennessee with an STD (17.3.).[1]

Teen Births

As of 2012, DeSoto County has a teen birth rate that is lower than Mississippi while Shelby County has a teen birth rate greater than Tennessee.[1]

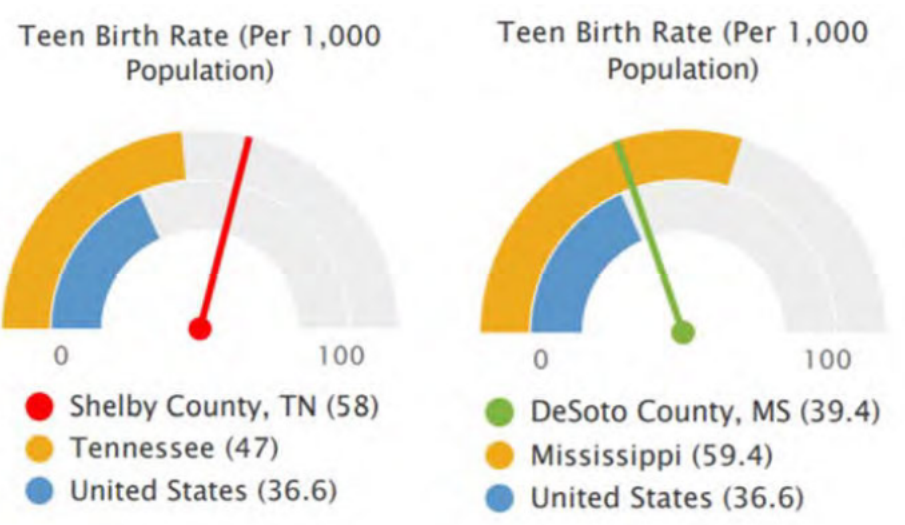

FIGURE 36. TEEN BIRTHS WITHIN SHELBY AND DESOTO COUNTIES, PER 1,000 TEENS, 2012.[1]

The Shelby County teen birth rate for African Americans was 4.5 times greater than Caucasians. The teen birth rate for Hispanics in Shelby County is 6.25 times greater than Caucasians. In DeSoto County the rates between the races is comparable.[2,3]

TABLE 41. TEEN BIRTH RATES BY RACE WITHIN SHELBY COUNTY, 2018

Race/Ethnicity	Shelby County	DeSoto County
All	41	27
Caucasian	12	27
African American	54	30
Hispanic	75	28

Note: Data are from sources [2,3]. Rates are per 1,000 people.

General Prevention

Insurance

In 2017, across the United States, there were 30.1 million uninsured people under 65 years of age or 11.1% of the population. Among this uninsured population, 5.2 million (13.3%) were children under 18 years.[39]

Of the entire population in Shelby County, 12.8% (118,261) are uninsured compared to 10.8% uninsured throughout Tennessee. In DeSoto County, 10.2% (17,622) of the population is uninsured compared to 13.6% within Mississippi. The percentage uninsured in DeSoto County is similar to the United States (10.5%) while the percentage for Shelby County is higher than the national rate.[1]

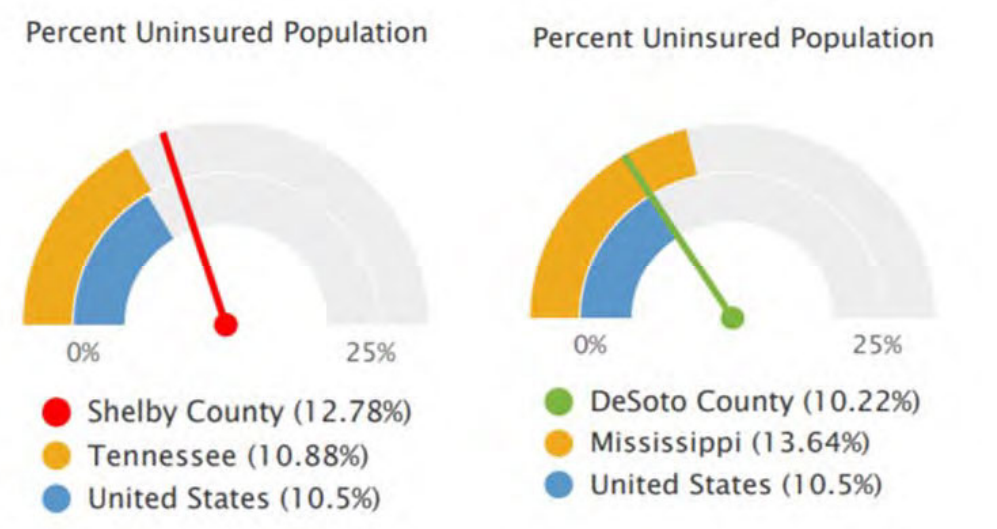

FIGURE 37. UNINSURED POPULATION WITHIN SHELBY AND DESOTO COUNTIES, 2013-2017.[1]

In Shelby County, African American adults are twice as likely to be uninsured than Caucasian adults. Hispanic adults in Shelby County are uninsured 5.4 times greater than Caucasians. In DeSoto County, African Americans are 1.5 times as likely to be uninsured than Caucasians and Hispanics are 4 times more likely to be uninsured than Caucasians.[1]

There are 32,537 children in Shelby County without health insurance. Among this population, there are 7.4 times as many uninsured African American (8,328) children as Caucasian (1,123) children. Uninsured Hispanic children (21,686) are also a significant proportion of the children uninsured.[8]

TABLE 42. PERCENTAGE OF UNINSURED POPULATIONS BY RACE AND LOCATION, 2013-2017

Race/Ethnicity	Shelby County	DeSoto County
All	12.8	10.2
Caucasian	7	8
African American	14	12
Hispanic	38	32
Other Races	44	35

Note: Data are from sources [1].

Difficulty in Getting Care for Children

According to the Shelby County Health Department, in 2017, 79.4% of children within Shelby County had a usual place of health care and 14.6% of all children did not receive a single preventative visit with a physician.[7] When asked about the difficulty in getting health care for their child when he/she was sick, the following percentage of people reported some level of difficulty in getting specific help: 35.1% for mental health care, 14.3% for specialist care, and 12.1% in getting referrals.[7]

Access to Health Care

Across the United States, 87.6% of people have a usual place they go to get medical care. For those that do not obtain medical care when they need it, 4.8% claimed that cost of medical care was the reason.[36] In Shelby County in 2017, 79.4% of children had a usual place for receiving health care when sick. This indicates that 20.6% of children did not have a place of health care.[7] In DeSoto County in 2015, 14.1% of adults reported not receiving medical care because they lacked the money for care.[3]

Dental Health

Across the US, 84.6% of people aged 2-17, 64.4% of people age 18 to 64, and 64.3% of people ages 65 and older had a dental visit in 2016. Of children age 5 to 19, 18.6% had dental care while 31.6% of people age 20 to 44 had dental care.[37]

In the past year, 19.8% (133,542) of adults in Shelby County and 17.5% (19,345) of adults in DeSoto County reported poor dental health. While the percentage for each county is less than their respective state, these figures are still worse than the national rate of 15.7% of people with poor dental health.[1]

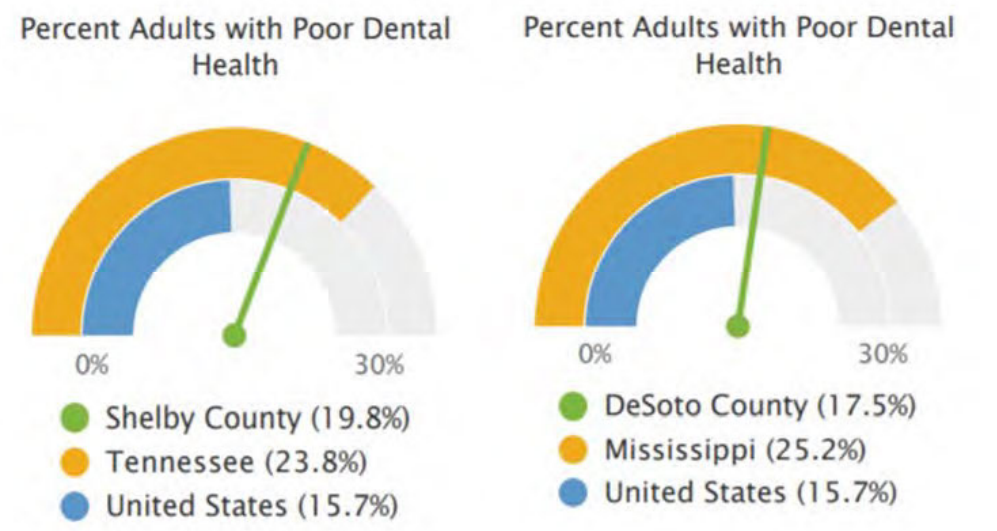

FIGURE 38. ADULTS WITH POOR DENTAL HEALTH WITHIN SHELBY AND DESOTO COUNTIES, 2006-2010.[1]

In Shelby County, there are approximately 640 dentists with a rate of 68.2 dentists per 100,000 people. In Desoto County, there are 70 dentists with a rate of 40.39 dentists. The rate for Tennessee is slightly better than Shelby County while DeSoto County's rate is on par with Mississippi.[1]

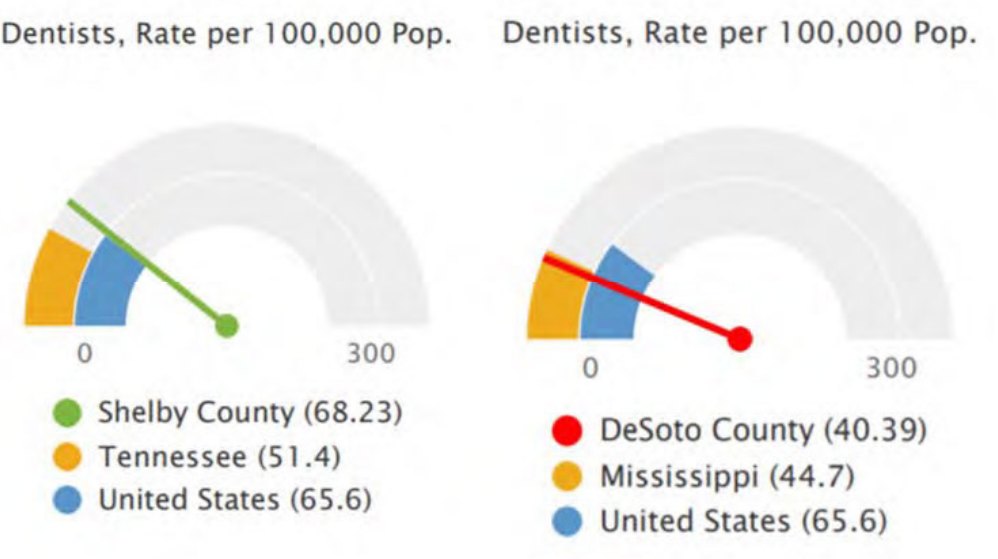

FIGURE 39. DENTISTS WITHIN SHELBY AND DESOTO COUNTIES, 2015.[1]

Primary Care Providers

In DeSoto County, the rate of primary care providers for every 100,000 people is 33.9, which is worse than the rate for Mississippi and much worse than the national rate of 87.8. The rate of primary care providers in Shelby County is much higher than that of Tennessee (83).[1]In Shelby County for every 1 primary care provider, there are 1,198 people; in DeSoto County, there are 2,832 people to every 1 provider. The national ratio of people to providers is 1,326:1.[2,3]

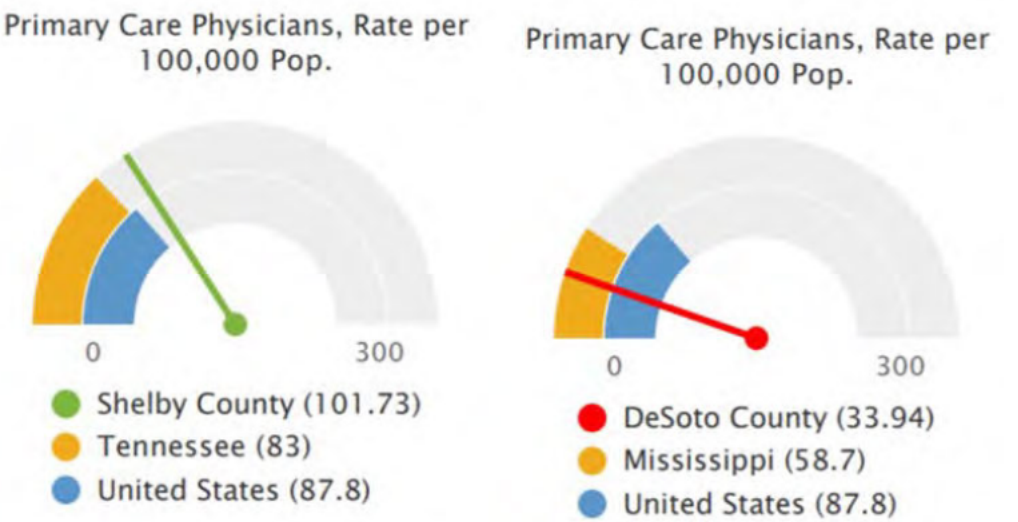

FIGURE 40. PRIMARY CARE PHYSICIANS WITHIN SHELBY AND DESOTO COUNTIES, 2014.[1]

Preventable Hospital Stays

For every 100,000 Medicare enrollees, the rate of preventable hospital stays is 4,886 for Shelby County and 5,305 for Tennessee. The rate in Desoto County is 1.7 times worse than Mississippi and 2.58 times worse than the United States. In Shelby County, African Americans had a rate 1.5 times greater than Caucasians. In Desoto County, the rate for African Americans is 1.4 times greater than Caucasians in Desoto County. The rate for preventable hospital visits for Hispanics in Desoto County is 2.2 times greater than Hispanics in Shelby County.[2,3]

TABLE 43. PREVENTABLE HOSPITAL VISITS RATES FOR MEDICARE ENROLLEES BY LOCATION, 2015

Race/Ethnicity	Shelby County	Tennessee	DeSoto County	Mississippi
All	4,886	5,305	4,405	6,135
Caucasian	4,087	-	4,214	-
African American	6,083	-	6,027	-
Hispanic	4,273	-	1,918	-

Note: Data are from sources [1]. Rates are per 100,000 people.

Flu Vaccinations

Despite the communication campaigns to get a flu vaccination, less than half (45%) of the adult residents in Shelby County and 51% in DeSoto County receive an annual flu vaccination. When looking specifically at racial differences in flu vaccinations, 52% of Caucasians in Shelby County and 53% in Desoto County get a flu vaccination while a third or less of African Americans and Hispanics in both counties get a flu vaccine.[2,3]

Influenza in DeSoto County was the 9th leading cause of death leaving 33 people dead in 2017.[8] In Shelby County influenza was the 10th leading cause of death contributing to 2.1% of all deaths (175 people).[7]

TABLE 44. PERCENT OF PEOPLE WHO RECEIVED A FLU VACCINATION BY RACE AND LOCATION, 2018

Race/Ethnicity	Shelby County	DeSoto County
All	45	51
Caucasian	52	53
African American	33	37
Hispanic	38	33

Note: Data are from sources [2,3]. Rates are per 100,000 people.

Education

High School Diploma

In 2017, the high school graduation rate for Shelby County was 79.6% compared to Tennessee's graduation rate of 89.1%.[7] High school graduation rate for DeSoto County is slightly better than that for Mississippi and the United States. In the 2016 to 2017 school year, 89% of students graduated in DeSoto County compared to 83.2% across Mississippi and 86.8% nationally.[1]

Lack of a high school diploma limits career opportunities and contributes to poverty. Over 10% of the population of Shelby and DeSoto Counties do not have a high school diploma or equivalent, 12.4% and 10.6%, respectively. These figures are better than each state's percentage of people who lack a high school diploma.[1]

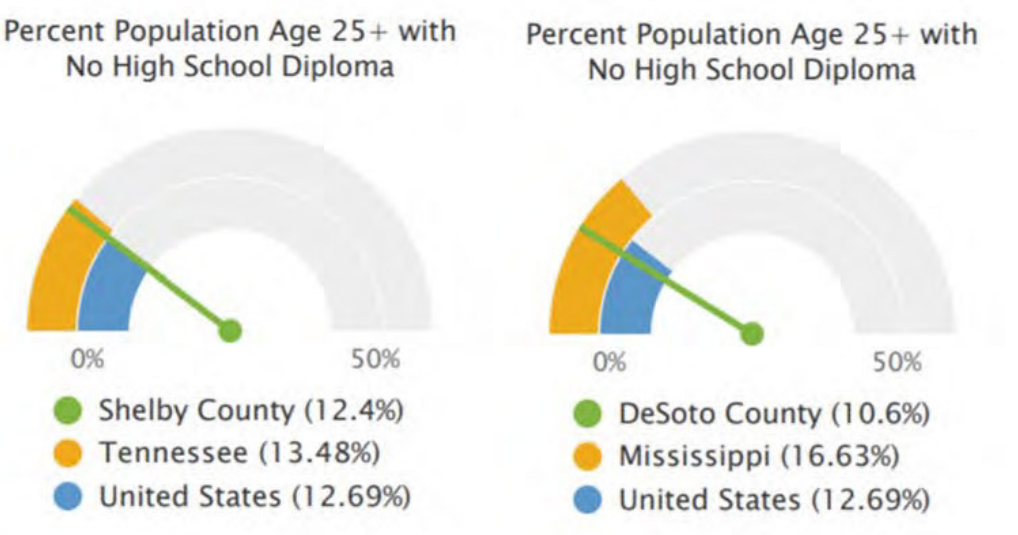

FIGURE 41. NO HIGH SCHOOL DIPLOMA WITHIN SHELBY AND DESOTO COUNTIES, 2013-2017.[1]

There is a racial disparity between those who do not receive high school diploma. African Americans in Shelby County are 2.3 times more likely than Caucasians to not receive a diploma. Hispanics are 7.5 more likely than Caucasians to not have a diploma. African Americans in DeSoto County are 1.3 times more likely than Caucasians to not have a high school diploma. Hispanics are 3.3 times more likely than Caucasians to not have a diploma.[1]

TABLE 45. PERCENTAGE OF POPULATION WITHOUT HIGH SCHOOL DIPLOMA BY LOCATION, 2013-2017

Race/Ethnicity	Shelby County	DeSoto County
Caucasian	6.7	9.5
African American	15.4	12.5
Hispanic	50	31.5

Note: Data are from sources [1].

Bachelor's Degree

Less than a third of adults over the age of 25 have a college bachelor's degree in Shelby (31%) and DeSoto (23%) Counties. DeSoto County's rate is less than the national rate of 30.9% of people with a bachelor's degree, but still higher than Mississippi's rate. The percentage of people in Shelby County (32%) that have bachelor's degree is slightly greater than the percentage ofTennesseans who have a bachelor's degree.[1]

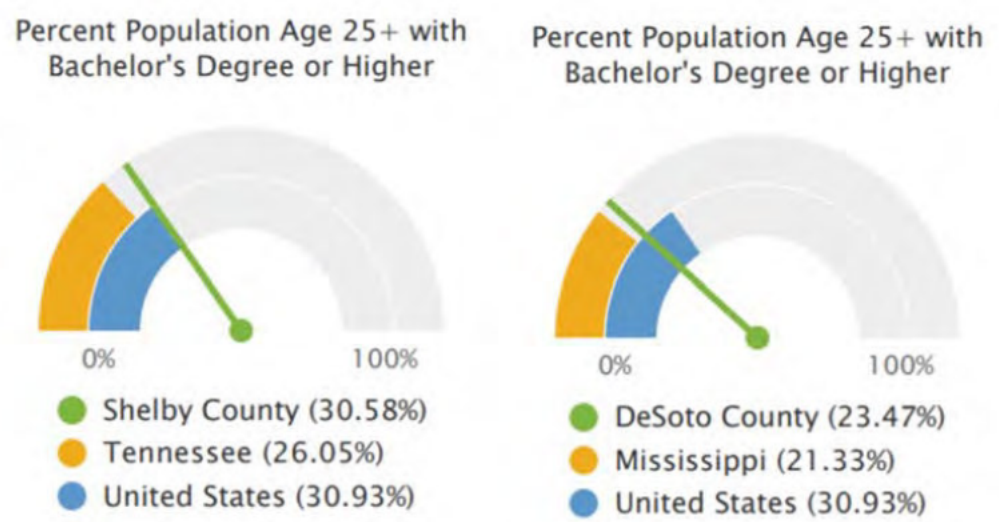

FIGURE 42. BACHELOR'S DEGREE OR HIGHER WITHIN SHELBY AND DESOTO COUNTIES, 2013-2017.[1]

Chronic Absenteeism

Chronic absenteeism from school makes it harder for students to graduate high school, and if they do not graduate high school, they cannot attend college. Students in Shelby County who are economically disadvantaged or who have disabilities are at greater risk for chronic absenteeism. In 2017 and 2018, respectively, 23% and 18.3% of economically disadvantaged children were chronically absent. During this same period 19.9% and 17.4% students with disabilities were also chronically absent from school. African American students were 1.9 times more likely to be chronically absent from school than Caucasian students.[26]

TABLE 46. PERCENT OF STUDENTS WITH CHRONIC ABSENTEEISM BY RACE IN SHELBY COUNTY, 2017-2018

Groups	2017	2018
All Shelby County Students	18.6	12.7
Caucasian	8.8	7.9
African American	19	15
Hispanic	11.2	9.6
Economically Disadvantaged	23	18.3
Students with Disabilities	19.9	17.4

Note: Data are from sources [26].

Economic Stability

Median Income

The median household income for Shelby County is $49,600 and $66,100 for DeSoto County. Racial disparities exist in both counties for median household income.[1] In Shelby County, median income for Caucasians is 1.96 times higher than that of Hispanics and 2.06 times higher than that of African Americans. In DeSoto County, the median income for Caucasians is 1.45 times higher than that of Hispanics and 1.89 times higher than that of African Americans.[2,3]

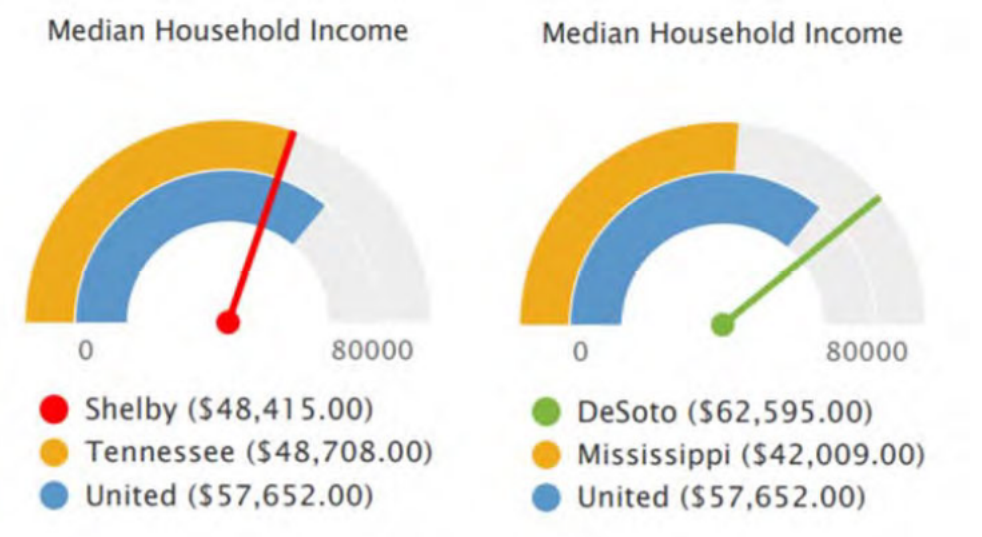

FIGURE 43. MEDIAN HOUSEHOLD INCOME WITHIN SHELBY AND DESOTO COUNTIES, 2013-2017.[1]

TABLE 47. MEDIAN HOUSEHOLD INCOME BY RACE AND LOCATION, 2013-2017

Race/Ethnicity	Shelby County	DeSoto County
Caucasian	$72,300	$69,200
African American	$35,100	$50,700
Hispanic	$36,900	$45,000

Note: Data are from sources [2,3].

Unemployment

The unemployment rate for Shelby County is 3.4% and 3.9% for Desoto County.[1]

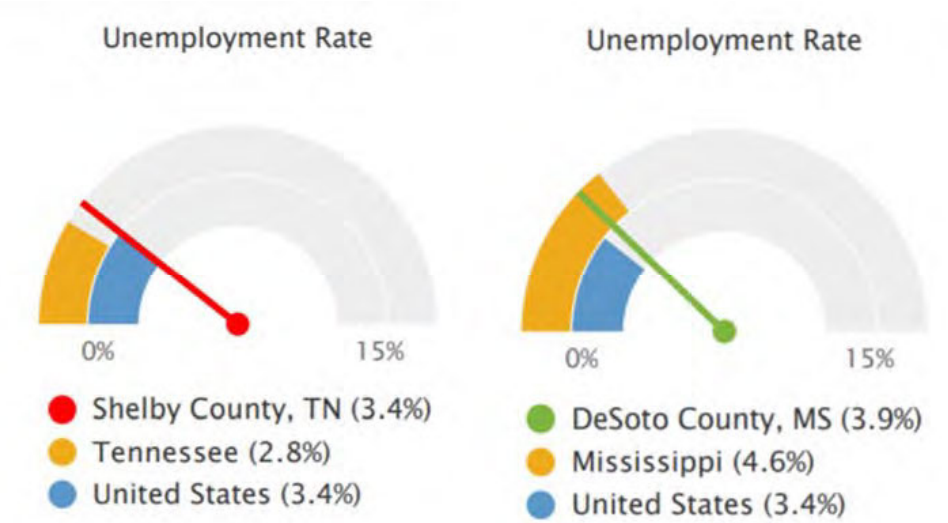

FIGURE 44. UNEMPLOYMENT RATES WITHIN SHELBY AND DESOTO COUNTIES, 2019.[1]

Poverty

The rate of poverty in Shelby County is 21% (191,520) and is higher than both the state (16.6%) and national figures. In DeSoto County, 9.7% (16,778) of the overall population lives in poverty, which is less than both the state and national percentages of poverty.[1]

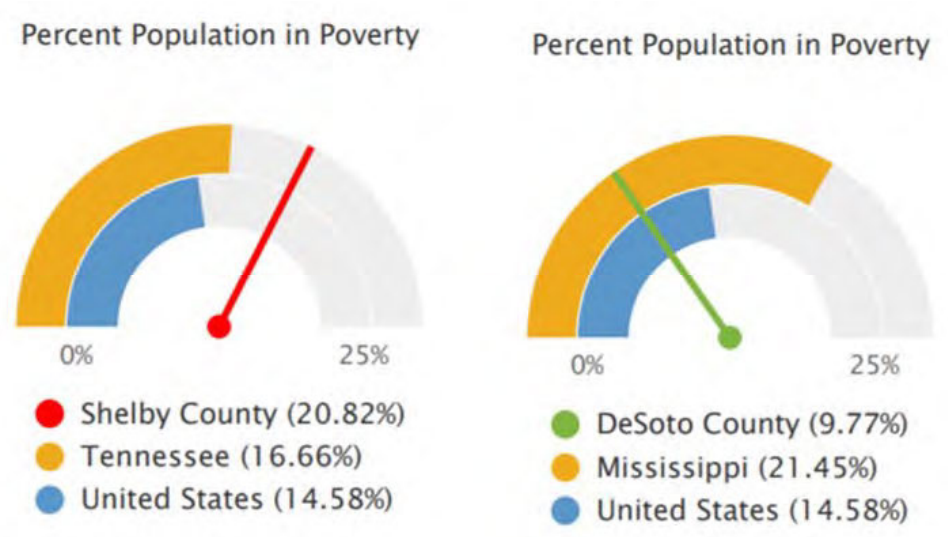

FIGURE 45. POPULATION IN POVERTY WITHIN SHELBY AND DESOTO COUNTIES, 2013-2017.[1]

In Shelby County, 34% of all children are living in poverty compared to 13% of children in DeSoto County who live in poverty.

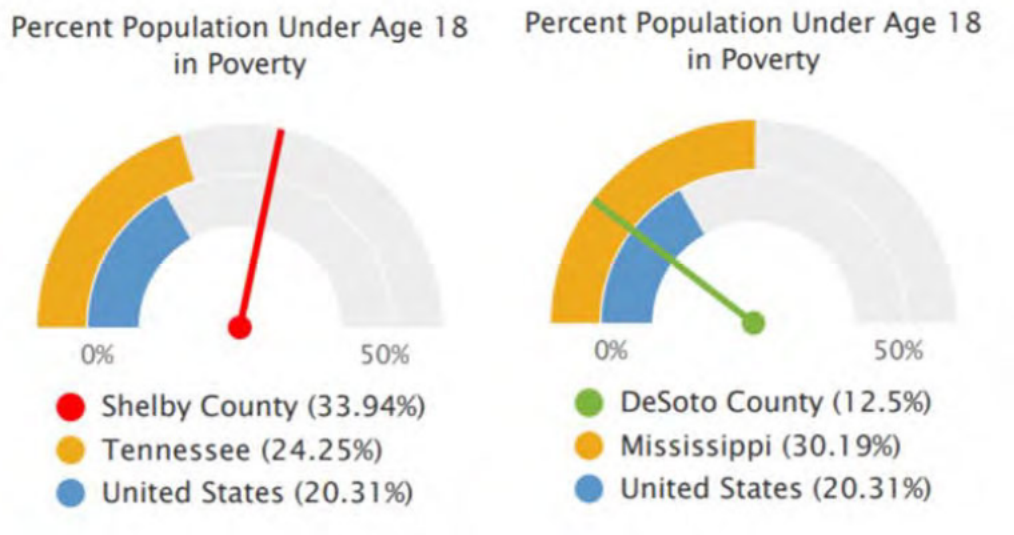

FIGURE 46. CHILDREN IN POVERTY WITHIN SHELBY AND DESOTO COUNTIES, 2013-2017.[1]

There is a big racial disparity among children in poverty in both counties. African American children in Shelby County, compared to Caucasian children, are 6 times more likely to live in poverty. In DeSoto County, African American children are 2.37 times more likely to live in poverty than Caucasian children are. Hispanic children in Shelby County are 5.5 times more likely than Caucasians to live in poverty and in DeSoto County, they are 3.75 times more likely than Caucasians to live in poverty.[2,3]

TABLE 48. NUMBER AND PERCENT OF CHILDREN IN POVERTY BY RACE AND LOCATION, 2018

Race/Ethnicity	Shelby Number	Shelby Percentage	DeSoto Number	DeSoto Percentage
All	79,657	34	5,611	13
Caucasian	5,578	9	2.029	8
African American	60,686	55	2,467	19
Hispanic	11,749	50	937	30

Note: Data are from sources [1,2,3].

Housing Burden

In Shelby County, 35% of the households have housing costs that exceed 30% of their family's income; and in DeSoto County 24% of the population has a high housing burden.[1]

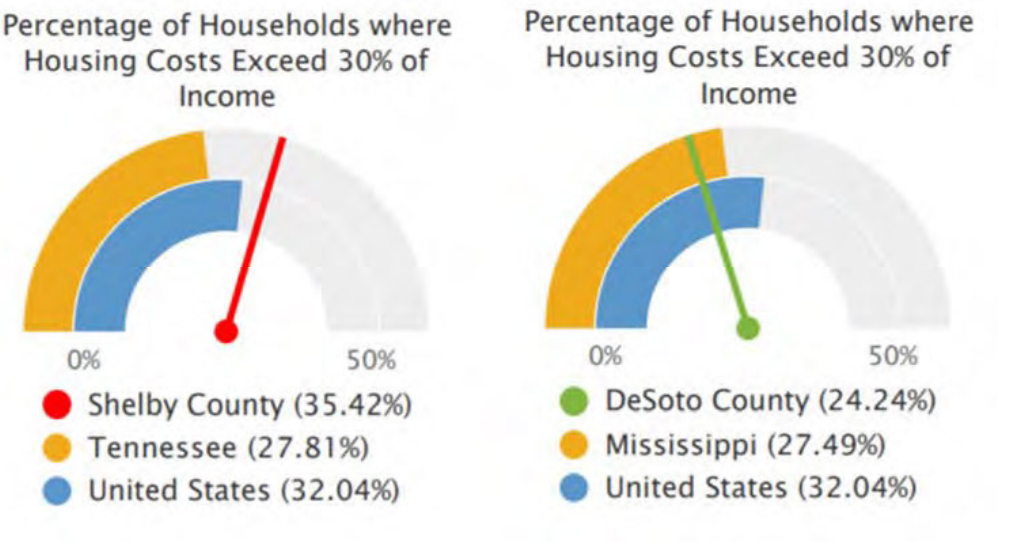

FIGURE 47. PERCENT OF HOUSEHOLDS WITH EXCESSIVE HOUSING COSTS WITHIN SHELBY AND DESOTO COUNTIES, 2013-2017.[1]

Community and Social Context

Social factors and the presence of community and social context cannot be dismissed when evaluating the health outcomes of groups of individuals, for the social factors can either help or hinder physical, mental and emotional well-being.

Single Parent Homes

A child raised in a single parent home has a greater likelihood of encountering economic and social hardship due to only one parent providing an income and caregiving for a child(ren). Fifty-one percent (51%) of all children in Shelby County live in single-parent homes. This is higher than the 35% of children in single parent homes across Tennessee. In DeSoto County, 32% of all children live in single-parent homes compared to 44% across Mississippi.[2,3] According to recent statistics from the Shelby County Health Department, there are 116,127 children living in single parent homes. The majority (86.7%) live with a female head of household whereas 13.2% live in male heads of household.[7]

Social Associations

Residents in both Shelby and DeSoto Counties have fewer social associations than all residents across the states of Tennessee and Mississippi. There are 9.1 member associations per 100,000 people in Shelby County compared to 11.3 in Tennessee and 8.3 member associations in DeSoto County compared to 12.6 in Mississippi.[2,3]

Disconnected and Unemployed Youth

The percentage of disconnected youth in Shelby County (11%) is greater than that of Tennessee, (8%) while in DeSoto County 8% of youth are disconnected compared to 9% in Mississippi.[2,3] Teens unemployed and not in school are disconnected from major social connections. In Shelby County, 11% of teens (between ages 16 to 19) and 8% in DeSoto County are not attending school or employed.[1]

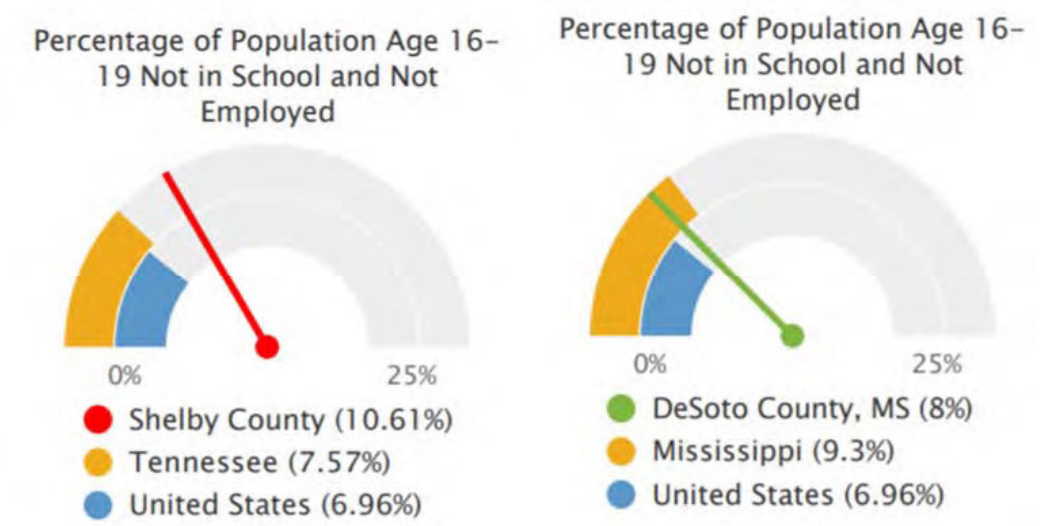

FIGURE 48. YOUTH NEITHER IN SCHOOL NOR EMPLOYED WITHIN SHELBY AND DESOTO COUNTIES, 2013-2017.[1]

Housing and Transportation

Substandard Housing

In Shelby County, 35.5% (124,029) of the population lives in substandard housing compared to 24.8% (15,202) of the population in DeSoto County. The percentage of substandard housing in Shelby County is 1.25 times greater than that of Tennessee, while the percentage in DeSoto County is lower than the percentage in Mississippi who live in substandard housing.[1]

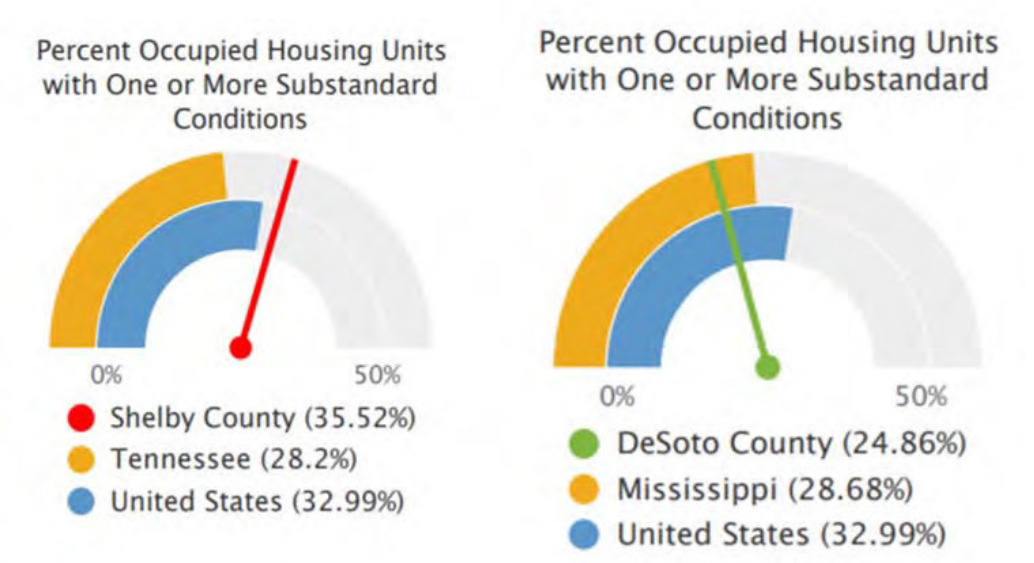

FIGURE 49. OCCUPIED HOUSING UNITS WITH SUBSTANDARD CONDITIONS WITHIN SHELBY AND DESOTO COUNTIES, 2013-2017.[1]

Vacant Housing Units

In Shelby County 13.4% of housing units are vacant which is higher than the rate for Tennessee (12.2%). DeSoto County (6.1%) has half the rate of vacant units as Mississippi (15.6%).[1]

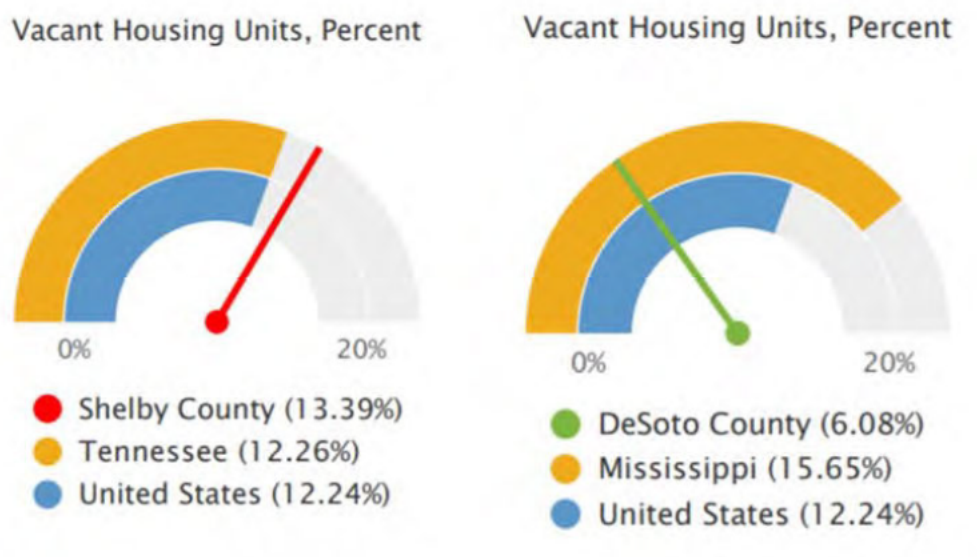

FIGURE 50. VACANT HOUSING UNITS WITHIN SHELBY AND DESOTO COUNTIES, 2013-2017.[1]

Renter Occupied

Over 40 percent (44.1%) of families in Shelby County are renters. This is 1.3 times greater than the state of Tennessee (33.7%) and slightly greater than the national percentage of renters (36.1%). In Desoto County 26.8% of the population rent. The percentage for DeSoto is even lower than Mississippi's percentage of 31.8%.[1]

Racial disparities exist in both counties. In Shelby County, African Americans rent at 1.93 times greater rate than Caucasians, and in DeSoto County the rate among African American renters is 2.37 times greater than that of Caucasians.[1]

TABLE 49. PERCENTAGE OF PEOPLE WHO RENT BY RACE AND LOCATION, 2013-2017

Race	Shelby County	Tennessee	DeSoto County	Mississippi
Caucasian	28.9	28.5	19.8	23.3
African American	55.7	55.9	47.2	45.8

Note: Data are from sources [1]. Rates are per 100,000 people.

Family Composition

Over half of the homes in both counties are family units. In Shelby County, family units occupy 62.9% of homes and 37% are nonfamily units. In DeSoto County, family units occupy 73.5% of homes and 26.4% are nonfamily units.[1]

No Motor Vehicles

Across Mississippi and Tennessee, about 6% of the adult population do not have personal motor vehicles for transportation. In Shelby County, 8.9% of the population does not have a motor vehicle. The statistics for DeSoto County are much better where only 3.1% do not have personal transportation.[1]

If a person owns a home, their likelihood of owning a car is much more likely. In DeSoto County, there are 1.95 times more renters (2.85%) than homeowners (1.46%) who do not have personal transportation. In Shelby County, there are 3.9 times more renters (12.7%) than homeowners (3.22%) without motor vehicles.[1]

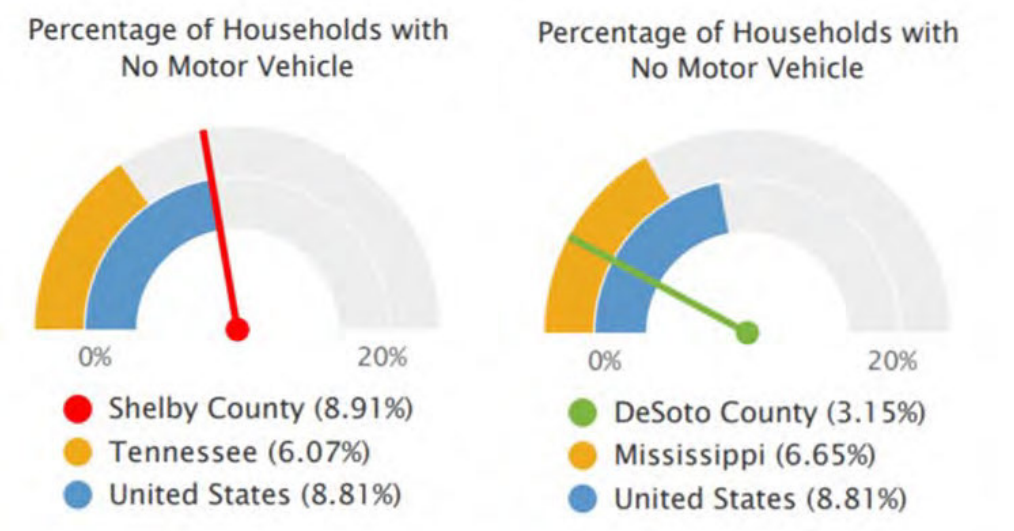

FIGURE 51. HOUSEHOLDS WITH NO MOTOR VEHICLE WITHIN SHELBY AND DESOTO COUNTIES, 2013-2017.[1]

Food Security and Physical Activity

Food insecurity is a prevalent issue in both counties, and this issue demonstrates how built environment affects health outcomes of populations.

Low Food Access

Low access to healthy food is a problem for 34% (313,181) of Shelby County residents and 50% (80,413) of DeSoto County residents. Shelby County has a percentage of people with low food access 1.51 greater than the United States and 1.2 greater than the state of Tennessee. In DeSoto County, the proportion of the population who have low food access is 2.22 times greater than the United States and 1.93 times greater than Mississippi.[1]

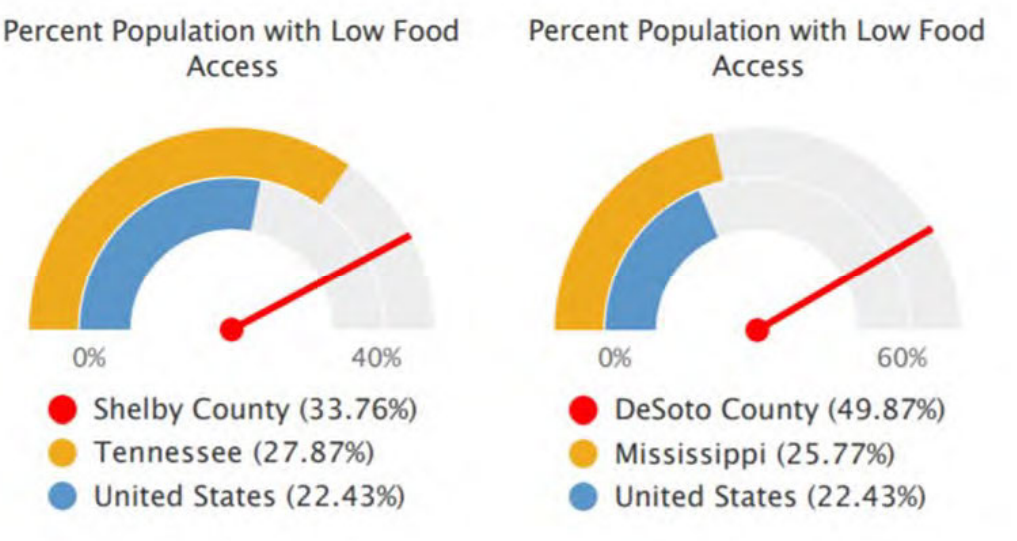

FIGURE 52. POPULATION WITH LOW FOOD ACCESS WITHIN SHELBY AND DESOTO COUNTIES, 2015.[1]

Racial disparities exist when looking at the population of groups with access to food. African Americans in Shelby County are 1.4 times more likely to have low food access than Caucasians. Of Hispanics, over 50% of the population has limited access to food.[1] The difference between the races is not as dramatic in DeSoto County, but that is because the percentage of Caucasians with low access to food is 20 percentage points higher than Shelby County.

TABLE 50. PERCENT OF PEOPLE WITH LOW ACCESS TO HEALTH FOOD BY RACE AND LOCATION, 2015

Race/Ethnicity	Shelby County	DeSoto County
Caucasian	47	67
African American	67	70
Hispanic	54	56

Note: Data are from sources [1].

In Shelby County, 25% (232,510) of the population and 11% (18,466) of residents in DeSoto County receive supplemental nutrition assistance. This percentage for Shelby County is higher than the percentage for Tennessee (17.3%) and higher than the national average of 21.1%. DeSoto County is lower than both Mississippi (20.1%) and the national average.[1]

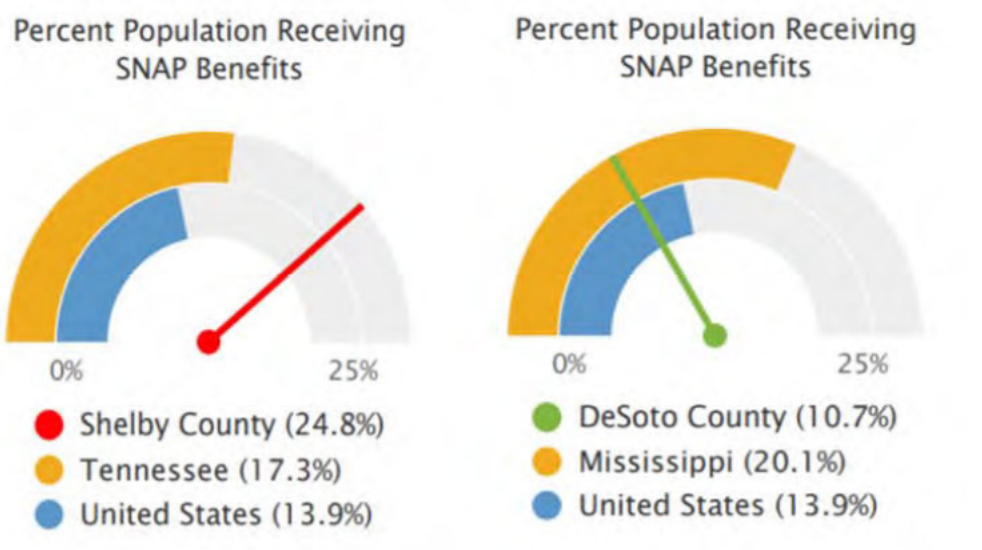

FIGURE 53. POPULATION RECEIVING SNAP BENEFITS WITHIN SHELBY AND DESOTO COUNTIES, 2015.[1]

Facilities

Both counties are below the national rate indicating fewer available grocery stores compared to the United States. As of 2016, in DeSoto County, there are 20 grocery stores, 12.4 stores for every 100,000 people. In Shelby County, there are 163 grocery stores, 17.5 per 100,000 people. The national rate of grocery stores is 21.2 per 100,000 people.[1]

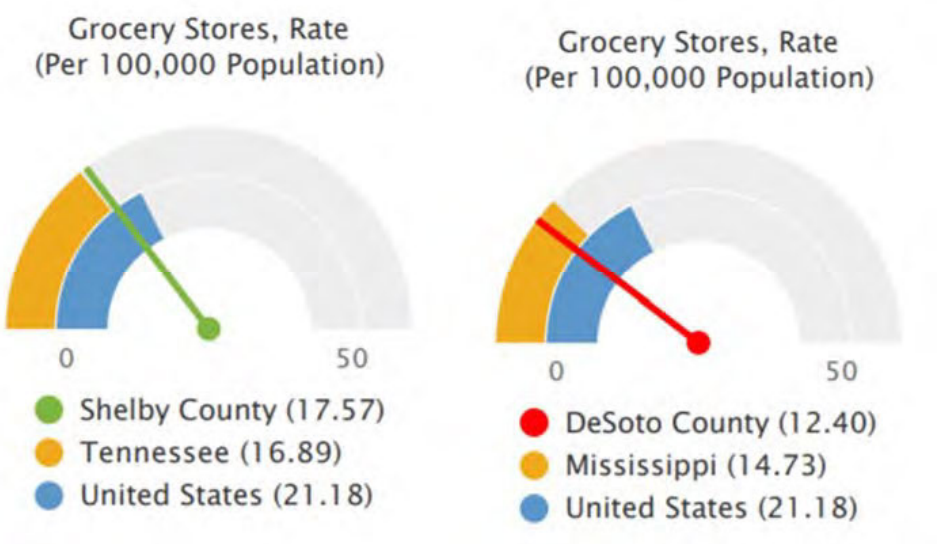

FIGURE 54. GROCERY STORES WITHIN SHELBY AND DESOTO COUNTIES, 2016.[1]

When looking at the rate of fast food facilities per 100,000 people, Shelby County has a rate of 77.4 and DeSoto County a rate of 86.8. There were 718 fast food establishments in Shelby County and 140 in DeSoto County.[1]

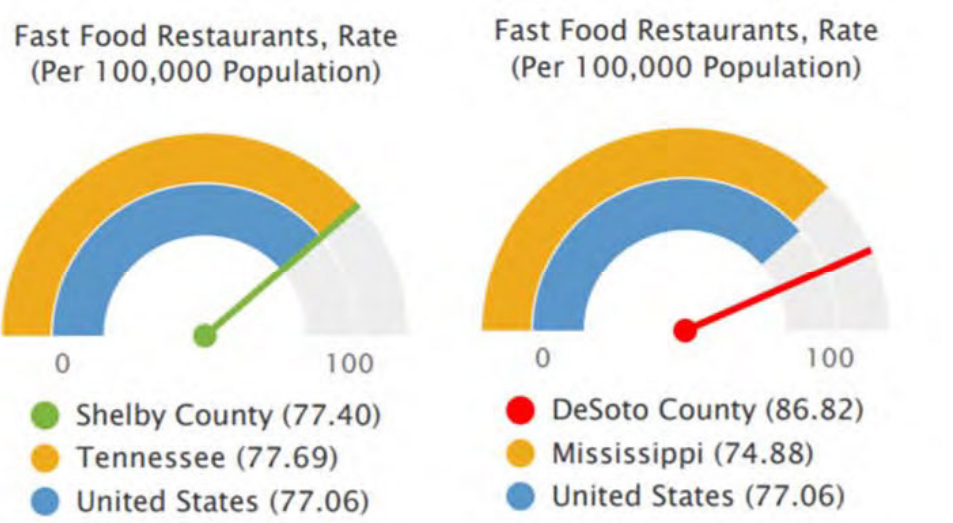

FIGURE 55. FAST FOOD RESTAURANTS WITHIN SHELBY AND DESOTO COUNTIES, 2016.[1]

Physical Exercise

Physical activity is important for healthy living. One fourth of residents in Shelby County (23%) and DeSoto County (29.5%) engage in no leisure time physical activity.[1] Also 11% percent of children across the state of Tennessee have no physical activity in a week.[7] Shelby County's

percentage of inactive people is less than Tennessee, and it does have a lower rate of fitness facilities, 8.3 per every 100,000 people. The rate of fitness facilities per 100,000 people for Tennessee is 9.0 and 11 for the United States.[1]

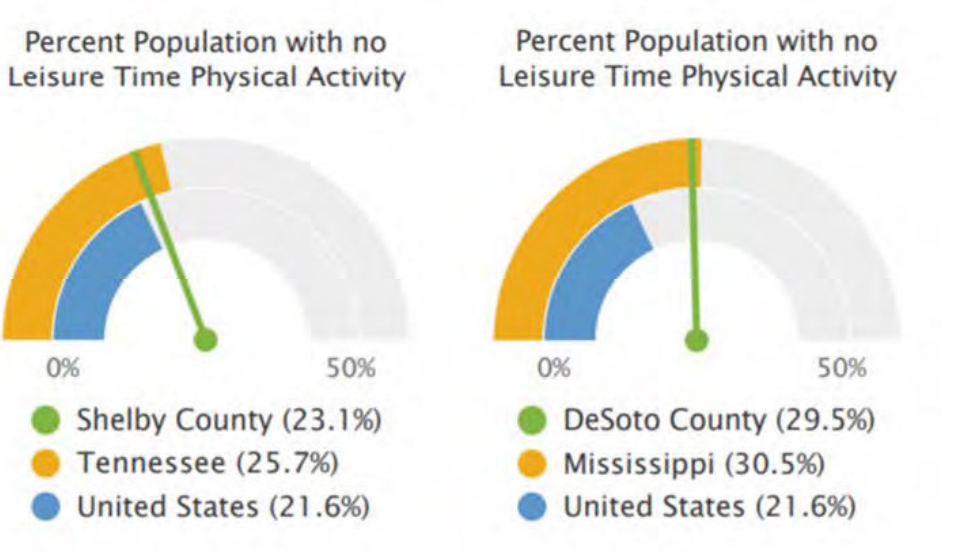

FIGURE 56. POPULATION WITH PHYSICAL ACTIVITY WITHIN SHELBY AND DESOTO COUNTIES, 2015.[1]

Nutrition

Almost half (43%) of adults report in Shelby County eating less than one fruit or vegetable a day;[7] and 38% of Shelby County and 32% of DeSoto County report not getting enough sleep each day.[2,3]

Obesity

Across the United States, 71.6% of adults over the age of 20 are overweight and 39.8% of adults are obese. Obesity is also a health problem for children. Nationally, young children ages 2 to 5 have an obesity rate of 13.9%. As children age, childhood obesity rates increase; 18.4% of children 6 to 11 and 20.6% of children 12 to 19 are obese.[38]

In Tennessee in 2017, 40.8% of male and 35.1% of female school age children were overweight or obese. Caucasian male student were 1.22 times more likely to be overweight or obese than African American male students. This disparity differs for females where African American female students were 1.37 times more likely than Caucasian female students to be overweight or obese.[7]

TABLE 51. PERCENTAGE OF CHILDREN WHO ARE OBESE/OVERWEIGHT BY RACE AND GENDER IN SHELBY COUNTY, 2017

Weight Status	All Males	African American Males	Caucasian Males	All Females	African American Females	Caucasian Females
Obese	23.9	20.7	25.7	16.9	22.4	14.8
Overweight	16.9	15.2	18.1	18.2	20.3	16.2
Slightly Overweight	27.9	18.1	31.7	38	38.4	37.3

Note: Data are from source [7].

Obesity is a significant problem in both Shelby County and DeSoto Counties. In Shelby, 35% (236,551 people) of the adults and in DeSoto County, 32% (39,661 people) of the adults are overweight or obese. Shelby County's obesity is slightly worse than Tennessee and 1.2 times worse than the United States. The percentage of obese adults in DeSoto County is actually better than Mississippi but worse than the national percentage.[1]

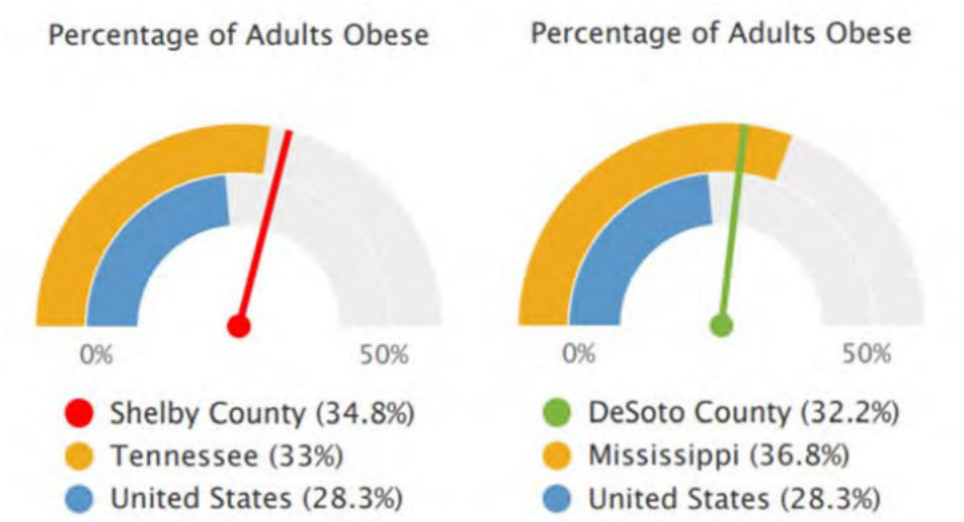

FIGURE 57. ADULTS WITH OBESITY WITHIN SHELBY AND DESOTO COUNTIES, 2015.[1]

High Heat Observation Days

High heat days are also problematic for people who do not have access to recreational and fitness facilities who need to exercise outdoors. The average heat index for both Shelby and DeSoto Counties is 97. In Shelby County, 15.9% of observed weather days have a high heat index whereas only 6% of observed days across Tennessee have a high heat index. In DeSoto County 16.4% of the days have a high index, which is not much higher than the percentage for Mississippi, 15.9%. It is hot outside in the south.[1]

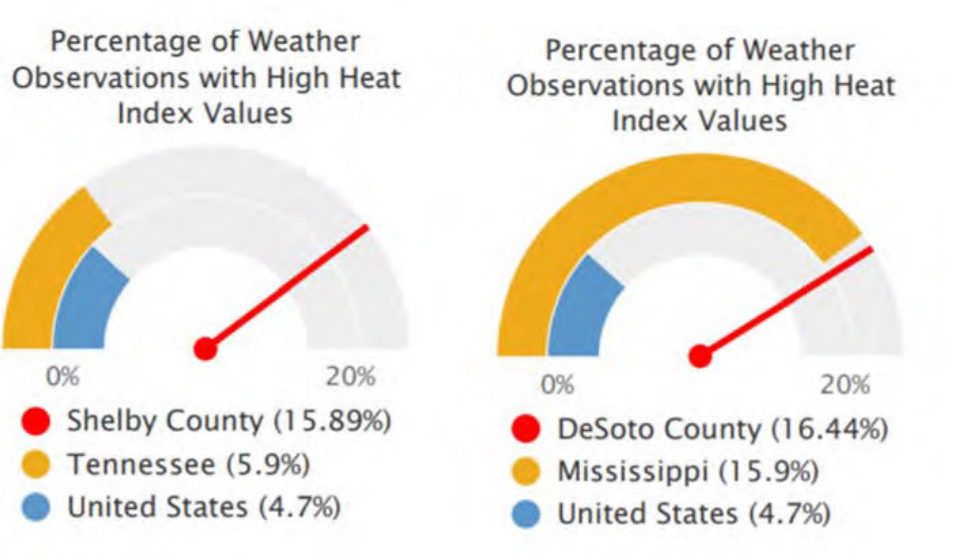

FIGURE 58. OBSERVATIONS OF HIGH HEAT INDEX VALUES WITHIN SHELBY AND DESOTO COUNTIES, 2014.[1]

End of Data Report

Appendix A: References

1. Center for Applied Research and Engagement Systems (CARES) University of Missouri Extension. (2019). [Community Health Needs Assessment Report with data dashboards and maps for Shelby County, Tennessee and DeSoto County, Mississippi]. *CARES Engagement Network.* Accessed June 14, 2019 from https://engagementnetwork.org/assessment/chna_report/

2. University of Wisconsin Population Health Institute and Robert Wood Johnson Foundation. (2019). [Individual report of health indicators and rankings for Shelby County, Tennessee]. *County Heath Rankings and Roadmaps.* Retrieved August 19, 2019 from https://www.countyhealthrankings.org/app/tennessee/2019/rankings/shelby/county/outcomes/overall/snapshot

3. University of Wisconsin Population Health Institute and Robert Wood Johnson Foundation. (2019). [Individual report of health indicators and rankings for DeSoto County, Mississippi]. *County Heath Rankings and Roadmaps.* Retrieved August 19, 2019 from https://www.countyhealthrankings.org/app/mississippi/2019/rankings/desoto/county/outcomes/overall/snapshot

4. Centers for Disease Control, National Center for Health Statistics (June 24, 2019). *National Vital Statistics Reports. Deaths: Final Data for 2017.* [pdf] Accessed September 14, 2019 https://www.cdc.gov/nchs/data/nvsr/nvsr68/nvsr68_06-508.pdf

5. Centers for Disease Control, National Center for Health Statistics (2019). [Heart Disease information from the 2017 National Health Interview Survey summarized for FastStats and demographic breakdowns provided in health specific tables.] Accessed on September 14, 2019 https://www.cdc.gov/nchs/fastats/heart-disease.htm; https://ftp.cdc.gov/pub/Health_Statistics/NCHS/NHIS/SHS/2017_SHS_Table_A-1.pdf

6. Center for Disease Control, National Center for Health Statistics (2019). Summary of Health Statistics: National Health Interview Survey, 2017. [pdf] *Tables of Summary Health Statistics.* Accessed September 14, 2019, https://ftp.cdc.gov/pub/Health_Statistics/NCHS/NHIS/SHS/2017_SHS_Table_A-1.pdf

7. Shelby County Health Department, Office of Epidemiology and Infectious Diseases. *Community Health Data prepared 3/13/2019*. Memphis, Tennessee.

8. Mississippi State Department of Health, Office of Public Health Statistics. [PDF] *2017 Leading Causes* of *Deaths by County.* Published 01/22/2019, Accessed August 2019 at https://msdh.ms.gov/phs/2017/Summary/dthsumm_cnty_2017.pdf

9. Mississippi State Department of Health, Office of Public Health Statistics. [PDF]. *Mississippi Leading Causes of Death for 2017*. Published: 01/22/2019 - https://msdh.ms.gov/phs/2017/Summary/dthsumm_state_2017.pdf

10. Centers for Disease Control, National Center for Health Statistics (2019). [Hypertension information from the 2017 National Health Interview Survey summarized for FastStats and demographic breakdowns provided in health specific tables.] Accessed on September 14, 2019 https://ftp.cdc.gov/pub/Health_Statistics/NCHS/NHIS/SHS/2017_SHS_Table_A-1.pdf; https://www.cdc.gov/nchs/fastats/hypertension.htm

11. Centers for Disease Control and Prevention. Interactive Atlas of Heart Disease and Stroke (2019), Database Accessed August 2019 at www.cdc.gov/dhdsp/maps/atlas

12. Centers for Disease Control, National Center for Health Statistics (2019). [Stroke information from the 2017 National Health Interview Survey summarized for FastStats and demographic breakdowns provided in health specific tables.] Accessed on September 14, 2019 https://www.cdc.gov/nchs/fastats/stroke.htm; https://ftp.cdc.gov/pub/Health_Statistics/NCHS/NHIS/SHS/2017_SHS_Table_A-1.pdf

13. Centers for Disease Control, National Center for Health Statistics (2019). [Cancer information from the 2017 National Health Interview Survey summarized for FastStats and demographic breakdowns provided in health specific tables.] Accessed on September 14, 2019 https://www.cdc.gov/nchs/fastats/cancer.htm; https://ftp.cdc.gov/pub/Health_Statistics/NCHS/NHIS/SHS/2017_SHS_Table_A-3.pdf

14. Centers for Disease Control, National Center for Health Statistics (2019). [Mammography information from the 2017 National Health Interview Survey summarized for FastStats and demographic breakdowns provided in health specific tables.] Accessed on September 14, 2019 https://www.cdc.gov/nchs/fastats/mammography.htm; https://www.cdc.gov/nchs/data/hus/2017/070.pdf

15. Mississippi State Department of Health. (2019). [Web-based query system for Mississippi vital statistics September 14, 2019] *MSTAHRS - Mississippi Statistically Automated Health Resource System.* Retrieved from http://mstahrs.msdh.ms.gov/

16. U.S. Cancer Statistics Working Group. U.S. Cancer Statistics Data Visualizations Tool, based on November 2018 submission data (1999-2016): U.S. Department of Health and Human Services, Centers for Disease Control and National Cancer Institute. Accessed June 2019 https://gis.cdc.gov/Cancer/USCS/DataViz.html

17. BroadStreet, 2019, broadstreet.io. [Health information for user specified geographic areas.] Accessed 8 July 2019. http://www.communitycommons.org/home

18. United States Census Bureau, 2019. Retrieved October 8, 2019 https://www.census.gov/newsroom/facts-for-features/2016/cb16-ff08.html

19. Centers for Disease Control, National Center for Health Statistics (2019). [Alzheimer information from the 2017 National Health Interview Survey summarized for FastStats.] Accessed on September 14, 2019 https://www.cdc.gov/nchs/fastats/alzheimers.htm

20. Centers for Disease Control, National Center for Health Statistics (2019). [Diabetes information from the 2017 National Health Interview Survey summarized for FastStats.] Accessed on September 14, 2019 https://www.cdc.gov/nchs/fastats/diabetes.htm

21. Centers for Disease Control, National Center for Health Statistics (2019). [Unintentional injury information from the 2017 National Health Interview Survey summarized for FastStats.] Accessed on September 14, 2019 https://www.cdc.gov/nchs/fastats/accidental-injury.htm

22. Centers for Disease Control, National Center for Health Statistics (2019). [Suicide information from the 2017 National Health Interview Survey summarized for FastStats.] Accessed on September 14, 2019 https://www.cdc.gov/nchs/fastats/suicide.htm

23. Centers for Disease Control, National Center for Health Statistics (2019). [Mental health information from the 2017 National Health Interview Survey summarized for FastStats.] Accessed on September 14, 2019 https://www.cdc.gov/nchs/fastats/mental-health.htm

24. Centers for Disease Control, National Center for Health Statistics (2019). [Depression information from the 2017 National Health Interview Survey summarized for FastStats.] Accessed on September 14, 2019 https://www.cdc.gov/nchs/fastats/depression.htm

25. Centers for Disease Control, National Center for Health Statistics (2019). [Homicide information from the 2017 National Health Interview Survey summarized for FastStats.] Accessed on September 14, 2019 https://www.cdc.gov/nchs/fastats/homicide.htm

26. Annie E. Casey Foundation, Kids Count Data Center, 2019. [Custom report created with Tennessee indicators for Shelby County.] Accessed in September 2019 https://datacenter.kidscount.org/data/customreports/6498/any

27. Annie E. Casey Foundation, Kids Count Data Center, 2019. [Custom report created with Mississippi indicators for DeSoto County.] Accessed in September 2019 https://datacenter.kidscount.org/data/customreports/3930/any

28. Shelby County Health Department, Office of Epidemiology and Infectious Disease. *2016 Annual Report.* [PDF] Retrieved August 19, 2019 from http://www.shelbytnhealth.com/DocumentCenter/View/1082/2016-Epidemiology-Report-?bidId=

29. Shelby County Health Department, Office of Epidemiology and Infectious Disease. *HIV Disease and STD Annual Surveillance Summary 2016* [PDF] Retrieved August 19, 2019 from http://www.shelbytnhealth.com/DocumentCenter/View/1403/2016-HIV-STD-Annual-Report

30. Centers for Disease Control, National Center for Health Statistics (2019). [COPD information from the 2017 National Health Interview Survey summarized for FastStats.] Accessed on September 14, 2019 https://www.cdc.gov/nchs/fastats/copd.htm

31. Centers for Disease Control, National Center for Health Statistics (2019). [Asthma information from the 2017 National Health Interview Survey summarized for FastStats.] Accessed on September 14, 2019 https://www.cdc.gov/nchs/fastats/asthma.htm.

32. Centers for Disease Control, National Center for Health Statistics (2019). [Liver disease information from the 2017 National Health Interview Survey summarized for FastStats.] Accessed on September 14, 2019 https://www.cdc.gov/nchs/fastats/liver-disease.htm

33. Centers for Disease Control, National Center for Health Statistics (2019). [Kidney disease information from the 2017 National Health Interview Survey summarized for FastStats.] Accessed on September 14, 2019 https://www.cdc.gov/nchs/fastats/kidney-disease.htm

34. Centers for Disease Control, National Center for Health Statistics (2019). [Alcohol usage information from the 2017 National Health Interview Survey summarized for FastStats.] Accessed on September 14, 2019 https://www.cdc.gov/nchs/fastats/alcohol.htm

35. Centers for Disease Control, National Center for Health Statistics (2019). [AIDS information from the 2017 National Health Interview Survey summarized for FastStats.] Accessed on September 14, 2019 https://www.cdc.gov/nchs/fastats/aids-hiv.htm

36. Centers for Disease Control, National Center for Health Statistics (2019). [Access to healthcare information from the 2017 National Health Interview Survey summarized for FastStats.] Accessed on September 14, 2019 https://www.cdc.gov/nchs/fastats/access-to-health-care.htm

37. Centers for Disease Control, National Center for Health Statistics (2019). [Dental information from the 2017 National Health Interview Survey summarized for FastStats.] Accessed on September 14, 2019 https://www.cdc.gov/nchs/fastats/dental.htm

38. Centers for Disease Control, National Center for Health Statistics (2019). [Obesity information from the 2017 National Health Interview Survey summarized for FastStats.] Accessed on September 14, 2019 https://www.cdc.gov/nchs/fastats/obesity-overweight.htm

39. Centers for Disease Control, National Center for Health Statistics (2019). [Health insurance information from the 2017 National Health Interview Survey summarized for FastStats.] Accessed on September 14, 2019 https://www.cdc.gov/nchs/fastats/health-insurance.htm

Appendix B: Disparities

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Health Disparities

Health Issues	Shelby County	DeSoto County
Gonorrhea (Morbidity)	Shelby 2.0 X worse than TN and US	
Gonorrhea (Morbidity)	African American 11.0 X greater than Caucasian	
Gonorrhea (Morbidity)	African American 12.1 X greater than Hispanic	
HIV New Cases (Morbidity)	Shelby 2.1 X worse than US	
HIV New Cases (Morbidity)	African American 5.0 X greater than Caucasian	African American 3.8 X greater than Caucasian
HIV New Cases (Morbidity)	African American 3.1 X greater than Hispanic	African American 2.7 X greater than Hispanic
Chlamydia (Morbidity)	Shelby is 1.7 X worse than US	
Chlamydia (Morbidity)	TN: African American 5.3 X greater than Caucasian	
Chlamydia (Morbidity)	TN: African American 3.6 X greater than Hispanic	
Teen Births	African American 4.5 X greater than Caucasian	
Teen Births	Hispanic 6.3 X greater than Caucasian	
Teens with STDs	Shelby 2.3 X worse than TN	
Violent Crime (Morbidity)	Shelby 2.7 X worse than TN	
Homicide (obviously Mortality)	Shelby 3.4 X worse than US	African American 3.3 X greater than Caucasian
Homicide (obviously Mortality)	African American 7.3 X greater than Caucasian	
Homicide (obviously Mortality)	African American 2.4 X greater than Hispanic	
Infant (Mortality)	Shelby 1.9 X worse than US	
Infant (Mortality)	African American 3.2 X greater than Hispanic	African American 1.8 X greater than Caucasian
Infant (Mortality)	African American 2.6 X greater than Caucasian	
Preterm Births	Shelby 2.2 X worse than US	
Preterm Births	African American 1.5 X greater than Caucasian	African American 1.3 X greater than Caucasian
Low Birth Weight	African American 2.1 X greater than Caucasian	African American 1.8 X greater than Caucasian
Low Birth Weight	African American 2.6 X greater than Hispanic	African American 2.3 X greater than Hispanic
Child Deaths (Mortality)	African American 2.0 X greater than Caucasian	
Child Deaths (Mortality)	African American 2.0 X greater than Hispanic	
High Blood Pressure (Mortality)	African American 2.0 X greater than Caucasian	African American 1.5 X greater than Caucasian
Stroke (Mortality)	African American 1.7 X greater than Caucasian	African American 1.3 X greater than Caucasian
Diabetes (Mortality)	African American 1.8 X greater than Caucasian	African American 2.6 X greater than Caucasian
Prostate Cancer (Morbidity)	Shelby 1.5 X worse than US	
Prostate Cancer (Morbidity)	African American 1.4 X greater than Caucasian	African American 2.1 X greater than Caucasian
Prostate Cancer (Mortality)	African Americans 3.0 X greater than Caucasian	African Americans 2.3 X greater than Caucasian
Colon Cancer (Morbidity)	African American 1.5 X greater than Caucasian	African American 1.6 X greater than Caucasian
Colon Cancer (Mortality)	African American 1.6 X greater than Caucasian	
Breast Cancer (Mortality)	African Americans 1.4 X greater than Caucasian	African Americans 1.6 X greater than Caucasian

Prevention, Education, Income	Shelby County	DeSoto County
Without Health Insurance (SDoH)	African American 2.0 X greater than Caucasian	African American 1.5 X greater than Caucasian
Without Health Insurance (SDoH)	Hispanic 5.4 X greater than Caucasian	Hispanic 4.0 X greater than Caucasian
Access to Mental Health (SDoH)	Shelby 1.5 X fewer than US	DeSoto 2.6 X fewer than US
No Prenatal Care (SDoH)	Shelby 2.2 X worse than US	
Chronically Absent from School (SDoH)	African American 1.9 X greater than Caucasian	
No High School Diploma (SDoH)	African American 2.3 X greater than Caucasian	African American 1.3 X greater than Caucasian
No High School Diploma (SDoH)	Hispanic 7.5 X greater than Caucasian	Hispanic 3.3 X greater than Caucasian
Income (SDoH)	Caucasian 2.0 X greater than Hispanic	Caucasian 1.5 X greater than Hispanic
Income (SDoH)	Caucasian 2.1 X greater than African American	Caucasian 1.9 X greater than African American
Children in Poverty (SDoH)	African American 6.0 X greater than Caucasian	African American 2.4 X greater than Caucasian
Children in Poverty (SDoH)	Hispanic 5.5 X greater than Caucasian	Hispanic 3.8 X greater than Caucasian



Key Informant Survey

2019 COMMUNITY HEALTH NEEDS ASSESSMENT SUMMARY OF REGIONAL ONE'S KEY INFORMANT SURVEY

Methodist Le Bonheur Healthcare

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Abstract

Key Informants (KIs) are the stakeholders within a community whose organizations or companies have social, political and/or economic pull to positively affect the community's well-being and health outcomes. Thus, during a Community Health Need Assessment (CHNA) it is vital to assess a community's health needs via communication with its KIs. Within the 2019 CHNA, Methodist Le Bonheur Healthcare and its community partners administered a KI survey to various leaders within the Shelby County and surrounding area in order to solicit and take into account input received from persons who represent the broad interests of the community. A total of 26 KIs completed the survey, with the majority identifying themselves as primarily serving traditionally underserved populations, with 85% stating that they would not consider the communities [of Shelby County] as "healthy," and 58% stating that the community's overall health status is "Poor." This report is a summary of the key informants' assessment of Shelby County's key health issues, health care barriers, and Social Determinants of Health which negatively impact residents' ability to obtain and maintain good health status.

Executive Summary

Methodist Le Bonheur Healthcare and community partners Shelby County Health Department, Regional One Health, Baptist Memorial Health Care, and St. Jude Children's Research Hospital administered the Key Informant (KI) Survey to various leaders within the Shelby County and surrounding areas. Community Health Needs Assessment (CHNA) partners provided the names of leaders which their agency considers a stakeholder, including a diverse group of leaders from health care professionals, social services providers, non-profit, business, faith-based organizations and other community leaders. Regional One Health spearheaded the administration of Key Informant Survey so that KIs would only be contacted once by one organization within this portion of the CHNA process. On behalf of Regional One Health, data from this survey was gathered and incorporated into the report created by Holleran, an independent research firm located in Wrightsville, Pennsylvania.

A total of 26 key informants completed the survey, with the largest percentage of informants being affiliated with Health Care/Public Health Organizations (48%), Non-Profit/Social Services (20%), and Education (16%). Among the informants, the majority identify themselves as primarily serving traditionally underserved populations, with 85% stating that they would not consider the communities in the area as "healthy," and 58% stating the communities' overall health status as "Poor." The survey displays the KIs' assessment of Shelby County's key health issues, health care barriers, and Social Determinants of Health which negatively impact residents' ability to obtain and maintain good health status.

KIs reported that the top five health issues within Shelby County as Overweight/Obesity (30.8%), Mental Health (19.2%), Accessing Health Care Service (19.2%), Maternal, Infant and Child Health (11.5%), and Unintentional Injuries and Violence (7.7%). The top three most significant barriers that keep residents from accessing healthcare were stated as residents' inability to have basic needs met (76.9%); lack of transportation (76.9%); and lack of health literacy (73.1%). The Social Determinants of Health perceived to be in the poorest of condition were that of *Neighborhood and Built Environment, Economic Stability*, and *Education*.

Findings from this survey demonstrate how KIs recognize the need to improve the health and well-being of Shelby County residents by addressing the external, social factors (Social Determinants of Health) that hinder residents from receiving access and utilization of health care services. Nevertheless, these findings also display how KIs are willing to enhance their collaborations among various community-based organizations in order to make a better and healthier Shelby County.

Overview

In order to assess the community's health needs and to meet the IRS's requirement that an agency "solicit and take into account input received from persons who represent the broad interests of that community, including those with special knowledge of or expertise in public health," Methodist Le Bonheur Healthcare and community partners Shelby County Health Department, Regional One Health, Baptist Memorial Health Care, and St. Jude Children's Research Hospital administered the Key Informant (KI) Survey to various leaders within the Shelby County and surrounding area. KIs are the stakeholders within the community whose companies have social, political and/or economic pull to positively affect the community's health. CHNA partners provided the names of leaders which their agency considers a stakeholder, including a diverse group of leaders from health care professionals, social services providers, non-profit, business, faith-based organizations and other community leaders. From this provision the names were compiled in order to erase duplication of names and to create a master list of stakeholders.

Survey Administration

Regional One Health spearheaded the administration of Key Informant Survey so that KIs would only be contacted once by one organization within this portion of the CHNA process. KIs were emailed the KI Survey during April 1 through April 15, and were asked questions focused around health issues/ barriers for people in the community, health care access, underserved population, and how to increase the overall health of Shelby County and the surrounding area. On behalf of Regional One Health, data from this survey was gathered and incorporated into the report created by Holleran, an independent research firm located in Wrightsville, Pennsylvania. (See Appendix A and B for full KI Survey and survey results).

TABLE 1. KEY INFORMANT SURVEY OVERVIEW

Health Topic	Questions related to Health Topic	Purpose of Questions regarding Health Topic
Key Health Issues	6 questions	Perception of the community's overall health status; select the top five health issues of the community; indicate the most significant health issue within the community. Comment sections to list community resources which can address health issues and any other information about the community's health status.
Access to Care & Barriers	6 questions	Ability to access various resources; significant barriers that keep people in the community from accessing health care; other barriers to health care; underserved populations within the community.
Social Determinants of Health	3 questions	Key areas of the Social Determinants of Health within the community; healthcare resource/service that are lacking or not affordable within the community; additional information regarding need and accessibility of healthcare resources/services.
Open-Ended: Challenges & Solutions	3 questions	Challenges people face in attempt to maintain healthy lifestyles; detail of activities in the community regarding health and quality of life; suggestions to improve health and quality of life in the community.
Demographics	3 questions	Representative category of their community affiliation, the specific populations which their organization serves, and their organization's engagement status concerning community collaborations.
Closing	1 question	Feedback for Regional One Health and community partners that can guide community health partners to improve community health activities.

Key Findings

A total of 26 key informants completed the survey, with the largest percentage of informants being affiliated with Health Care/Public Health Organizations (48%), Non-profit/social services (20%), and Education (16%). Among the informants, the majority identify themselves as primarily serving traditionally underserved populations, with 85% stating that they would not consider the communities in the area as "healthy," and 58% stating the communities' overall health status as "Poor." Nevertheless, 96% of key informants feel that their organization collaborates with other organizations/institutions on local efforts to improve health in the community.

A summary of the key findings from this survey are summarized in Table 2. To view the actual survey tool and/or to learn more in-depth analysis of the report of this survey please read Appendix A.

TABLE 2. KEY FINDINGS OF THE RESPONSES TO THE 2019 CHNA KEY INFORMANT SURVEYS

Health Topic	Response of Key Informants
Key Health Issues	Top 5 Health Issues - Overweight/Obesity (30.8%) - Mental Health (19.2%) - Accessing Health Care Services (19.2%) - Maternal, Infant and Child Health (11.5%) - Unintentional Injuries and Violence (7.7%)
Access to Care & Barriers	Perceived "most significant barriers that keep residents in the community from accessing healthcare": - Residents' inability to have basic needs met (76.9%) - Lack of transportation (76.9%) - Lack of health literacy (73.1%) - Inability to navigate health care system (69.2%) - Inability to pay out-of-pocket expenses (i.e. co-pays, prescriptions, etc.) (69.2%) - Lack of health insurance (69.2%) - Lack of trust (69.2%)
Social Determinants of Health	Social Determinants of Health where the majority of Key Informants classified as "Very poor" or "Poor" - Neighborhood and built environment (88.5%) - Economic stability (84.6%) - Education (80.8%) - Social and community context (73.1%) - Health and health care (53.8%)
Open-Ended: Challenges & Solutions	Overall, comments within this section were hopeful about addressing the health and social needs of Shelby County residents, by educating community members and leaders of the Social Determinants of Health that have a negative impact on health outcomes.

Discussion

Findings from this survey demonstrate three important points about the health status of Shelby County community members:

- Key informants perceive that there is great need to improve the health and well-being of Shelby County residents
- Key informants are aware that there are external, social factors (Social Determinants of Health) that hinder Shelby County residents from receiving access and utilization of health care service
- Key informants have and are willing to enhance their collaborations among various community-based organizations in order to improve the access and utilization of health and social services within the community

Findings within this survey give hope to the potential that various organizations can use their current endeavors and collaborate to make a better and healthier Shelby County.

Appendix A: Key Informant Report and Survey

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Community Health Needs Assessment

2019 KEY INFORMANT SURVEY

Regional One Health

SUBMITTED BY

HOLLERAN

COMMUNITY ENGAGEMENT RESEARCH & CONSULTING

May 2019

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STUDY OVERVIEW

Background

Regional One Health is spearheading a comprehensive assessment of the health needs of individuals living in Shelby County, Tennessee. The aim of the assessment is to reinforce Regional One Health's commitment to the health of residents and to align its health prevention efforts with the community's greatest needs.

The Patient Protection and Affordable Care Act of 2010 set forth new requirements for nonprofit hospital organizations in order to maintain their tax exempt status as a charitable hospital, 501(c)(3). One of the new regulations is a requirement that all nonprofit hospitals must conduct a Community Health Needs Assessment (CHNA) and adopt an implementation strategy that meets the community health needs identified in the assessment every three years. Regional One Health has conducted previous CHNA's during the fiscal years 2013 and 2016 to identify needs and resources in the community. Regional One Health considers the community they serve to include not only the neighborhoods surrounding the campus on Memphis' downtown corridor, but also extends to the tristate area of West Tennessee, Arkansas, Mississippi, and beyond. In an effort to increase collaboration during the key informant study, Regional One Health partnered with the Shelby County Health Department, Baptist Memorial Health Care Corporation, Methodist LeBonheur Healthcare, and St. Jude Children's Research Hospital.

Methodology

A key informant survey was conducted with a total of 26 key informants between April 1 and April 15, 2019. Key informants are defined as community stakeholders with expert knowledge, including public health and health care professionals, social service providers, non-profit leaders, business leaders, faith-based organizations, and other community leaders. Participants included public health and health care professionals, non-profit/social service providers, education specialists, business leaders, and government housing/transportation agencies. Questions were focused around health issues and barriers for people in the community, health care access, underserved populations, and how to increase the overall health of Shelby County and the surrounding areas.

The data were gathered and integrated into the report by Holleran, an independent research firm located in Wrightsville, Pennsylvania.

Organization Overview

Regional One Health is home to the oldest hospital in Tennessee, chartered in 1829. Throughout its more than 180-year history, the acute care hospital has evolved significantly, housing a children's hospital, tuberculosis hospital, military hospital, maternity hospital and ultimately the Regional Medical Center, which is home to nationally recognized Centers of Excellence and a commitment to providing quality healthcare to all citizens of the Mid-South.

Mission: *"To improve the health and well-being of the people we serve by providing compassionate care and exceptional services."*

Vision: *"In collaboration with our academic partners, we will be the premier healthcare system advancing the quality of life in our communities."*

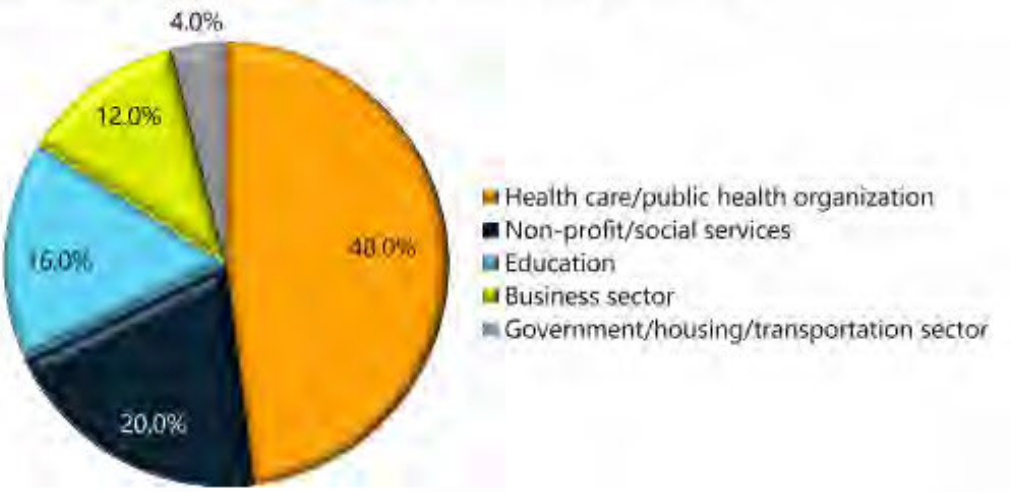
The core programs and services within Regional One Health include:

- Main Campus
  - Regional Medical Center – an acute care hospital providing the Mid-South with the highest quality healthcare.
  - Centers of Excellence
    - The Elvis Presley Trauma Center – a designated Level 1 Trauma Center in Tennessee, Mississippi and Arkansas.
    - Firefighters Burn Center – a full-service Burn Center that features 14 beds, an outpatient clinic, surgery facilities, a rehabilitation center, a research division, and special cutting-edge burn care equipment. It is the only full-service Burn Center of its kind within a 150-mile radius of Memphis.
    - Sheldon B. Korones Newborn Center – one of the oldest and largest neonatal intensive care units in the United States.
    - High-Risk Obstetrics Program – receives 1,500 referrals annually due to complications in pregnancy. The facility has all the comforts of home, as well as the sophisticated equipment necessary to handle complications during delivery.
  - The Rehabilitation Hospital – a 23-bed inpatient facility in a newly renovated space with attractive, spacious private rooms.
  - Extended Care Hospital – treats a variety of patients that require longer lengths of stay (18 to 35 days) than in a traditional acute care hospital.
- East Campus
  - Center for Rehabilitative Medicine – a collaborative effort designed to help patients increase wellness through an effective three-part approach which includes State-Of-The-Art Technology, Innovative Care Plans, and Thoughtful Analysis.
  - East Campus Imaging Center – a new, state-of-the-art facility is designed to enhance the quality of care, comfort and convenience for all patient's imaging needs.
  - East Campus Multispecialty Care – a new site that offers primary care and specialty services, such as Internal Medicine, Cardiology, Endocrinology, Nephrology, Neurology, and Rheumatology.

KEY INFORMANT INTERVIEWS

Holleran staff worked closely with Regional One Health to identify key informant participants. A total of 26 key informants completed the survey between April 1 and April 15, 2019. The largest percentage of informants are affiliated with Health Care/Public Health Organizations (48%), followed by Non-profit/social services (20%), and Education (16%). A full list of key informants and their organizations can be found in Appendix B. It is important to note that the results reflect the perceptions of some community leaders, but may not represent all community perspectives.

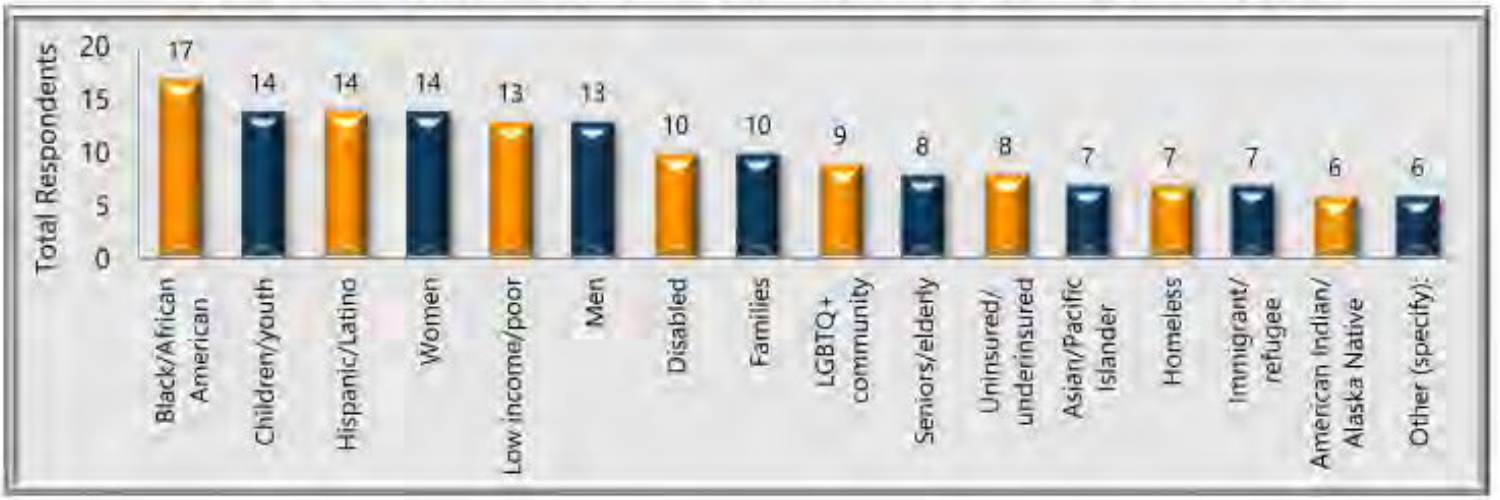
Figure 1. Percentage respondents by community affiliation



The vast majority of respondents work in organizations that primarily serve traditionally underserved populations, such as Black/African Americans, Children/youth, Hispanic/Latinos, Women, Low income/poor, and Men. Fortunately, 96% of respondents feel that their organization collaborates with other organizations/institutions on local efforts to improve health in the community. Since collaboration amongst local organizations and entities is crucial to the implementation of the Community Health Needs Assessment (CHNA), this statistic is encouraging.

Furthermore, it is important to review the overall perceptions of the community. Nearly 85% of key informants overwhelmingly state that they would not consider the communities surrounding Regional One Health as healthy. In addition, the majority of respondents (57.7%) rate the communities overall health status as "Poor."

Figure 2. Total respondents by specific population their organization primarily serves



I. Key Health Issues & Barriers

Key Health Issues

Key informants were asked to determine the 5 most pressing health issues in their community from a list of 18 focus areas identified in the survey. The issues of Overweight/obesity, Mental health, Accessing health care services, Maternal, infant, and child health, and Unintentional injuries and violence are identified by key informants as the top 5 health issues in their communities.

In 2016, key informants were also asked to provide their top 5 most pressing health issues for the community. The top result of both key informants studies was "Overweight/obesity." Also, in 2016 Mental health/suicide was stated by 54.5% of respondents as being a top 5 key health issue. In 2019, this number increased to 65.4% of key informants stating Mental health was a top 5 key health issue. It should be noted that in 2019, Mental health and Suicide were separated into two independent categories. There were no key informants who stated Suicide was a top 5 health issue in the community.

Interestingly, Heart disease and Diabetes fell out of the top 5 in 2019, but were replaced with Maternal, infant, and child health, and Unintentional injuries and violence.

When asked to specify which health issue was the most significant, the majority of key informants stated Overweight/obesity was the most important, while Mental health and Accessing health care services were the second most significant (See Figure 3). In 2016, key informants felt these same three issues were the most significant; however Access to Care/uninsured was listed as the most significant.

The following figure depicts the top five most significant health issues as a percentage of respondents who see it as the most significant in the community. In addition, Table 1 summarizes the number of times an issue is mentioned and the percentage of respondents that rate the issue as being one of the top five health issues in their community in 2019 and 2016.

Figure 3. Ranking of most significant health issues in the community



Table 1: Comparison ranking of the most pressing key health issues (2019 and 2016)

Key Health Issue	2019		2016	
	Count	Percent of respondents who selected the issue*	Count	Percent of respondents who selected the issue*
Mental health	17	65.4%	30	54.5%
Overweight/obesity	17	65.4%	49	89.1%
Accessing health care services	14	53.8%	40	72.7%
Maternal, infant, and child health	13	50.0%	21	38.2%
Unintentional injuries and violence including domestic violence, firearm-related violence, and motor vehicle accidents	12	46.2%	Not asked in 2016	
Diabetes	11	42.3%	35	63.6%
Heart disease	10	38.5%	27	49.1%
Cancer	7	26.9%	12	21.8%
Substance abuse	7	26.9%	23	41.8%
Other (specify):	5	19.2%	9	16.4%
Sexually transmitted diseases including HIV/AIDS	4	15.4%	8	14.5%
Teen pregnancy	3	11.5%	Not asked in 2016	
Alzheimer's disease/dementia	2	7.7%	Not asked in 2016	
Stroke	2	7.7%	7	12.7%
Tobacco use	2	7.7%	2	3.6%
Oral health	1	3.8%	Not asked in 2016	
Respiratory diseases	1	3.8%	Not asked in 2016	
Suicide	0	0.0%	Included with "Mental health"	

*Respondents could select more than one option, therefore the percentages may sum to more than 100.0%.

Respondents were also asked to share information regarding what resources are available in the community to address the health issues identified. Summaries of responses are listed below.

Select Comments Regarding Resources Available:

- "There are certainly issues such as food deserts, or lack of access to healthy foods. And there are opportunities, particularly with young people and the various neighborhood, school and youth organization gardens to encourage and teach young people healthy eating habits."
- "Multiple resources are available -- unfortunately there is lack of coordination. The OneHealth initiative (Camden) is helping CARE Network Navigators Transition to Success/Driving the Dream show promise."
- "Lots of programs and resources, but how to engage people or reduce barriers that hinder them understanding their need for care, compliance with chronic disease management."
- "Places like Regional One are addressing some of those needs and are trying really hard to educate our community to eat healthier and exercise more, but Memphis in general I feel isn't quite where it needs to be in terms of overall healthy living and eating."

Respondents were also asked to share information regarding these key health issues and their reasons for ranking them this way. Summaries of responses are listed below.

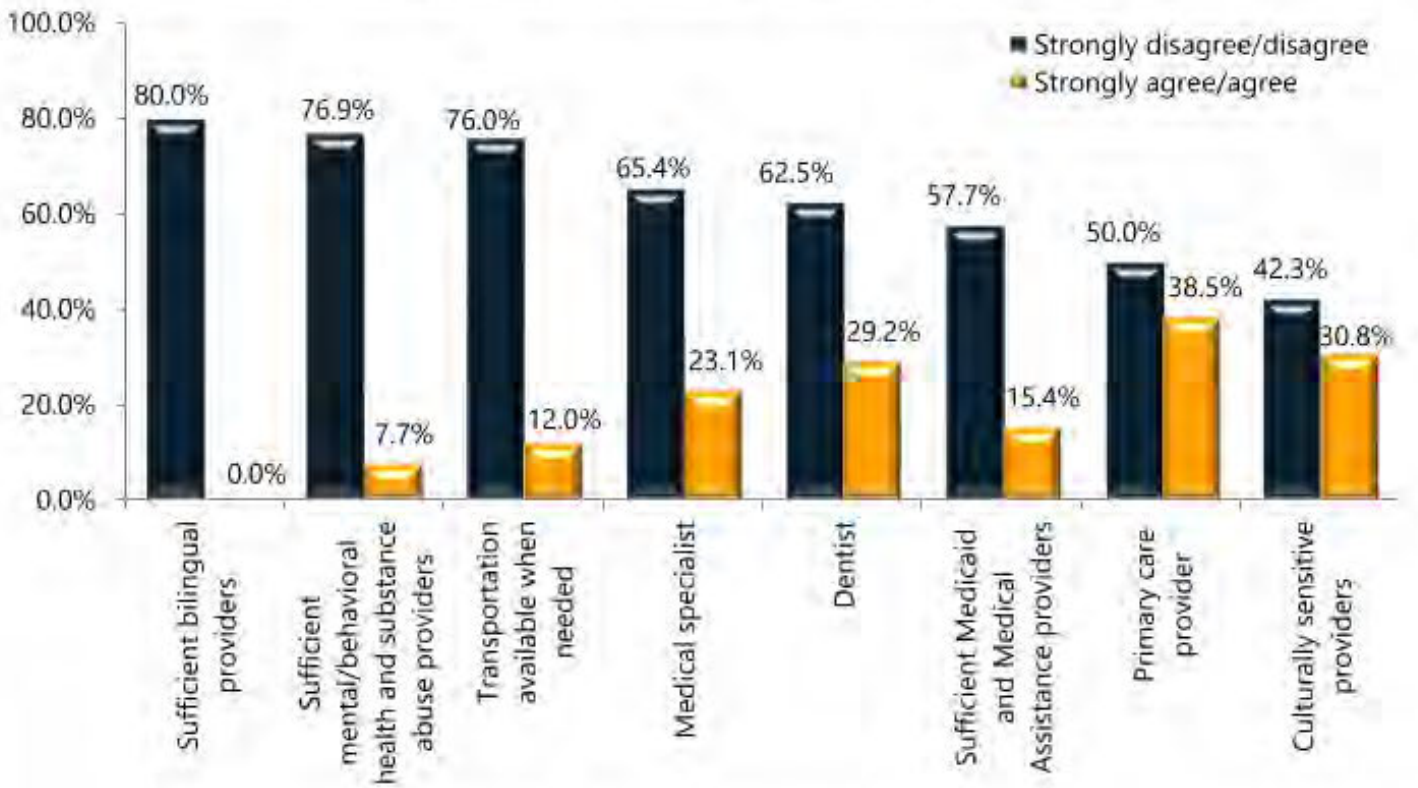
Select Comments Regarding Key Health Issues:

- "I selected overweight/obesity because it is an underlying condition that increases diabetes and heart conditions in our community. Reducing overweight/obesity could, therefore, eventually reduce diabetes and heart conditions."
- "The reason overweight/obesity should be a high priority issue to address is because it leads to so many of the other chronic and critical illnesses/diseases that are prevalent in our community (i.e. diabetes, hypertension, cardiovascular disease, cancer). Overweight/obesity also plays a major role in mental health, especially in youth, which can lead to other risky behaviors. This issue is also extremely costly, not only to the healthcare industry, but business as well in terms of absenteeism, loss of productivity, medical claims, disability claims, etc. Almost 40% of our youth are either overweight or obese. 75%-80% of these youth will be obese adults which will affect not only quality of life and personal earning potential, but also our city and county's future economic and workforce development."
- "Cancer, diabetes and heart disease are serious issues in all communities - and Memphis seems to have higher rates of diabetes and heart disease than other parts of the country - most certainly related to overweight/obesity. Regional One Health is at the forefront as the city's Level One trauma center when it comes to unintentional injuries and violence."

Access to Care & Barriers

Respondents were asked to select the most significant barriers that keep residents in the community from accessing healthcare. The majority of respondents indicate the inability to have basic needs met (76.9%) and a Lack of transportation (76.9%) as being a significant barrier. This relates to the Social Determinant finding that the majority of key informants feel that the Economic stability of the community (84.6%) and the Neighborhood and built environment (88.5%) are "Very Poor" or "Poor." Also, 76% of key informants "Strongly disagree" or "Disagree" that Transportation (public, personal, or other service) for medical appointments and other services is available to area residents when needed (See Figure 4).

Figure 4. Percentage of respondents who responded as "Strongly agree or agree" as compared to those who responded "Strongly disagree or disagree" with the health care access factors.*



*See Appendix A: Key Informant Survey Tool, for full factor and response options

One key informant reflected on their selection of the most significant barrier:

"It is very difficult to choose a most significant. Fear is certainly an underlying barrier...fear of cost, fear of tests/screenings, fear of getting bad news about one's health, fear of something "hurting," fear of not understanding, etc. Certainly, inability to pay or not having health insurance are big barriers to accessing healthcare. Lack of health literacy is also a large barrier. Many people do not know/understand the importance of wellness visits and screenings and how those can have a significant and positive impact on their life, but also plays a big role in future success in their children's lives. But, at

the end of the day, health/healthcare, wellness and preventative screenings are likely the furthest thing from one's mind, if their basic needs are not being met and they are in survival or crisis mode."

The barrier that was selected the second most often by key informants was the Lack of health literacy (See Table 2). When asked to rate which one barrier is the most significant, key informants rated the Inability to navigate health care system (15.4%) and Lack of health insurance coverage (15.4%) as the 2nd most significant. These two findings can have disastrous effects on the community if residents do not have the financial means or basic knowledge of the health care system. Consequently, 84.6% report that they think most uninsured and underinsured individuals living in the area go to the Hospital emergency department when they are in need of medical care. It is possible that many of these visits are unnecessary and could be handled by a primary care physician. This could cause an unneeded financial and personnel strain on the emergency department and community health system.

Table 2: Most significant barriers

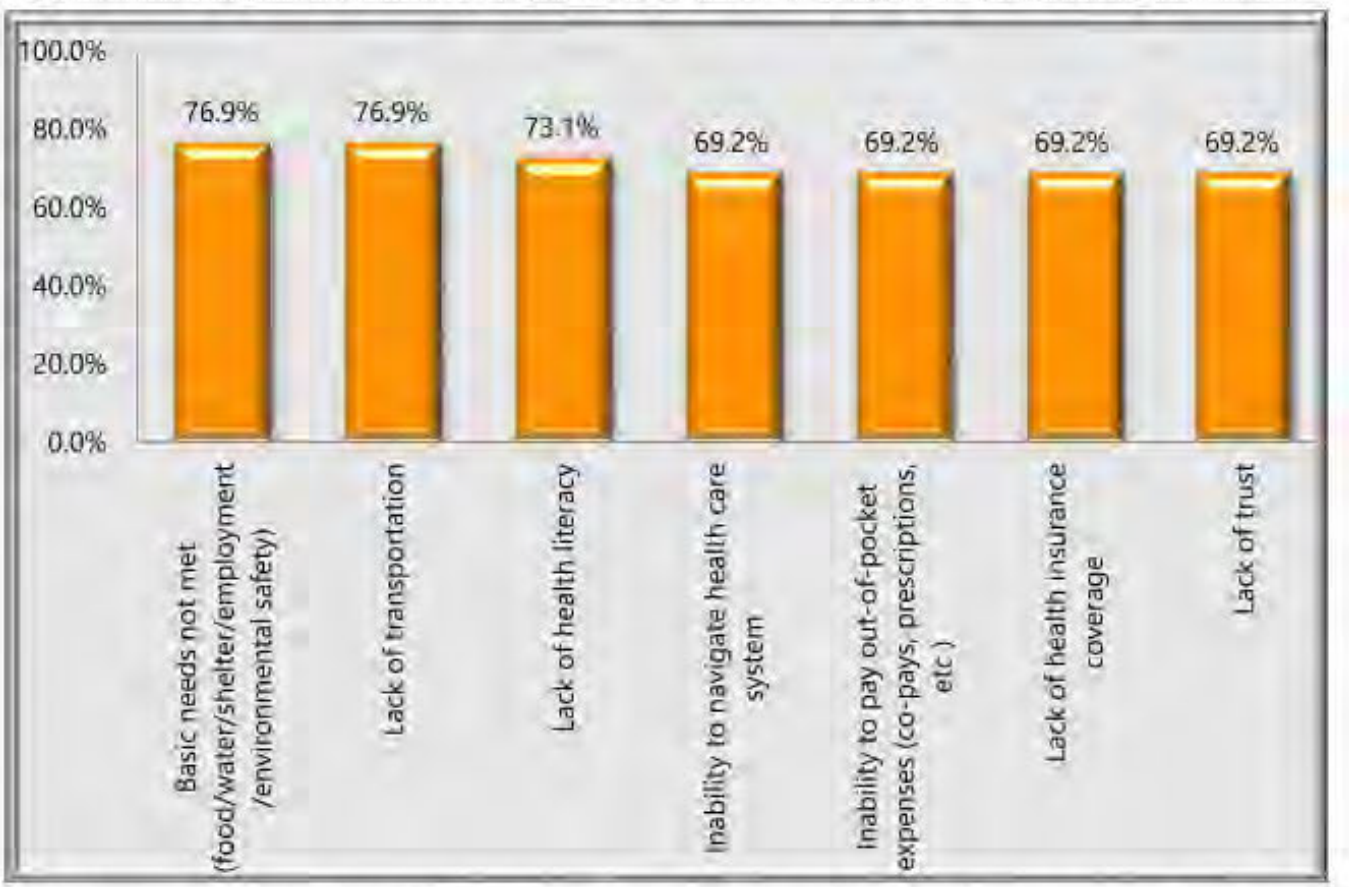
Key Health Barrier	Count	Percent of respondents who selected the issue*	Percent of respondents who selected the issue as the most significant
Basic needs not met (food/water/shelter/employment/environmental safety)	20	76.9%	42.3%
Lack of transportation	20	76.9%	0.0%
Lack of health literacy	19	73.1%	3.8%
Inability to navigate health care system	18	69.2%	15.4%
Inability to pay out-of-pocket expenses (co-pays, prescriptions, etc.)	18	69.2%	3.8%
Lack of health insurance coverage	18	69.2%	15.4%
Lack of trust	18	69.2%	0.0%
Availability of healthy food options	16	61.5%	3.8%
Emotional/physical stress	16	61.5%	3.8%
Language/cultural/racial/spiritual barriers	14	53.8%	0.0%
Lack of preventive health care (screenings, annual check-ups, etc.)	12	46.2%	0.0%
Time limitations (long wait times, limited office hours, time off work)	12	46.2%	3.8%
Lack of social support (family, friends, social network)	11	42.3%	3.8%
Availability of health and wellness programs/education	10	38.5%	0.0%
Availability of providers/appointments	9	34.6%	0.0%
Lack of safe parks/recreation outlets	7	26.9%	0.0%
Other (specify):	2	7.7%	3.8%

*Respondents could select more than one option, therefore the percentages may sum to more than 100.0%.

It is important to compare the statistics in Table 2 to determine which barriers key informants feel are the most significant. For instance, Lack of transportation was selected by 76.9% of key informants as being significant, but no one selected it as the most significant barrier. Also, 76% "Disagree" or "Strongly disagree" that transportation is available when needed for medical appointments (See Figure 4). Key informants feel there is a lack of transportation in the community but it is not the most significant barrier for residents in the community when seeking out health care.

Conversely, 76.9% of key informants selected Basic needs not being met and also chose it as the most significant barrier to health care (42.3%). This major finding reveals that a large minority of key informants feel strongly that residents in the community struggle to have their basic needs met. This finding could be the root cause of the other barriers and key health issues in the community.

Figure 5. Most significant barriers keeping people in the community from accessing healthcare*



*Respondents could select more than one option, therefore the percentages may sum to more than 100.0%.

Additionally, respondents were asked to share information regarding these barriers to health care. Summaries of responses are listed below.

Select Comments Regarding Most Significant Barriers:

- "Inability to pay out of pocket expenses and lack of health insurance go hand in hand. If you can't afford to pay for your health care, that often includes being unable to cover the premiums."
- "Difficult to select just one. I chose inability to navigate the health care system. In reality, what has been created is a health care system that is impossible to navigate. I have a master's degree and find myself challenged at times to make sense of it. Few elements of the healthcare system are designed with the patient in mind."

Social Determinants of Health

Key informants were asked to rate the quality of five key areas of Social Determinants of Health within the community. Defined by Healthy People 2020, these are conditions in the environments in which people are born, live, learn, work, play, worship, and age. The conditions affect a wide range of health, function, and quality-of-life outcomes and risks. The findings reveal important areas in which the community struggles and excels, as well as the underlying causes of other key health issues. Table 3 and Figure 6 illustrate these findings.

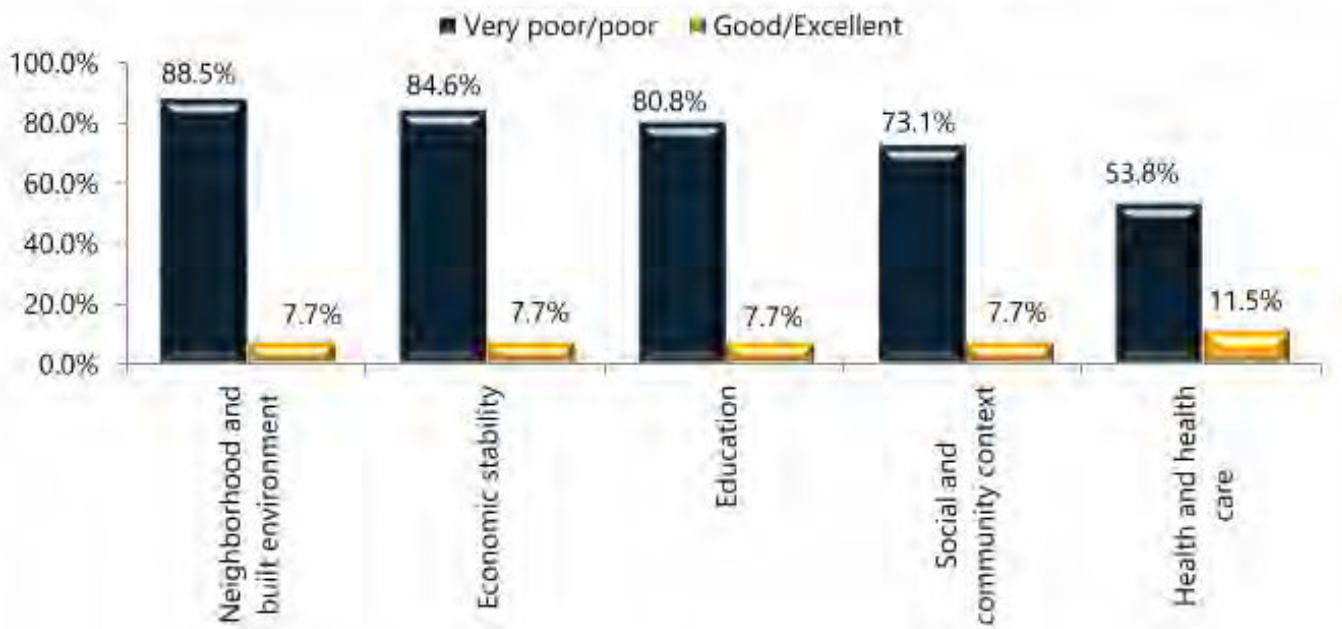
Table 3: Percentages of respondents who selected each rating of social determinant

Social Determinant	Percent of respondents who selected the rating					
	Very Poor	Poor	Average	Good	Excellent	N/A
Economic stability (poverty, employment, food security, housing stability)	46.2%	38.5%	7.7%	7.7%	0.0%	0.0%
Education (early childhood education and development, enrollment in higher education, high school graduation, language and literacy)	15.4%	65.4%	11.5%	3.8%	3.8%	0.0%
Social and community context (social cohesion, civic participation, perceptions of discrimination and equity, incarceration/institutionalization)	15.4%	57.7%	11.5%	7.7%	0.0%	7.7%
Neighborhood and built environment (access to foods that support healthy eating patterns, quality of housing, crime and violence, environmental conditions, transportation)	46.2%	42.3%	3.8%	3.8%	3.8%	0.0%
Health and health care (access to health care, access to primary care, health literacy)	19.2%	34.6%	30.8%	7.7%	3.8%	3.8%

Interestingly, Health and health care had the highest percentages of respondents that selected "Average" (30.8%). Even though Access to health care services was listed as the most significant barrier facing the community, respondents may feel that the services being provided are hard to obtain but when they are utilized, there are average, at best.

The overwhelming majority of key informants selected that a given social determinant was Very Poor or Poor. This finding relates to key informants view of Access to care in the community (See Figure 6). As the second most significant barrier, Access to care can be influenced by many factors. If the community does not have the financial, educational, or social means to live safely, then Access to care can become the problem and solution to many issues. It can be a vicious cycle that must be broken in order to positively impact the community and its residents.

Figure 6. Percentage of respondents who responded as "Very Poor" or "Poor" as compared to those who responded "Good or Excellent" with the Social Determinant factors.*



*See Appendix A: Key Informant Survey Tool, for full factor and response options

II. Healthcare Services

The second set of questions dealt with the ability of residents in the community to access support and healthcare services. Key informants were asked to rate if services are Missing, Lacking, Not Affordable, Need Being Met, or they Don't Know.

Available Resources/Services

Access to Support Services appears to be a significant issue in the community. As illustrated in Table 4, the top three services selected by key informants as "Need Being Met" did not include any selection of "Missing." It seems that respondents feel that these services (Emergency care, Corporate health screenings/education programs (on-site for employees), Federally qualified health centers (FQHCs)) are meeting the needs of the community. This is encouraging seeing as key informants feel the majority of underinsured/uninsured individuals seek out medical care at the Hospital emergency department (84.6%).

Table 4. Top five available support services

Support Service	Percentage of respondents who stated the "Need Being Met"	Percentage of respondents who stated "Missing"
Emergency care	52.0%	0.0%
Corporate health screenings/education programs (on-site for employees)	40.0%	0.0%
Federally qualified health centers (FQHCs)	36.0%	0.0%
Health education/information/outreach	20.8%	8.3%
Preventive health screenings (blood pressure, diabetes, stroke, etc.)	20.0%	4.0%

Missing and Lacking Resources/Services

Respondents were asked to identify key support and healthcare services missing in the community. Key informants most often list Mental health services, Substance abuse services, Transportation, Prescription assistance, Healthy food options, Free/low cost dental care as "Missing" support services in the community. With the recent national trend towards increasing mental healthcare and substance abuse awareness, the local community still seems to struggle with the increased need of residents seeking out this type of service.

On average, respondents list "lacking" more often than other categories in Healthcare Resources/Service. Top services selected by key informants as "Lacking" are Free/low cost medical care, Bilingual services, Multicultural/bilingual healthcare providers (All 76.0%). It seems there may be providers of these services in the community but it may not be enough to meet the demand. One key informant echoed this finding, "Access doesn't just mean having a doctor or nurse practitioner available to see a patient. It includes the financial access to see a provider, as well as the wrap around services to get to that provider and then follow through with the provider's instructions. And there are certainly areas such as mental health, substance abuse, etc., where there are nowhere near the level of services available to meet the demand."

Figure 7. Top healthcare resource/services "Missing" in the community

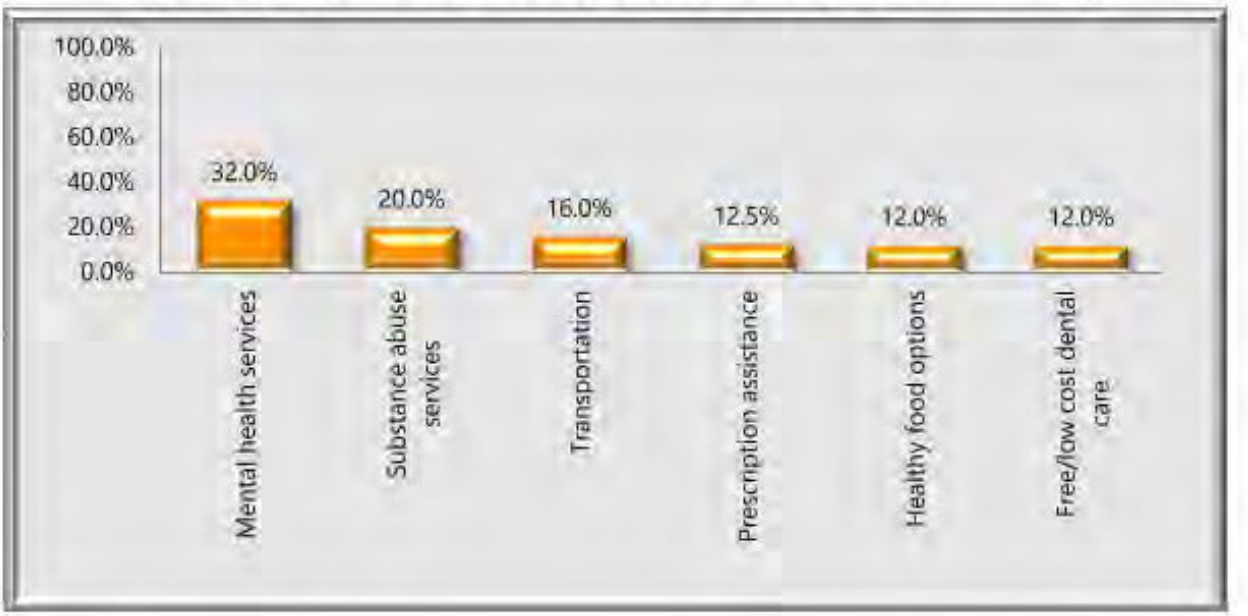
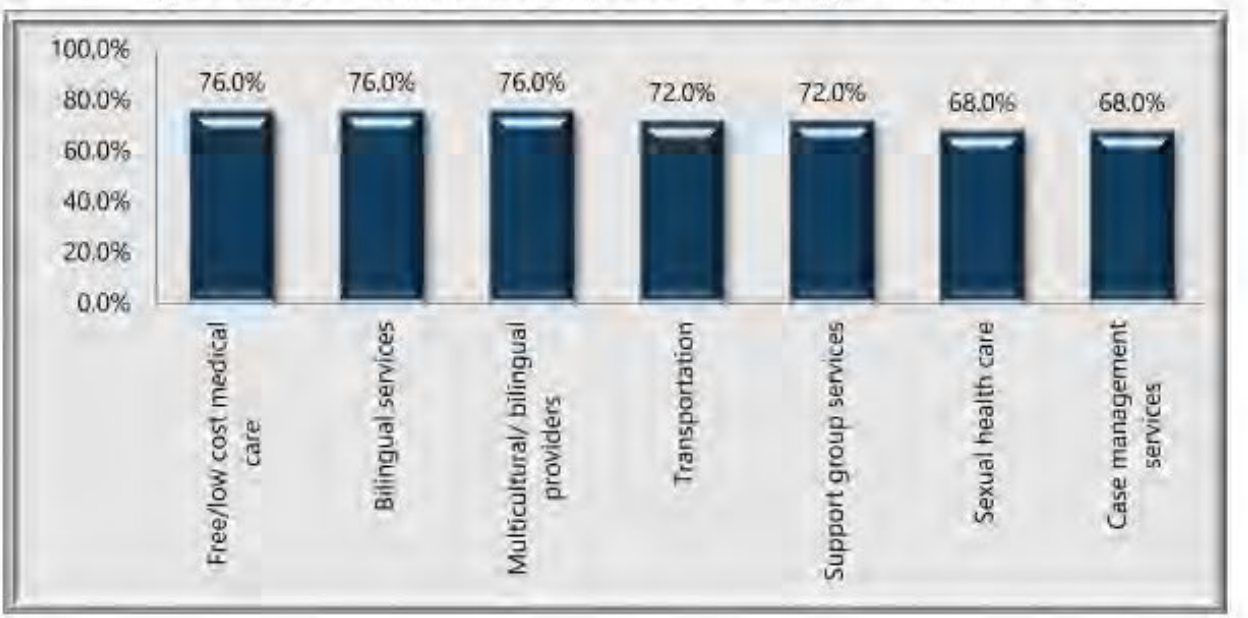


Figure 8. Top healthcare resource/services "Lacking" in the community



Respondents were asked to share information regarding Healthcare Resources and Services. Summaries of responses are listed below.

Select Comments Regarding the Need and Accessibility of Healthcare Resources and Services:

- "There is high variability amongst populations within Shelby County."
- "People talk a lot about access to health care. Those who designed the survey and are interpreting the survey results are savvy enough to already know that access doesn't just mean having a doctor or nurse practitioner available to see a patient. It includes the financial access to see a provider, as well as the wrap around services to get to that provider and then follow through with the provider's instructions. And there are certainly areas such as mental health, substance abuse, etc. where there are nowhere near the level of services available to meet the demand. It must be overwhelming for a facility such as Regional One Health to serve a community with so many needs - needs which are often left for them to meet as the community's "safety net" provider."

IV. Open-Ended Comments

Finally, key informants were given the opportunity to provide additional feedback in the form of open-ended comment fields. Many respondents took this chance to voice their concerns while also providing valuable information and insights into the community that they serve.

Key informants were first asked, "What challenges do people in the community face in trying to maintain healthy lifestyles like exercising and eating healthy and/or trying to manage chronic conditions, such as diabetes or heart disease?"

The underlying theme of these comments surrounds the level of poverty in the community as well as the lack of healthy, affordable dining options. In general, key informants agree that the major health issues and social determinants of the community are related and that solving one issue may help with multiple others.

Select Comments regarding Challenges for People in the Community Trying to Maintain a Healthy Lifestyles:

- "I have come to believe that the main challenge is a culture challenge. Memphians need to see other Memphians (like themselves) living healthy lifestyles. Grass root, neighborhood-focused efforts, with leadership from within the community that is mentored by those that can suggest strategies that work, is probably essential."
- "Often the biggest issue is the individual desire to live a healthy lifestyle. It is hard to change a lifestyle if everyone else in your life is living an unhealthy lifestyle - and unlikely to change. This is true for people at all socio-economic levels. It's great that we do have a number of programs making and attempting to make a difference - and they would likely tell you that it really does take someone willing to commit and remain committed to a healthy lifestyle."
- "Affordable fitness centers, access to grocery stores, and inability to pay for medication."
- "Poor built environment. Poor health literacy. No access to primary care."

Next, key informants were asked, "In your opinion, what is being done well in the community in terms of health and quality of life? (Community Assets/Strengths/Successes)." Overall, they feel there are many programs available in the community, but the overall sentiment is that much more needs to be done.

Select Comments regarding What is Being Done Well in the Community:

- "Church Health and St. Jude help without regard for ability to pay. We're investing in pre-K education, finally."
- "Mayor Harris has prioritized healthy eating, active living and mental health and well-being."
- "Some larger employers are offering sufficient benefits, access to healthy living coaching and opportunities to exercise."
- "This is a great community where healthcare organizations have tried very hard to serve the community."

Key informants were then asked, "What recommendations or suggestions do you have to improve health and quality of life in the community?" The majority of these recommendations surrounded the need to reduce poverty in the community. Quite a few respondents stated that decreasing barriers and increasing access to healthcare are needed to accomplish this goal. However, several key informants reflected on the political climate and lack of funding for public works projects.

Select Comments regarding Recommendations and Suggestions:

- "Partner with the City of Memphis (and other municipalities) libraries and community centers to get to our young people engaged. Partner with Shelby County Schools (and other municipalities) school districts to get our young people engaged. Partner with the youth serving organizations in Shelby County to get our young people engaged. Let them help design a healthy lifestyle and a health system that works for them, their families and the community."
- "We need to invest in public education, public transportation, and a national/public health care system."
- "Need to address community and environmental systems that drive health and adversity, need to make healthcare equitable and accessible for all, promoting families and resiliency, invest in education, invest in transportation, invest in healthy food options."
- "Focus on reducing poverty and investing in quality education to create equity and better quality of life or opportunities for all in the community. People need more opportunities for quality paying jobs with benefits."

Lastly, key informants were asked to provide additional feedback to help inform Regional One Health and its partners during their health improvement planning and community health needs improvement.

Select General Feedback for Regional One Health:

- "The survey is good and an active panel should be formed to address the needs of this community. We need to do more!! I'm willing."
- "I neglected to include a shout out for the Advance Childhood Experiences work being done in our community, which is very important. AND, it is important to encourage education as a way to develop critical thinkers capable of making better health choices. Thanks for all Regional One Health does for the greater Memphis area."

V. Conclusions

Consistent themes can be seen across the responses and feedback provided by key informants. Overweight/obesity was selected as the main issue facing the community. This issue is echoed in the barriers section as the majority of key informants find that the Availability of healthy food options to be a barrier.

Compounding the obesity epidemic is the most significant barrier of Basic needs not met. Key informants feel that residents in the community do not feel safe, nor do they have appropriate access to shelter, food, or water. This issue must be addressed before other barriers are removed. The community must feel safe and foster conditions that are conducive to healthy living before most significant issues can be tackled.

These two major issues can be the source of many other health concerns for the community. When residents cannot have their basic needs met, they are unable to live healthy lives. Obesity is a preventable problem that can lead to many other, serious health issues. Addressing this issue in the community could reduce the strain on the health care system and lives of residents.

Another theme coming through in the results is the complexity of the health care system. Key informants regularly note the Lack of preventive health care, Inability to navigate health care system and Inability to pay out-of-pocket expenses as major barriers for the community. These barriers are related to the lack of basic needs being met in the community, but this is a complex, nation-wide issue.

While there are many focus areas key informants recognize as needing improvement, there are still bright spots within the community. Additionally, 96% of key informants feel their organization collaborates with other organizations/institutions on local efforts to improve health in the community. This is a huge step in the right direction. Collaboration and creativity are keys towards approaching and tackling all the barriers and health issues listed by key informants. As one respondent put it, "Memphis Business Group on Health is interested in working collaboratively to engage this important segment of businesses in simple approaches that can have significant impact in creating a culture of health at the worksite." There seems to be a plethora of people in the community that wish to

contribute and work towards a common goal of a healthier community. There are many areas of improvement for Shelby County, but no single entity can work in a vacuum. However, there appears to be many residents and leaders in the community that are focused on the improvement of health care. It should be a goal for Regional One Health to identify these individuals are and provide them with the tools to succeed.

APPENDIX A: KEY INFORMANT SURVEY TOOL

HOLLERAN

Key Informant Online Questionnaire

INTRODUCTION

As part of its ongoing commitment to improving the health of the communities it serves, Regional One Health is partnering with the Shelby County Health Department and multiple healthcare systems to conduct portions of a comprehensive Community Health Needs Assessment.

The results of the survey will be compiled and shared with all of the organizations in the CHNA Collaboration including Shelby County Health Department, Baptist Memorial Health Care Corporation, Methodist LeBonheur Healthcare, and St. Jude Children's Research Hospital.

The survey should take about 10-15 minutes to complete. Please be assured that all of your responses will go directly to our research consultant, Holleran Consulting, and will be kept strictly confidential. Please note that while your responses, including specific quotations, may be included in a report of this study, your identity will not be directly associated with any quotations.

You have been identified as an individual with valuable knowledge and opinions regarding community health needs, and we appreciate your willingness to participate in this survey.

When answering the questions, please consider the community and area of interest to be the communities surrounding Shelby County.

KEY HEALTH ISSUES

1. Thinking of all the areas that you feel make up a healthy community, would you describe the communities surrounding Regional One Health as healthy?

   - ☐ Yes
   - ☐ No
   - ☐ Don't know

2. In general, how would you rate your community's overall health status?

   - ☐ Excellent
   - ☐ Good
   - ☐ Average
   - ☐ Poor
   - ☐ Very poor

3. What are the top **5** health issues you see in your community? (CHOOSE 5)

- ☐ Accessing health care services
- ☐ Alzheimer's disease/dementia
- ☐ Cancer
- ☐ Diabetes
- ☐ Heart disease
- ☐ Maternal, infant, and child health
- ☐ Mental health
- ☐ Oral health
- ☐ Overweight/obesity
- ☐ Other (specify):
- ☐ Respiratory diseases
- ☐ Sexually transmitted diseases including HIV/AIDS
- ☐ Stroke
- ☐ Substance abuse
- ☐ Suicide
- ☐ Teen pregnancy
- ☐ Tobacco use
- ☐ Unintentional injuries and violence including domestic violence, firearm-related violence, and motor vehicle accidents

4. Of those health issues mentioned, which **1** is the most significant? (CHOOSE 1)

- ☐ Accessing health care services
- ☐ Alzheimer's disease/dementia
- ☐ Cancer
- ☐ Diabetes
- ☐ Heart disease
- ☐ Maternal, infant, and child health
- ☐ Mental health
- ☐ Oral health
- ☐ Overweight/obesity
- ☐ Other (specify):
- ☐ Respiratory diseases
- ☐ Sexually transmitted diseases including HIV/AIDS
- ☐ Stroke
- ☐ Substance abuse
- ☐ Suicide
- ☐ Teen pregnancy
- ☐ Tobacco use
- ☐ Unintentional injuries and violence including domestic violence, firearm-related violence, and motor vehicle accidents

5. What resources are available in the community to address the health issues you identified?

6. Please share any additional information regarding these health issues and reasons to support your response in the box below:

ACCESS TO CARE & BARRIERS

7. On a scale of strongly disagree through strongly agree, please rate each of the following statements about **Health Care Access** in the community.

Strongly Disagree ← → Strongly Agree

Residents in the area are able to access a primary care provider when needed. (Family Doctor, Pediatrician, General Practitioner)	☐ Strongly Disagree ☐ Disagree ☐ Neither Agree nor Disagree ☐ Agree ☐ Strongly Agree
Residents in the area are able to access a medical specialist when needed. (Cardiologist, Dermatologist, Neurologist, etc.)	☐ Strongly Disagree ☐ Disagree ☐ Neither Agree nor Disagree ☐ Agree ☐ Strongly Agree
Residents in the area are able to access a dentist when needed.	☐ Strongly Disagree ☐ Disagree ☐ Neither Agree nor Disagree ☐ Agree ☐ Strongly Agree
There are a sufficient number of providers accepting Medicaid and Medical Assistance in the area.	☐ Strongly Disagree ☐ Disagree ☐ Neither Agree nor Disagree ☐ Agree ☐ Strongly Agree
There are a sufficient number of bilingual providers in the area.	☐ Strongly Disagree ☐ Disagree ☐ Neither Agree nor Disagree ☐ Agree ☐ Strongly Agree
Providers in the area are culturally sensitive to race, ethnicity, and cultural preferences of patients.	☐ Strongly Disagree ☐ Disagree ☐ Neither Agree nor Disagree ☐ Agree ☐ Strongly Agree
There are a sufficient number of mental/behavioral health and substance abuse providers in the area.	☐ Strongly Disagree ☐ Disagree ☐ Neither Agree nor Disagree ☐ Agree ☐ Strongly Agree
Transportation (public, personal, or other service) for medical appointments and other services is available to area residents when needed.	☐ Strongly Disagree ☐ Disagree ☐ Neither Agree nor Disagree ☐ Agree ☐ Strongly Agree

8. What are the **MOST** significant barriers that keep people in the community from accessing health care when they need it? (Select all that apply)

- ☐ Availability of health and wellness programs/education
- ☐ Availability of healthy food options
- ☐ Availability of providers/appointments
- ☐ Basic needs not met (food/water/shelter/employment/environmental safety)
- ☐ Emotional/physical stress
- ☐ Inability to navigate health care system
- ☐ Inability to pay out-of-pocket expenses (co-pays, prescriptions, etc.)
- ☐ Lack of health insurance coverage
- ☐ Lack of health literacy
- ☐ Lack of preventive health care (screenings, annual check-ups, etc.)
- ☐ Lack of safe parks/recreation outlets
- ☐ Lack of social support (family, friends, social network)
- ☐ Lack of transportation
- ☐ Lack of trust
- ☐ Language/cultural/racial/spiritual barriers
- ☐ Time limitations (long wait times, limited office hours, time off work)
- ☐ None/no barriers
- ☐ Other (specify):

9. Of those barriers mentioned, which **1** is the most significant? (CHOOSE 1)

- ☐ Availability of health and wellness programs/education
- ☐ Availability of healthy food options
- ☐ Availability of providers/appointments
- ☐ Basic needs not met (food/water/shelter/employment/environmental safety)
- ☐ Emotional/physical stress
- ☐ Inability to navigate health care system
- ☐ Inability to pay out-of-pocket expenses (co-pays, prescriptions, etc.)
- ☐ Lack of health insurance coverage
- ☐ Lack of health literacy
- ☐ Lack of preventive health care (screenings, annual check-ups, etc.)
- ☐ Lack of safe parks/recreation outlets
- ☐ Lack of social support (family, friends, social network)
- ☐ Lack of transportation
- ☐ Lack of trust
- ☐ Language/cultural/racial/spiritual barriers
- ☐ Time limitations (long wait times, limited office hours, time off work)
- ☐ None/no barriers
- ☐ Other (specify):

10. Please share any additional information regarding barriers to health care in the box below:

11. Are there specific populations in this community that you think are not being adequately served by local health services?

- ☐ Yes
- ☐ No

IF YES: Which populations are underserved? (Select all that apply)

- ☐ American Indian/Alaska Native
- ☐ Asian/Pacific Islander
- ☐ Black/African American
- ☐ Children/youth
- ☐ Disabled
- ☐ Families
- ☐ Hispanic/Latino
- ☐ Homeless
- ☐ Immigrant/refugee
- ☐ LGBTQ+ community
- ☐ Low income/poor
- ☐ Men
- ☐ Women
- ☐ Seniors/elderly
- ☐ Uninsured/underinsured
- ☐ Other (specify):

12. In general, where do you think **MOST** uninsured and underinsured individuals living in the area go when they are in need of medical care? (CHOOSE 1)

- ☐ Doctor's office
- ☐ Health clinic/FQHC
- ☐ Hospital emergency department
- ☐ Walk-in/urgent care center
- ☐ Don't know
- ☐ Other (specify):

SOCIAL DETERMINANTS OF HEALTH

Social Determinants of Health, defined by Healthy People 2020, are conditions in the environments in which people are born, live, learn, work, play, worship, and age that affect a wide range of health, function, and quality-of-life outcomes and risks.

13. On Please rate the quality of the following 5 key areas of **Social Determinants of Health** within the community using a scale of very poor through excellent. An N/A option is provided if you have no experience with the area or have no opinion.

Very Poor ←→ Excellent

Economic stability *poverty, employment, food security, housing stability*	☐ Very Poor ☐ Poor ☐ Average ☐ Good ☐ Excellent ☐ N/A
Education *early childhood education and development, enrollment in higher education, high school graduation, language and literacy*	☐ Very Poor ☐ Poor ☐ Average ☐ Good ☐ Excellent ☐ N/A
Social and community context *social cohesion, civic participation, perceptions of discrimination and equity, incarceration/institutionalization*	☐ Very Poor ☐ Poor ☐ Average ☐ Good ☐ Excellent ☐ N/A
Neighborhood and built environment *access to foods that support healthy eating patterns, quality of housing, crime and violence, environmental conditions, transportation*	☐ Very Poor ☐ Poor ☐ Average ☐ Good ☐ Excellent ☐ N/A
Health and health care *access to health care, access to primary care, health literacy*	☐ Very Poor ☐ Poor ☐ Average ☐ Good ☐ Excellent ☐ N/A

MISSING RESOURCES/SERVICES

14. For each **Healthcare Resource/Service** listed, please select whether you think it is missing (not available), lacking (available but not enough to meet needs) or not affordable (price may be a barrier in accessing service) within the community. If you think the service is available and affordable, please select the need being met.

Healthcare Resources/Services	Missing	Lacking	Not Affordable	Need Being Met	Don't Know
Advocacy for social needs (food security, housing, education, employment, etc.)					
Bilingual services					
Case management/social services					
Corporate health screenings/education programs (on-site for employees)					
Emergency care					
Federally qualified health centers (FQHCs)					
Food distribution					
Free/low cost dental care					
Free/low cost medical care					
Health education/information/outreach					
Healthy food options					
Home health care services					
Housing assistance					
Prescription assistance					
Mental health services					
Multicultural/bilingual healthcare providers					
Preventive health screenings (blood pressure, diabetes, stroke, etc.)					
Primary care services					
Specialty care services (cardiologist, neurologists, etc.)					
Substance abuse services					
Support group services					
Sexual health care					
Transportation					

15. Please share any additional information regarding the need and accessibility of healthcare resources and/or services for individuals living in the community in the box below:

OPEN-ENDED: CHALLENGES & SOLUTIONS

16. What challenges do people in the community face in trying to maintain healthy lifestyles like exercising and eating healthy and/or trying to manage chronic conditions, such as diabetes or heart disease?

17. In your opinion, what is being done ***well*** in the community in terms of health and quality of life? (Community Assets/Strengths/Successes)

18. What recommendations or suggestions do you have to improve health and quality of life in the community?

DEMOGRAPHICS

Please answer the following demographic questions.

19. Which one of these categories would you say BEST represents your community affiliation? (CHOOSE 1)

- ☐ Business sector
- ☐ Childcare/youth services
- ☐ Community member
- ☐ Education
- ☐ Faith-based/cultural organization
- ☐ Government/housing/transportation sector
- ☐ Health care/public health organization
- ☐ Mental/behavioral health organization
- ☐ Non-profit/social services
- ☐ Other (specify):

20. Are there any specific populations within the community that your organization serves? (Select all that apply)

- ☐ American Indian/Alaska Native
- ☐ Asian/Pacific Islander
- ☐ Black/African American
- ☐ Children/youth
- ☐ Disabled
- ☐ Families
- ☐ Hispanic/Latino
- ☐ Homeless
- ☐ Immigrant/refugee
- ☐ LGBTQ+ community
- ☐ Low income/poor
- ☐ Men
- ☐ Women
- ☐ Seniors/elderly
- ☐ Uninsured/underinsured
- ☐ Other (specify):

21. My organization collaborates with other organizations/institutions on local efforts to improve health in the community.

- ☐ Yes
- ☐ No
- ☐ Don't know

CLOSING

Regional One Health and its partners will use the information gathered through this survey in guiding their community health improvement activities. Please share any other feedback you may have for them below:

Thank you! That concludes the survey.

APPENDIX B: KEY INFORMANT PARTICIPANTS

Name	Agency
James Armfield	New Memphis
Jenny Bartlett-Prescott	Church Health Center
Katherine Bell-Anthony	UnitedHealth Group
Cynthia Bradford	Baptist Memorial Health Care Corporation
Amy Campbell	University of Memphis School of Law
Nancy Coffee	New Memphis
Gary Cook	Methodist/LeBonheur
Sadie Cushman	Shelby County Schools
Dr. Emilee Dobish	UT Health Sciences Center
Dr. Kathleen Forbes	Methodist/LeBonheur
Kiki Hall	Common Table Health Alliance
Dr. Alisa Haushalter	Shelby County Health Department
David Jordan	AGAPE Child & Family Services
Kathryn Leopard	CHOICES
Marian Levy	University of Memphis School of Public Health
Dr. Jon McCullers	UT Health Sciences Center
Mayor Keith McDonald	City of Bartlett Government
Susan M. Mills	Goodwill Homes Community Services
Rebecca Terrell	CHOICES
Cristie Travis	Memphis Business Group on Health
Jill Turner	New Memphis
Jennilyn Utkov	Methodist/LeBonheur
David Williams	Leadership Memphis
Dr. Jason Yaun	Memphis and Mid-South Pediatric Society
Dr. Jan Young	Assisi Foundation
Dr. Lin Zhan	University of Memphis College of Nursing



Congregational Health Survey

2019 COMMUNITY HEALTH NEEDS ASSESSMENT
CONGREGATIONAL HEALTH SURVEY

Methodist Le Bonheur Healthcare

Prepared by:

Program Evaluation Team
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Abstract

The Mid-South Congregational Health Survey (MSCHS) is a church needs assessment conducted in collaboration with Methodist Le Bonheur Healthcare's Congregational Health Network (CHN) and other academic and community health institutions within Memphis, TN. The primary focus of the MSCHS is to identify congregations' health needs. During February 2019 to July 2019, 76 faith-based congregations within Shelby and DeSoto Counties provided a total of 622 participants to complete the survey. A remarkable finding within secondary data analysis of this survey displays that participants ranked the topic of mental health among one of the most significant health needs/issues, especially the topic of *Anxiety or Depression*. This assessment not only presents the opportunity of how health care organizations can partner with church leaders in order to address congregations' health needs, but also produces insight of the various Social Determinants of Health associated with particular community health needs/issues.

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Executive Summary

The Mid-South Congregational Health Survey (MSCHS) is a church needs assessment conducted February 2019 – January 2020 in partnership with Methodist Le Bonheur Healthcare's Congregational Health Network (CHN), University of Memphis (UofM) School of Public Health, University of Tennessee Health Science Center (UTHSC), and Church Health Center's Congregational Health Promoters (CHP) Program. The primary purpose of the MSCHS is three-fold in purpose as partners within the collaboration: 1) identify congregations' health needs; 2) learn of needed services and resources to develop and/or grow a church's health ministry efforts; and 3) to aid congregations to create an action plan to improve the health of congregants and/or community members.

The MSCHS is a 19-question survey approved for administration by UTHSC's Institutional Review Board (IRB). The survey affords participants the opportunity to select health needs/issues of interest and to rank what they perceive are the five most significant health needs/issues that participants would like for their church/congregation to address with future programming. Participants also indicate barriers of addressing certain health needs (e.g., lack of funds, limited time, etc.), and the resources (e.g., health fairs, screenings, community partnerships, etc.) currently utilized by churches.

Participants were able to indicate which health needs or issues of interest they would like for their church/congregation to develop programs to address. The health needs/issues of interest receiving the most selection were High Blood Pressure/Stroke (63.2%), Anxiety or Depression (63.0%), Stress (61.1%), Affordable Healthcare/Healthcare Information (58.5%), and Program for Youth (57.6%). Regarding the ranking among the health issue/topics, the top five health needs were Anxiety or Depression, Diabetes/High Sugar Levels, Stress, Overweight/Obesity, and High Blood Pressure/Stoke, respectively. A remarkable finding within this assessment is the amount which survey participants ranked the topic of mental health among the congregation's significant health need/issue, especially that of Anxiety or Depression, which was ranked the top health concern for the overall ranking and for five out of the six age categories.

This assessment presents the occasion for faith-based leaders to seek collaboration with health care providers and agencies in order to identify, obtain, and utilize resources that address health needs. With assistance with appropriate facilitation of future health programming, congregants and community members can increase health literacy and access to care to health and social services, which results in greater health outcomes within the community and erases former barriers to health needs/issues.

Overview/Study Objective

The Mid-South Congregational Health Survey (MSCHS) is a church needs assessment conducted February 2019 – January 2020 in partnership with MLH's Congregational Health Network (CHN), University of Memphis (UofM) School of Public Health, University of Tennessee Health Science Center (UTHSC), and Church Health Center's Congregational Health Promoters (CHP) Program. The primary purpose of the MSCHS is three-fold in purpose as partners within the collaboration: 1) identify congregations' health needs; 2) learn of needed services and resources to develop and/or grow a church's health ministry efforts; and 3) to aid congregations to create an action plan to improve the health of congregants and/or community members.

Methodology

To administer the MSCHS, partners within this collaboration utilized CHN's Navigators and CHP's Promoters to contact congregations to determine a church's willingness to participate in the assessment. After a congregation displays interest, church leaders select at least one percent of congregants to take the survey via paper or electronic link. CHN's Program Evaluator collects and enters surveys within a database system in order to produce a results report for the congregation. The CHN Navigator or CHP Promoter presents the results report to congregations to display what the church perceives to be its top needs, resources and barriers to health. After a congregation learns of its perceived health needs, church leaders can decide whether to create a Congregational Action Plan of S.M.A.R.T. (Specific, Measureable, Actionable, Relative, and Time-specific) goals and combat the identified health issues. If a Congregational Action Plan is created CHN Navigators/CHP Promoters meet quarterly with congregations to aid members in the action plan process and accomplishment of health goals.

Survey Instrument

The instrument used can be found in Appendix A. The MSCHS is a 19-question survey approved for administration by UTHSC's Institutional Review Board (IRB). The survey is divided into three portions: 1) participant and congregational information, 2) information about congregational and community health and 3) information about health needs and resources within the church/community. A breakdown of the type of questions is overviewed in Table 1.

TABLE 1. MSCHS SURVEY INSTRUMENT BREAKDOWN

Topic	Number of Questions related to Topic	Purpose of Questions
Participant & Congregational Information	17 questions	Demographic information, including participants' age, gender, race/ethnicity, marital status, educational level, health insurance status, role at the church, length of membership at the church, main reasons for attending church, and social support. Congregational questions to learn of congregation's denomination, ZIP Code, membership size, health activity within the church, and experience with grants.
Information about Congregational and Community Health	One table with 36 items for selection	With this table participants are able to select all the health "needs or issues they would like for their church/congregation to develop programs to address;" the table is divided up into three categories of health need topics: *Mind, Body and Soul; Availability of Resources; Neighborhood Issues*.
Health Needs and Resources within the Church/Community	Ranking chart for top five health needs	This chart gives participants the opportunity to rank what they perceive are the five most significant health needs/issues that participants would like for their church/ congregation to address with future programming. Participants can select health need from the previous 36 item chart or write-in their own opinion of health need(s). Participants also indicate barriers of addressing certain health needs (e.g., lack of funds, limited time, etc.), and current church resources (e.g., health fairs, screenings, community partnerships, etc.) that combat the health need.

Sample Size

Within this secondary data analysis, 76 faith-based congregations participated within the first two quarters of MSCHS administration (February 2019 to April 2019, and May 2019 to July 2019,

respectively). Among these congregations, a total of 622 participants took the survey. A demographic breakdown of this sample size is seen in Table 2.

TABLE 2. DEMOGRAPHIC BREAKDOWN OF MSCHS PARTICIPANTS

Characteristic	N (%)
Participating Congregations	76
Survey Participants	622
Gender	
Female	425 (69.7%)
Male	177 (29.0%)
No Response	8 (1.3%)
Race/Ethnicity	
African American	533 (87.1%)
Caucasian	58 (9.6%)
Hispanic	3 (0.5%)
American Indian/Alaskan Native	1 (0.2%)
Asian American/Pacific Islander	0 (0.0%)
Multiracial	6 (1.0%)
Other	4 (0.7%)
Prefer not to respond	6 (1.0%)
Age (Average)	54.9
18 – 24	26 (4.2%)
25 – 34	51 (8.2%)
35 – 44	81 (13.0%)
45 – 54	104 (16.7%)
55 – 64	145 (23.3%)
65+	183 (29.4%)
No Response	32 (5.1%)
Education	
Less than High School	8 (1.3%)
High School (or have GED)	92 (15.2%)
Some college credit (no degree)	178 (29.1%)
Two-year degree	74 (12.3%)
Four-year degree	131 (21.6%)
Graduate	121 (19.7%)
Prefer not to respond	5 (0.8%)

Health Insurance Status	
Private Insurance	424 (71.0%)
Government Insurance	194 (32.6%)
Uninsured	20 (3.3%)
Prefer not to respond	14 (2.4%)
Congregational Denomination	
Baptist	263 (43.0%)
Church of God in Christ (COGIC)	82 (13.6%)
Non-Denominational	160 (25.8%)
United Methodist Church (UMC)	33 (5.4%)
Christian Church	21 (3.5%)
African Methodist Episcopal (AME)	24 (3.9%)
Presbyterian	10 (1.7%)
Other	19 (3.2%)
Congregational ZIP Code	
38126	55 (8.9%)
38108	41 (6.8%)
38109	46 (7.7%)
38116	78 (12.8%)
38138	13 (2.1%)
Don't know	23 (3.8%)
Other ZIP Code	349 (57.8%)

Summary of Findings

Participants were able to indicate which health needs or issues of interest they would like for their church/congregation to develop programs to address (see Appendix A, page 5 of MSCHS Survey). Table 3 demonstrates the top needs/issues of interest selected by participants regarding the three categories of health need topics: *Mind, Body and Soul; Availability of Resources;* and *Neighborhood Issues*. The percentage of participants who selected specific needs/issues within the divisions is also displayed. The possible maximum number of times that a particular health need/issue of interest could obtain was a total of 622 selections.

TABLE 3. TOP NEEDS/ISSUES REGARDING HEALTH NEED TOPICS

Health Need Topic	Needs/Issues of Interest	Times selected N (%)
Mind, Body and Soul	1. High Blood Pressure/Stroke	393 (63.2%)
	2. Anxiety or Depression	392 (63.0%)
	3. Stress	380 (61.1%)
	4. Overweight/Obesity	345 (55.5%)
	5. Heart Disease	342 (55.0%)
Availability of Resources	1. Affordable Healthcare/Healthcare Info	364 (58.5%) 358 (57.6%)
	2. Programs for Youth	345 (55.5%)
	3. Healthy Foods	337 (54.2%)
	4. Employment/Jobs	334 (53.7%)
	5. Health Services	
Neighborhood Issues	1. Crime/Assault/Homicide	346 (55.6%)
	2. Domestic Violence	339 (54.5%)
	3. Safe & Affordable Housing	320 (51.5%)
	4. Homelessness	315 (50.6%)
	5. Incarceration/Re-entry into Community	263 (42.3%)

After survey participants were able to select the health needs/issues of interest, they were also provided the opportunity to list and rank the top five health needs that they would like for their church/congregation to address with future programming, (see Appendix A., pages 6 and 7 of survey). Table 4 displays the top ten overall health needs ranked by survey participants. When calculating the weighted score of each health need, a specific value was assigned to each listed health need according to rank. For example, if a health need is ranked at "Need #1" the need receives five points, if ranked "Need #2" the need receives four points, and so on with "Need #5" receiving one point. After the points are assigned the sum of the points is calculated to determine the health need's weighted score. This weighted system ensures that health needs listed by participants receive the appropriate attention and prioritization. As a result to the weighted system, there exists higher ranked health needs/issues which obtained a lesser percentage of votes than subsequent ranked needs.

TABLE 4. OVERALL RANKED TOP HEALTH NEEDS/ISSUES, N=622

Top Health Needs/Issues	Weighted Score (% of votes)
1. Anxiety or Depression	590 (22.0%)
2. Diabetes/High Sugar Levels	312 (13.8%)
3. Stress	303 (15.4%)
4. Overweight/Obesity	286 (13.0%)
5. High Blood Pressure/Stroke	271 (13.0%)
6. Programs for Youth	220 (13.2%)
7. Cancer	249 (10.5%)
8. Heart Disease	215 (10.3%)
9. Nutrition/Physical Activity	210 (10.9%)
10. Suicide	156 (7.9%)

Table 5 displays the top health needs/issues in regards to age-adjusted group in order to display the difference in prioritization in health needs among individuals of certain age groups.

TABLE 5. AGE ADJUSTED RANKED TOP HEALTH NEEDS/ISSUES

Age Group	Top Health Needs/Issues	Weighted Score (% of votes)
18 – 24	1. Anxiety or Depression	26 (23.1%)
(n=26)	2. Suicide	22 (23.1%)
	3. Stress	17 (15.4%)
	4. Programs for Youth	15 (19.2%)
	5. Domestic Violence/Teen Pregnancy	11 (11.5%, 11.5%)
25 – 34	1. Anxiety or Depression	99 (43.1%)
(n=51)	2. Stress	54 (33.3%)
	3. Trauma	33 (19.6%)
	4. Programs for Youth	28 (17.6%)
	5. Overweight/Obesity	25 (13.7%)
35 – 44	1. Anxiety or Depression	135 (39.5%)
(n=81)	2. Overweight/Obesity	73 (24.7%)
	3. Diabetes/High Sugar Levels	51 (14.8%)
	4. Nutrition/Physical Activity	50 (23.5%)
	5. Stress	50 (19.8%)
45 – 54	1. Anxiety or Depression	153 (33.7%)
(n=104)	2. Diabetes/High Sugar Levels	72 (18.3%)
	3. Stress	62 (18.3%)
	4. High Blood Pressure/Stroke	52 (14.4%)
	5. Cancer	48 (12.5%)
55 – 64	1. Anxiety or Depression	118 (18.6%)
(n=145)	2. Overweight/Obesity	82 (15.9%)
	3. Diabetes/High Sugar Levels	81 (15.2%)
	4. Programs for Youth	75 (19.3%)
	5. High Blood Pressure/Stroke	70 (14.5%)
65+	1. High Blood Pressure/Stroke	113 (18.6%)
(n=183)	2. Diabetes/High Sugar Levels	87 (13.1%)
	3. Heart Disease	74 (10.4%)
	4. Cancer	70 (9.3%)
	5. Anxiety or Depression	57 (7.7%)

Limitations

The purpose of this survey was to capture the perceived health needs within the faith-based community within the social network setting of congregations. Although the sample size reflects the racial demographic of Shelby County, when observing the education attainment and persons without health insurance, the same size of survey participants is not scaled to the same proportion of the same populations within Shelby County. In order to analyze if there is correlation between geographic location and health need/issue survey structure would have to be altered to reflect both the survey participant's residential and congregational ZIP codes, since congregants usually do not live where they attend church. Also, regarding the survey structure, during the data entry process there was observation that some participants had difficulty fully ranking the top five health needs of the congregations. Either new formation or better explanation of tasks is needed to enable survey participants with concise direction of how rank to congregational health needs.

Discussion

A remarkable finding within this assessment is the amount which survey participants ranked the topic of mental health among the congregation's significant health need/issue, especially that of *Anxiety or Depression*. The topic of *Anxiety or Depression* was the top health concern for the overall ranking and for five out of the six age categories (reference Tables 4 and 5). This emphasis on mental health topics (e.g. Anxiety or Depression, Stress, Trauma, Suicide, etc.) should enlighten faith-based leaders to seek collaboration with health care providers and agencies in order to obtain and utilize resources and services that appropriately facilitate programming to congregants and community members and increase health literacy and access to care to mental health services. Increased awareness and better utilization of mental health resources can result in positive mental health status within the community, for residents of all ages and socioeconomic backgrounds, erasing former barriers to this particular health topic.

Another finding within the analysis of this assessment is how survey participants compared in the ranking of health needs. Among the age groups of 35 years or older, participants were more likely to rank a chronic disease, (e.g., Diabetes/High Sugar Levels, High Blood Pressure, Heart Disease, etc.), as a top health need, demonstrating a high interest that their congregations address and create programming regarding chronic disease management. On the other hand, the age groups of 18-34 years old highlighted the need for congregations to address and create programming concerning mental health. Nevertheless, a health need that was highlighted and

received attention across age groups was the desire to create *Programs for Youth*, a health topic which concerns a comprehensive approach to programming in order to ensure the physical, social, mental, spiritual and emotional health of youth. This spotlight to aid youth within the community implies that the faith-based community sees a great need to address barriers and enhance youth's access to resources that result in positive health outcomes.

This assessment presents the opportunity for health care organizations to address congregations' health needs and to produce a method which personalizes a delivery and response to assist congregants of how to resolve health needs/issues. Although there may be many Social Determinants of Health which deter groups of individuals in accessing and utilizing resources that can afford them better health, a duty of health care providers and organizations is to observe the external factors that affect community members and to thus work alongside them to construct better health delivery methods that improve health outcomes. One capacity-building product of the MSCHS is the Congregational Action Plan, a tool which performs this exact action—opportunity for community members and health care staff for the purpose to formulate sustainable programming directed to combat congregational health needs. The MSCHS provides a challenge and model for health care providers and agencies to go above and beyond the state of identification of the health issues that plague patients and community members, and to take proactive steps towards the progress of good health among people.

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Appendix A: Congregational Health Survey

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IRB NUMBER: 18-06405-XP UM
IRB APPROVAL DATE: 04/01/2019
IRB EXPIRATION DATE: 12/06/2019

THE UNIVERSITY OF TENNESSEE HEALTH SCIENCE CENTER

Mid-South Congregational Health Survey

You are invited to participate in a congregational health survey being conducted with congregations in and around Memphis, TN. The survey is part of a research study to identify the health needs you feel are important to address within your congregation. We hope to learn more about how to assist churches in the Mid-South and how to address health needs within their congregations and communities.

We ask you to join this study because you are a faith leader, lay person, or a church member at least 18 years old; read, write, and comprehend English; and who attends a congregation in the Memphis area. Between 5 and 30 people from each church can participate, depending on your regular church attendance numbers. You do not have to participate; it is your choice.

The survey will take about 20 – 30 minutes to complete and includes questions about:

- You (e.g., age, race, marital status) and your church (e.g., denomination, attendance),
- The health needs in your congregation and community
- Programs or services available in your church that can be used to address these health needs.

Please do not put your name or the name of your church on any of the survey materials. Your survey responses will be confidential to the extent possible by law. In all records of the study, a code number will identify surveys from each church, but not individuals within the church. Your name or the name of your church will not be used in any reports or publications of this study. This includes reports to church, district, denominational, Methodist Le Bonheur Healthcare, or Church Health leadership. Church leadership will be provided with reports on responses from their church; however, responses will be summarized so that no individual responses or identifiers are included. All surveys will be maintained in a locked cabinet, computer records associated with the study will be secured and password protected, and all study materials will be accessible only to study staff.

There is a rare but potential risk of loss of confidentiality due to your participation in this study. In addition, you may become tired, uncomfortable, or emotional from answering survey questions. Your participation in this study will benefit other people in the future. However, your participation is voluntary, and if you choose to not participate or to stop participating at any time, your decision will not result in a penalty or affect your rights, or your future relations with your church, Methodist Le Bonheur Healthcare, Church Health, University of Memphis, or University of Tennessee Health Science Center. Should you decide to withdraw, simply let study staff know of your decision.

Please let the study staff know if you need assistance in completing the survey. Your responses to all the survey questions are very important, so please answer every question. If you prefer not to answer a question, please select or write in "Prefer not to respond."

If you have any questions about your rights as a research participant, or if you have questions, concerns, or complaints about the research, you may contact the primary investigator of this study, Dr. Brook Harmon, Ph.D., RD, University of Memphis, School of Public Health, Assistant Professor, at [redacted]

March 20, 2019

You may contact Cameron Barclay, MSA, UTHSC IRB Director, at [redacted] or visit the IRB website at http://www.uthsc.edu/research/compliance/irb/ if you have any questions about your rights as a research subject, or if you have questions, concerns, or complaints about the research.

If you are interested, please click on the link for the survey and additional information: LINK GOES HERE

OR [for paper surveys]

If you are interested, please send the survey back to the address provided to you or via study staff.

Thank you for your time participating in this Congregational Health Survey!



Community Survey

2019 COMMUNITY HEALTH NEEDS ASSESSMENT
COMMUNITY SURVEY REPORT
Methodist Le Bonheur Healthcare

Prepared by:

Program Evaluation Team
Methodist Le Bonheur Community Outreach
600 Jefferson Ave
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Abstract

In April 2019, Methodist Le Bonheur Healthcare surveyed Shelby County community members regarding community health topics via a Community Health Survey. In total, 913 responses were received and evaluated by program evaluation staff at Methodist Le Bonheur Community Outreach. Overall, survey respondents identified Access to Care as a top health need in their communities. When asked further about barriers that existed to accessing health care in Shelby County, cost/out of pocket expenses and lack of health insurance were among the most selected answers. Lack of transportation followed closely behind. These results held true to results found across the other Community Health Needs Assessment (CHNA) methods as well. This CHNA highlights an opportunity for healthcare organizations in Shelby County to better serve their patients by making health care more accessible to community members who are under or uninsured, and who lack the resources necessary to fully engage with the healthcare system.

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Executive Summary

As part of the 2019 Community Health Needs Assessment (CHNA), Methodist Le Bonheur Healthcare distributed a Community Health Survey comprised of 48 questions related to community health topics. Survey questions fell into 6 different categories: Illness Prevention and Wellness, Barriers to Accessing Care, Nutrition, Social and Behavioral Factors, Survey Respondent Demographics, and Suggestions/Comments. The survey was open to all Shelby County residents and was dispersed throughout Methodist Le Bonheur Healthcare and the community through social media, email campaigns, and hospital tabling events. Surveys were also shared and distributed by collaboration partners including St. Jude Children's Research Hospital, Baptist Memorial Healthcare, Regional One Health, and the Shelby County Health Department. Program Evaluators at Methodist Le Bonheur Community Outreach facilitated all survey data evaluation, and all survey data was made available to collaboration partners.

In total, 913 survey responses were received via online or paper survey copies. The majority of survey respondents were 25-64 years old and primarily married, female, and White. 80% were employed full-time and listed employer-sponsored healthcare as their main form of health insurance. Within Shelby County, most survey participants listed their home zip code as Midtown (38104), Collierville (38017), and Cordova (38016).

Access to care and/or uninsured was a top health issue across all community survey participants, even when controlled for race, age, and income level. Obesity, high blood pressure, and diabetes were also ranked highly by White and African American survey respondents, and survey respondents over 55 years old. Cost of healthcare/paying out of pocket expenses was listed as the top barrier to access, closely followed by lack of health insurance coverage and lack of transportation. This remained consistent across all races. These results were similar to results found across other CHNA methodologies, including focus groups and stakeholder surveys.

The most prominent limitation of the Community Health Survey was the sample population represented by survey respondents. Participants were disproportionately white, female, and reported a higher educational level and higher income than the average Shelby County community member. The survey arrangement was also confusing for some survey participants, particularly those who took it via paper copy. The amount of questions (48) caused some participants to fail to complete the survey, or to skip over questions that required more than one answer.

Study Objective/Purpose

The Community Health Needs Assessment (CHNA) survey was created to ensure that the agency assesses the health need of a community, per the IRS. The survey was created in collaboration with all partners, and the final format of the survey asked participants 48 questions about several health topics related to community health. The CHNA survey was translated from English into Spanish and Arabic.

Methodology

The Community Health Needs Assessment survey was available online for all partners and the community from April 10th to May 31st, 2019. The survey was translated to Spanish and Arabic to accommodate the larger proportions of non-English speaking clients of the CHNA partnership. Paper copies and links to those electronic surveys were also available. Additionally, Methodist Le Bonheur Healthcare (MLH) embarked on a specific hospital campaign in an attempt to recruit additional respondents. Surveys were distributed at Methodist University, Methodist South, and Methodist North from May 20th through the 31st, and at Le Bonheur Children's Hospital from May 7th to the 24th. Overall, the survey received 913 responses. Not all survey respondents answered all questions, and thus some data may be missing.

Survey Instrument

Questions were created to gather information on specific health topics. See Table 1 for a breakdown on the health topics and their purpose.

TABLE 1. DESCRIPTION OF SURVEY CONTENTS BY TOPIC

Health Topic	Number of questions related to Health Topic	Purpose of questions regarding Health Topic
Illness Prevention and Wellness	11 questions	Participants provide perception of their overall health and their involvement level in certain health behaviors (e.g., physical activity, flu immunization).
Address Financial and Other Barriers to Accessing Care	13 questions	Participants discuss where and to whom they go to for routine health care; health insurance status; past health screenings; barriers that kept them from accessing health care; perceived top five health issues facing the community; perceived resources and medical services within the community.
Nutritional Health	7 questions	Participants describe their access to and consumption of fruit/vegetables.
Social Behavioral and Environmental Factors	7 questions	Participants provide their level of engagement in certain health behaviors (e.g., tobacco/alcohol use, fast food consumption, etc.), describe physical environment, denote diagnosis of certain health conditions (e.g., high blood pressure, cancer, diabetes).
Demographics	9 questions	Obtain demographic info on participants
Suggestions/Comments	One question	Participants comment and list suggestions to improve health within the community

See Appendix A for the complete instrument used.

Summary of Findings

Due to the large number of questions (48) asked in the community survey, only select questions are displayed for this report. Questions were chosen based on overall themes that emerged during the CHNA process, and may have been rearranged from the original order they were presented in the community survey.

Demographics

Most respondents were young to middle aged adults. According to the U.S. Census Bureau data for Shelby County, 13.6% of the population is 65 or older[1]. Respondents to the CHNA were disproportionately female (87.2%). The Shelby County census data reported that 52.5% of the Shelby County population was female[1]. Just over half (55.6%) of CHNA respondents were married.

TABLE 2. AGE CATEGORIES

Age	Total	Percent
18 - 24	30	4.2%
25 - 34	158	22.2%
35 - 44	165	23.2%
45 - 54	150	21.1%
55 - 64	152	21.3%
65 +	57	8.0%
TOTALS:	**712**	**100%**

TABLE 3. SEX

Sex	Total	Percent
Female	620	87.2%
Male	91	12.8%
TOTALS:	**711**	**100%**

TABLE 4. MARITAL STATUS OF SURVEY RESPONDENTS

Marital Status	Total	Percent
Married	397	55.6%
Never married	174	24.4%
Divorced	98	13.7%
Widowed	30	4.2%
Separated	15	2.1%
TOTALS:	**714**	**100%**

TABLE 5. RACE OF SURVEY RESPONDENTS

Race	Total	Percent
White	370	51.8%
Black/African American	280	39.2%
Hispanic or Latino	32	4.5%
Asian/Pacific Islander	14	2.0%
American Indian or Alaska Native	9	1.3%
Other	9	1.3%
TOTALS:	**714**	**100%**

CHNA respondents were primarily white, followed by African-American. According to Shelby County census data, 41.1% of residents are white, 54.2% are African-American, 6.5% are Hispanic/Latino, 2.8% are Asian or Pacific Islander and 0.3% are American Indian or Alaskan Native[1].

TABLE 6. EDUCATION LEVEL OF SURVEY RESPONDENTS

Education	Total	Percent
Graduate or professional-level degree	238	33.4%
College Graduate	222	31.2%
College, but no degree	82	11.5%
Associate's degree	81	11.4%
High school diploma or GED	56	7.9%
Some school, but no diploma	17	2.4%
Other	16	2.2%
TOTALS:	**712**	**100%**

The respondents to the CHNA skewed towards higher levels of education compared to the Shelby County population (30.6% of individuals 25 years or older held a Bachelor's degree or higher)[1].

TABLE 7. EMPLOYMENT STATUS OF SURVEY RESPONDENTS

Employment	Total	Percent
Employed, working full-time	564	79.0%
Employed, working part-time	51	7.1%
Homemaker	29	4.1%
Retired	28	3.9%
Disabled, not able to work	16	2.2%
Unemployed	16	2.2%
Student	10	1.4%
TOTALS:	**714**	**100%**

Almost 80% of CHNA respondents were employed full time.

TABLE 8. INCOME LEVEL

Income	Total	Percent
$50,000 or more	437	62.4%
$35,000-$49,999	110	15.7%
$25,000-$34,999	58	8.3%
$20,000-$24,999	29	4.1%
$15,000-$19,999	10	1.4%
$10,000-$14,999	18	2.6%
Less than $10,000	38	5.4%
TOTALS:	**700**	**100%**

Over 62% of CHNA reported an income of over $50,000. The median household income for Shelby County was $49,647 in 2017[2].

TABLE 9. INSURANCE PROVIDERS

Insurance	Total	Percent
Employer sponsored	561	79.2%
Medicaid or TennCare	33	4.7%
Medicare	49	6.9%
Tricare	19	2.7%
Other	46	6.5%
TOTALS:	**708**	**100%**

Write-in answers under "Other" included being on a parent's insurance, a spouse's insurance, insurance through school, and insurance obtained via the health marketplace, among others. In regards to the Shelby County general population, 46.6% had employer coverage, 21.4% had Medicaid, 9.5% had Medicare, 10.4% had non-group, 1.6% were military or VA, and 10.4% were uninsured[2].

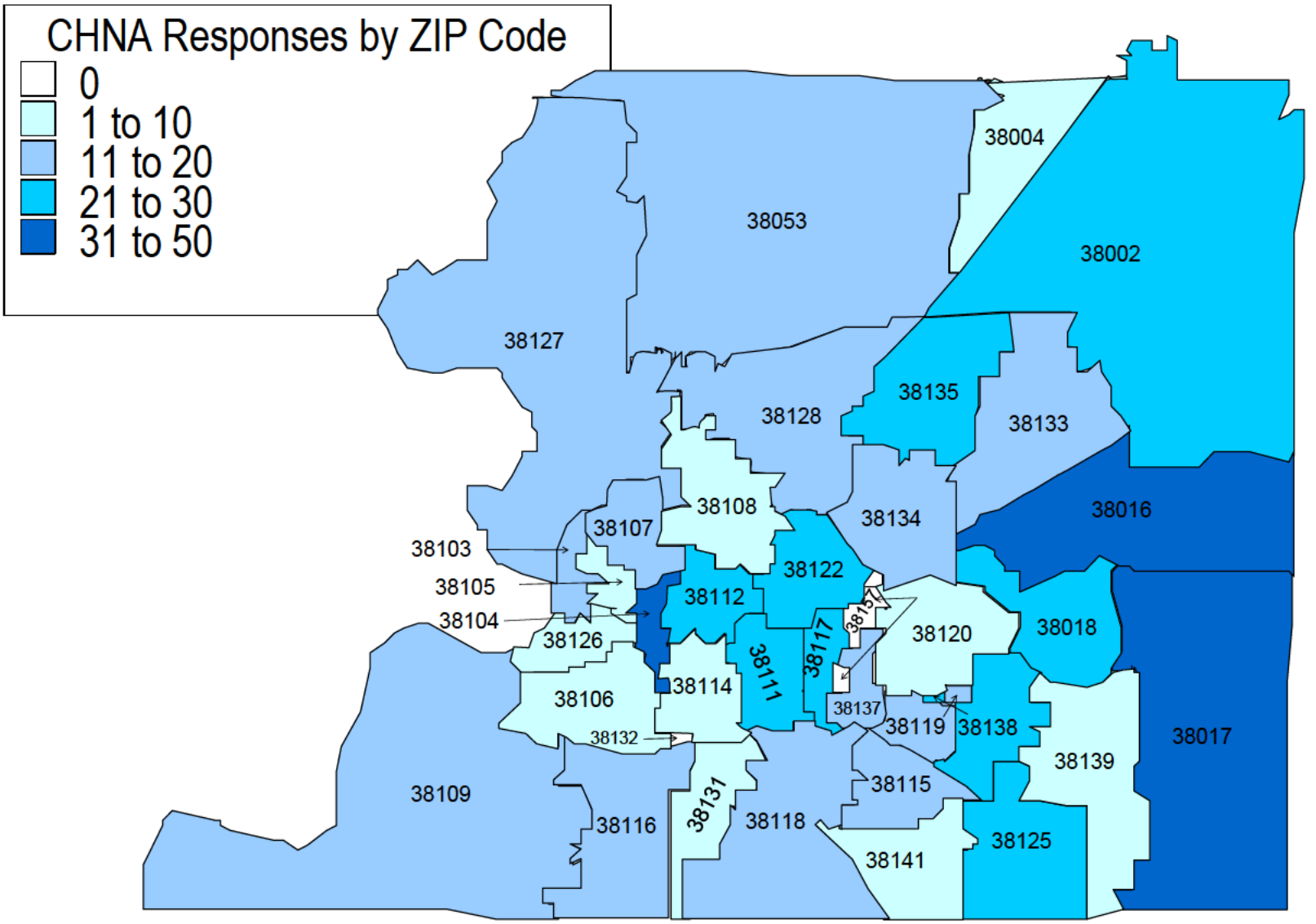

FIGURE 1. CHNA RESPONDENTS BY ZIP CODE

Of the CHNA respondents who entered a valid ZIP code, 598 (84%) reported a Shelby County ZIP code. The other ZIP codes came from surrounding areas. The highest density of CHNA responses came from midtown (38104), Collierville (38017), and Cordova (38016).

Perception of Own Health

TABLE 10. HOW WOULD YOU RATE YOUR OVERALL HEALTH?

Overall Health	Total	Percent
Excellent	89	9.8%
Very good	341	37.6%
Good	366	40.4%
Fair	89	9.8%
Poor	16	1.8%
Don't know / Not sure	5	0.6%
TOTALS:	906	100%

Most (78%) respondents rated their own health as "good" or "very good." Only 1.8% of respondents rated their health as poor.

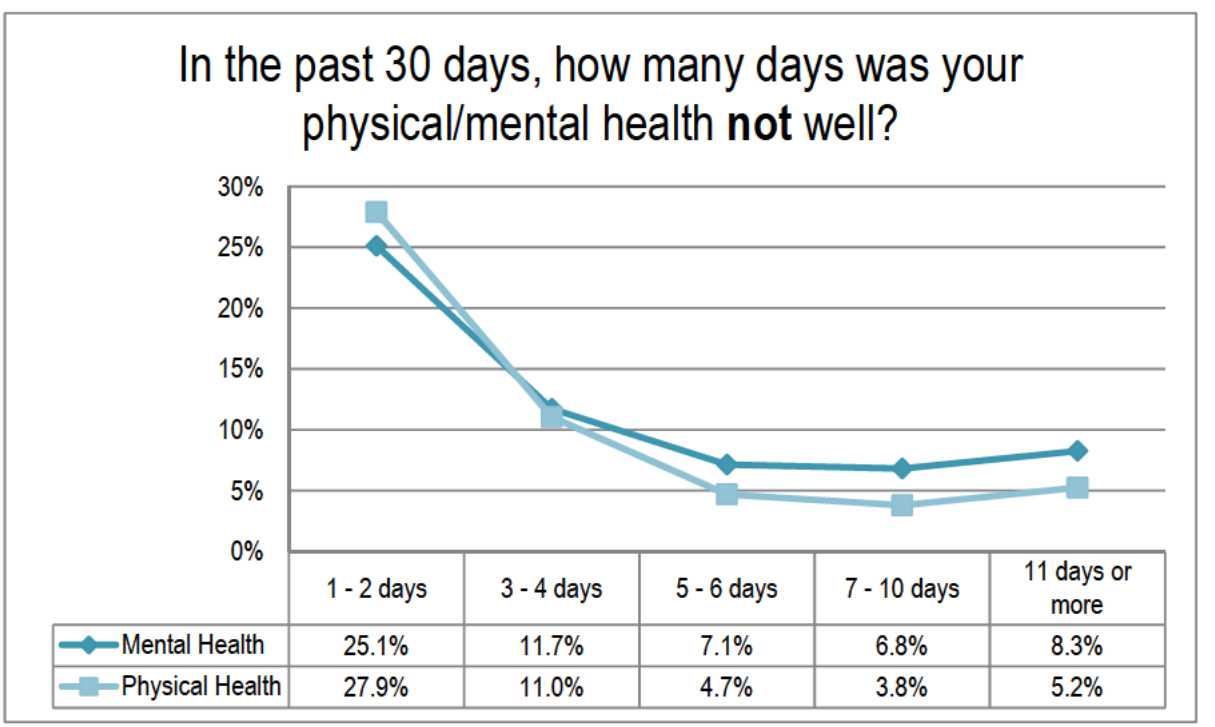

FIGURE 2. PHYSICAL AND MENTAL WELL-BEING

CHNA respondents were asked how many days their physical health was not well (illness, injury), and how many days their mental health was not well (depression, stress, anxiety). Over 8% of respondents reported having unwell mental health for 11 days or more.

TABLE 11. NUMBER OF DAYS NOT ABLE TO WORK OR DO DAILY ACTIVITIES DUE TO POOR HEALTH

Days Not Healthy	Total	Percent
1 - 2 days	152	16.8%
3 - 4 days	52	5.7%
5 - 6 days	17	1.9%
7 - 10 days	16	1.8%
11 days or more	21	2.3%
No days	647	71.5%
TOTALS:	**905**	**100%**

About 28% of CHNA respondents indicated that poor physical or mental health had kept them from work or daily activities for at least 1 day. Just over 2% were impeded by their physical or mental health for 11 days or more.

Access to Care

TABLE 12. RESPONDENTS WITH A PRIMARY CARE PHYSICIAN

Primary Care Physician	Total	Percent
Yes	617	81.2%
No	143	18.8%
TOTALS:	**760**	**100%**

TABLE 13. PRIMARY HEALTH INSURANCE PLAN OF SURVEY RESPONDENTS

Primary Insurance	Total	Percent
Private health insurance plan (Blue Cross/Blue Shield, Kaiser, Aetna, etc.) purchased from employer or workplace	475	62.6%
Employer Health Plan	128	16.9%
Medicare	43	5.7%
Private health insurance plan (Blue Cross/Blue Shield, Kaiser, Aetna, etc.) purchased directly from an insurance agency	22	2.9%
Medicaid	20	2.6%
No health insurance of any kind	41	5.4%
Military, Tricare, CHAMPUS, or the VA	15	2.0%
Other (please specify)	13	1.7%
Don't know/Not sure	2	0.3%
TOTALS:	**759**	**100%**

Just over 80% of all respondents had a primary care physician. Only 5.4% of respondents indicated they had no insurance of any kind.

TABLE 14. REASONS WHY SOME RESPONDENTS DID NOT HAVE HEALTH INSURANCE

Reasons for Lacking Health Insurance	Total	Percent
Too expensive	55	63.2%
I am healthy and do not need health insurance today	15	17.2%
It does not include all of health care needs that I have now, or might have in the future	7	8.0%
I have a pre-existing condition that is not covered	4	4.6%
Other	5	5.7%
It does not include all of the health care needs that I have now, or might have in the future	1	1.1%
TOTALS:	**87**	**100%**

Of the respondents which did not have health insurance, cost was selected as the most common barrier (63.2%).

TABLE 15. PRIMARY FORM OF TRANSPORTATION TO HEALTH APPOINTMENTS

Transportation Used	Total	Percent
Drive	718	94.6%
Call a friend or family member	23	3.0%
Medical Transport company	7	0.9%
Walk	4	0.5%
Ride the bus/MATA plus	3	0.4%
Rideshare (e.g. Uber, Lyft)	2	0.3%
Other (please specify)	2	0.3%
TOTALS:	**759**	**100%**

Almost all (94.6%) CHNA respondents drove to their appointments.

Barriers to Care

Of the respondents who indicated they had delayed receiving health care, being unable to afford out-of-pocket costs was the most frequently selected.

TABLE 16. REASONS FOR DELAY IN GETTING MEDICAL CARE WHEN NEEDED

Reasons for Delaying Medical Care	Total	Percent
You couldn't afford the out-of-pocket costs	102	37.8%
You couldn't get an appointment soon enough	45	16.7%
Not sure who to contact	33	12.2%
Other	21	7.8%
Once you got there, you had to wait too long to see the doctor	16	5.9%
You were unable to take off work	15	5.6%
The provider would not take your insurance	13	4.8%
The clinic/doctor's office wasn't open when you went there	10	3.7%
You didn't have transportation	6	2.2%
You didn't have the time	5	1.9%
You couldn't get through on the telephone	2	0.7%
You did not have childcare	2	0.7%
TOTALS:	**270**	**100%**

TABLE 17. BARRIERS TO ACCESSING HEALTH CARE WHEN NEEDED (ALL)

Barriers to Access	Total	Percent
Cost/Paying Out of Pocket Expenses (Co-pays, Prescriptions, etc.)	607	18.8%
Lack of Health Insurance Coverage	474	14.7%
Lack of Transportation	430	13.3%
Basic Needs Not Met (Food/Shelter)	347	10.8%
Difficult to Understand/Navigate Health Care System	302	9.4%
Lack of Trust	232	7.2%
Can't Find Doctor/Can't Get Appointment	208	6.5%
Language/Cultural Issues	202	6.3%
Lack of Child Care	171	5.3%
Not enough time	165	5.1%
Don’t Know	43	1.3%
Other	26	0.8%
None/No Barriers	16	0.5%
TOTALS:	**3223**	**100%**

Other write-in reasons included not understanding or prioritizing preventative care, fear, and lack of initiative. The top 3 reasons overall were cost and/or paying out of pocket, lack of health insurance coverage, and lack of transportation. Cost and paying out of pocket remained the most selected barrier across all races. Lack of transportation was also cited as a barrier by all races.

TABLE 18. BARRIERS TO ACCESSING HEALTHCARE BY RACE (TOP 3)

Barriers to Access	Total	Percent
White (*N* = 370)		
Cost/Paying Out of Pocket Expenses (Co-pays, Prescriptions, etc.)	296	80.0%
Lack of Health Insurance Coverage	229	61.9%
Lack of Transportation	221	59.7%
African American (*N* = 280)		
Cost/Paying Out of Pocket Expenses (Co-pays, Prescriptions, etc.)	228	81.4%
Lack of Health Insurance Coverage	183	65.3%
Lack of Transportation	164	59.6%
Hispanic/Latinx (*N* = 32)		
Cost/Paying Out of Pocket Expenses (Co-pays, Prescriptions, etc.)	23	71.9%
Lack of Transportation	18	56.2%
Language/Cultural Issues	14	43.7%
Other Races (*N* = 32)		
Cost/Paying Out of Pocket Expenses (Co-pays, Prescriptions, etc.)	25	78.1%
Lack of Transportation	20	62.5%
Basic Needs Not Met (Food/Shelter)	15	46.9%
TOTALS:	**756**	**100%**

Environment

Almost 93% of respondents replied that the grocery store nearest to their home was easy to access. Nearly 60% of respondents indicated that the stores had fresh and affordable produce. Of the respondents who used public transport, 42.8% walked.

TABLE 19. EASY TO ACCESS GROCERY STORE NEAREST TO YOUR HOME

Grocery Store Near Home	Total	Percent
Yes	661	92.8%
No	51	7.2%
TOTALS:	712	100%

TABLE 20. AVAILABILITY OF AFFORDABLE AND FRESH FRUITS AND/OR VEGETABLES

Fruits and/or Vegetables	Total	Percent
Yes, has fresh and affordable fruits and vegetables	414	58.3%
No, does not have fresh and affordable fruits or vegetables	202	28.5%
Yes, has fresh and affordable fruit only	10	1.4%
Yes, has fresh and affordable vegetables only	8	1.1%
Don't know/Not Sure	49	6.9%
Other	27	3.8%
TOTALS:	710	100%

TABLE 21. TYPE(S) OF PUBLIC TRANSPORTATION USED BY YOUR HOUSEHOLD

Public Transportation	Total	Percent
Walk	122	42.8%
Bike	46	16.1%
Bus	40	14.0%
Other	36	12.6%
Trolley	17	6.0%
Commuter shuttle	9	3.2%
Rideshare (Uber, Lyft)	6	2.1%
I don't know	9	3.2%
TOTALS:	285	100%

TABLE 22. VANDALIZED OR ABANDONED BUILDINGS NEAR RESIDENCE OF RESPONDENT

	Total	Percent
Yes	149	21.7%
No	538	34.6%
TOTALS:	687	100%

Just over 20% of respondents indicated that there were abandoned or vandalized buildings within a half block of their residence.

Health Issues in the Community

Access to care and/or being uninsured was the most selected health issue across all CHNA respondents, followed by overweight/obesity. Access to care and overweight/obesity remained a top health issue when looked at by race. African Americans especially prioritized high blood pressure as an issue. Additionally, access to care was strongly prioritized by the Hispanic/Latinx population, as 81.3% of the respondents selected the item. Access to care remained a frequently selected issue across age ranges. Individuals under the age of 34 were more likely to select poverty as a health issue than older individuals.

When divided by income, access to care was still a frequently selected option across all groups. Interestingly, the group with the highest income was the group most likely to select poverty as a health issue in the community, compared to those living at or below the poverty line. The resources mostly frequently identified as missing in the community were resources related to access to fresh food, followed by free or low-cost medical and dental care.

TABLE 23. TOP 5 HEALTH ISSUES OF THE COMMUNITY (ALL)

	Total	Percent
Access to Care/Uninsured	386	9.0%
Overweight/Obesity	346	8.1%
Diabetes	328	7.7%
Drug Abuse/Alcohol Abuse	318	7.5%
High Blood Pressure	313	7.3%
TOTALS:	1691	--

TABLE 24. TOP 5 HEALTH ISSUES OF THE COMMUNITY BY RACE OF RESPONDENT

Health Issues – By Race	Total	Percent by # of respondents
	White (*N* = 370)	
Overweight/Obesity	190	51.4%
Access to Care/Uninsured	185	50.0%
Drug Abuse/Alcohol Abuse	165	44.6%
Poverty	147	39.7%
Diabetes	134	36.2%
	African American (*N* = 270)	
High Blood Pressure	150	53.6%
Diabetes	143	51.1%
Access to Care/Uninsured	129	46.1%
Drug Abuse/Alcohol Abuse	111	39.6%
Overweight/Obesity	105	37.5%
	Hispanic/Latinx (*N* = 32)	
Access to Care/Uninsured	26	81.3%
Diabetes	22	68.8%
Overweight/Obesity	20	62.5%
Dental Health	14	43.8%
Heart Disease	12	37.5%
	Other Races (*N* = 32)	
Access to Care/Uninsured	22	68.8%
Overweight/Obesity	14	43.8%
Diabetes	12	37.5%
High Blood Pressure	12	37.5%
Community Support	10	31.3%
TOTALS:	--	--

TABLE 25. TOP 5 HEALTH ISSUES OF THE COMMUNITY BY AGE OF RESPONDENT

Health Issues – By Age	Total	Percent by # of respondents
	Ages 18 - 34	
Access to Care/Uninsured	95	50.5%
Overweight/Obesity	93	49.5%
Poverty	85	45.2%
Drug Abuse/Alcohol Abuse	84	44.7%
Diabetes	81	43.1%
	Ages 35 - 54	
Access to Care/Uninsured	162	51.4%
Overweight/Obesity	144	45.7%
Diabetes	133	42.2%
High Blood Pressure	126	40.0%
Drug Abuse/Alcohol Abuse	119	37.8%
	Ages 55 or older	
High Blood Pressure	107	51.2%
Access to Care/Uninsured	104	49.8%
Diabetes	96	45.9%
Drug Abuse/Alcohol Abuse	91	43.5%
Overweight/Obesity	91	43.5%
TOTALS:	--	--

TABLE 26. TOP 5 HEALTH ISSUES OF THE COMMUNITY BY INCOME OF RESPONDENT

Health Issues – By Income	Total	Percent by # of respondents
Less than $10,000 (*N* = 38)		
Access to Care/Uninsured	29	76.3%
Diabetes	17	44.7%
Drug Abuse/Alcohol Abuse	16	42.1%
Dental Health	14	36.8%
High Blood Pressure	14	36.8%
$10,000 - $19,999 (*N* = 28)		
Overweight/Obesity	14	50.0%
Access to Care/Uninsured	13	46.4%
Diabetes	13	46.4%
High Blood Pressure	13	46.4%
Cancer	11	39.3%
$20,000 - $34,999 (*N* = 87)		
Drug Abuse/Alcohol Abuse	40	46.0%
Access to Care/Uninsured	39	44.8%
Diabetes	39	44.8%
High Blood Pressure	35	40.2%
Overweight/Obesity	35	40.2%
$35,000 or above (*N* = 547)		
Access to Care/Uninsured	275	50.3%
Overweight/Obesity	262	47.9%
Diabetes	236	43.1%
Drug Abuse/Alcohol Abuse	224	41.0%
Poverty	224	41.0%
TOTALS:	--	--

TABLE 27. HEALTH-RELATED RESOURCES OR SERVICES THAT ARE MISSING IN THE COMMUNITY

Health Resource or Service (Top 10)	Total
Access to Affordable Fresh Fruits & Vegetables	431
Free/Low Cost Medical Care	391
Free/Low Cost Dental Care	387
Mental Health Services	369
Transportation	332
Free/Low Cost Vision/Eye Care	318
Health and Wellness Education/Information/Outreach	266
Prescription Assistance	260
Housing	231
Substance Abuse Services	221
TOTALS:	--

Improving Community Health

One of the final questions asked in the community survey was, "What suggestions do you have to improve health in the community?". Almost half of all respondents wrote in a response. Responses were coded and sorted into larger themes, the top 5 of which can be found below. Other themes that arose from this question included: socioeconomic issues, non-health related community programs and activities, violence and crime, education, child care, and advertising existing programs and services.

1. Access & Affordability of Healthcare/Health Services
    - Examples include more mental health services, substance use services, free or affordable health care, more low-cost/free clinics, and expanding or reforming Medicaid.
    - *"More mental health facilities and services are needed by the public. In general not just those in low income areas. Mental health issues affect all socio-economic groups... some more so than others. It's turned a blind eye because of the lack of funding/support/reimbursement and high costs surrounding it."*
    - *"Affordable healthcare for all, even the employed. The out of pocket expenses are too much! I should not have to decide on taking care of my health because I can't afford the out of pocket expense and I work fulltime for a healthcare provider."*

2. Health Literacy
    - Examples include a need for more health fairs, and more education aimed at nutrition/exercise
    - *"I worked in inner city Memphis for 5 years…I encountered MANY families who didn't know when or why to go to doctors or seek out referrals to specialists. Community education programs are so important to the Memphis area!"*

3. Community Safety/Environment
    - Examples include access to stores with healthy foods, access to parks, community gardens, and improved neighborhood conditions (e.g. sidewalk repair, neighborhood safety).
    - *"Some people have to spend their grocery money on a ride to the store and then don't have enough to buy the proper groceries and make due with less than optimal foods to feed their family longer."*
    - *"Keep the equipment in parks maintained to promote play for children."*

4. Transportation
    - Examples include improving the public transportation system and offering free transportation to medical appointments.
    - *"Improved public transportation options…not everyone can afford to take off work to get medical care, and very few people can afford to spend four hours on a bus to get to their destination."*

5. Healthcare Navigation
    - Examples include improved cultural humility, more bilingual services, and extended/weekend hours to accommodate those who cannot take away from work.
    - *"Patients need more access to healthcare facilities that employ providers and staff that can relate to their healthcare and cultural needs."*

Limitations

The biggest limitation regarding the CHNA survey is the sample population. Compared to the Shelby County population, CHNA respondents were disproportionately white, female, reported a higher educational level, and reported a higher income. Additionally, the survey structure proved confusing for some, especially when taken on paper. Respondents frequently wrote in responses that were already covered in the answers, or responded to questions that did not apply. Participants also often selected more responses than asked for by the survey. For example, with the question "What are the top 5 most pressing issues related to health in your community?", many participants selected more than 5. The length of the survey was also an issue, as many respondents "dropped off" towards the end, resulting in missing data, including demographics, which were placed at the end of the survey.

Discussion

The results and themes that emerged from the analysis of the CHNA community survey fall into line with many health issues that arose during other portions of the CHNA. Access to healthcare was identified as a major health issue across age, race, and income level, and also appeared as a theme when participants wrote in suggestions. Within accessing healthcare, cost appears to be the largest barrier, either as a barrier to getting health insurance, or receiving specific care, especially care that may not be covered by some insurance providers (e.g. mental health services or substance abuse services).

Overweight/obesity was another health issue frequently identified across demographics. This was echoed in the suggestions to improve health, as many respondents called for increased education around nutrition and exercise and more affordable healthy foods. Access to affordable fruits and vegetables was also identified as a huge missing health-related resource by CHNA respondents.

Finally, transportation was identified as a barrier to care across demographics. Although many of the respondents themselves were able to drive to appointments, responses suggested that Shelby County's current public transportation infrastructure was a barrier to care. This was especially evident in the write-in section, as many respondents specifically mentioned public transportation as a barrier to care.

Overall, the CHNA community survey is unique in that all partners had a hand in creating it. This type of collaboration was not seen in previous needs assessments. This collaboration ensured that multiple aspects of health were covered in the survey, and, with lessons learned from the limitations discussed above, will produce an even more successful community survey in future needs assessments.

References

[1]U.S. Census Bureau. (2018). U.S. Census Bureau QuickFacts: Shelby County, Tennessee. Retrieved from https://www.census.gov/quickfacts/fact/table/shelbycountytennessee/PST045218

[2]Data USA. (n.d.). Shelby County, TN. Retrieved from https://datausa.io/profile/geo/shelby-county-tn#economy

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Appendix A: Survey Instrument

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Public Health
Prevent. Promote. Protect.
Shelby County Health Department

Regional One Health

BAPTIST

Methodist Le Bonheur Healthcare

LeBonheur Children's Hospital

2019 Community Health Needs Assessment Survey

The Community Health Needs Assessment (CHNA) collaboration consist of multiple organizations partnering to conduct portions of a county-wide Community Health Needs Assessment.

The ultimate goal of the CHNA collaboration is to coordinate community–wide health improvement efforts through moving towards a more comprehensive, inclusive Joint Shelby County CHNA. Your input is VITAL.

This survey will take approximately 20-30minutes to complete. Your individual responses will remain completely anonymous.

The results of the survey will be compiled from across Shelby County and will be shared with all of the organizations in the CHNA Collaboration: Shelby County Health Department, Baptist Memorial Health Care, Methodist Le Bonheur Healthcare, Regional One Health, and St. Jude Children's Research Hospital.

Please return this completed survey to any one of the following:

- the person from one of the participating agencies who gave it to you,
- the locked box in the lobby that is specifically for this survey, or
- drop it off at the front desk of 600 Jefferson Ave, Memphis, TN 38105

Thank you for your time and feedback.

Illness Prevention and Wellness

1. How would you rate your overall health?
   - O Excellent
   - O Very good
   - O Good
   - O Fair
   - O Poor
   - O Don't know / Not sure

2. In the past 30 days, how many days was your physical health, which includes physical illness and injury, not well?
   - O No days
   - O 1 - 2 days
   - O 3 - 4 days
   - O 5 - 6 days
   - O 7 - 10 days
   - O 11 days or more

3. In the past 30 days, how many days was your mental health, which includes stress, depression, and problems with emotions, not well?
   - O No days
   - O 1 - 2 days
   - O 3 - 4 days
   - O 5 - 6 days
   - O 7 - 10 days
   - O 11 days or more

4. In the past 30 days, how many days were you not able to work or do daily activities because of poor physical or mental health?
   - O No days
   - O 1 - 2 days
   - O 3 - 4 days
   - O 5 - 6 days
   - O 7 - 10 days
   - O 11 days or more

5. How do you describe your weight?
   - O Very underweight
   - O Slightly underweight
   - O About the right weight
   - O Slightly overweight
   - O Very overweight

6. Which of the following are you trying to do about your weight?
   - O Gain weight
   - O Lose weight
   - O Stay the same weight
   - O I am not trying to do anything about my weight

7. Where do you go to exercise or engage in physical activity? **Check all that apply**
   - ☐ Church
   - ☐ Gym or recreation center
   - ☐ Home
   - ☐ Neighborhood
   - ☐ Part of your daily travel/commute
   - ☐ Public parks or trails
   - ☐ Workplace
   - ☐ Somewhere else (please specify)_____
   - ☐ I do not exercise or engage in physical activity

8. How **<u>many times</u>** per week did you do moderate physical activities during the past 30 days? Moderate physical activities make you breathe somewhat harder than normal and may include: brisk walking, jogging/running, housework, dancing, playing with kids, bicycling at a regular pace, or sports.
   - O 1 – 4 times per week
   - O 5 – 10 times per week
   - O 11 or more times per week
   - O No times
   - O Don't know / Not sure

If you answered <u>No times</u> to question number 8, skip to question number 10.

9. How **much time** did you spend doing moderate physical activities during the past week?
   - O Less than 1 hour
   - O 2 to 3 hours
   - O 4 to 5 hours
   - O 6 hours or more

10. What are the reasons that you **do not** exercise at least 150 minutes during a normal week? **Check all that apply**
   - ☐ Exercise is not important to me
   - ☐ I am physically disabled
   - ☐ I am too tired
   - ☐ I exercise at least 150 minutes a week
   - ☐ I do not have access to a facility
   - ☐ I do not have time to exercise
   - ☐ I do not know
   - ☐ I do not like to exercise
   - ☐ I would need child care and I don't have it
   - ☐ It cost too much
   - ☐ My job or daily routines is physical or hard labor
   - ☐ There is no safe space to exercise
   - ☐ Other (please specify):_____

11. During the past 12 months, have you had either a flu shot or a flu vaccine that was sprayed in the nose?
   - O Yes
   - O No
   - O Don't know / Not sure

Address financial and other barriers to accessing care

1. Where do you go most often when you are sick? **Select only one**
   - O Doctor's office
   - O Health department
   - O Hospital
   - O I do not go to any
   - O Medical clinic
   - O Urgent care center
   - O Other (please specify)_____

2. How do you typically get to an appointment or your primary form of transportation?
   - O Call a friend or family member
   - O Drive
   - O Medical Transport company
   - O Ride the bus/MATA plus
   - O Walk
   - O Other (please specify)_____

3. Do you have a primary care physician?
   - O Yes
   - O No

4. What is your primary health insurance plan? This is the plan which pays the medical bills first or pays most of the medical bills. Private health insurance could include Blue Cross/Blue Shield, Kaiser, Aetna, etc. **Select only one**
   - O Private health insurance plan purchased from employer or workplace
   - O Private health insurance plan purchased directly from an insurance agency
   - O Employer Health Plan
   - O Medicare
   - O Medicaid
   - O Military, Tricare, CHAMPUS, or the VA
   - O Indian Health Service
   - O No health insurance any kind
   - O Don't know / Not sure
   - O Other (please specify)_____

5. For those of you who selected, no health insurance, why do you not have health insurance?
   - O Too expensive
   - O It does not include all of health care needs that I have now, or might have in the future
   - O I have a pre-existing condition that is not covered
   - O I am healthy and do not need health insurance today

Please Continue to the Next Page

6. Have you delayed getting needed medical care for any of the following reasons in the past 12 months? **Select the most important reason**
   - O Not sure who to contact
   - O Once you got there, you had to wait too long to see the doctor
   - O The clinic/doctor's office wasn't open when you went there
   - O The provider would not take your insurance
   - O You couldn't afford the out-of-pocket costs
   - O You couldn't get an appointment soon enough
   - O You couldn't get through on the telephone
   - O You did not have childcare
   - O You didn't have transportation
   - O No, I did not delay getting medical care/did not need medical care
   - O Other (please specify) _____

7. About how long has it been since you last visited a doctor for a routine checkup? A routine exam is a general physical exam, not an exam for a specific injury, illness, or condition.
   - O Within the past year (anytime less than 12 months ago)
   - O Within the past 2 years (1 year but less than 2 years ago)
   - O Within the past 5 years (2 years but less than 5 years ago)
   - O 5 or more years ago
   - O Don't know / Not sure
   - O Never had a routine physical or doctor's visit

8. Do you have routine health screenings for:

	Yes	No	Not applicable
Breast Cancer	O	O	O
Colorectal Cancer	O	O	O
Oral/Throat Cancer	O	O	O
Prostate Cancer	O	O	O
Skin Cancer	O	O	O

9. What are the most significant barriers that keep people in the community from accessing health care when they need it? **Check all that apply**

- ☐ Basic Needs Not Met (Food/Shelter)
- ☐ Can't Find Doctor/Can't Get Appointment
- ☐ Cost/Paying Out of Pocket Expenses (Co-pays, Prescriptions, etc.)
- ☐ Difficult to Understand/ Navigate Health Care System
- ☐ Lack of Child Care
- ☐ Lack of Health Insurance Coverage
- ☐ Lack of Transportation
- ☐ Lack of Trust
- ☐ Language/Cultural Issues
- ☐ Not enough time
- ☐ None/No Barriers
- ☐ Don't Know
- ☐ Other (specify): _____

10. What do you think are the top 5 most pressing health issues facing your community? (**CHOOSE 5**)

- ☐ Access to Care/ Uninsured
- ☐ Alzheimer's Disease/ Aging Issues
- ☐ Cancer
- ☐ Child Abuse/Neglect
- ☐ Community Support
- ☐ Dental Health
- ☐ Diabetes
- ☐ Domestic Violence
- ☐ Drug Abuse/Alcohol Abuse
- ☐ Firearm Related Injuries
- ☐ Heart Disease
- ☐ High Blood Pressure
- ☐ HIV/AIDS
- ☐ Homelessness
- ☐ Homicide/Violent Crime
- ☐ Infectious Disease (i.e. hepatitis, TB, etc.)
- ☐ Infant Death
- ☐ Maternal/Infant Health
- ☐ Mental Health/Suicide
- ☐ Motor Vehicle Crashes
- ☐ Overweight/Obesity
- ☐ Poverty
- ☐ Rape/Sexual Assault
- ☐ Respiratory/Lung Disease
- ☐ Sexually Transmitted Infections (STIs)
- ☐ Stroke
- ☐ Teenage pregnancy
- ☐ Tobacco Use/Smoking
- ☐ Other (please specify): _____

11. What resources or services, related to health, do you think are missing in the community? **Check all that apply**

- ☐ Access to Affordable Fresh Fruits & Vegetables
- ☐ Availability of Parks & Recreation Areas
- ☐ Bilingual Services
- ☐ Child Care providers
- ☐ Dental Care
- ☐ Elder Care/Senior Services
- ☐ Emergency Care
- ☐ Free/Low Cost Dental Care
- ☐ Free/Low Cost Medical Care
- ☐ Free/Low Cost Vision/ Eye Care
- ☐ Health and Wellness Education, Information, Outreach
- ☐ Health Screenings
- ☐ Housing
- ☐ Immunization/ Vaccination Programs
- ☐ Medical Specialists (Ex. Cardiologist)
- ☐ Mental Health Services
- ☐ Prenatal Care Services
- ☐ Prescription Assistance
- ☐ Primary Care Providers (Family Doctors)
- ☐ Substance Abuse Services
- ☐ Transportation
- ☐ Vision care
- ☐ None
- ☐ Don't know / Not sure
- ☐ Other (please specify): _____

12. What type(s) of provider or facility did you or your family member have trouble getting health care from? **Check all that apply**

- ☐ Dentist
- ☐ Eye care/ optometrist/ ophthalmologist
- ☐ General practitioner
- ☐ Health department
- ☐ Hospital
- ☐ I have not had any trouble getting Health Care
- ☐ Medical Clinic
- ☐ Never use these services
- ☐ OB/GYN
- ☐ Pediatrician
- ☐ Pharmacy/prescriptions
- ☐ Specialist (what type?) _____
- ☐ Urgent care center
- ☐ Other (please specify) _____

13. What problems prevented you or your family member from getting the necessary health care? **Check all that apply**

- ☐ I/we have no health insurance.
- ☐ Insurance didn't cover what I/we needed.
- ☐ My/our share of the cost (deductible/co-pay) was too high.
- ☐ Doctor would not take my/our insurance or Medicaid.
- ☐ Hospital would not take my/our insurance.
- ☐ Lack of child care
- ☐ Lack of trust
- ☐ Language/Cultural issues
- ☐ Office hours
- ☐ Pharmacy would not take my/our insurance or Medicaid.
- ☐ Dentist would not take my/our insurance or Medicaid.
- ☐ There was no way to get there.
- ☐ I/we didn't know where to go.
- ☐ I/we couldn't get an appointment.
- ☐ The wait was too long.
- ☐ I don't know
- ☐ Other (please specify) _____

Nutritional Health

1. Do you eat fruits and vegetables?
   - O I only eat fruits
   - O I only eat vegetables
   - O I eat both fruits and vegetables
   - O I do not eat fruits or vegetables

If you answered <u>I do not eat fruits or vegetables</u> for question number 1, skip to question number 4.

2. During the past 30 days, not counting juice, how many times per day or week did you eat fruit? Count fresh, frozen, or canned fruit. Do not include jam, jelly, or fruit preserves.
   - O 1 – 2 times per day
   - O 3 – 4 times per day
   - O 5 or more times per day
   - O Less than once per week
   - O Once per week
   - O 2 – 4 times per week
   - O 5 – 6 times per week
   - O Don't Know / Not sure

3. During the past 30 days, how many times per day or week did you eat vegetables? Count fresh, frozen, or canned vegetables.
   - O 1 – 2 times per day
   - O 3 – 4 times per day
   - O 5 or more times per day
   - O Less than once per week
   - O Once per week
   - O 2 – 4 times per week
   - O 5 – 6 times per week
   - O Don't Know / Not sure

If you answered I eat both fruits or vegetables for question number 1, skip to question number 6.

4. What are the reasons that you don't eat fruits? **Check all that apply**
   - ☐ I don't like eating fruits
   - ☐ Fruits are too expensive
   - ☐ The selection and quality of fruits is poor
   - ☐ Grocery store is too far away
   - ☐ I do not have transportation to grocery store
   - ☐ I don't know
   - ☐ Other (please specify)_____

5. What are the reasons that you don't eat vegetables? **Check all that apply**
   - ☐ I don't like eating vegetables
   - ☐ Vegetables are too expensive
   - ☐ The selection and quality of vegetables is poor
   - ☐ Grocery store is too far away
   - ☐ I do not have transportation to grocery store
   - ☐ I don't know
   - ☐ Other (please specify)_____

6. Is the grocery store nearest to your home easy to access?
   - O Yes
   - O No

7. In your opinion, does the convenience store, or corner store, or grocery stores have affordable and fresh fruits and/or vegetables?
   - O Yes, has fresh fruits and vegetables
   - O Yes, has fresh fruit only
   - O Yes, has fresh vegetables only
   - O No, does not have quality fruits or vegetables
   - O Don't know / Not Sure
   - O Other (please specify) _____

Please Continue to the Next Page

Social, Behavioral, and Environmental factors

1. In the past 30 days how often have you done the following?

	Always	Most of the time	Some-times	Rarely	Never	N/A
Wear a seatbelt when driving or riding in a car	O	O	O	O	O	O
Wear a helmet while riding a bicycle, scoot-er, roller blading, etc.	O	O	O	O	O	O
Eat fast food more than once a week	O	O	O	O	O	O
Use of cigarettes	O	O	O	O	O	O
Use electronic cigarettes	O	O	O	O	O	O
Get exposed to secondhand smoke or vaping mist at home or work	O	O	O	O	O	O
Use marijuana	O	O	O	O	O	O
Misuse prescription drugs, opioids, heroin, or other illegal drugs	O	O	O	O	O	O
Use sunscreen regularly	O	O	O	O	O	O
Practice safe sex i.e. use a condom, monog-amous, get tested	O	O	O	O	O	O
Feel stressed out or overwhelmed	O	O	O	O	O	O
Drive responsibly, follow safe rules of the road, drive within the speed limit	O	O	O	O	O	O

2. During the past 30 days, how often did you drink the following?

	No times	1 – 2 times per week	3 - 4 times per week	5 or more times per week
5 or more alcoholic beverages (for men) or 4 or more alcoholic beverages (for women) on one occasion or in one sitting	O	O	O	O
Regular soda or pop that contains sugar (not including diet soda or diet pop)	O	O	O	O

3. What type(s) of public transportation do you (or people in your household) use? **Check all that apply**
   - ☐ Bus
   - ☐ Trolley
   - ☐ Commuter shuttle
   - ☐ I don't know
   - ☐ Bike
   - ☐ Walk
   - ☐ Other (please specify)_____

4. Are there any vandalized or abandoned homes/buildings (e.g. deserted structures with broken windows) within a half block of where you live?
   - O Yes
   - O No

Please Continue to the Next Page

5. Have you ever been told by a doctor, nurse, or other health professional that you have:

	Yes	No
Angina or coronary disease	O	O
Anxiety disorder	O	O
Arthritis, rheumatoid arthritis, gout, lupus, or fibromyalgia	O	O
Asthma	O	O
Cancer	O	O
Chronic obstructive pulmonary disease (COPD)	O	O
Depressive disorder	O	O
Diabetes	O	O
Heart attack, also called myocardial infarction	O	O
High blood pressure	O	O
High cholesterol	O	O
Overweight/Obesity	O	O
Stroke	O	O

Other (please specify):

_____

_____

6. Have you ever had cancer?
   - O Yes
   - O No

7. Please specify the type of cancer: **Check all that apply**

- ☐ Bladder cancer
- ☐ Breast cancer
- ☐ Cervical cancer
- ☐ Colon (intestine) cancer
- ☐ Esophageal/Esophagus
- ☐ Endometrial (uterus) cancer
- ☐ Head and neck cancer
- ☐ Heart
- ☐ Hodgkin's Lymphoma
- ☐ Leukemia (blood) cancer
- ☐ Liver cancer
- ☐ Lung
- ☐ Melanoma
- ☐ Non-Hodgkin's Lymphoma
- ☐ Oral cancer
- ☐ Ovarian cancer
- ☐ Pancreatic (pancreas) cancer
- ☐ Pharyngeal (throat) cancer
- ☐ Prostate cancer
- ☐ Rectal/Rectum cancer
- ☐ Renal (kidney) cancer
- ☐ Stomach
- ☐ Testicular cancer
- ☐ Thyroid
- ☐ Other skin cancer
- ☐ Other (specify): _____

Demographics

1. What is your age?
   - O 18 - 24
   - O 25 - 34
   - O 35 - 44
   - O 45 - 54
   - O 55 - 64
   - O 65 +

2. What is your gender?
   - O Female
   - O Male

Please Continue to the Next Page

3. What is your marital status?
    - O Divorced
    - O Married
    - O Never married
    - O Separated
    - O Widowed

4. Which one of these groups would you say best represents your race?
    - O American Indian or Alaska Native
    - O Asian/Pacific Islander
    - O Black/African American
    - O Hispanic or Latino
    - O White
    - O Other (please specify): _____

5. What is the highest grade or year of school you completed?
    - O Some school, but no diploma
    - O High school diploma or GED
    - O Associate's degree
    - O College, but no degree
    - O College graduate
    - O Graduate or professional-level degree
    - O Other (please specify) _____

6. Which of the following categories best describes your employment status?
    - O Disabled, not able to work
    - O Employed, working full-time
    - O Employed, working part-time
    - O Homemaker
    - O Retired
    - O Student
    - O Unemployed

7. What is your annual household income?
   - O Less than $10,000
   - O $10,000-$14,999
   - O $15,000-$19,999
   - O $20,000-$24,999
   - O $25,000-$34,999
   - O $35,000-$49,999
   - O $50,000 or more

8. Are your currently covered by any of the following types of health insurance or health coverage plans? **Check all that apply**
   - ☐ Employer sponsored
   - ☐ Medicaid or TennCare
   - ☐ Medicare
   - ☐ Tricare
   - ☐ Other (please specify) _____

9. Please enter your home zip code below:

   _____

What suggestions do you have to improve health in the community?

Additional Comments:

You have completed the survey. Thank You!



Transportation and Poverty

2019 COMMUNITY HEALTH NEEDS ASSESSMENT
COMMUNITY SURVEY THEME 1:
TRANSPORTATION AND POVERTY

Further Research

Report Lead: August Marshall
[redacted]

Transportation and Health

Introduction

Transportation – primarily a lack of accessible, affordable transportation – was identified as a barrier to health in multiple focus groups held by the 2019 Community Health Needs Assessment (CHNA). Transportation was also identified as one of the most-selected barriers to health in the CHNA's community survey, demonstrating a need for improved public transportation, especially at the local level. Public transportation can include buses, trains, and other forms of transportation that run regular routes, charge fares, and are available to the public. Transportation is required for employment, education, health care, food, and social activities. Because transportation is so widespread across a person's life, reliable transportation is essential to building and maintaining healthy communities[1].

Transportation and Health in the United States

Compared to countries such as Europe or Canada, the U.S. is lacking in widespread, reliable public transportation[2]. The most common form of transportation in the U.S. is a personal vehicle, with an estimated 281.3 million cars registered in the U.S.[3]. However, car ownership can be expensive. From the purchase of the car itself to gas, maintenance, and repairs, car ownership can quickly become unaffordable for low-income families. Additionally, car ownership is also not a viable option for individuals with health conditions that prevent them from driving, such as impaired vision or dementia; or for individuals who are under the legal driving age. Furthermore, despite the investment in public transportation at federal, state, and local levels, public transit ridership has fallen, declining by 7% from 2008 to 2018[4]. This is partially due to the rise of rideshare apps (such as Lyft or Uber), as well as fares that have increased faster than inflation[4].

Transportation itself is identified as one of the Social Determinants of Health (SDH), an economic and social factor that shapes people's daily lives[1]. Transportation issues that can impact health and access to care include a lack of vehicle access, long distances and lengthy travel times to reach needed services, transportation costs, and inadequate infrastructure. Data from the Bureau for Labor Statistics show that people earning less than $30,000 per year spend up to 24% of their income on transportation[1].Transportation is often connected to other social determinants of health, including poverty and social isolation[1].

In Shelby County, public transportation is currently lacking. In a 2014 report on public transport utilization in cities, Memphis ranked in the bottom third, as did Tennessee as a whole[5]. Public transportation is offered primarily in the form of Memphis Area Transit Authority (MATA) buses, which often run infrequently or inconsistently. Only a few MATA buses offer a 30-minute frequency, one bus offers a 20-minute frequency, and only the downtown trolleys offer a 15-minute or less frequency; the rest may run only once an hour, or even less[6]. For individuals who rely on public transportation, the long waiting period between buses means that missing one bus might be catastrophic in terms of job security, or making it to appointments on time. As a result, MATA is often only used by those who have no other options. According to a 2017 report, MATA riders are predominantly low income (44.7% made less than $7,500 annually) and African American (84.9%)[6]. Over half of the riders indicated they had no access to a car[5].

Local Efforts to Address

The Memphis 3.0 Comprehensive Plan, a project implemented by the City of Memphis, surveyed over 1,000 Memphis and Shelby County residents about local transit to help shape change. Seventy seven percent (77%) of respondents said they would pay more per month for improved transit[7]. The transit vision in this Memphis 3.0 plan includes additional routes, more buses, and improved weekend services[8]. This new plan – estimated to cost around $30 million – would make 45% more jobs reachable in an hour for minority residents, and 49% for low-income residents and would put 79,000 people and 103,00 more jobs near frequent (15 minutes or less) bus service[8].

In the meantime, Shelby County is making additional efforts to make transportation more affordable and available. For the 2019-2020 school year, Shelby County Schools purchased 3,000 bus passes to support students and their guardians in getting to school, and improving access to vocational and extracurricular activities[9]. Passes will be distributed based on eligibility and availability. In addition, in 2019, MATA partnered with the Memphis Medical District Collaborative to pilot a commuter shuttle. The Groove Shuttle is free to any student or employee at the medical and educational institutions in the Medical District, and will run mornings and afternoons from Harbortown Circle all the way down to the Southern College of Optometry[10].

Within Methodist Le Bonheur Community Outreach (MLCO), several programs have partnered with Lyft to assist families and children in getting to doctor's appointments or other healthcare and/or program-related activities. Additionally, almost all MLCO programs are able to offer

clients bus passes to help them get to care. Finally, MLCO is exploring telehealth options as another avenue of care for clients in rural areas or for whom transportation is a barrier.

Implications for Healthcare

It is almost impossible to receive healthcare without a means of transport. Unfortunately, estimates suggest that 3.6 million people in the U.S. do not obtain medical care due to transportation barriers[1]. Multiple studies have found lack of transportation to be a barrier to receiving timely health care, with numbers ranging from 12% to 21%[11,12]. Lack of transportation can lead to missed health care appointments, delayed care, and missed or delayed medication use, thus leading to poorer management of chronic conditions and overall poorer health outcomes[13].

Additionally, other needs assessments done have found patients citing transportation as a barrier[14]. In a 2006 survey of North Carolina residents, Arcury, Preisser, Gesler and Powers found that those who had a driver's license had 2.29 more health care visits for chronic care and 1.92 times more visits for regular checkup care compared to those who did not[15]. More broadly, multiple studies found a positive relationship between having vehicle access (either owning a car or having access to a car via family or friends) and access to health care.

Transportation challenges can affect both urban and rural communities. Individuals who are older, less educated, female, veterans, children, minority, or low income - or are a combination of these characteristics – are more likely to be adversely affected by transportation barriers[13]. Those individuals are especially vulnerable to transportation barriers due to social isolation, comorbidities, and greater need for frequent medical visits[13]. One study found that nationally, regardless of insurance status, 4% of children in the U.S. (approximately 3 million) miss a health care appointment each year due to lack of transportation[16]. For children in families with incomes less than $50,000, the number who missed a health care appointment due to transportation rose to 9%[16].

While much of the U.S. public transportation needs to be overhauled, in the meantime, hospitals have a role in improving patient's access to care in order to improve health outcomes, quality of life, and cost savings for the patient and the healthcare system[1]. Efforts could include expanding partnerships to address transportation issues, implementing shuttle services, and investing and supporting programs that lessen the travel burden, such as telehealth or mobile health clinics[1].

Such efforts would result in improved healthcare access for vulnerable populations, improve health outcomes, and create an overall healthier community.

References

[1]Health Research & Educational Trust. (2017, November). *Social determinants of health series: Transportation and the role of hospitals*. Chicago, IL: Health Research & Educational Trust. Accessed at www.aha.org/transportation

[2] Columbia University. (2018, October 22). Why public transportation works better outside the U.S. Retrieved from https://www.citylab.com/transportation/2018/10/while-america-suffocated-transit-other-countries-embraced-it/572167/

[3]Hedge's Company. (2019, July 1). US Vehicle Registration Data 2018. Retrieved from https://hedgescompany.com/automotive-market-research-statistics/auto-mailing-lists-and-marketing/

[4]Mallett, W. J. (2018). *Trends in public transportation ridership: Implications for federal policy*. Congressional Research Service. Retrieved from https://fas.org/sgp/crs/misc/R45144.pdf

[5]Fischer-Baum, R. (2014, July 31). How your city's public transit stacks up. Retrieved from https://fivethirtyeight.com/features/how-your-citys-public-transit-stacks-up/

[6]Jarret Walker & Associates. (April 2018). *Memphis 3.0 transit vision draft recommended network*. Memphis, TN.

[7]Memphis Area Transit Authority. (2018). 2017 Title IV program update. Memphis, TN: Memphis Area Transit Authority.

[8]Memphis 3.0 (n.d.). Transit: Memphis Comprehensive Plan: Memphis 3.0: United States. Retrieved from https://www.memphis3point0.com/transit

[9]Shelby County Schools. (2019). We're giving our students a lift. Retrieved from http://www.scsk12.org/matabuspass/

[10]Memphis Medical District Collaborative. (2019). Groove Shuttle. Retrieved from https://www.mdcollaborative.org/groove-shuttle

[11]Diamant, A. L., Hays, R. D., Morales, L. S., Ford, W., Calmes, D., Asch, S., … Gelberg, L. (2004). Delays and unmet need for health care among adult primary care patients in a restructured urban public health system. *American Journal of Public Health*, 94(5), 783–789. doi: 10.2105/ajph.94.5.783

[12]Blazer, D. G., Landerman, L. R., Fillenbaum, G., & Horner, R. (1995). Health services access and use among older adults in North Carolina: urban vs rural residents. *American Journal of Public Health*, *85*(10), 1384–1390. doi: 10.2105/ajph.85.10.1384

[13]Syed, S. T., Gerber, B. S., & Sharp, L. K. (2013). Traveling towards disease: Transportation barriers to health care access. *Journal of Community Health, 38*(5), 976–993. doi: 10.1007/s10900-013-9681-1

[14]Osuji, P. (2016). Impact of transportation on health outcomes. PowerPoint presentation. Phoenix, AZ.

[15]Arcury, T. A., Preisser, J. S., Gesler, W. M., & Powers, J. M. (2005). Access to transportation and health care utilization in a rural region. *The Journal of Rural Health, 21*(1), 31–38. doi: 10.1111/j.1748-0361.2005.tb00059.x

[16]Grant, R., Gracy, D., Goldsmith, G., Sobelson, M., & Johnson, D. (2014). Transportation barriers to child health care access remain after health reform. *JAMA Pediatrics*, *168*(4), 385. doi: 10.1001/jamapediatrics.2013.4653



Focus Groups

2019 COMMUNITY HEALTH NEEDS ASSESSMENT FOCUS GROUP REPORT

Methodist Le Bonheur Healthcare

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Abstract

Methodist Le Bonheur Community Outreach (MLCO) held 11 focus groups with 139 community members of varying age, race, and gender over a 3-month period. The discussion in the groups revolved about community health, including identifying and discussing the most prevalent health issues in the community and barriers to care. Across all the groups, many similar themes emerged. First was a need for improved healthcare navigation and cultural humility. Second was a need for improved mental health resources and a decrease in stigma surrounding mental health. Third was the issue of uninsured or underinsured populations being unable to find or afford health care. Fourth was the need to increase the community's knowledge of already-available resources. The final theme was the barrier of poverty and health. These themes revealed the community's concern and understanding of the impact these seemingly non-health-related factors can have on the community's health. Overall, participants felt that offering assistance with healthcare navigation and addressing these other barriers was an opportunity for healthcare organizations to improve upon and increase patient engagement, trust, and ultimately improve health outcomes.

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Executive Summary

As part of the Community Health Needs Assessment (CHNA), Methodist Le Bonheur Community Outreach (MLCO) held multiple focus groups over a 3-month period. The purpose of the focus groups was to discuss health issues with members of the community in a more robust and open-ended fashion. Focus groups also allow for more organic discussion, and for the facilitators to delve further into select responses.

Questions for the focus group were collected from a variety of sources and selected by the MLCO Program Evaluation team. For the focus groups themselves, community members were recruited from other MLCO programs, fliers, word of mouth, and social media. MLCO held a total of 11 focus groups at multiple locations with 139 community members. The makeup of these groups varied, and included housing stakeholders, people living with chronic diseases, parents and/or caregivers, school personnel, senior citizens, people of Hispanic descent, and community members living in Olive Branch, Mississippi. Participants were compensated for their time with a $20 Kroger grocery gift card.

Although the makeup of the groups varied, similar themes emerged in all focus groups. The first theme was the need for healthcare navigation and cultural humility. Multiple participants spoke about their negative experiences with healthcare providers, including feeling dismissed or not listened to, cultural barriers, and difficulty making timely appointments. The second theme revolved around mental health. Every focus group identified mental health as a significant issue in their community. This included issues around a lack of resources (especially free or low-cost resources) and the general stigma often surrounding mental health and mental health treatment. The third theme was the prevalence of uninsured or underinsured populations. Participants spoke of the difficulties they or others in their community encountered when seeking healthcare while uninsured, including lack of services, long wait times, and being unable to afford services. The fourth theme was knowledge of resources. Many participants expressed that they or others in their community were unaware of existing healthcare resources or services in Memphis. The fifth and final theme that emerged was poverty and health. Income inequality plays a large role in health, and often affects the other themes mentioned. Participants routinely listed economic issues as a barrier to care in their community, including being unable to afford care, or its contribution to other social determinants of health, such as adequate housing or transportation.

These themes, and others that emerged in the focus group, revealed the community's awareness of the impact many non-health factors (e.g. economic condition, resource availability) can play on someone's health status. This aligns with the increasing understanding of the importance of the social determinants of health. Furthermore, participants felt strongly that healthcare organizations could do more than just provide care, and that offering assistance in navigation and finding appropriate social service programs would improve patient satisfaction and health outcomes.

Background

Focus groups were held to collect more specific input from community members regarding health issues in Memphis and Shelby County. Unlike community and stakeholder surveys, focus groups allow for more robust and open-ended questions to be asked and answered by members of communities most affected by the health issues being assessed. Researchers are also able to collect more information from participants in a shorter amount of time.[1] Discussions between focus group participants often allow facilitators to dig through layers of a statement, to the heart of the issue and the indicators that truly affect it. Focus groups also strengthen visibility of the assessment process to community members, and help lay the groundwork for the dissemination process of the completed report.

Methodology

Focus groups were led by Program Evaluators from the Methodist Le Bonheur Community Outreach (MLCO) Program Evaluation team, all of whom had received prior training on note taking and facilitating discussion groups. Questions were collected from a variety of sources, including the Avera/Sanford/City Community Health Needs Focus Group Report by Sumption & Wayland,[2] Arizona State University Southwest Interdisciplinary Research Center,[3] Cambridge Health Alliance Dept. of Community Affairs,[4] and Social Entrepreneurs, Inc.[5] Questions were then reduced to a manageable number by the Program Evaluation team. A pilot focus group was held with community health workers at MLCO to test the effectiveness of the focus group questions and script. Program evaluators met after this pilot focus group and edited questions for time and engagement purposes. The final focus group script and prompts centered on community health and the greatest health issues faced by community members. This script can be found in Appendix A.

Procedures

Eleven focus groups were conducted over a 3-month period by MLCO Program Evaluation staff members and included 139 community members. Each focus group contained between 8 and 22 participants and included a facilitator and 1-2 note takers. Notes for each focus group were collected via paper and pen and were typed and shared amongst the Program Evaluation team. Focus group participants were compensated for their time with a $20 Kroger gift card. Light refreshments were also provided. When possible, focus groups were held in locations that best served the participants. Focus groups were held at the MLCO office, as well as churches, housing developments, community coalition meetings, and non-profit organizations.

Focus groups were directed to and marketed towards community members that were already connected to various community programs, either through MLCO program staff specifically or partnerships with other community organizations. Fliers were created and distributed using email, social media, and word of mouth. Focus groups were held with housing stakeholders, families living in city-provided housing, community members of Hispanic decent, senior citizens, patients living with HIV/chronic disease, parents and/or caregivers, school personnel, and residents of Olive Branch, Mississippi. A general breakdown of focus group participants can be found at the end of this report.

Facilitators spoke with focus group participants about their views regarding community health issues in their communities. Participants were asked to share what they thought were the biggest health issues faced by their community members, and what resources exist to address those issues. Probing further into the subject of available resources, participants were asked about the barriers that they thought kept people from connecting to care in response to the highlighted community health issues. Participants discussed the role of healthcare organizations in addressing these wide-spread community health issues, both as medical care centers and also large employers of Shelby County residents.

Once all focus groups were completed, the Program Evaluation team worked together to begin to analyze common and individual themes throughout the groups. Those themes were then connected to findings from other portions of the overall community health needs assessment, including community and stakeholder surveys, secondary health data, church health needs assessments, and individualized deep dives into overarching themes connected to social determinants of health that were developed by the program evaluation team.

The following pages focus only on the themes found via the community focus groups, but the issues discussed closely match issues highlighted in other data sources used for the CHNA. For more information into these themes, including background information and implications to healthcare, please refer to the Focus Group Further Research Reports.

Participants

TABLE 1. FOCUS GROUPS BY RACE AND ETHNICITY

Focus Group Population	White	African-American	Hispanic	Asian / Pacific Islander / Other
MLCO Staff	4	9		
People Living with HIV/Chronic Disease	1	23		
People of Hispanic Descent			54	1
Housing Stakeholders	1	4		2
School Personnel	2	9		
Residents of Olive Branch, MS	4	2	1	
Residents of Memphis Housing Authority		12		
Shelby County Parents/Caregivers	2	8		
Total	14	67	55	3

TABLE 2. FOCUS GROUPS BY AGE

Focus Group Population of Focus	Adults 18-65	Adults 65+	Total
MLCO Staff	13		13
People Living with HIV/Chronic Disease	21	3	24
People of Hispanic Descent	48	7	55
Housing Stakeholders	7		7
School Personnel	11		11
Residents of Olive Branch, MS	7		7
Residents of Memphis Housing Authority	7	5	12
Shelby County Parents/Caregivers	10		10
Total	124	15	139

TABLE 3. LOCATION AND DATE OF FOCUS GROUPS

Population of Focus	Date of Focus Group	Location
MLCO Staff (Pilot Focus Group)	Thursday, May 30th 1:00 am – 3:00 pm	600 Jefferson Ave Conf. Rm. 2
People Living with HIV	Wednesday, June 19th 8:30 am-10:30 am	Hope House 23 S. Idlewild St.
Latino	Thursday, June 20th 10:00 am – 12:00 pm	St. Stephens UMC 3981 Macon Rd.
Healthy Homes Partnership	Thursday, June 20th 12:00 pm – 1:30 pm	U of M – School of Law 1 N. Front St.
Latino	Tuesday, June 25th 6:00 pm – 8:00 pm	St. Stephens UMC 3981 Macon Rd
Shelby Co. School Employees	Wednesday, June 26th 10:00 am – 11:30 am	600 Jefferson Ave Conf. Rm. 1
Memphis Housing Authority	Thursday, July 18th 12:45 pm – 2:15 pm	Paul Borda Towers 21 Neely St.
Parents/ Caregivers	Tuesday, July 30th 2:00 – 3:30 pm	600 Jefferson Ave 2nd floor conference room
Olive Branch (Community Members)	Thursday, August 8th 10:00 am – 12:00 pm	Maples Memorial United Methodist Church 8745 Goodman Road

Results/Key Findings

Theme 1: Need for Healthcare Navigation and Cultural Humility

"[Providers need to] make me feel like the person I am."

In each focus group, participants highlighted their inadequate experiences with the healthcare system. Understanding of health insurance, distrust of medical providers, and knowledge of quality resources were all identified as a "Top 3" community health issue by focus group participants. Participants talked about the difficulties in making timely appointments, struggling with cultural barriers between them and their healthcare providers, and continuous miscommunications between themselves and healthcare staff. They felt the community as a whole needed more information about connecting to services and navigating the healthcare system.

Due to the nature of our focus group marketing, participants involved in the CHNA focus groups were more likely to be engaged with their individual health care. This could reflect in an increase in rates of healthcare utilization for participants compared to the general population, but it also tells a story that even residents that are fairly knowledgeable about health are struggling with feeling connected to and navigating the healthcare systems in Shelby County.

Miscommunication seemed a common thread that wound through many of the participants' anecdotal stories regarding their experiences with health services. Many of them felt they were taken advantage of because of their insurance status, while many others felt their concerns were ignored by providers because of stigma and cultural bias related to their ethnicity or health status.

Participants in focus groups that focused on our Spanish-speaking communities also spoke of the cultural disconnect they felt with medical providers, outside of general insurance knowledge or language barriers. To them, these disconnects became very visible when, as patients, they were told by their doctors to change their diets because of a medical diagnosis or general health status. Participants felt their medical providers had very little knowledge about their culture's food habits, so their suggestions about diet changes often were not applicable or were confusing to Hispanic patients. One participant said she thought of a diet as "a banana and a yogurt," and did not feel confident in what other changes she should be making in her daily eating habits. Participants also spoke about the struggle of finding accessible specialized care providers that provided Spanish translators, including mental health providers.

Participants in other focus groups shared similar anecdotes about feeling misunderstood or unsupported by medical professionals, saying they sometimes felt they were treated poorly because of their health status and the stigma attached to it, such as being HIV positive or having a mental health diagnosis. They felt that improving communication for patients would greatly

benefit the process of navigating the healthcare system and truly engaging with their individual health care.

Theme 2: Mental Health Stigma Keeping Community from Accessing Resources

"Our kids are hurting."

Every focus group hosted for the CHNA included a reference to mental health as a significant community health issue. While it was not always highlighted as one of the top 3 most significant by participants, focus group members often spoke of the lack of mental health resources in their communities. When pressed on this, it became clearer that they felt the resources in the community that existed were underutilized, partially because of cost and understanding of insurance coverages, but also because of the culture of the community itself. Participants spoke about the stigma of mental health counseling, and how they felt that because mental health was not openly discussed, people who most needed help were not reaching out to the services available to them.

When asked about other barriers that existed to access mental health services, focus group participants cited things such as the time it took to get an appointment and diagnosis, the cost of prescribed medication – especially for patients with no or limited health insurance – , and the lack of support systems for community members. Patients described the struggles of overcoming mental health issues without family members or friends that could support them and provide encouragement. Shelby County Schools (SCS) employees emphasized the need for mental health resources for students in Shelby County, many of whom have experienced traumatic events in their personal lives. They felt that more mental health education in school settings would benefit more of the student population, instead of just focusing these efforts on students who acted out or had behavior issues.

Theme 3: Uninsured/Underinsured Populations

"One of the medications I take is $5,000 a pill! I wouldn't be able to afford it without insurance!"

While most of our focus group participants reported that they had insurance, many still considered health insurance, or the lack thereof, a significant health issue in their communities. Members discussed how uninsured patients were limited in their medical provider and health clinic options, and how they often experienced long wait times and treatments they could not afford. As discussed previously under healthcare navigation, uninsured and underinsured

patients encounter barriers that prevent them from seeking the appropriate health services. These barriers can include their insurance not being taken, the service not being covered, or the patient not knowing how to navigate the resources available to them.

Participants also felt that patients lacked health literacy skills that could help them further understand their insurance coverages and processes. This lack of health literacy touches on many of the themes highlighted here, but especially when considering how community members make their health insurance policies work for them. Many focus group members shared experiences where having health insurance made their medical journey even more complicated than if they hadn't had health insurance. Participants spoke of the difficulty of having to change providers when they finally received insurance coverage. This left them to learn a new health provider's appointment and billing process and forfeited the relationships they had formed with their previous healthcare providers. Sometimes these new providers were further away or had different business hours.

However, focus group participants made a point to acknowledge the benefits that came with having health insurance as well, even if that health insurance did not cover everything they optimally would have liked. Older participants specifically discussed the considerable cost of their health needs, if they were uninsured.

Theme 4: Knowledge of Resources

After focus group participants listed the barriers to the top 3 significant health issues in their communities, they were then asked to name any community resources that helped address those barriers and health issues. Health clinics such as Church Health Center, Christ Community Health Services, and Memphis Health Services were all recognized as health options for uninsured or underinsured patients, while support organizations like Friends for Life and Memphis Inter-Faith Association (MIFA) were highlighted for the work they provide to community members experiencing chronic disease or food availability concerns.

However, knowledge of resources was also routinely discussed as a barrier in itself to addressing health issues in Memphis. When asked about resources that served health needs for community members outside of health care assistance, participants were less familiar with options in Memphis. The majority of focus groups could not confidently name an organization that might help patients with insurance admittance or provide free or discounted mental health services. Focus group members spoke in depth about the difficulty of finding quality resources, or navigating the admission processes for all the different community organizations that exist.

Theme 5: Poverty and Health

Focus group participants across all focus groups spoke on the overwhelming effects that socioeconomic status had on community health. As we know, income inequality is heavily linked to access to healthcare.[6] Factors like availability of transportation, diet and exercise, mental health, adverse childhood experiences, and having health insurance all affect patients that live in low-income communities. These gaps between health services and the community members that most need them were emphasized in multiple focus group discussions and are an underlying presence in all of the themes mentioned in this report.

Group members routinely listed economic conditions as a barrier to almost every significant health problem present in their community, and often discussed the "trickle-down" effect that poverty had on other community health issues like addiction, stress, adequate housing, and utilization of healthcare. They saw the long-lasting effects that events like felony convictions, school drop outs, and chronic disease could have on a family's economic standing. Focus group participants felt that an overwhelming amount of their fellow community members lacked financial literacy, which then contributed to them not fully taking advantage of the financial aid programs offered by healthcare system and community resources.

Conclusion

Common themes across all eleven focus groups highlighted the impact of non-health factors on patient's health status, including economic conditions, education level, insurance status, and resource availability. Focus group participants feel that health care organizations can do more for their patients outside of just providing care, including helping patients with limited health and financial literacy skills. Barriers to navigating healthcare for many community members have left them feeling distrustful and wary of health care providers. These gaps show possible areas of growth for Methodist Le Bonheur Healthcare and all local healthcare systems in patient engagement, as well as addressing the social factors that impact health outcomes.

References

1. Gibbs, A. (1997). Focus Groups. Social Research Update, (19). Retrieved from http://sru.soc.surrey.ac.uk/SRU19.html

2. Sumption & Wyland. (2015). Sioux Falls Community: Community Health Needs Assessment Focus Group Report. Sioux Falls Community: Community Health Needs Assessment Focus Group Report. Retrieved from http://livewellsiouxfalls.org/images/uploads/main/AVERA-SANFORD-CITY-FocusGroupReportFinal(8-28-15).pdf

3. Figueroa, H. L., Talmage, C., & Wolfersteig, W. (2016). Coordinated Community Health Needs Assessment: Focus Group Results, Final. Coordinated Community Health Needs Assessment: Focus Group Results, Final. Arizona State University Southwest Interdisciplinary Research Center. Retrieved from https://sirc.asu.edu/sites/default/files/[term:name]/[node:create:custom:Ym]/coordinated_community_health_needs_assessment_focus_group_results_final_fall_2016.pdf

4. Cambridge Health Alliance Department of Community Affairs. Health Behaviors Focus Group Findings Nov 2002-August 2003. Retrieved from http://www.challiance.org/Resource.ashx?sn=CommunityAffairshealthbehaviorsfocusgroupsreport

5. Social Entrepreneurs, Inc. Needs Assessment Focus Group Toolkit. Retrieved from https://socialent.com/wp-content/uploads/2009/05/needs-assessment-focus-group-toolkit.pdf

6. Bor, J., Cohen, G. H., & Galea, S. (2017). Population health in an era of rising income inequality: USA, 1980–2015. The Lancet, 389(10077), 1475–1490. doi: 10.1016/s0140-6736(17)30571-

Appendix A: Focus Group Script

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Methodist Le Bonheur Healthcare 2019 Community Health Needs Assessment

Focus Group Script: (15 minutes)

- Read Verbal Consent Script [includes CHNA Introduction and Consent Letter].
- Have participants introduce themselves and what zip code they live in – if they are comfortable.

1. What does community health mean to you? **(7 minutes)**
2. What are the most significant problems related to health in your community? *Write down answers on flip chart* **(10 minutes)**
    a. *Prompt* Who is the most affected by [that] issue in your community?
    b. Of those problems you just listed, what do you think are the top 3 most significant health problems in your community? **(10 minutes)**
3. What are some reasons that people don't receive care related to [these top 3 health issues]? *Again, writing down their answers*. **(15 minutes)**
4. What resources are available in the community to address [these top 3 health issues]? *Go through each issue, writing down their answers on the flip chart*. **(10 minutes)**
5. What would you like to see healthcare providers do to help people get help with these issues? When I say "healthcare providers", I mean healthcare businesses like MLH and Baptist, community clinics like Christ Community and Church Health, even community programs and your doctor's office. **(10 minutes)**
6. What do you think is going well in our community, in regards to health? *Also could be worded: "What do you think our community is doing correctly, in regards to health?* **(8 minutes)**
7. Does anyone have anything else they would like to add about issues related to health in their community? **(5 minutes)**

Closing – **(5 minutes)**

- Ask if anyone has any questions for you regarding the focus group or the CHNA.
- Thank them again for their time and participation.
- Make sure they know that the final version of the CHNA will be posted on the MLH website in early 2020 – or they can give us their email address, if they would like a copy sent to them.

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Healthcare Navigation

2019 COMMUNITY HEALTH NEEDS ASSESSMENT FOCUS GROUP COMMUNITY THEME 1: HEALTHCARE NAVIGATION

Further Research

Report Lead: Cheyenne Medlock
[redacted]

Healthcare Navigation and Cultural Humility as an Identified Community Need

A common theme across the 2019 Community Health Needs Assessment was the need for improved healthcare navigation for patients. This need spanned across multiple focus group discussions and survey responses and included issues such as distrust of medical providers, uncertainty about understanding health insurance coverages, health literacy, and lacking personal relationships with healthcare providers.

The connection between patient navigation and health outcomes is not a new notion in healthcare, although the ways in which it is utilized are vast and ever-changing. Patient navigation programs provide patients with a personal "guide" through the healthcare system, and were first used in the 1990s, when navigators were placed in communities to connect low income patients in Harlem with breast cancer screenings at Harlem Hospital in New York City.[1]

However, healthcare navigators, as they came to be called, became much more utilized across all healthcare systems with the passing of the Affordable Care Act (ACA), which opened up the medical world to people who had not before been a part of it.[2] Healthcare navigators were crucial in the expansion of health insurance to those previously overlooked patients. Patients required extra support when learning to navigate the process of buying insurance through their state's Marketplace, as well as their individual eligibility for state support programs and financial assistance. Navigators also help patients schedule doctor visits and sign up for financial support options.

While healthcare navigators serve an important role in healthcare, patients also face issues when interacting with their medical provider in healthcare spaces, outside of the scope of navigator roles. Patient-provider relationships include all the ways that doctors and patients communicate and gather information from one another and provide the foundation for positive outcomes and effective health care delivery.[3] A 2017 survey hosted by the Council of Accountable Physician Practices (CAPP) found that respondents felt the patient-provider relationship was the single most important factor in quality of healthcare.[4] Other research has also shown that patient-centered communication was associated with overall better patient recovery, better health status, and increased efficiency of care due to reduced diagnostic testing and referral services needed.[5] However, many factors and barriers exist that negatively impact patient relationships

with their provider, including limited English proficiency,[6] limited health literacy rates,[7] implicit bias,[8] and unrealistic patient expectations.[9]

However, patients also experience barriers to positive health outcomes and medical provider relationships in the form of cultural understanding. Cultural humility – previously called "cultural competence" - has been heavily utilized in healthcare spheres since the early 2000s and beyond as a way to positively combat health disparities, but these barriers continue to exist for patients today. Research has shown that gaps in cultural understanding impacted health experiences ranging from patient-provider communication, expectations of care, and adherence to physician-prescribed treatments.[10] However, these gaps take more than just medical provider training to address; a 2005 analysis by Health Affairs emphasized that tackling cultural competence related health disparities required a robust and evidence-based approach that focuses on all forms of healthcare – data collection, academic research, and quality assurance practices.[11]

National Efforts to Address

Nationally, there have been many efforts to improve patient health experiences in the name of improving patient outcomes. One of these efforts is the Consumer Assessment of Healthcare Providers and Systems Plans (CAHPS) program. The CAHPS is a survey that focuses on consumer/patient interactions with healthcare systems, including doctor communication, experiences with staff, and ease of access to services.[12] The survey allows healthcare systems to capture patient satisfaction scores and use them to identify gaps in the quality of service they provide. Medical schools have started incorporating cultural competence trainings and cross-sectional activities into their curriculums, with many accreditations now requiring more robust focus placed on the diverse cultures and belief systems that patients encompass.[13,14] The federal government has also taken an interest in increasing cultural understanding across health care services, with the Office of Minority Health of the Department of Health and Human Services delivering 14 national standards that address the need for culturally and linguistically appropriate services (CLAS) in health care.[15]

Local Efforts to Address

Methodist Le Bonheur Healthcare utilizes multiple programs to increase patient navigation and engagement with healthcare. Programs like the Congregational Health Network seek to connect with patients through their congregations and help provide health education and improve health outcomes in under-served zip codes. This program was created in 2006 and has used its vast

network of partnerships to reach over 2000 community health liaisons and clergy members across Memphis.[16] This model of community-based health care navigation has since been called the "Memphis Model." MLH participates in the Hospital Consumer Assessment of Healthcare Providers and Systems (HCAHPS) survey, the hospital side of the CAHPS survey mentioned above, to monitor and track patient satisfaction scores and highlight areas of improvement at MLH facilities across Memphis and Shelby County.

MLH also utilizes community navigators for Spanish-speaking patients as well, in the form of two community health navigators that are embedded in Hispanic communities in Memphis. These navigators are available to provide translation and health information services to MLH patients, and help community members connect with medical care providers in a way that best serves their needs. They also help connect health screening programs to communities that are historically underserved by these efforts, including mobile breast screenings programs sponsored through Susan G. Komen. Methodist Le Bonheur Healthcare also partners with Church Health to offer a six-week certificate course titled Serving the Underserved that aims to provide health science students with insight to underserved populations and the effects of poverty on a community's health.[17]

Implications to Healthcare

Research has begun to support the connection between the doctor-patient relationship and patient health outcomes. A 2006 study by Beach and Moore found that HIV patients that felt "known as a person" by their medical provider showed better health outcomes related to highly active antiretroviral therapy (HAART) treatment, including better adherence rates, fewer missed appointments, and lower HIV RNA levels.[18] Other studies have shown that patients who feel supported by patient-centered communications are overall more satisfied with their medical care and show greater increases in overall health status. [19] [20] [21]

With racial and ethnic minorities expecting to make up 1/3rd of the United States population by 2055,[22] health disparities related to patient access and cultural barriers are also expected to increase. Healthcare patients will become even more diverse in terms of cultural ideas about health, socioeconomic status, education level, and sexual orientation. In order to best serve these patients, hospital systems must create health spaces that rise above these barriers and reach community members where they are. This includes streamlining hospital processes to be available and obtainable to all and creating workplace cultures that support patients from all walks of life and circumstances.

References

[1] Freeman, H. P., & Rodriguez, R. L. (2011). History and principles of patient navigation. *Cancer*, *117*(S15), 3537–3540. doi: 10.1002/cncr.26262

[2] Patient Engagement HIT. (2017). What Are Healthcare Navigators, Patient-centered Care Benefits? Retrieved from https://patientengagementhit.com/news/what-are-healthcare-navigators-patient-centered-care-benefits

[3] Ha JF, Longnecker N. Doctor-patient communication: a review. *Ochsner J*. 2010;10(1):38–43.

[4] Council of Accountable Physician Practices (CAPP) Focus Group Research Results. (2017). Retrieved from http://accountablecaredoctors.org/wp-content/uploads/2017/11/capp-research_what-patients-and-doctors-want.pdf

[5] Stewart, M., Brown, J. B., Donner, A., McWhinney, I. R., Oates, J., Weston, W. W., & Jordan, J. (2000). The Impact of Patient-Centered Care on Outcomes. *The Journal of Family Practice*, *49*(9). Retrieved from https://www.researchgate.net/publication/12292586_The_Impact_of_Patient-Centered_Care_on_Outcomes

[6] Partida, Y. (2007). Language Barriers and the Patient Encounter. *AMA Journal of Ethics*, *9*(8), 566–571. doi: 10.1001/virtualmentor.2007.9.8.msoc1-0708

[7] Hironaka, L. K., & Paasche-Orlow, M. K. (2008). The implications of health literacy on patient-provider communication. *Archives of Disease in Childhood*, *93*(5), 428–432. doi: 10.1136/adc.2007.131516

[8] Chapman, E. N., Kaatz, A., & Carnes, M. (2013). Physicians and Implicit Bias: How Doctors May Unwittingly Perpetuate Health Care Disparities. *Journal of General Internal Medicine*, *28*(11), 1504–1510. doi: 10.1007/s11606-013-2441-1

[9] The, A.-M., Hak, T., Koeter, G., & Wal, G. V. D. (2000). Collusion in doctor-patient communication about imminent death: an ethnographic study. *Bmj*, *321*(7273), 1376–1381. doi: 10.1136/bmj.321.7273.1376

[10] Berger, J. T. (1998). Culture and Ethnicity in Clinical Care. *Archives of Internal Medicine*, *158*(19), 2085. doi: 10.1001/archinte.158.19.2085

[11] Betancourt, J. R., Green, A. R., Carrillo, J. E., & Park, E. R. (2005). Cultural Competence And Health Care Disparities: Key Perspectives And Trends. *Health Affairs*, *24*(2), 499–505. doi: 10.1377/hlthaff.24.2.499

[12] Agency for Healthcare Research and Quality. (2016). CAHPS: Assessing Health Care Quality From the Patient's Perspective. Retrieved from https://www.ahrq.gov/cahps/about-cahps/cahps-program/cahps_brief.html

[13] Cultural Competence in Health Care: Is It Important For People with Chronic Conditions? Retrieved from https://hpi.georgetown.edu/cultural/

[14] Liaison Committee on Medical Education. (2001). Functions and structure of a medical school. Retrieved from www.lcme.org/functions2003september.pdf

[15] Office of Minority Health. (2018). Retrieved from https://minorityhealth.hhs.gov/omh/browse.aspx?lvl=2&lvlid=53

[16] T. Cutts, E. Rafalski, C. Grant and R. Marinescu, "Utilization of Hot Spotting to Identify Community Needs and Coordinate Care for High-Cost Patients in Memphis, TN," *Journal of Geographic Information System*, Vol. 6 No. 1, 2014, pp. 23-29. doi: 10.4236/jgis.2014.61003

[17] Church Health Center. (2019). Retrieved from https://churchhealth.org/serving-the-underserved/

[18] Beach, M. C., Keruly, J., & Moore, R. D. (2006). Is the quality of the patient-provider relationship associated with better adherence and health outcomes for patients with HIV?. *Journal of general internal medicine*, *21*(6), 661–665. doi:10.1111/j.1525-1497.2006.00399

[19] Kaplan, S. H., Gandek, B., Greenfield, S., Rogers, W., & Ware, J. E. (1995). Patient and Visit Characteristics Related to Physicians??? Participatory Decision-Making Style. *Medical Care*, *33*(12), 1176–1187. doi: 10.1097/00005650-199512000-00002

[20] Brody, D. S., Miller, S. M., Lerman, C. E., Smith, D. G., & Caputo, G. C. (1989). Patient perception of involvement in medical care. *Journal of General Internal Medicine*, *4*(6), 506–511. doi: 10.1007/bf02599549

[21] Lerman, C. E., Brody, D. S., Caputo, G. C., Smith, D. G., Lazaro, C. G., & Wolfson, H. G. (1990). Patients' perceived involvement in care scale: *Journal of General Internal Medicine*, *5*(1), 29–33. doi: 10.1007/bf02602306

[22] Pew Research Center Population Projections. (2008). Retrieved from https://www.pewresearch.org/hispanic/2008/02/11/ii-population-projections/



Mental Health

2019 COMMUNITY HEALTH NEEDS ASSESSMENT FOCUS GROUP COMMUNITY THEME 2: MENTAL HEALTH

Further Research

Report Lead: Kelsie Cox
[redacted]

Mental Health Stigma Still Keeping Community Members from Accessing Resources

Mental health plays an essential role in a person's well-being, strong relationships with family and others, and the ability to be a part of and give back to a community or society. According to Healthy People 2020, mental health is defined as "a state of successful performance of mental function, resulting in productive activities, fulfilling relationships with other people, and the ability to change and to cope with challenges."[1] When exploring the link between mental health and physical health, mental illness including substance use increases the risk for many different physical health problems, including stroke, type-2 diabetes, and heart disease. These chronic conditions also make it more likely for a person to suffer from a mental illness.[2] Mental illness is also among the most common causes of disability.[3] Additionally, suicide was the 10th leading cause of death in the United States in 2017, and there were more than twice as many suicides as there were homicides.[4] In Tennessee, suicide was also the 10th leading cause of death and the 2nd leading cause of death for Tennesseans aged 10-14 in 2016.[5]

Background Literature

Although approximately half of adults in the United States suffer from a mental illness at some point during their lives, a significant number of these individuals do not receive mental healthcare.[6] For example, one study found that only approximately 40% of individuals with a mental illness ever receive treatment.[7] Furthermore, from 2003 to 2013 there was a nearly 10 percent decrease in the mean number of psychiatrists. This decrease was not seen in physicians overall and could help explain the lack of individuals receiving care. If this trend continues, access to mental health providers could continue to worsen.[8]

It is estimated that 8.9 million adults in the United States live with co-occurring mental health and substance use disorders or COD. COD that is untreated or unidentified has been associated with increased difficulties with engaging and staying in treatment, developing a relationship with a healthcare provider, and maintaining treatment regimens. If an individual has untreated COD, their likelihood of medical illness, suicide, and early mortality increases. There are many barriers

to treating this group of people, but one major barrier is medical, mental, and substance use service providers being unable to recognize COD.[9]

A major barrier to mental healthcare access is the stigma that exists around mental illness and treatment. Stigma happens when "a group of individuals is devalued due to attributes deemed undesirable."[10] Stigmatization can lead to individuals with mental illness having poorer physical health as well. People living with mental illness report barriers to receiving physical healthcare as well, including their symptoms not being taken seriously. Thus, they receive poorer quality of care when receiving physical healthcare. This can cause a delay in diagnosis and fewer treatment options.[11] One way to address stigma is through peer-to-peer relationships and support for those who experience mental illness. An avenue for this is through online communities, especially for individuals in rural communities or those who do not feel comfortable discussing their mental illness in face-to-face support groups. In these online communities, they can learn from each other, share, and give support.[12]

National and Local Data Trends

Approximately 1 in every 5 or 46.6 million adults experiences mental illness in a given year.[13] For 13-18 year olds, approximately 1 in 5 or 21.4% experiences a severe mental disorder during their lives.[14] Additionally, 1 in 25 Americans lives with a serious mental illness, such as schizophrenia, bipolar disorder, or major depression.[15] In Tennessee, 1 in 5 or 20% of adults experience mental illness, with 4.4% of adults having a serious mental illness. Also, 10% of Tennessee high school students reported attempting suicide at least once in the past year.[16] Adults in the United States reported 3.8 poor mental health days in the last 30 days while adults in Tennessee reported 4.4 poor mental health days and adults in Shelby County reported 4.6 poor mental health days.[17]

In the United States, there is approximately one mental healthcare provider for every 426 people. By 2025, a projection shows that there will be between 45,000 and 250,000 too few mental health providers to meet the needs of the population.[18] In Shelby County, there is one mental health provider for every 2,229 people, and 13% of Shelby County residents felt that they needed mental health services in the last 12 months but did not receive it.[19]

State and Local Efforts

However, there are national, state, and local efforts to address mental health. Nationally, in 2016, the United States Preventative Task Force (USPTF) updated their recommendations to include depression screening for all adult populations regardless of risk factors. One healthcare arena where this can be implemented is primary care settings.[20] Statewide efforts include the Tennessee Suicide Prevention Network, which holds meetings in Shelby County and provides trainings around the state. The Tennessee Department of Mental Health and Substance Abuse Services also operates a hotline for people who are having issues receiving mental health or substance use services. Locally, Shelby County has a 24/7 hotline called the Memphis Crisis Center where individuals can call for support when feeling depressed, suicidal, or in need of community resources. In addition, the National Alliance on Mental Illness (NAMI) has a Memphis chapter. This group provides family education and support, and it gives information on resources and referrals.

Within Methodist Le Bonheur Community Outreach, the Family Care Program and the Family Resilience Initiative (FRI) also work to connect clients with mental health services.
FRI is a multi-disciplinary collaboration that assesses for Adverse Childhood Experiences (ACEs) and Social Determinants of Health (SDH) and provides a wraparound services approach to build resiliency and prevent ACEs within a trauma-informed setting. Within the FRI program, children between the ages of 9 months to 5 years who have 1 or more ACE and/or answer positively to additional screening questions are eligible for free psychological services. For parents, FRI has developed partnerships with other mental health providers in the area and offers referrals to low-cost psychological services. The Family Care Program (FCP) of the Community HIV Network provides women, infants, children, and youth (including males aged 24 and younger) that are infected or affected with HIV with specialty medical and supportive services. Clients are given psychosocial assessment screening at FCP program intake, which assesses for SDH that affect health status. FCP provides funding to partnering agencies in the Memphis area for psychosocial support, mental health services, and outpatient drug treatment, at no cost to clients.

Implications for Healthcare

As discussed previously, one major implication for healthcare is the reduction in mental health providers, which could lead to an even greater lack of access to mental health services, especially for vulnerable individuals. Thus, the medical community and policy makers must address the shortage of mental health professionals, especially psychiatrists, in order to improve access to

mental healthcare services. Possible strategies could include establishing a loan forgiveness program for medical students who pursue psychiatry or integrating mental health care into primary care settings where the primary care physicians can prescribe the needed medications and non-physician mental health providers can aid in the other mental health treatment options.[21]

With the current and growing mental healthcare needs, it will also be important to provide training related to mental health care and substance use to all medical providers. More training should also be provided on how to work across continuums of care to address patients' complex medical, social, and behavioral health needs.[22] This training will also help with the issue of access to services because more patients will feel comfortable receiving healthcare services if their providers are properly trained to work with certain populations.

References

[1] Mental Health and Mental Disorders. (2019). Retrieved from https://www.healthypeople.gov/2020/topics-objectives/topic/mental-health-and-mental-disorders

[2] Centers for Disease Control and Prevention. (2018). Learn about mental health. Retrieved from https://www.cdc.gov/mentalhealth/learn/index.htm

[3] Mental Health and Mental Disorders. (2019). Retrieved from https://www.healthypeople.gov/2020/topics-objectives/topic/mental-health-and-mental-disorders

[4] Mental Health by the Numbers. (2019). Retrieved from https://www.nami.org/learn-more/mental-health-by-the-numbers

[5] Henderson, N. (2018). Health brief: Mental illness. Retrieved from https://bettertennessee.com/mental-illness-tennessee/

[6] Bishop, T. F., Seirup, J. K., Pincus, H. A., & Ross, J. S. (2016). Population of US practicing psychiatrists declined, 2003-2013, which may help explain poor access to mental health care. *Health Affairs*, *35*(7), 1271-1277.

[7] Wang et al. (2005). Twelve-month use of mental health services in the United States: Results from the national comorbidity survey replication. *Archives of General Psychiatry*, *62*(6), 629-640.

[8] Bishop, T. F., Seirup, J. K., Pincus, H. A., & Ross, J. S. (2016). Population of US practicing psychiatrists declined, 2003-2013, which may help explain poor access to mental health care. *Health Affairs*, *35*(7), 1271-1277.

[9] Priester, M. et al. (2016). Treatment access barriers and disparities among individuals with co-occurring mental health and substance use disorders: An integrative literature review. *Journal of Substance Abuse Treatment*, *61*, 47-59.

[10] Budhwani, H. & De, P. (2019). Perceived stigma in health care settings and the physical and mental health of people of color in the United States. *Health Equity*, *3.1*, 73-80.

[11] Knaak, S., Mantler, E., & Szeto, A. (2017). Mental illness-related stigma in healthcare: Barriers to access and care and evidence-based solutions. *Healthcare Management Forum*, *30*(2), 111-116.

[12] Naslund, J. A., Aschbrenner, K. A., Marsch, L. A., & Bartels, S. J. (2016). The future of mental health care: Peer-to-peer support and social media. *Epidemiology and Psychiatric Sciences*, *25*(2), 113-122.

[13] Mental Health by the Numbers. (2019). Retrieved from https://www.nami.org/learn-more/mental-health-by-the-numbers

[14] Mental Health by the Numbers. (2019). Retrieved from https://www.nami.org/learn-more/mental-health-by-the-numbers

[15] Substance Abuse and Mental Health Services Administration. (2017). *Key substance use and mental health indicators in the United States: Results from the 2016 National Survey on Drug Use and Health* (HHS Publication No. SMA 17-5044, NSDUH Series H-52). Rockville, MD: Center for Behavioral Health Statistics and Quality, Substance Abuse and Mental Health Services Administration. Retrieved from https://www.samhsa.gov/data/

[16] Henderson, N. (2018). Health brief: Mental illness. Retrieved from https://bettertennessee.com/mental-illness-tennessee/

[17] County health rankings and roadmaps: Tennessee. (2017). Retrieved from https://www.countyhealthrankings.org/app/tennessee/2019/rankings/shelby/county/factors/overall/snapshot

[18] United Health Foundation. (2019). Public health impact: Mental health providers. Retrieved from https://www.americashealthrankings.org/explore/annual/measure/MHP/state/ALL

[19] Brantley, A. (2018). Memphis and Shelby County health brief. Retrieved from https://bettertennessee.com/memphis-shelby-county-health-brief/

[20] Siu, A. & US Preventative Services Task Force. (2016). Screening for depression in adults: US Preventative Services Task Force recommendation statement. *Journal of American Medical Association*, *315*(4), 380-387.

[21] Bishop, T. F., Seirup, J. K., Pincus, H. A., & Ross, J. S. (2016). Population of US practicing psychiatrists declined, 2003-2013, which may help explain poor access to mental health care. *Health Affairs*, *35*(7), 1271-1277.

[22] Knickerman, J., Krishnan, R., & Pincus, H. (2016). Improving access to effective care for people with mental health and substance use disorders. *Journal of American Medical Association*, *316*(16), 1647-1648.



Uninsured / Underinsured

2019 COMMUNITY HEALTH NEEDS ASSESSMENT FOCUS GROUP COMMUNITY THEME 3: UNDERINSURED / UNINSURED

Further Research

Report Lead: August Marshall
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Uninsured / Underinsured

Introduction

Health insurance consists of any program that covers all or part of an individual's medical expenses for prevention services, injury, and acute or chronic illness. Health insurance can be obtained in many forms, including privately purchased insurance (e.g. through an employer or directly from an insurance company) and government-funded insurance, such as Medicare or Medicaid. Issues related to health insurance – including not having insurance, difficulty navigating or understanding one's health insurance plan, insurance not covering specific conditions, and being underinsured – arose frequently as a barrier to care during the 2019 Community Health Needs Assessment's focus groups and community survey.

Health Insurance in the United States

In 2017, the Census Bureau estimated that there were roughly 28.5 million people (8.8% of the total population) in the United States who did not have health insurance at any point during the year[1]. Just over 5% of children under age 19 were uninsured, but that number rises to nearly 8% for children living in poverty[1]. The uninsured rate also disproportionately affects people of color, both nationally and locally, as the uninsured rate was highest for Hispanics (16.3% nationally versus 25% or above in Tennessee), followed by African Americans (10.6% nationally, 10.1 to 15% in Tennessee) and Asians (10.6%)[1,2]. Between 2016 and 2017, the percentage of people without health insurance coverage increased in 14 states. In Tennessee, the Census Bureau estimated that about 9.5% of the population is uninsured, slightly higher than the national average (8.8%). Uninsured rates in Shelby County are even higher than the state and national averages, estimated to be between 10.1 to 17 percent for individuals over 18[3,4]. The number of uninsured in Tennessee increases further when looking at the low-income population, rising to 20.1 to 25% for adults living at or below 138% of the poverty line[3].

Despite these high uninsured rates, the total number of uninsured individuals has dropped significantly from 2008 to 2017; both nationally and within Tennessee (from 15% to 9% nationally and 14% to 9.5% in Tennessee)[5,6]. This is largely due to the policy changes introduced by the Affordable Care Act, which allowed dependents to remain on their parents' insurance up to age 26 and expanded Medicaid eligibility across multiple states[7]. Unfortunately, Tennessee has yet to accept any kind of federal Medicaid expansion. As of July 2018, Tennessee had

1,371,010 people covered by Medicaid/CHIP. If Tennessee accepted expansion, they could provide an estimated 381,000 additional people with health insurance[8].

However, even with increased insurance options, the cost of insurance itself remains a significant barrier to health care. In 2018, the average annual premium for employer-sponsored health insurance was $6,896 for single-person coverage and $19,616 for family coverage (coverage that include spouse and children)[9]. This reflects a 3% increase from 2017 to 2018 for single coverage, and 5% increase for family coverage; however, workers' wages only increased 2.6% in the same time period (inflation increased 2.5%)[9]. The average annual dollar amounts contributed by covered workers for 2018 were $1,186 for single coverage and $5,547 for family coverage. Overall, the national average dollar contribution for family coverage has increased 21% since 2013, and 65% since 2008[9]. Furthermore, in addition to paying for insurance itself, there is still the additional financial burden of deductibles, copays, etc. that arises when insured individuals utilize their insurance. Health insurance deductibles alone have increased an average of 53% in the past five years, further adding to this financial burden[9]. In 2017, 45% of uninsured adults said that they remained uninsured because the costs of insurance were too high[10].

Local Efforts to Address

Despite their refusal to expand Medicaid, as of May 2019, Tennessee is seeking federal permission to convert their state federal Medicaid matching funds into a block grant that will be indexed for inflation and population growth, allowing more control over how the state's funding is used. However, there are concerns that this model might result in a funding shortage for the state in the event of a recession[8].

In 2019, Methodist Le Bonheur increased the threshold for financial insurance eligibility from 125% of the federal poverty to 250%, which will allow a greater number of people to receive assistance[11]. Additionally, there are multiple Methodist Le Bonheur Community Outreach programs that offer assistance with healthcare navigation and prevention, including helping clients with chronic illnesses understand their diagnoses and stay in care (HIV Network, Congregational Health Network), encouraging new parents to keep up with regular well-child visits (Nurse-Family Partnership, Healthy Families America), and offering resource navigation and no-cost psychological services to children under the age of five (Family Resilience Initiative). Additionally, the Church Health Center (CHC), a local faith-based nonprofit organization, offers an affordable healthcare plan for small businesses and/or uninsured working Memphians who earn too much to qualify for state or federal programs but not enough to afford health insurance

on the healthcare marketplace. CHC sustains this low-cost model by relying on donated services from doctors, hospitals, and laboratories[12].

Implications for Healthcare

The implications of having such a large uninsured and underinsured population are huge for healthcare providers. In 2017, one in five uninsured adults went without needed healthcare due to cost[10]. Yet as this population delays or forgoes health services, the financial burden rises, both for healthcare providers and the individuals. In a 2017 review of the effects of health insurance on health care and outcomes, Sommers, Gawande, and Baicker found that having health insurance led to a reduction of medical bills sent to collections, reduced catastrophic medical spending, and reduced personal bankruptcies and improved credit scores[13]. Health insurance also led to increased rates of individuals having a personal physician, an increase in preventative care visits, and increased prescription drug utilization and adherence. Finally, the authors found that health insurance led to increased diagnoses and treatment of chronic conditions, improved depression outcomes, and overall improved reported self-health[13].

If individuals are uninsured, they are less likely to receive preventative care and services for health issues and chronic illnesses[10]. As a result of delaying needed medical care, when this population does finally seek help, the issue is often much more complex (and expensive), adding an additional – and often insurmountable – health and financial burden. Going without health insurance increases the likelihood of preventable illnesses, increases the chance of complications, and can even lead to death[13]. In a 2017 review of multiple studies, Woolhandler and Himmelstein found that mortality odds among insured versus uninsured to be 0.71 to 0.97 – almost a 37% increase[14]. News outlets are constantly reporting stories of individuals dying – or even committing suicide – due to exorbitant medical bills or being unable to affordable essential medications[15,16]. This is not an easily fixable problem, but it is one that must be addressed to improve the health and well-being of our nation, state, and county.

References

[1] US Census Bureau. (2019, April 16). Health Insurance Coverage in the United States: 2017. Retrieved from https://www.census.gov/library/publications/2018/demo/p60-264.html

[2]Health Insurance Coverage Estimates [Map]. (2019). In U.S. Census Bureau. Retrieved from https://www.census.gov/content/dam/Census/library/visualizations/2019/demo/p30-05/web_map3.pdf

[3]US Census Bureau. (2018, September 12). Uninsured Rate by State: 2008 to 2017. Retrieved from https://www.census.gov/library/visualizations/interactive/uninsured-rate.html

[4]Data USA. (n.d.). Shelby County, TN. Retrieved from https://datausa.io/profile/geo/shelby-county-tn#economy

[5]Kaiser Family Foundation. (2019, January 02). Health Insurance Coverage of the Total Population. Retrieved from https://www.kff.org/other/state-indicator/total-population/

[6]U.S. Census Bureau. (2018). U.S. Census Bureau QuickFacts: Memphis City, Tennessee. Retrieved from https://www.census.gov/quickfacts/fact/table/memphiscitytennessee/PST045218

[7]Berchick, E. R., Hood, E., & Barnett, J. (2018, September). *Health Insurance Coverage in the United States* (Rep.). Retrieved https://www.census.gov/content/dam/Census/library/publications/2018/demo/p60-264.pdf

[8]Tennessee and the ACA's Medicaid expansion: Eligibility, enrollment and benefits. (2019, May 24). Retrieved from https://www.healthinsurance.org/tennessee-medicaid/

[9]Kaiser Family Foundation. (2018, October). 2018 Employer Health Benefits Survey - Summary of Findings. Retrieved from https://www.kff.org/report-section/2018-employer-health-benefits-survey-summary-of-findings/

[10]Kaiser Family Foundation. (2018). Key Facts about the Uninsured Population. Retrieved from https://www.kff.org/uninsured/fact-sheet/key-facts-about-the-uninsured-population/

[11]Methodist Le Bonheur Healthcare. (2019, July 30). *Methodist Le Bonheur Healthcare Announces Two New Initiatives to Help Address Poverty and Uplift Their Associates, Patients, and the Community* [Press release]. Retrieved from https://www.methodisthealth.org/newsroom/news-article/methodist-le-bonheur-

healthcare-announces-two-new-initiatives-to-help-address-poverty-and-uplift-their-associates-patients-and-the-community

[12]Church Health Center. (2019, February 15). The MEMPHIS Plan: Church Health's Health Plan for Small Businesses. Retrieved from https://churchhealth.org/memphisplan/

[13]Sommers, B., Gawande, A., & Baicker, K. (2017). Health insurance coverage and health - What the recent evidence tells us. *New England Journal of Medicine, 377*(6). doi:0.1056/NEJMsb1706645

[14]Woolhandler, S., & Himmelstein, D. U. (2017). The relationship of health insurance and mortality: Is lack of insurance deadly? *Annals of Internal Medicine, 167*(6), 424. doi:10.7326/m17-1403

[15]O'Kane, C. (2019, August 9). Elderly couple found dead in apparent murder-suicide, left notes about high medical bills. *CBS News*. Retrieved from https://www.cbsnews.com/news/elderly-couple-found-dead-in-apparent-murder-suicide-left-notes-about-high-medical-bills/

[16]Stanley, T. (2019, January 07). Life, death, and insulin. *The Washington Post Magazine*. Retrieved from https://www.washingtonpost.com/news/magazine/wp/2019/01/07/feature/insulin-is-a-lifesaving-drug-but-it-has-become-intolerably-expensive-and-the-consequences-can-be-tragic/



Knowledge of Community Resources

2019 COMMUNITY HEALTH NEEDS ASSESSMENT FOCUS GROUP COMMUNITY THEME 4: KNOWLEDGE OF RESOURCES COMMUNITY

Further Research

Report Lead: Veronica Calvin

Patients' Knowledge of Resources

Introduction

It has been said that "knowledge is power," but a person has to first attain knowledge in order to build a sense of empowerment, thereby using that knowledge in a manner that benefits themselves and others. In regards to the healthcare system, the possession of health knowledge or information requires *health equity*. The American Public Health Association (APHA) defines health equity as the condition where "everyone has the opportunity to attain their high level of health[1]," and many health care organizations incorporate this condition within their mission, vision and/or values. Nevertheless, the presence of *health disparities*, (differences in health that are closely linked with social, economic, and/or environmental disadvantage[1]), and *health inequities*, (the uneven distributions of social and economic resources that impact an individual's health[1]), serve as hindrances to health equity, especially concerning access to health information among certain populations. There is need for health care organizations to effectively utilize methods that better fill-in the gaps and improve the health communication delivery among individuals and groups in need of medical resources and services. Proficient development and application of various methods within health communication among health care providers and organizations is a proactive approach which increases the presence of health equity via service linkage among those people who need resources most.

Background Literature

Both quantitative and qualitative research within health care currently display that there are disparities concerning the deployment of Health Communication and Health Information Technology (IT) to increase the health resource utilization in particular populations within the health care setting. The Office of the National Coordinator for Health Information Technology created a report and dashboard in 2016 to display how there is decreased offering and access of Health IT among underserved individuals. Findings demonstrated that individuals with lower incomes, less education, and who had difficulty speaking English had significantly lower rates of being offered online access to their health information and medical records[2]. In addition to Health IT offerings, it was shown that these same populations use certain types of Health IT for health-related needs, (e.g., email provider, look at test results, text message healthcare provider,

use a mobile health application), at significantly lower rates compared to those individuals with more education[2].

In response to the health research concerning Health Communication and Health IT, various national, state and local health agencies have embarked upon initiatives that increase health resource utilization among patients[3,4]. However, sole focus on Health Communication via Health IT is not an adequate approach for health care providers when it comes to Health Communication delivery via technology. Studies indicate that despite high prevalence of IT within the nation, patients still perceive health care providers as the most influential source when obtaining health information and/or making a medical decision[5,6]. Thus, these collection of studies reveal that there must be an emphasis to have a diverse approach to increase health literacy among all individuals.

National/Local Data Trends

One of the most renowned health efforts to improve health outcomes among all citizens, especially those with health disparities, is the Healthy People 2020 health initiative. Within this initiative is the health topic of *Health Communication and Health Information Technology (HC/HIT)*, which exhibits the specific goal to "use health communication strategies and health information technology to improve population health outcomes and health care quality, and to achieve health equity[7]." While there are many objectives regarding this topic, HC/HIT Objective-intensely looks the outcomes measures which indicate the quality of HC/HIT at both personal and technological sides of communication. Table 1.A demonstrates how HP 2020 encourages health care providers and health agencies to use comprehensive methods to meet the communication needs of patients in order to produce positive health outcome. To view specific HC/HIT objective, sub-categories, current trends and projected outcome measures (baseline and target values) visit www.healthypeople.gov.

Table 1.A: Healthy People 2020 Health Communication/ Health Information Technology (HC/HIT) Objectives

Objective Number	Objective description (and sub-objectives, if applicable)	Data Source(s)
HC/HIT-1	1 – Improve the health literacy of the population 1.1 – Increase the proportion of persons who report their health care provider always gave them easy-to-understand instructions about what to do to take care of their illness or health condition 1.2 – Increase the proportion of persons who report their health care provider always asked them to describe how they will follow the instructions 1.3 – Increase the proportion of persons who report their health care providers' office always offered help in filling out a form	Medical Expenditure Panel Survey (MEPS), AHRQ
HC/HIT-2	2 – Increase the proportion of persons who report that their health care providers have satisfactory communication skills 2.1 – Increase the proportion of persons who report that their health care providers always listened carefully to them 2.2 – Increase the proportion of persons who report that their health care providers always explained things so they could understand them 2.3 – Increase the proportion of persons who report that their health care providers always showed respect for what they had to say 2.4 – Increase the proportion of persons who report that their health care providers always spent enough time with them	Medical Expenditure Panel Survey (MEPS), AHRQ
HC/HIT-3	3 – Increase the proportion of persons who report that their health care providers always involved them in decisions about their health care as much as they wanted	Health Information National Trends Survey (HINTS), NIH/NCI
HC/HIT-4	4 – (Developmental) Increase the proportion of patients whose doctor recommends personalized health information resources to help them manage their health	To be determined
HC/HIT-5	5 – Increase the proportion of persons who use electronic personal health management tools 5.1 – Increase the proportion of persons who use the Internet to keep track of personal health information, such	Health Information National Trends

	as care received, test results, or upcoming medical appointments 5.2 – Increase the proportion of persons who use the Internet to communicate with their health provider	Survey (HINTS), NIH/NCI
HC/HIT-6	6 – Increase individuals' access to the Internet 6.1 – Increase the proportion of persons with access to the Internet 6.2 – Increase the proportion of persons with broadband access to the Internet 6.3 – Increase the proportion of persons who use mobile devices	Health Information National Trends Survey (HINTS), NIH/NCI
HC/HIT-7	7 – Increase the proportion of adults who report having friends or family members with whom they talk about their health	Health Information National Trends Survey (HINTS), NIH/NCI
HC/HIT-8	8 – Increase the proportion of quality, health-related websites 8.1 – Increase the proportion of health-related websites that meet three or more evaluation criteria for disclosing information that can be used to assess information reliability 8.2 – Increase the proportion of health-related websites that follow established usability principles	National Quality Health Website Survey, ODPHP
HC/HIT-9	9 – Increase the proportion of online health information seekers who report easily accessing health information	Health Information National Trends Survey (HINTS), NIH/NCI
HC/HIT-10	10 – Increase the proportion of medical practices that use electronic health records	National Ambulatory Medical Care Survey – Electronic Health Records Surveys (NAMCS-HER), CDC/NCHS
HC/HIT-11	(Developmental) Increase the proportion of meaningful users of health information technology (HIT)	Archived
HC/HIT-12	12 – Increase the proportion of crisis and emergency risk messages intended to protect the public's health that demonstrate the use of best practices (Sub-objectives on website)	CDC Crisis and Emergency Risk Communication Best Practices Study, CDC/OADC
HC/HIT-13	13 – Increase social marketing in health promotion and disease prevention (Sub-objectives on website)	To be determined

Local Efforts to Address

In the state of Tennessee various health organizations are rallying to the call to enhance health communication delivery to all Tennesseans. Regarding governmental efforts, within its 2012-2018 Community Health Improvement Plan (CHIP) report, the Shelby County Health Department (SCHD) states that it is in the initial stages to ensure more populations access health resources online[8]. In the non-profit health care sector, the Community Outreach Division of the Methodist Le Bonheur Healthcare (MLH) system has implemented several programs which improve health communications among patients, where health care providers and staff take intentional measures to specifically increase the awareness and utilization of patients' knowledge regarding health information and services. The Family Resource Initiative (FRI) is a program which makes the most use of wait-time within the pediatrician's office. During a child's doctor appointment, FRI staff conduct assessments with parents to learn of clients' medical/social needs and to increase parents' awareness and utilization of medical and social resources available for their child. To ensure that both medical and social services staff are delivered with the same quality and quantity of health information, FRI creates a collaboration with physicians and other health community partners to educate all staff on local and state resources available to FRI patients.

Programs taking place outside the walls of MLH clinics are the programs of Wellness Without Walls (WOW), the Congregational Health Network (CHN), and the HIV Network. WOW is a program which takes place within a specific neighborhood's community health center, where drastic health disparities exist among residents. The purpose of WOW is to conduct health screenings to alert residents of their health status and to provide information for resource linkage. The CHN program focuses on improving health information and education within the faith-based community by the outreach and education among various congregations. Within the congregations, CHN staff educate Liaisons, designated congregants who are trained by CHN staff to serve as a church's contact to community partners and health resources; within this role the Liaisons spread and obtain health communication in a culturally sensitive manner for the congregation (e.g., educational seminars, presentations, etc.). Another program, playing a role both within and outside the clinical setting, is the HIV Network, a program which educates and benefits people living with HIV. Through the deployment of Community Health Workers (CHWs), the HIV Network provides information and increases knowledge of health resources and HIV education among patients, while assisting patients to address health barriers which prevent them from staying within the continuum of care.

Implications to Healthcare

As MLH and its community partners conducted the 2019 Community Health Needs Assessment (CHNA), there was a constant finding that residents of Shelby County are less familiar with community health/medical/social resources and that informational gaps of current resources exist. Thus, in order to improve health outcome gaps among populations with health disparities, health communication has to be personalized to meet a population where they are in concerns to health needs. While the methods of spreading health communication vary, there first must be the occurrence to listen to patients and their families to understand which methods will prove to be culturally sensitive and utilized to in order to increase patients' knowledge of resources, access to services, and level of health literacy. Health communication must expand beyond HIT and be comprehensive in approach via the use health fairs, health education classes, partnership collaborations/coalitions, health community workers/navigators, and the like to enable patients to attain the knowledge. This personalized method creates an integrative approach to care, addressing the health needs and concerns of patients while they are within and outside the clinical setting. In addition to this approach, health care providers and organizations address social determinants of health (SDOH) (i.e. education, social support, access to health care, quality of health care) and foster sustainable progress toward filling in the health equity gap, especially concerning the issue of patients'/clients' awareness of resources, and patients taking a proactive role to learn about health care resources.

References

1. American Public Health Association. (2019). Creating the healthiest nation: Advancing health equity. Retrieved from https://apha.org/-/media/files/pdf/factsheets/advancing_health_equity.ashx?la=en&hash=9144021FDA33B4E7E02447CB28CA3F9D4BE5EF18

2. Patel, V., Barker, W., Siminerio, E. (February 2016). Disparities of individuals' access and use of health information technology in 2014. ONC Data Brief, No. 34. Office of the National Coordination for Health Information Technology: Washington DC. Retrieved from https://dashboard.healthit.gov/evaluations/data-briefs/disparities-individuals-access-use-health-information-technology.php.

3. Gibbons, M.C., (2011). Use of health information technology among racial and ethnic underserved communities. *Perspectives in Health Information Management*, 8, 1f.

4. Broderick, A., & Haque, F. (May 2015). Mobile health and patient engagement in the safety net: A survey of community health centers and clinics. Retrieved from https://www.commonwealthfund.org/sites/default/files/documents/___media_files_publications_issue_brief_2015_may_1813_broderick_mobile_hlt_patient_engagement_ib.pdf

5. Fox, S., and Duggan, M. (2013). Health Online 2013, Pew Internet & American Life Project; January 15, 2013. Retrieved from https://www.pewinternet.org/2013/01/15/health-online-2013/

6. Couper, M. P., Singer, E., Levin, C. A. et al. (2010). Use of the Internet and ratings of information sources for medical decisions: Results from the DECISIONS survey. *Med Desis Making*, 30(5 Suppl), 106S-114S.

7. Healthy People 2020. (2019). Health Communication and Health Information Technology. Retrieved from https://www.healthypeople.gov/2020/topics-objectives/topic/health-communication-and-health-information-technology

8. Shelby County Health Department. (2015). Community Health Improvement Plan, 2012-2018. Retrieved from https://www.shelbycountytn.gov/DocumentCenter/View/22145/CHIP_FINAL_20150917_FINAL?bidId=



Poverty and Health

2019 COMMUNITY HEALTH NEEDS ASSESSMENT
FOCUS GROUP COMMUNITY THEME 5:
POVERTY AND HEALTH

Further Research

Report Lead: Rowland Yancey
[redacted]

Poverty and Health

Introduction

Poverty impacts health by influencing both an individual's health conditions and the ability to access medical care. Poor health, in turn, can limit economic productivity, bankrupt households, and impoverish families[1]. Families and persons are classified as living in poverty if their total family income or unrelated individual income is less than the poverty threshold, which is the specified dollar amount considered to be the minimum level of resources necessary to meet the basic needs of a family unit. Poverty worsens health by limiting opportunities for quality housing, safe neighborhoods, healthy food, living wage jobs, and quality education, while increasing stress [2]. Additionally, poverty creates barriers to access including health services, healthy food, and other necessities that contribute to poor health status. With 31% of people below the poverty level being uninsured, they are less likely to receive new drugs and technologies, and have ready access to primary and specialty care[3],[4]. Under the burden of medical copayments and premiums, even with federal and state health coverage programs like Medicaid, low-income individuals must decide whether to go to the doctor, fulfill prescriptions, or pay for other basic needs[4,5].

The risk of poverty and the burden of income inequality on health in the U. S. are borne more by African-Americans and children. There are many reasons for racial health disparities between Black Americans and White Americans, but the literature suggests that a central role is played by chronic financial hardship caused by centuries of exploitation and segregation, as well as the direct toxic effects of discrimination on mental and physical health[3]. In the United States, children who experience poverty, particularly during early life or for an extended period, are profoundly affected by specific circumstances, such as birth weight, infant mortality, language development, chronic illness, environmental exposure, nutrition, and injury[6,7]. Without interventions to mitigate the inequalities in income, we might see the further widening and hardening of socioeconomic disparities in health[8].

National and Local Trends

Over 13% of the United States population currently live in poverty, which has led to detrimental health effects, such as higher rates of chronic diseases, communicable illnesses, health risk behaviors, and premature mortality[9]. Child poverty is greater in the United States than in most countries with comparable resources, as evidenced by a 2014 report from the Organization for Economic Cooperation and Development that ranked the United States 35th of 40 nations, only above Chile, Mexico, Romania, Turkey, and Israel[7].

Poverty, and its influence on health, is particularly poignant in the southern region of the United States. Data on poverty and health in Tennessee exemplify this overwhelming impact in the south. By 2017, in Shelby County, 20.82% or 191,520 people, and 33.94% or 79,657 children aged 0-17 are living in households with income below the Federal Poverty Level (FPL). Memphis, the Shelby County seat, ranked 2nd in overall and childhood poverty among Metropolitan Statistical Areas (MSAs) with one million people at 17.1% and 27.1% respectively in 2017[10]. African Americans and Hispanics are the segments of the population most impacted by poverty, and the African American population of Memphis is nearly 64%, impacting the African American population to a greater extent than the White population.

State, Local Efforts to Address the Impact of Poverty on Health

Early Periodic Screening, Diagnosis and Treatment, or EPSDT, is a program of free checkups and health care services for children from birth until age 21 to detect and treat health problems, and is utilized as state-wide initiative to address access to health care among this economically vulnerable population. In Tennessee, the EPSDT program covered by TennCare and is called TennCare Kids. It provides a way for children to get medical exams, checkups, follow-up treatment, and special care they need to make sure they enjoy the benefits of good health Programs designed for the pediatric medical home provide opportunities for low-cost, population-based preventive intervention with low income families[6].

Methodist Le Bonheur Healthcare, through their Division of Community Outreach, has implemented early intervention home programs targeting families in poverty. Nurse-Family Partnership is an evidence-based, nurse home visitation program that improves the health, well-being and economic self-sufficiency of first-time parents and their children. Specially trained nurses visit low-income mothers in their homes through their first pregnancy and the first two years of their child's life, with outcomes represented by a reduction in the number of reported incidents of child abuse and neglect among families, a reduction in the number of subsequent

pregnancies; and reduced criminal activity engaged in by mothers. Healthy Families America (HFA) is a home visitation service for low income mothers, following children from birth through the age of 5 years. The program follows the nationally recognized Healthy Families America Model which centers on visits conducted by Community Health Workers aimed at promoting positive parent-child relationships and healthy attachment.

There are other MLCO initiatives, assisting both minority patients and families to address the challenges of poverty. Memphis CHiLD, a first of its kind medical-legal partnership, including The University of Memphis Cecil C. Humphreys School of Law, Memphis Area Legal Services, University of Tennessee Center for Health Sciences-Department of Pediatrics and Le Bonheur Children's Hospital, focuses on identifying the legal and social issues that impact patient health and provides means to address these issues through direct legal services, education and advocacy for children and their families. Between 2017 and 2018, 18 SSI/TennCare families have been awarded $10,264.97 in monthly benefits ranging from $204.96-$750 per family. Clients have been awarded $156.775.66 in back payment. Two families ($32,001 and $14,220) saved $46,221 that they would have owed if they lost their cases. In one HIV Network program, for 2019, 42 HIV+ patients were referred to local employment/job training organizations. Through referrals to programs like WIN (Workforce Investment Network), Hope Works, and Seedco, eight low-income patients secured jobs (part-time and fulltime) with companies such as: FedEx, Nike, Phillips Security, Autozone Park/Redbirds, Honey Baked Ham, St. Clair and Holiday Inn and Sheraton. Also, patients attended job fairs throughout Shelby County and Mississippi/ MDES (Mississippi Dept. of Employment Security).

Implications to Healthcare

Social determinants of health are conditions in the environments in which people are born, live, learn, work, play, worship, and age that affect a wide range of health, functioning, and quality-of-life outcomes and risks.[11]. Socioeconomic conditions underlie many health inequalities and compel attention to policies addressing social determinants of health[12]. The socioeconomic condition of poverty, for example, may impact the health and health care determinant areas, and as such, this determinant area may benefit from actions to reduce the impact of poverty.

Health care institutions, themselves, have the potential to be a point of connection for low income families to learn about opportunities for assistance with food or energy bills, within the medical setting[13]. Mitigating the negative effects of poverty on children and supporting the efforts of families to lift themselves out of poverty, necessitates that health providers adopt

effective methods to identify poverty-related social determinants of health and provide effective interventions to address those[7]. Local identification and intervention efforts such as: EPSDT, childhood screening programs, partnerships to maintain community intervention resource directories, Medical-Legal Partnership programs, and home visiting programs, may help address health disparities related to poverty. Given that medical spending can drain government resources for spending on other social services, and reduce the income of the poorest segment of the U.S. population, health providers who care about the effect of the social determinants of health must also pay attention to the cost (and opportunity cost) of health care.

References

[1] Bor, J., Cohen, G. H., & Galea , S. (2017). Population health in an era of rising income inequality: USA, 1980–2015. Lancet, 389, 1475–90.

[2] University of Wisconsin Population Health Institute. . (2019). County Health Rankings State Report .

[3] Health Affairs Health Policy Brief. (2018, October 4). Health, Income, And Poverty: Where We Are And What Could Help,. doi:10.1377/hpb20180817.901935.

[4] Woolf, S. H., Johnson, R. E., & Geiger, H. J. (2006, October). The Rising Prevalence of Severe Poverty in America. American Journal of Preventive Medicine, 33(4), 332-341.e2. doi:10.1016/j.amepre.2006.06.022

[5] Office Of The Assistant Secretary For Planning And Evaluation. (07/16/2015). Financial Condition and Health Care Burdens of People In Deep Poverty. U.S. Department of Health & Human Services.

[6] COUNCIL ON COMMUNITY. Poverty and Child Health in the United States. Pediatrics, 137. doi:10.1542/peds.2016-0339

[7] Fierman, A. H., & et al. (2016). Redesigning Health Care Practices to Address Childhood Poverty. Academic Pediatrics, 16(3), S136 - S146. doi:10.1016/j.acap.2016.01.004

[8] Richard, L., Himmelstein , D., & Woolhandler, S. (2017, April 8–14). Advocates for an Equitable US Health System. The Lancet, 389(10077), 1389.

[9] Price, J. H., Khubchandani, J., & Webb, F. J. (2018). Poverty and Health Disparities: What Can Public Health Professionals Do? Health Promotion Practice, 19(2), 170–174. doi:10.1177/1524839918755143

[10] Delavega, E. (2018). 2018 Memphis Poverty Fact Sheet. Retrieved from the University of Memphis School of Social Work,: https://www.memphis.edu/socialwork/research/poverty_fact_sheets.php

[11] Healthy People 2020. (n.d.). Healthy People 2020. Retrieved August 6, 2019, from Social Determinants of Health: https://www.healthypeople.gov/2020/topics-objectives/topic/social-determinants-of-health

[12] Adler, N. E., Glymour, M. M., & Fielding, J. (2016). Addressing Social Determinants of Health and Health Inequalities. JAMA, 316(16), 1641–1642. doi:10.1001/jama.2016.14058

[13] Sharfstein, J. M. (2014). Health Care and Poverty. JAMA, 312(21), 2200–2201. doi:10.1001/jama.2014.14532

FACILITY	CPT4 DESCRIPTION	2020 MLH CHG
MLH-ADULT	ASP FINE NDL BX/US GUIDE 1ST LESION	$ 1,684.00
MLH-ADULT	ASP FINE NDL BX/US GUIDE EA ADDL LESION	$ 1,684.00
MLH-ADULT	ASP FINE NDL BX/FLUORSC GUIDE 1ST LESION	$ 1,684.00
MLH-ADULT	ASP FINE NDL BX/FLUO GUIDE EA ADD LESION	$ 1,684.00
MLH-ADULT	ASP FINE NDL BX/CT GUIDE 1ST LESION	$ 1,684.00
MLH-ADULT	ASP FINE NDL BX/CT GUIDE EA ADD'L LESION	$ 1,684.00
MLH-ADULT	ASP FINE NDL BX/MRI GUIDE 1ST LESION	$ 1,684.00
MLH-ADULT	ASP FINE NDL BX/MRI GUIDE EA ADDL LESION	$ 1,684.00
MLH-ADULT	CT DRAIN EXTREMITY/ABDWALL/NECK	$ 633.00
MLH-ADULT	I&D ABSCESS SIMPLE/SINGLE	$ 986.00
MLH-ADULT	I&D ABCESS COMPLICATED/MULT	$ 986.00
MLH-ADULT	FOREIGN BODY REMOVAL SQ TISSUE SIMP	$ 986.00
MLH-ADULT	FOREIGN BODY REMOVAL SQ TISSUE COMP	$ 2,669.00
MLH-ADULT	I&D HEMATOMA SEROMA/FLUID	$ 5,046.00
MLH-ADULT	ASP PUNC ABSCESS/HEMATOMA/BULLA/CYST	$ 477.00
MLH-ADULT	INCISION & DRAINAGE WOUND COMPLEX	$ 2,848.00
MLH-ADULT	DEBRIDE EXTENSIVE ECZEMA/SKIN	$ 460.00
MLH-ADULT	DEBRIDE SUBQ TISSUE 20 SQ CM/<	$ 1,366.00
MLH-ADULT	DEBRIDE MUSCLE & FASCIA 20 SQ CM/<	$ 1,366.00
MLH-ADULT	DEBRIDE BONE MUSCLE & FASCIA 20 SQ CM/<	$ 4,368.00
MLH-ADULT	DBRDMT SUBQ TISSUE EA ADDL 20 SQ CM	$ 1,366.00
MLH-ADULT	DEBRIDE MUSCLE & FASCIA EA ADDL 20 SQ CM	$ 1,366.00
MLH-ADULT	DEBRIDE BONE EA ADDL 20 SQ CM/<	$ 1,366.00
MLH-ADULT	PAR/CUT BENIGN HYPERKERATOTIC LESION SIN	$ 366.00
MLH-ADULT	PAR/CUT BENIGN HYPERKER LESIONS 2-4	$ 366.00
MLH-ADULT	PAR/CUT BENIGN HYPERKER LESIONS > 4	$ 460.00
MLH-ADULT	BX TANGENTIAL OF SKIN SINGLE LESION	$ 512.00
MLH-ADULT	BX TANGENTIAL OF SKIN EA ADD'L LESION	$ 512.00
MLH-ADULT	BX PUNCH OF SKIN SINGLE LESION	$ 512.00
MLH-ADULT	BX PUNCH OF SKIN EA ADDL LESION	$ 512.00
MLH-ADULT	BX INCISIONAL SKIN SIMP CLOSE 1ST LESION	$ 912.00
MLH-ADULT	BX INCISIONAL SKIN SIMP CLOSE ADDL LESIO	$ 912.00
MLH-ADULT	SKIN TAG REMOVAL UP TO 15 LESIONS FIBROC	$ 758.00
MLH-ADULT	EXCISION BENIGN LESION TRUNK 1.1/2.0 CM	$ 1,895.00
MLH-ADULT	EXCISION BENIGN LESION TRUNK 3.1/4.0 CM	$ 3,810.00
MLH-ADULT	EXCISION BENIGN LESION SCALP 0.6-1.0 CM	$ 1,895.00
MLH-ADULT	EXCISION BENIGN LESION GREATER THAN 4CM	$ 4,990.00
MLH-ADULT	EXCISION OTR BENIGN LESION 0.5CM OR LESS	$ 1,903.00
MLH-ADULT	EXCISION FACIAL LESION DIAMETR </=0.5CM	$ 3,810.00
MLH-ADULT	TRIMMING NONDYSTROPHIC NAILS ANY NUMBER	$ 324.00
MLH-ADULT	DEBRIDE NAIL/NAILS ANY METHOD 1-5	$ 285.00
MLH-ADULT	DEBRIDE NAIL/NAILS ANY METHOD 6+	$ 285.00
MLH-ADULT	AVULSION NAIL PLATE SIMP SING	$ 612.00
MLH-ADULT	AVULSION NAIL PLATE PARTIAL/COMP SMPL EA	$ 298.00
MLH-ADULT	NAIL/NAIL MATRIX REMOVAL PARTIAL/COMP	$ 1,894.00
MLH-ADULT	BIOPSY NAIL UNIT SPX	$ 1,903.00

MLH-ADULT	NAIL FOLD SKIN WEDGE EXCISION	$	622.00
MLH-ADULT	SP REMOVAL NON BIO DRUG IMPL	$	1,012.00
MLH-ADULT	FACE/EAR/EYELID/NOSE < 2.5CM REPAIR SUPE	$	719.00
MLH-ADULT	CLOSURE OF SPLIT WOUND	$	1,624.00
MLH-ADULT	SCALP/TRU/EXT 2.6-7.5CM WND REPAIR INTMD	$	685.00
MLH-ADULT	SKIN TISSUE/REARRANGMENT 10SQ CM OR LESS	$	8,448.00
MLH-ADULT	SURGICAL PREP/CREATION SITE 100 SQ CM	$	2,294.00
MLH-ADULT	EPIDERMAL AUTOGRAFT	$	4,979.00
MLH-ADULT	APP SN SUB GRFT T/A/L/<100SCM/<1ST 25SCM	$	1,002.00
MLH-ADULT	APP SN SUB GRFT T/A/L/<100SCM EA ADL 25C	$	371.00
MLH-ADULT	APP SN SUB GRFT T/A/L/>100SCM 1ST 100SCM	$	1,528.00
MLH-ADULT	APP SN SUB GRFT T/A/L/>100SCM ADL 100SCM	$	1,002.00
MLH-ADULT	GRFT F/S/N/H/F/G/M/D/<100SCM/<1ST 25SCM	$	1,002.00
MLH-ADULT	GRF F/S/N/H/F/G/M/D/<100SCM EA ADL 25SCM	$	371.00
MLH-ADULT	GRFT F/S/N/H/F/G/M/D/>100SCM 1ST 100SCM	$	1,528.00
MLH-ADULT	GRFT F/S/N/H/F/G/M/D/>100SCM ADL 100 SCM	$	1,002.00
MLH-ADULT	SUTURE REMOVAL UNDER ANESTHESIA	$	856.00
MLH-ADULT	BURN DRESSING/DEBRIDE WO ANES SMALL	$	615.00
MLH-ADULT	BURN DRESSING/DEBRIDE WO ANESTHESIA MED	$	615.00
MLH-ADULT	BURN DRES/DEBDR P-THICK LRGE INIT/SUBSEQ	$	932.00
MLH-ADULT	DESTRUCT PREMALIGN/FACIAL INIT	$	299.00
MLH-ADULT	DESTRUCT PREMALIGN/FACIAL EA ADDL <14	$	299.00
MLH-ADULT	CHEMICAL CAUTERY GRANULATION TISSUE	$	615.00
MLH-ADULT	DESTRUCTION MALIGNAT LESION CT GUIDED	$	1,068.00
MLH-ADULT	UNLIST PROC SKIN, MUC MEMBR SUBQ TISSUE	$	119.00
MLH-ADULT	ASP PUNC BREAST CYST EA ADDL	$	1,115.00
MLH-ADULT	PLACE CATH EXP BREAST RAD THER DIFF DOS	$	22,360.00
MLH-ADULT	PLACE CATH EXP BREAST RAD THER SAME DOS	$	18,293.00
MLH-ADULT	UNLISTED BRACHYTHERAPY PROCEDURE-BREAST	$	6,322.00
MLH-ADULT	BX MUSCLE NDL PERCUTANEOUS	$	1,820.00
MLH-ADULT	BX BONE TROCAR/NDL SUPERFICIAL	$	1,903.00
MLH-ADULT	BX BONE TROCAR/NDL DEEP	$	1,903.00
MLH-ADULT	INJ SINUS TRACT DX	$	587.00
MLH-ADULT	REM FOREIGN BDY MUSCLE/TENDON SHEAT SMPL	$	3,324.00
MLH-ADULT	INJ SINGLE TENDON ORIGIN/INSERTION	$	1,734.00
MLH-ADULT	SP INJ SING/MULTI TRIGGER 1/2 MUSCLES	$	865.00
MLH-ADULT	SP INJ SING/MULTI TRIGGER 3/MORE	$	865.00
MLH-ADULT	ASP/INJ ARTHROCENT JT/BURSA SM W/O USG	$	1,013.00
MLH-ADULT	US ARTHROCENTESIS ASP/INJ SMALL JOINT	$	719.00
MLH-ADULT	US ARTHRCNT ASP/INJ INTERMED JOINT W USG	$	1,013.00
MLH-ADULT	US ARHTROCENT ASP/INJ MAJOR JOINT W USG	$	1,013.00
MLH-ADULT	ASP &/OR INJ GANGLION CYST ANY LOCATION	$	925.00
MLH-ADULT	REMOVAL OF HALO OR TONGS	$	494.00
MLH-ADULT	IMPLANT REMOVAL SUPERFICIAL ARCH BARS	$	1,779.00
MLH-ADULT	ABLATION BONE TUMOR PERCUT RADIOFREQ	$	15,008.00
MLH-ADULT	CRYOABLATION BONE TUMOR(S) PERQ W IMAGE	$	14,151.00
MLH-ADULT	I & D DEEP ABSCESS/HEMATOMA NECK/THORAX	$	6,152.00

MLH-ADULT	BX SOFT TISSUE NECK/THORAX	$	1,903.00
MLH-ADULT	BX SOFT TISSUE BACK/FLANK SUPERFICIAL	$	1,903.00
MLH-ADULT	OPEN TX &/OR REDUCT OF ODONTOID FRACTION	$	26,185.00
MLH-ADULT	VERTEBROPLASTY CERVICOTHORACIC UNI/BIL	$	9,723.00
MLH-ADULT	VERTEBROPLASTY LUMBOSACRALACIC UNI/BIL	$	9,723.00
MLH-ADULT	VERTEBROPLASTY CERVIOTHOR/LUMBAR EA ADDL	$	9,723.00
MLH-ADULT	KYPHO CERVICOTHORACIC UNI/BIL	$	24,561.00
MLH-ADULT	KYPHO LUMBOSACRAL UNI/BIL	$	24,561.00
MLH-ADULT	KYPHO THORACIC/LUMBAR EACH ADDL	$	24,561.00
MLH-ADULT	PERCUT INTRADISCAL UNI/BIL SING LVL	$	1,603.00
MLH-ADULT	PERCUT INTRADISCAL UNI/BIL 1+LVL	$	720.00
MLH-ADULT	ARTHROTOMY ELBOW EXPLO/DRAIN/REMOVAL FB	$	9,283.00
MLH-ADULT	BX SOFT TISS FOREARM &/OR WRIST SUPERFIC	$	6,480.00
MLH-ADULT	BX SOFT TISS FOREARM &/OR WRIST DEEP	$	8,459.00
MLH-ADULT	EXC TUMOR TISS 4ARM &/WRIST SUBQ <3CM	$	6,480.00
MLH-ADULT	EXC TUMOR TISS 4ARM&/WRIST SUBFASC <3CM	$	8,459.00
MLH-ADULT	BX SOFT TISSUE THIGH/KNEE AREA SUPERFIC	$	2,583.00
MLH-ADULT	CT INJ KNEE ARTHOG CONTRST ENHANCE CT/MR	$	420.00
MLH-ADULT	TENOTOMY PERCUTAN TOE MULITPLE TENDONS	$	6,969.00
MLH-ADULT	ARTHROTOMY W EXPLOR/DRAIN/REMOVA FOOT JT	$	8,618.00
MLH-ADULT	REMOVAL OF FOREIGN BODY FOOT SUBCUTANEOU	$	1,198.00
MLH-ADULT	AMPUTATION METATARSAL W TOE SINGLE	$	6,969.00
MLH-ADULT	AMPUTATION TOE METATARSOPHALANGEAL JOINT	$	6,969.00
MLH-ADULT	AMPUTATION TOE INTERPHALAGEAL JOINT	$	6,969.00
MLH-ADULT	CAST APPL SHORT LEG WALKING	$	994.00
MLH-ADULT	APPL RIGID TOTAL CONTACT LEG CAST	$	996.00
MLH-ADULT	CAST APPL RIGID TOTAL CONTACT LEG	$	994.00
MLH-ADULT	NASAL HEMORRHAGE CONTROL ANTERIOR COMPLE	$	629.00
MLH-ADULT	NASAL ENDOSCOPY DIAGNOSTIC UNI/BI SPX	$	566.00
MLH-ADULT	NASAL/SINUS NDSC SURG W/BX POLYPECT	$	4,738.00
MLH-ADULT	INTUBATION ENDOTRACHEAL EMERG PROC	$	2,749.00
MLH-ADULT	LARYNGOSCOP W/VC INJ & SCOPE	$	8,364.00
MLH-ADULT	LARYNGOSC FLEX ABLAT/DESTRUC W/LASER UNI	$	8,364.00
MLH-ADULT	LARYNGOSCOPY W/THER INJECTION	$	3,981.00
MLH-ADULT	LARYNGOSCOPY FLEX W/AUGMENTATION INJ	$	4,179.00
MLH-ADULT	LARYNGOSCOPY FLEXIBLE DX	$	566.00
MLH-ADULT	LARYNX SURGERY PROCEDURE	$	629.00
MLH-ADULT	TRACHEOBRNCHSC THRU EST TRACHS INC	$	2,430.00
MLH-ADULT	BRONCH RIGID/FLEX DX W CELL WASHING	$	3,417.00
MLH-ADULT	BRONCH W BRUSHING	$	3,417.00
MLH-ADULT	BRONCH W BRONCHIAL ALVEOLAR LAVAGE	$	3,417.00
MLH-ADULT	BRONCH W BX SING/MULTIPLE SITES	$	3,417.00
MLH-ADULT	BRONCH W/PLMT FIDUCIAL MARKERS SING/MULT	$	3,655.00
MLH-ADULT	BRONCH W/COMPUTER-ASST IMAGE-GUIDED NAV	$	3,655.00
MLH-ADULT	BRONC W TRANSBRONCH LUNG BX W/WO FLUORO	$	3,417.00
MLH-ADULT	BRONC W TRANSBRONCH NDL ASP BX	$	3,417.00
MLH-ADULT	BRONCH W DILATION/CLOSED REDUCTION FRAC	$	3,417.00

MLH-ADULT	BRONCH W TRACHEAL STENT PLACEMENT	$	3,417.00
MLH-ADULT	BRONCH W FB REMOVAL	$	3,417.00
MLH-ADULT	BRONCH W BRONCHIAL STENT PLACE INITIAL	$	11,011.00
MLH-ADULT	BRONCH W BRONCHIAL STENT PLACE EA ADD	$	11,011.00
MLH-ADULT	BRONCH W STENT REVISION	$	11,011.00
MLH-ADULT	BRONCH W TUMOR EXCISION	$	3,417.00
MLH-ADULT	BRONCH W TUMOR DESTRUCT/STENOSIS RELIEF	$	3,417.00
MLH-ADULT	BRONCH W CATH PLACE INTRACAVITARY RADIOE	$	3,417.00
MLH-ADULT	BRONCH W THER ASP TRACHEOBRONCH TREE INI	$	3,417.00
MLH-ADULT	BRONCH EBUS SAMPLNG 1/2 NODE	$	7,029.00
MLH-ADULT	BRONCH EBUS SAMPLNG 3/> NODE	$	7,029.00
MLH-ADULT	BRONCH EBUS DX/TX INTERVENTION PERPH LES	$	3,417.00
MLH-ADULT	BRONCHOSCOPIC THERMOPLASTY ONE LOBE	$	8,482.00
MLH-ADULT	BRONCHOSCOPIC THERMOPLASTY 2/> LOBES	$	8,482.00
MLH-ADULT	INSERT CATH INDWELL TUNNEL	$	1,666.00
MLH-ADULT	THORACOSTOMY TUBE INCL CONN TO DRIAN SYS	$	2,066.00
MLH-ADULT	REMOVAL TUNNEL PLEURAL CUFFED CATH	$	1,726.00
MLH-ADULT	PLACE INTERSTITIAL DEVICE RADTX GUIDE	$	4,107.00
MLH-ADULT	THORACENTESIS W/O IMAGE GUIDANCE	$	1,716.00
MLH-ADULT	THORACENTESIS WITH IMAGE GUIDANCE	$	1,716.00
MLH-ADULT	PERC PLURAL DRN W/O CAT INS W IMG GUIDE	$	1,716.00
MLH-ADULT	PERC PLURAL DRN W/CAT INS W IMG GUIDE	$	1,716.00
MLH-ADULT	CHEST TUBE PLEURODESIS	$	1,958.00
MLH-ADULT	CHEST FIBRINOLYSIS 1ST DAY	$	1,958.00
MLH-ADULT	CHEST TUBE FIBRINOLYSIS SUBSEQUENT DAY	$	1,958.00
MLH-ADULT	PERCUT ABLATE TX PULM TUMORS EXTNSN UNIL	$	14,433.00
MLH-ADULT	ABLATION THERAPY PERC PULM TUMOR	$	15,160.00
MLH-ADULT	PERICARDIOCENTESIS W/IMAGING	$	4,502.00
MLH-ADULT	PERICARDIAL DRAIN W/CATH =/<6YR NO CCA	$	2,066.00
MLH-ADULT	PERICARDIAL WINDOW/PARTIAL RESECTION	$	1,637.00
MLH-ADULT	INS NEW/RPLCMT PRM PACEMAKR ATRIAL	$	67,937.00
MLH-ADULT	INS NEW/RPLCMT PRM PACEMAKR VENTRICULAR	$	67,937.00
MLH-ADULT	INS NEW/RPLCMT PRM PACEMAKR ATRIAL &VENT	$	67,937.00
MLH-ADULT	INSERT/REPLACE TEMP CARDIAC PACEMAKER	$	17,365.00
MLH-ADULT	INS PM PLS GEN W/EXIST SINGLE LEAD	$	52,118.00
MLH-ADULT	INS PM PLS GEN W/EXIST DUAL LEAD	$	52,118.00
MLH-ADULT	PACEMAKER UPGRADE FROM SING TO DUAL CHAM	$	67,937.00
MLH-ADULT	PACEMAKER/IMP DEFIB REPOS RT ATRIAL/VENT	$	17,365.00
MLH-ADULT	INST 1 TRANSVENOUS ELECT PM/IMP DEFIB	$	17,365.00
MLH-ADULT	INST2 TRANSVENOUS ELEC PM/IMP DEFIB	$	17,365.00
MLH-ADULT	INS PACEMAKER GEN ONLY W/EXIST MULT LEAD	$	32,062.00
MLH-ADULT	RELOCATION OF SKIN POCKET FOR PACEMAKER	$	5,696.00
MLH-ADULT	SKIN POCKET REVISION IMPLANT-DEFIB	$	5,696.00
MLH-ADULT	INS ELECTRODE TO EXISTING PLACED PA/IMP	$	10,745.00
MLH-ADULT	INSERT ELECT AT TIME OF INSERT PACEM/IMP	$	9,921.00
MLH-ADULT	REPOSITON EXST CARDIAC VENOUS LT VENT	$	67,937.00
MLH-ADULT	REMOVE&REPLACE PERM PM GEN SINGLE LEAD	$	88,011.00

MLH-ADULT	REMOVE&REPLACE PERM PM GEN DUAL LEAD	$	90,843.00
MLH-ADULT	REMOVE&REPLACE PERM PM GEN MULTI LEAD	$	90,843.00
MLH-ADULT	IMPLANTABLE DEFIB GEN INSERT DUAL LEADS	$	105,978.00
MLH-ADULT	IMPLANTABLE DEFIB GEN W/MULTI LEADS	$	105,978.00
MLH-ADULT	REMOVAL OF PM GENERATOR ONLY	$	6,665.00
MLH-ADULT	PACEMAKER ELECTRODE REMOVAL SING LEAD	$	7,488.00
MLH-ADULT	PACEMAKER ELECTRODE REMOVAL DUAL LEAD	$	7,488.00
MLH-ADULT	INSERT SING/DUAL IMPLANTABLE DEFIB	$	85,654.00
MLH-ADULT	REMVL IMPLANTABLE DEFIB GEN ONLY	$	6,665.00
MLH-ADULT	REMOVAL IMPLANT DEFIB TRANSVENOUS EXT	$	7,488.00
MLH-ADULT	INS/REP PERM IMPT DEFIB LEADS SING/DUAL	$	87,119.00
MLH-ADULT	ABLATION ATRIA LIMITED ADD-ON	$	2,763.00
MLH-ADULT	ABLATION ATRIA EXTENS ADD-ON W/O BYPASS	$	3,119.00
MLH-ADULT	REMV&REPL IMPLANTABLE DEFIB GEN SING	$	105,978.00
MLH-ADULT	REMV&REPL IMPLANTABLE DEFIB DUAL LEAD	$	105,978.00
MLH-ADULT	REMV&REPL IMPLANTABLE DEFIB MULTI LEAD	$	105,978.00
MLH-ADULT	INSJ/RPLCMT SUBQ IMPLANTABLE DEFIB	$	94,813.00
MLH-ADULT	INSERT SUBQ IMPLANTABLE DEFIB	$	28,098.00
MLH-ADULT	REMOVAL SUBQ IMPLANTABLE DEFIB	$	8,825.00
MLH-ADULT	REPOST PREV IMPLANTED DEFIB ELETRODE	$	8,825.00
MLH-ADULT	PPM LEADLESS INSRT/REPLC W IMG GDE/EVAL	$	44,631.00
MLH-ADULT	SUBQ CARDIAC RHYT MONITOR INSERT W PROGR	$	21,522.00
MLH-ADULT	SUBQ CARDIAC RHYT MONITOR REMOVAL	$	1,684.00
MLH-ADULT	IMPLANT PRESSURE SENSOR W/ANGIO	$	85,286.00
MLH-ADULT	REPL AORTIC VALVE PERQ FEM ART APPROACH	$	26,185.00
MLH-ADULT	REPL AORTIC VALVE OPEN FEM ART APPROACH	$	26,185.00
MLH-ADULT	REPL AORTIC VALVE OPEN AXILLRY ART APPRO	$	26,185.00
MLH-ADULT	REPL AORTIC VALVE OPEN ILIAC ART APPRCH	$	26,185.00
MLH-ADULT	REPL AORTIC VALVE OPEN TRANSAORTIC APPR	$	26,185.00
MLH-ADULT	TRANSCATH TRANSAPICAL REPL AORTIC VALVE	$	26,185.00
MLH-ADULT	REPL AORTIC VALVE W/BYP PRQ ART/VEN APPR	$	4,346.00
MLH-ADULT	REPL AORTIC VALVE W/BYP OPEN ART/VEN APP	$	4,346.00
MLH-ADULT	REPLACE AORTIC VALVE W/BYP	$	4,346.00
MLH-ADULT	RPLCMT PROST AORTIC VALV OPN W/CP BYPASS	$	8,625.00
MLH-ADULT	RPR MITRAL VALVE TRANS PERC INT PROSTH	$	34,153.00
MLH-ADULT	RPR MITRAL VALVE TRANS PERC ADD'L PROSTH	$	34,153.00
MLH-ADULT	REPR ENDOVASC THOR AORTA W COV SUBC	$	29,732.00
MLH-ADULT	REPR ENDOVAS THOR AORT WO SUBC	$	25,520.00
MLH-ADULT	PLCE ENDOVASC PROSTH THOR AORTA INIT EXT	$	18,770.00
MLH-ADULT	PLCE ENDOVASC PROSTH THOR AORTA ADDL EXT	$	18,770.00
MLH-ADULT	PLACE ENDOVASC PROSTH THOR AORTA DELAYED	$	16,191.00
MLH-ADULT	PULM EMBOL W BYPASS INTRO	$	4,627.00
MLH-ADULT	INSERT INTRA AORTIC BALLOON ASSIST PERCU	$	7,787.00
MLH-ADULT	INTRA AORTIC BALLOON ASSIST REMOVAL PERC	$	7,787.00
MLH-ADULT	INSERT VAD ARTERY ACCESS	$	7,787.00
MLH-ADULT	REMOVE VAD DIFF SESSION-IMPELLA	$	7,787.00
MLH-ADULT	REPOSITION VAD DIFF SESSION	$	7,787.00

MLH-ADULT	UNLISTED PROCEDURE CARDIAC SURGERY	$	1,923.00
MLH-ADULT	THROMB ILIAC VEIN ABD INCISION	$	587.00
MLH-ADULT	THROMB FEMOROPOPLITEAL VEIN LEG INCISION	$	15,516.00
MLH-ADULT	THROMB FEMOROPOPLITEAL VEIN LEG&ABD INCI	$	16,509.00
MLH-ADULT	ENDOVAS REPR AORTIA SM TUBE NON-RUPTURE	$	4,015.00
MLH-ADULT	ENDOVAS REPR AORTA SM TUBE RUPTURE	$	6,009.00
MLH-ADULT	ENDOVAS REPR AORTA/ILIAC GRAFT NON-RUPT	$	4,503.00
MLH-ADULT	ENDOVAS REPR AORTA/ILIAC GRAFT RUPTURE	$	7,509.00
MLH-ADULT	ENDOVAS REP AORTA/ILIAC BIILIAC GRFT NRP	$	4,981.00
MLH-ADULT	ENDOVAS REP AORTA/ILIAC BIILIAC GRF RUP	$	7,499.00
MLH-ADULT	EVASC RPR ILIAC ART GRAFT NON-RUPT UNIL	$	3,745.00
MLH-ADULT	EVASC RPR ILIAC ART GRAFT RUPTURE UNIL	$	6,033.00
MLH-ADULT	PLACE PROSTH ABD AORTIC/ILIAC REPR	$	1,053.00
MLH-ADULT	DELAY PLACE PROSTH AAA REPR INIT	$	2,610.00
MLH-ADULT	DELAY PLACE PROSTH AAA REPR ADD'L	$	971.00
MLH-ADULT	TRANSCATH DELIV FIXATION DEVICE TO GRAFT	$	2,240.00
MLH-ADULT	PERCUT ACCESS/CLOSURE FEM ART FOR GRAFT	$	421.00
MLH-ADULT	ENDOVASC RPR ILIAC ARTERY W NDGFT PLCMNT	$	1,256.00
MLH-ADULT	ENDOVAS RPR ILIAC ARTERY N/A NDGFT PLCMT	$	3,501.00
MLH-ADULT	XPOSE FOR ENDOPROSTH ILIAC UNIL	$	3,413.00
MLH-ADULT	XPOSE F/ENDOPROSTH CARDIO BYPASS F/R E	$	3,413.00
MLH-ADULT	VISCER &INFRARENAL ABDOM AORTA 2 PROSTH	$	18,770.00
MLH-ADULT	FEM-FEM BYPASS GRAFT	$	17,804.00
MLH-ADULT	INTRO NDL/INTRACATH VEIN	$	175.00
MLH-ADULT	INTRO CATH SUPERIOR/INFERIOR VENA CAVA	$	587.00
MLH-ADULT	CATH PLACE SELECTIVE VENOUS 1ST ORDER	$	587.00
MLH-ADULT	CATH PLACE SELECTIVE VENOUS 2ND ORDER	$	587.00
MLH-ADULT	INTRO CATH RT HEART/MAIN PULM ART	$	587.00
MLH-ADULT	INTRO NDL/CATH AORTIC TRANSLUMBAR	$	587.00
MLH-ADULT	INTRO CATH AORTA	$	587.00
MLH-ADULT	PLACE CATH 1ST ORD THORACIC/BRACH INIT	$	884.00
MLH-ADULT	PLACE CATH 2ND ORD THORACIC/BRACH INIT	$	884.00
MLH-ADULT	PLACE CATH ART THORACIC 3RD+ INIT	$	884.00
MLH-ADULT	PLACE CATH ART THORACIC 2/3+ ADDL	$	884.00
MLH-ADULT	ANGIO CERVICOCEREBR ARCH W/CATH Pl	$	9,230.00
MLH-ADULT	ANGIO CCA/SEL UNI EXTRCRANIAL	$	9,230.00
MLH-ADULT	ANGIO CCA/SEL UNI INTRACRANIAL All IMAG	$	9,230.00
MLH-ADULT	ANGIO ICA SEL UNIL INTRACRANIAL ALL IM	$	15,092.00
MLH-ADULT	ANG SUBC/INNOM SEL UNIL All IMG	$	9,230.00
MLH-ADULT	ANGIO VERTEBRAL SEL UNI	$	15,092.00
MLH-ADULT	ANGIO EXTERNAL CAROTID SEL UNI	$	1,117.00
MLH-ADULT	ANG EA SEL INTRAC BRCH ICA/VERT UNIL	$	5,318.00
MLH-ADULT	PLACE CATH 1ST ORD ABD/LE	$	884.00
MLH-ADULT	PLACE CATH 2ND ORD ABD/PELVIC INIT	$	884.00
MLH-ADULT	DISTINCT PROC CATH PLACE 3RD+ ORD EXT I	$	884.00
MLH-ADULT	PLACE CATH 2ND/3RD/ORD ABD/PELVIC ADDL	$	884.00
MLH-ADULT	ANGIO RENAL 1ST ORDER SEL UNIL INC FLUSH	$	18,262.00

MLH-ADULT	ANGIO RENAL BIL 1ST ORDER INCL FLUSH	$	19,147.00
MLH-ADULT	ANGIO RENAL 2ND+ORDER UNIL SEL INCL FLSH	$	18,262.00
MLH-ADULT	ANGIO RENAL 2ND+ORDER BIL INCL FLUSH	$	19,147.00
MLH-ADULT	UNLISTED PROC VASC INJ	$	587.00
MLH-ADULT	VENIPUNCTURE < 3YR FEMORAL/JUGULAR	$	148.00
MLH-ADULT	MIDLINE CATH-VENIPUNCTURE DX THER >3YRS	$	411.00
MLH-ADULT	COLLECTION OF BLOOD/VENIPUNCTURE	$	30.00
MLH-ADULT	COLLECT OF CAP BLOOD SPEC HEELSTICK	$	35.00
MLH-ADULT	TRANSFUSION BLOOD/BLOOD COMPONENT	$	2,400.00
MLH-ADULT	ENDOVENOUS ABLATION THERAPY 1ST VEIN	$	13,515.00
MLH-ADULT	ENDOVENOUS ABLATION THERAPY ADD ON	$	13,515.00
MLH-ADULT	CATH PORTAL VEIN PERCUT ANY METHOD	$	587.00
MLH-ADULT	CATH VENOUS SELECTIVE ORGAN BLOOD SAMPLE	$	587.00
MLH-ADULT	APHERESIS THER WHITE BLD CELLS	$	6,917.00
MLH-ADULT	APHERESIS THER FOR RBC	$	6,917.00
MLH-ADULT	APHERESIS THER PLTLTS	$	6,917.00
MLH-ADULT	APHERESIS THER FOR PLASMA PHERESIS	$	6,917.00
MLH-ADULT	APHERESIS THER W ADSORPTION/FILTRATION	$	11,331.00
MLH-ADULT	PHOTOPHERESIS EXTRACORPOREAL	$	10,702.00
MLH-ADULT	INSERT NONTUNNEL VENOUS CATH <5 YR	$	5,672.00
MLH-ADULT	INSERT NONTUNNEL VENOUS CATH > 5 YR	$	5,672.00
MLH-ADULT	INSERT TUNNEL VAD WO SQ PORT <5YR	$	9,583.00
MLH-ADULT	INSERT TUNNEL VAD WO SQ PORT 5+YR	$	9,583.00
MLH-ADULT	INSERT TUNNEL VAD W SQ PORT <5YR	$	9,583.00
MLH-ADULT	INSERT TUNNEL VAD W SQ PORT 5+YR	$	9,583.00
MLH-ADULT	INSERT TUNNEL VAD W SQ PUMP	$	9,583.00
MLH-ADULT	INSERT TUNNEL VAD 2 CATH 2 SITES WO PORT	$	9,583.00
MLH-ADULT	INSERT TUNNEL VAD 2 CATH 2 SITES W PORT	$	9,583.00
MLH-ADULT	INSRT PICC WO PORT/PUMP <5 YR W/O IMG GD	$	3,689.00
MLH-ADULT	INSERT PICC WO PORT/PUMP 5+ YR	$	3,689.00
MLH-ADULT	INSERT PERIPHERALLY VAD W PORT <5 YR	$	9,583.00
MLH-ADULT	INSERT PERIPHERALLY VAD W PORT 5+ YR	$	9,583.00
MLH-ADULT	SP INSERT PICC LINE <5 YR RAD W IMAGE	$	1,802.00
MLH-ADULT	SP INSERT PICC LINE 5+ YR RAD W IMAGE	$	3,179.00
MLH-ADULT	REPAIR TUNNEL/NONTUNNEL CATH WO SQ PORT	$	1,959.00
MLH-ADULT	REPAIR CENTRAL VAD W SQ PORT/PUMP	$	1,959.00
MLH-ADULT	REPLACE CATH ONLY CENTRAL VAD W SQ PORT	$	1,959.00
MLH-ADULT	REPLACE COMP NONTUNNEL VENOUS CATH WO	$	5,531.00
MLH-ADULT	REPLACE COMP TUNNEL CATH WO SQ PORT/PUMP	$	5,531.00
MLH-ADULT	REPLACE COMP TUNNEL CATH W SQ PORT	$	11,353.00
MLH-ADULT	REPLACE COMP TUNNEL CATH W SQ PUMP	$	11,353.00
MLH-ADULT	SP REPLC COMP PICC WO SQ PORT/PUMP W/IMG	$	5,087.00
MLH-ADULT	REPLACE COMP PICC W SQ PORT	$	5,087.00
MLH-ADULT	REM TUNNEL VENOUS CATH WO SQ PRT/PMP	$	2,129.00
MLH-ADULT	REM TUNNELED CENTRAL VAD WSQ PMP/PRT	$	2,129.00
MLH-ADULT	BLOOD COLLECTION FROM VENOUS ACCESS DEVI	$	205.00
MLH-ADULT	COLLECT BLOOD FROM PICC	$	205.00

MLH-ADULT	DECLOT THROMBOLYTIC AGENT DEVICE/CATH	$	762.00
MLH-ADULT	REMOVE PERICATH MATERIAL BY SEPARATE ACC	$	2,204.00
MLH-ADULT	REPOSITION CENTRAL VENOUS CATH FLUORO	$	1,903.00
MLH-ADULT	CONTRAST INJ RAD EVAL CVAD	$	714.00
MLH-ADULT	ART PUNCT WITHDRAWAL OF BLOOD	$	156.00
MLH-ADULT	CATH/CANNULATION ART SAMPLING/MON PERCUT	$	646.00
MLH-ADULT	REV AV FISTULA WO THROM	$	15,429.00
MLH-ADULT	CANNULA EXT DECLOT WO BALLOON	$	9,583.00
MLH-ADULT	CANNULA EXT DECLOT W BALLOON	$	9,583.00
MLH-ADULT	ANGIO AV SHUNT	$	2,296.00
MLH-ADULT	ANGIO AV SHUNT PTA PERIPH	$	16,202.00
MLH-ADULT	ANGIO AV SHUNT STENT PERIPHERAL	$	32,744.00
MLH-ADULT	SP AV SHUNT DECLOT	$	16,202.00
MLH-ADULT	AV SHUNT DECLOT PTA PERIPH SEG	$	32,744.00
MLH-ADULT	AV SHUNT DECLOT STENT PERIPH SEG	$	49,634.00
MLH-ADULT	ADDL AV SHUNT PTA CENT SEG	$	16,202.00
MLH-ADULT	ADDL AV SHUNT STENT CENT SEG	$	16,202.00
MLH-ADULT	ADDL AV SHUNT EMBO	$	16,202.00
MLH-ADULT	INSERTION OF TIPS	$	33,446.00
MLH-ADULT	REVISION OF TIPS	$	31,261.00
MLH-ADULT	PERCUT TRANSLUM ARTERIAL THROMBEC INIT	$	19,382.00
MLH-ADULT	PERC TRNSLUM ARTERIA THROMB ADDL	$	7,895.00
MLH-ADULT	PERC SEC TRNSLUM ARTERIAL THROMB	$	7,895.00
MLH-ADULT	PERC TRNSLUM VENOUS THROMB	$	19,382.00
MLH-ADULT	PERC TRNSLUM VENOUS THROMB RPT	$	19,382.00
MLH-ADULT	INS ENDOVAS VENA CAVA FILTR	$	26,337.00
MLH-ADULT	REDO ENDOVAS VENA CAVA FILTR	$	9,416.00
MLH-ADULT	REM ENDOVAS VENA CAVA FILTER	$	25,361.00
MLH-ADULT	THROMBOLYSIS CEREBRAL IV INF	$	797.00
MLH-ADULT	PRQ TRANSCATH RTRVL INTRVAS FB W/IMAGING	$	9,264.00
MLH-ADULT	BX TRANSCATH	$	4,131.00
MLH-ADULT	TRANSCATH THER ART INF THROMB INIT DAY	$	3,268.00
MLH-ADULT	TRANSCATH THER VEN INF THROMB INIT DAY	$	3,268.00
MLH-ADULT	TRANSCATH THER ART/VEN ING THROMB SUB	$	7,292.00
MLH-ADULT	TRANSCAT THER CESS THROM INCL CLOSURE	$	7,292.00
MLH-ADULT	TRANSCATH PLACE W DISTAL EMBOLIC PROTECT	$	34,153.00
MLH-ADULT	TRANSCATH PLACE WO DISTAL EMBOLIC PROTEC	$	34,153.00
MLH-ADULT	TRANSCATH STENT PLACEMT RETRO CAROTID	$	34,153.00
MLH-ADULT	TCAT PLCMT IV STENT	$	34,153.00
MLH-ADULT	REVASC PTA INIT ILIAC ART UNIL	$	23,461.00
MLH-ADULT	REVASC STENT INIT ILIAC ART UNIL	$	65,774.00
MLH-ADULT	REVASC PTA ILIAC ART EA ADDL UNIL	$	21,365.00
MLH-ADULT	REVASC STENT ILIAC ART EA ADDL UNIL	$	63,675.00
MLH-ADULT	REVASC PTA FEM/POP ART UNIL	$	23,461.00
MLH-ADULT	REVASC ATHEREC FEM/POP ART UNIL	$	44,828.00
MLH-ADULT	REVASC STENT FEM/POP ART UNIL	$	65,774.00
MLH-ADULT	REVASC STENT/ATHEREC FEM/POP ART UNIL	$	87,136.00

MLH-ADULT	REVASC PTA INIT TIB/PERO ART UNIL	$	23,461.00
MLH-ADULT	REVASC ATHEREC INIT TIB/PERO ART UNIL	$	31,622.00
MLH-ADULT	REVASC STENT INIT TIB/PERO ART UNIL	$	65,774.00
MLH-ADULT	REVASC STENT/ATHER INIT TIB/PERO ART	$	60,685.00
MLH-ADULT	REVASC PTA TIB/PERO EA ADDL ART	$	21,365.00
MLH-ADULT	REVASC ATHEREC/TIB/PERO EA ADDL ART	$	42,729.00
MLH-ADULT	REVASC STENT TIB/PERO EA ADDL ART	$	63,675.00
MLH-ADULT	REVAS STENT ATHER TIB/PERO EA ADDL ART	$	85,041.00
MLH-ADULT	OPEN/PERQ PLACEMENT INTRAVAS STENT INITI	$	36,144.00
MLH-ADULT	DX STENT ART EA ADDL	$	17,479.00
MLH-ADULT	OPEN/PERQ PLACE INTRAVAS STENT SAME 1ST	$	36,144.00
MLH-ADULT	OPEN/PERQ PLC INTRA STENT SAME ADD'L	$	17,479.00
MLH-ADULT	CT EMBO/OCCL VEN NON BLEED	$	35,046.00
MLH-ADULT	CT EMBO ART NON BLEED OR NON TUMOR RS&I	$	35,046.00
MLH-ADULT	SP VAS EMBO TUMOR/ORG ISCH/INFAR	$	35,046.00
MLH-ADULT	SP EMBO ART/VEN BLEED/LYMPH EXTRAVASA	$	35,046.00
MLH-ADULT	PTA ART EG AO UE VISC RNL	$	16,202.00
MLH-ADULT	ADDL PTA ART EG AO UE VISC RNL	$	16,202.00
MLH-ADULT	PTA VEIN EXP AV SHUNT	$	16,202.00
MLH-ADULT	ADDL PTA VEIN EXP AV SHUNT	$	16,202.00
MLH-ADULT	INTRAVASC US NON CORONARY VESSEL INITIAL	$	7,156.00
MLH-ADULT	INTRAVASC NON CORONARY VESSEL EA ADDL	$	7,156.00
MLH-ADULT	LIG/BANDING ANGIOACCESS ARVEN FSTL	$	8,904.00
MLH-ADULT	LIGATION OF INFERIOR VENA CAVA	$	13,721.00
MLH-ADULT	PHLEBECTOMY STAB VARICOSE VEINS 10/20	$	9,368.00
MLH-ADULT	PHLEBECTOMY STAB VARICOSE VEINS >20	$	9,368.00
MLH-ADULT	UNLISTED PROC VASC SURGERY	$	3,810.00
MLH-ADULT	STEM CELL DONOR SEARCH MANAGEMENT	$	100.00
MLH-ADULT	PERIPHERAL STEM HARVEST FOR TRAN ALLOGEN	$	9,519.00
MLH-ADULT	PERIPHERAL STEM HARVEST FOR TRAN AUTOLOG	$	9,519.00
MLH-ADULT	TRANSPLANT PREP HEMATOPOIETIC CELLS	$	1,075.00
MLH-ADULT	TRANSPL PREP THAW FROZEN HRV PER DONOR	$	1,260.00
MLH-ADULT	TRANSPLANT PREP T-CELL DEPLETION OF HARV	$	1,281.00
MLH-ADULT	TRANSPLANT PREP RED BLOOD CELL REMOVAL	$	1,049.00
MLH-ADULT	TRANSPLANT PREP PLATELET DEPLETION	$	2,099.00
MLH-ADULT	TRANSPLANT PREP PLASMA VOLUME DEPLETION	$	2,099.00
MLH-ADULT	TRANSPLANT PREP CELL CONCENTRATE PLASMA	$	2,099.00
MLH-ADULT	BONE MARROW ASPIRATION	$	3,109.00
MLH-ADULT	BONE MARROW BX NDL/TROCAR	$	4,990.00
MLH-ADULT	CT DX BONE BX/ASP	$	4,334.00
MLH-ADULT	TRNSPLJ ALLOGE HEMATOPOI CELLS PER DONOR	$	9,519.00
MLH-ADULT	TRNSPLJ ALLOGE HEMATOPOI CELLS PER DONOR	$	3,815.00
MLH-ADULT	DONOR LYMPHOCYTE INFUSION	$	3,697.00
MLH-ADULT	LYMPH NODES BX SITE	$	6,971.00
MLH-ADULT	BX/EXCISION LYMPH NODES NDL SUPERFICIAL	$	1,820.00
MLH-ADULT	SP INJ LYMPHANGIOGRAM	$	1,626.00
MLH-ADULT	INJ SENTINEL NODE ID	$	1,174.00

MLH-ADULT	BIOPSY OF MOUTH LESION	$	1,364.00
MLH-ADULT	BISOPSY OF TONGUE ANTERIOR TWO-THIRDS	$	2,757.00
MLH-ADULT	BISOPSY OF TONGUE POSTERIOR TWO-THIRDS	$	5,234.00
MLH-ADULT	DRNG ABSCESS/CYST/HEMATOMA DENTOALV STRU	$	1,093.00
MLH-ADULT	UNLISTED PROCEDURE DENTOALVEOLAR STRUCTU	$	600.00
MLH-ADULT	ESOPHAG RIGID TRANSORAL W/DIVERT W/CRICO	$	7,316.00
MLH-ADULT	ESOPHAG RIGID/TRANSORAL W/BX SING/MULT	$	4,006.00
MLH-ADULT	ESOPHAGOSCOPY RIDGID TRNSO /REMOVAL FB	$	3,839.00
MLH-ADULT	ESOPHAGOSCOPY RIGID TRANS GUIDE WIRE/DIL	$	3,839.00
MLH-ADULT	ESOPHAG FLEX TRANSORAL DX BRUSH/WASH	$	3,256.00
MLH-ADULT	ESOPH FLEX TRANSORAL W SUBMUCOSAL INJ	$	3,256.00
MLH-ADULT	ESOPHAG RIGID/FLEX W BX SING/MULTIPLE	$	3,256.00
MLH-ADULT	ESOPHAG RIGID/FLEX W VARICES INJ SCLERO	$	3,256.00
MLH-ADULT	ESOPHAG RIGID/FLEX W VARICES BAND LIGAT	$	3,256.00
MLH-ADULT	EGD ESOPHAGOGASTRC FNDOPLSTY	$	12,749.00
MLH-ADULT	ESOPHAGOSCOPY FLEX MUCOSAL RESECTION	$	2,550.00
MLH-ADULT	ESOPHAGOSCOP STENT PLACEMENT	$	3,256.00
MLH-ADULT	ESOPHAGOSCOPY RETRO BALLOON	$	2,550.00
MLH-ADULT	ESOPHAGOSC DILATE BALLOON 30	$	2,550.00
MLH-ADULT	ESOPHAG FLEX TRANSORAL W FB REMOVAL	$	3,256.00
MLH-ADULT	ESOPH FLEX TRANSOR W POLYP REMOV HOT BX	$	3,256.00
MLH-ADULT	ESOPH FLEX TRANSORAL W POLYP REMOV SNARE	$	3,256.00
MLH-ADULT	ESOPHAG TRANSENDOSCOPY BALLOON DILATION	$	3,256.00
MLH-ADULT	ESOPH GW INSERTION W DILATION	$	3,256.00
MLH-ADULT	ESOPHAGOSCOPY LESION ABLATION	$	3,256.00
MLH-ADULT	ESOPH W ENDO ULTRASOUND EXAM	$	3,256.00
MLH-ADULT	ESOPHAGOSCOPY W/US NDLE ASPIR/BX	$	3,256.00
MLH-ADULT	EGD BALLOON DIL ESOPH 30MM>	$	2,550.00
MLH-ADULT	EGD FLEX TRANSORAL DX BRUSH/WASH	$	3,256.00
MLH-ADULT	EGD W SUBMUCOSAL INJ ANY SUBSTANCE	$	3,256.00
MLH-ADULT	UPR GI NDSC US XM LMTD ESOPH, STOM,DUODN	$	3,309.00
MLH-ADULT	EGD US FINE NEEDLE BX/ASPIR	$	3,309.00
MLH-ADULT	EGD W BX SING/MULT	$	3,256.00
MLH-ADULT	EGD W TRANSMURAL DRNG OF PSEUDOCYST	$	3,256.00
MLH-ADULT	EGD INSERTION TUBE OR CATH	$	3,256.00
MLH-ADULT	EGD US FINE NEEDLE BX/ASPIR	$	3,309.00
MLH-ADULT	EGD W INJ SCLEROSIS ESOPHAG/GAS VARICES	$	3,256.00
MLH-ADULT	EGD W BAND LIGATION GASTRIC VARICES	$	3,256.00
MLH-ADULT	EGD DILATION OF GASTRIC DUODENAL STRICT	$	3,256.00
MLH-ADULT	EGD PLACE GASTROSTOMY TUBE	$	3,256.00
MLH-ADULT	EGD W FB REMOVAL	$	3,256.00
MLH-ADULT	EGD W GW INSERT & ESOPHAGUS OVER GW	$	3,256.00
MLH-ADULT	EGD W TRANSENDO BALLN DILATION ESOPHAG	$	3,256.00
MLH-ADULT	EGD W POLYP REMOVAL HOT BX FORCE	$	3,256.00
MLH-ADULT	EGD W POLYP REMOVAL SNARE TECH	$	3,256.00
MLH-ADULT	EGD US GUIDED TRANSMURAL INJXN/FID MARK	$	3,256.00
MLH-ADULT	EGD ENDO MUCOSAL RESECTION	$	3,256.00

MLH-ADULT	EGD W BLEEDING CONTROL	$	3,256.00
MLH-ADULT	EGD W DELIVERY OF THERMAL ENERGY REFLUX	$	9,832.00
MLH-ADULT	EGD W ENDOSCOPIC US	$	3,256.00
MLH-ADULT	ERCP DX INCL SPEC BRUSH/WASH	$	6,909.00
MLH-ADULT	ERCP W BX SING/MULT	$	6,909.00
MLH-ADULT	ERCP W SPHINCTEROTOMY/PAPILLOTOMY	$	6,909.00
MLH-ADULT	ERCP W CALCULI REMOVAL DUCT BILIARY/PANC	$	6,909.00
MLH-ADULT	ERCP W/DESTR CALCULI ANY METHOD	$	6,909.00
MLH-ADULT	EGD ENDOSCOPIC STENT PLACE	$	3,256.00
MLH-ADULT	EGD LESION ABLATION	$	2,550.00
MLH-ADULT	ENDO PAPILLA CANNULATION BILE/PANCREATIC	$	6,986.00
MLH-ADULT	ERCP DUCT STENT PLACEMENT	$	6,909.00
MLH-ADULT	ERCP REMOVE FORGN BODY DUCT	$	6,986.00
MLH-ADULT	ERCP STENT EXCHANGE W/DILATE	$	6,909.00
MLH-ADULT	ERCP EA DUCT/AMPULLA DILATE	$	6,909.00
MLH-ADULT	ERCP LESION ABLATE W/DILATE	$	6,909.00
MLH-ADULT	ESOPHAG DILATION UNGUID/BOUGIE SING/MULT	$	2,550.00
MLH-ADULT	DILATION ESOPH OVR G-WIRE	$	2,550.00
MLH-ADULT	NG TUBE PLACEMENT W FLOURO	$	1,080.00
MLH-ADULT	GASTRIC INTUBAT & ASPIR TX W/LAVAGE TRM	$	1,472.00
MLH-ADULT	GASTRIC FEEDING TUBE REPOSITION	$	1,150.00
MLH-ADULT	CHG GASTRO TUBE WO IMAGE/ENDO W/O REVIS	$	673.00
MLH-ADULT	CHG GASTRO TUBE WO IMAGE/ENDO W/REVISION	$	673.00
MLH-ADULT	SP CLOSURE/PLUG GASTROSTOMY	$	8,821.00
MLH-ADULT	JEJUNOSTOMY TUBE/NDL CATH ENTERAL ALIMEN	$	587.00
MLH-ADULT	ENTEROSCOPY NO ILEUM DX W/WO BRUSH/WASH	$	3,133.00
MLH-ADULT	ENTEROSCOPY NO ILEUM W BX SING/MULT	$	3,133.00
MLH-ADULT	ENTEROSCOPY>2ND PRTN W/RMVL LESION SNARE	$	3,133.00
MLH-ADULT	ENTEROSCOPY NO ILEUM W BLEEDING CONTROL	$	3,133.00
MLH-ADULT	SMALL BOWEL ENDOSCOPY W/ABATION	$	3,133.00
MLH-ADULT	ENTEROSCOPY W ILEUM DX W/WO BRUSH/WASH	$	3,133.00
MLH-ADULT	ENTEROSCOPY W ILEUM W BX SING/MULT	$	3,133.00
MLH-ADULT	ENTEROSCOPY W ILEUM W BLEEDING CONTROL	$	3,133.00
MLH-ADULT	ILEOS STOMA DIAG BY BRUSH/WASH	$	2,276.00
MLH-ADULT	ILEOS STOMA W/ TNDSC BALLOON DILAT	$	3,205.00
MLH-ADULT	SM BOWEL ENDO INCL ILEUM W BIOSPY SGL/MU	$	3,290.00
MLH-ADULT	ILEOS W/ ENDO STENT PLACEMENT	$	3,205.00
MLH-ADULT	ENDOSCOPY OF BOWEL POUCH	$	2,969.00
MLH-ADULT	COLONOSCOPY THROUGH STOMA DX WASH/BRUSH	$	2,826.00
MLH-ADULT	COLONOSCOPY STOMA W/BX SINGLE/MULTIPLE	$	2,919.00
MLH-ADULT	COLONOSCOPY STOMA RMV LES HOT BX FORCEPS	$	2,969.00
MLH-ADULT	COLONOSCOPY THROUGH STOMA W/SNARE	$	2,919.00
MLH-ADULT	COLON STOMA W/ ABLAT TUMOR/POLYP/LESION	$	2,968.00
MLH-ADULT	COLON STOMA W/ ENDO STENT PLACEMENT	$	2,968.00
MLH-ADULT	COLON STOMA W/ ENDO MUCOSAL RESECT	$	2,968.00
MLH-ADULT	COLON STOMA W/ DIR SUBMUCOSAL INJ	$	2,968.00
MLH-ADULT	COLON STOMA W/ TNDSC BALLOON DILAT	$	2,968.00

MLH-ADULT	COLON STOMA W/ENDOSCOPIC US	$	2,968.00
MLH-ADULT	COLON STOMA W/TNDSC US	$	2,968.00
MLH-ADULT	COLON STOMA W/DCMPRN W/PLACE DCMPRN TUBE	$	2,968.00
MLH-ADULT	INTRO GI TUBE LONG	$	1,150.00
MLH-ADULT	PREPARE FECAL MICROBIOTA/INSTILLATION	$	2,276.00
MLH-ADULT	GASTROTOSTOMY TUBE MANIPULATION	$	3,132.00
MLH-ADULT	BX ANORECTAL WALL ANAL APPROACH	$	6,108.00
MLH-ADULT	PROCTOSIGMOIDOSCOPY RIGID BRUSH OR WASH	$	1,232.00
MLH-ADULT	PROCTOSIGMOID RIGID W BX SING/MULT	$	5,862.00
MLH-ADULT	SIGMOID FLEX DX W/WO BRUSH/WASH	$	1,234.00
MLH-ADULT	SIGMOID FLEX W BX SING/MULT	$	1,234.00
MLH-ADULT	SIGMOID FLEX W FB REMOVAL	$	1,234.00
MLH-ADULT	SIGMOID FLEX W POLYP REMOVAL HOT BX	$	2,577.00
MLH-ADULT	SIGMOID FLEX W BLEEDING CONTROL	$	2,577.00
MLH-ADULT	SIGMOID FLEX W SUBMUCOSAL INJ ANY SUBSTA	$	2,577.00
MLH-ADULT	SIGMOID FLEX W DECOMPRESS VOLVULUS PLMT	$	2,577.00
MLH-ADULT	SIGMOID FLEX W POLYP REMOVAL SNARE TECH	$	2,577.00
MLH-ADULT	SIGMOID FLEX W BALLOON DILATION	$	3,226.00
MLH-ADULT	SIGMOID FLEX W ENDOSCOPIC ULTRASOUND	$	2,576.00
MLH-ADULT	SIGMOID FLEX W TRANSENDO ULTRASOUND	$	2,576.00
MLH-ADULT	SIGMOID FLEX W/ABLTJ TUMOR/POLYP/LESION	$	3,133.00
MLH-ADULT	SIGMOID FLEX W/ENDOSCOP STENT PLACEMENT	$	2,984.00
MLH-ADULT	SIGMOID FLEX W/ENDOSCOP MUCOSAL RESECT	$	3,110.00
MLH-ADULT	SIGMOID FLEX W/BAND LIGATION HEMORRHOID	$	3,110.00
MLH-ADULT	COLON FLEX DX W BRUSH/WASH	$	3,284.00
MLH-ADULT	COLON FLEX W FB REMOVAL	$	3,284.00
MLH-ADULT	COLON FLEX W BX SING/MULT	$	3,284.00
MLH-ADULT	COLON FLEX W SUBMUCOSAL INJ ANY SUBSTANC	$	3,639.00
MLH-ADULT	COLON FLEX W BLEEDING CONTROL	$	3,284.00
MLH-ADULT	COLON FLEX W POLYP REMOVAL HOT BX	$	3,284.00
MLH-ADULT	COLON FLEX W POLYP REMOVAL SNARE TECH	$	3,284.00
MLH-ADULT	COLON FLEX W BALLOON DILATION	$	3,639.00
MLH-ADULT	COLON FLEX W/ABLTJ TUMOR/POLYP/LESION	$	3,284.00
MLH-ADULT	COLON FLEX W/ENDOSCOP STENT PLACEMENT	$	3,284.00
MLH-ADULT	COLON FLEX W/ENDOSCOP MUCOSAL RESECT	$	2,968.00
MLH-ADULT	COLON FLEX W ENDOSCOPIC ULTRASOUND	$	3,812.00
MLH-ADULT	COLON FLEX W TRANSENDOSCOPIC ULTRASOUND	$	3,812.00
MLH-ADULT	COLON W DECOMPRESSION	$	2,655.00
MLH-ADULT	COLON FLEX W/BAND LIGATION HEMORRHOID	$	2,968.00
MLH-ADULT	COLON PROCEDURE UNLISTED	$	28,098.00
MLH-ADULT	DILATION OF ANAL SPINCTER W ANESTH NOT	$	6,108.00
MLH-ADULT	DILATION OF RECTAL NARROWING	$	2,947.00
MLH-ADULT	REMOVAL FECAL IMPACTION/FB W ANEST	$	1,079.00
MLH-ADULT	UNLISTED PROC RECTUM COLONIC STENT	$	1,079.00
MLH-ADULT	HEMORRHOIDECTOMY BY SIMPLE LIGATURE	$	2,380.00
MLH-ADULT	INJ SCLEROSING SOLUTION HEMORRHOIDS	$	2,380.00
MLH-ADULT	ANOSCOPY DX INCL COLLJ BRUSH/WASH	$	299.00

MLH-ADULT	ANOSCOPY DX W/BRUSH/WASH	$	494.00
MLH-ADULT	ANOSCOPY W BX SING/MULT	$	4,883.00
MLH-ADULT	ANOSCOPY DX W/BX SING/MULTI	$	3,110.00
MLH-ADULT	ANOSCOPY W FB REMOVAL	$	2,004.00
MLH-ADULT	ANOSCOPY W POLYP REMOVAL SING CAUTERY/HO	$	4,883.00
MLH-ADULT	ANOSCOPY W POLYP REMOVAL SING SNARE TECH	$	4,883.00
MLH-ADULT	ANOSCOPY W POLYP REMOVAL MULT SNARE TECH	$	4,883.00
MLH-ADULT	DESTRUCT LESION ANUS ELECTRODESICCATION	$	4,368.00
MLH-ADULT	DESTRUCT LESION ANUS SURGICAL EXCISION	$	7,123.00
MLH-ADULT	UNLISTED PROC ANUS	$	6,108.00
MLH-ADULT	BIOPSY LIVER NEEDLE PERCUTANEOUS	$	3,008.00
MLH-ADULT	BX LIVER NDLE PERCUT 2NDARY	$	3,008.00
MLH-ADULT	ABLATION 1+ LIVER TUMOR PERCUT RADIOFREQ	$	16,476.00
MLH-ADULT	ABLATION 1+ LIVER TUMOR PERQ CRYOBLATION	$	15,396.00
MLH-ADULT	UNLISTED LIVER ABLATION	$	1,821.00
MLH-ADULT	CHOLESCYSTOMY PERCUTANEOUS COMPLETE	$	4,394.00
MLH-ADULT	INJECTION FOR CHOLANGIOGRAM EXIST ACCESS	$	1,241.00
MLH-ADULT	INJECTION FOR CHOLANGIOGRAM NEW ACCESS	$	7,681.00
MLH-ADULT	PLMT BILIARY DRAINAGE CATH EXTERNAL	$	7,681.00
MLH-ADULT	PLMT BILIARY DRAINAG CATH INTER/EXTERNAL	$	7,681.00
MLH-ADULT	CONVERSION EXT BIL DRG CATH	$	7,681.00
MLH-ADULT	EXCHANGE BILIARY DRG CATH	$	7,681.00
MLH-ADULT	REMOVAL BILIARY DRG CATH	$	1,703.00
MLH-ADULT	PERQ PLMT BILE DUCT STENT EXIST ACCESS	$	14,093.00
MLH-ADULT	PERQ PLMT BIL DUCT STENT NEW ACCE W/O PL	$	14,093.00
MLH-ADULT	PERQ PLMT BIL DUCT STENT NEW ACCE W/PLMT	$	14,093.00
MLH-ADULT	PLMT ACCESS BIL TREE SM BWL	$	7,681.00
MLH-ADULT	DILATE BILIARY DUCT/AMPULLA	$	447.00
MLH-ADULT	SP BILIARY BX	$	608.00
MLH-ADULT	REMOVAL DUCT GLBLDR CALCULI	$	792.00
MLH-ADULT	SP BILIARY BRUSHING PERCUT	$	9,050.00
MLH-ADULT	ENDOSCOPY BILIARY W DILATION WO STENT	$	7,289.00
MLH-ADULT	ENDOSCOPY BILIARY W DILATION W STENT	$	7,289.00
MLH-ADULT	BX PANCREAS PERCUT NDL	$	4,131.00
MLH-ADULT	DRNG PERITONEAL ABSCESS/LOCAL PERIT OPEN	$	587.00
MLH-ADULT	ABDOM PARACEN DX/THER W/O IMAGING GUIDAN	$	1,709.00
MLH-ADULT	ABDOM PARACEN DX/THER W/IMAGING GUIDAN	$	1,710.00
MLH-ADULT	PERITONEAL LAVAGE W/WO IMAGING GUIDANCE	$	1,710.00
MLH-ADULT	BX ABD/RETROPERITONEAL MASS PERCUT NDL	$	4,131.00
MLH-ADULT	SCLEROTHERAPY FLUID COLLECTION	$	3,324.00
MLH-ADULT	INJ AIR/CONT PERITONEAL CAVITY	$	587.00
MLH-ADULT	CT DRAIN VISCERAL ORGAN	$	4,848.00
MLH-ADULT	CT DRAIN VISC PERITO/RETRO AROUND ORGAN	$	4,848.00
MLH-ADULT	INTERSTITIAL DEV PLMT RAD THERAPY 1/MLT	$	3,911.00
MLH-ADULT	PLMT INTRSTL DEV OPN W/IMG GID 1+	$	3,911.00
MLH-ADULT	INSJ INTRAPERITONEAL CATHETER W/IMG GID	$	10,055.00
MLH-ADULT	INSERT PERITO CATH W SUBC PORT	$	10,637.00

MLH-ADULT	INSERT PERITO CATH DRNG DIALYSIS PERMANT	$	10,637.00
MLH-ADULT	REM TUNNEL PERITONEAL CATH	$	4,613.00
MLH-ADULT	EXCHANGE PLACED ABSCESS/CYST DRNG CATH	$	4,613.00
MLH-ADULT	INJ CONT ABSCESS/CYST BY CATH/TUBE	$	587.00
MLH-ADULT	GASTROSTOMY TUBE INSERT PERCUT	$	2,537.00
MLH-ADULT	JEJUN/DUODEN TUBE PLACE, PERC	$	5,354.00
MLH-ADULT	INSERTION OF CECOSTOMY/COLONIC TUBE	$	4,124.00
MLH-ADULT	CONVERT GASTRO TO JUJUM TUBE	$	5,354.00
MLH-ADULT	REPLACMT OF GASTRO TUBE W/ CONT	$	2,352.00
MLH-ADULT	REPLACMT OF DUODENOS OR JUJUN TUBE	$	2,352.00
MLH-ADULT	REPLACMT OF GASTRO-JEJUN TUBE	$	1,222.00
MLH-ADULT	MECH REM OBST MAT FROM GASTRO TUBE	$	1,222.00
MLH-ADULT	CONTRAST INJ OF GASTROSTOMY TUBE	$	526.00
MLH-ADULT	UNLISTED PROCEDURE ABDOMEN	$	1,531.00
MLH-ADULT	REMOVAL & REPLAC URET STENT PERC	$	9,751.00
MLH-ADULT	REM(SNARE/CAPTURE)URET STENT PERC	$	9,751.00
MLH-ADULT	SP EXT/INT NEPHROURETERAL CAHT REM/REPL	$	5,057.00
MLH-ADULT	SP NEPHROSTOGRAM NEW ACCESS	$	1,850.00
MLH-ADULT	INJ NEPHROSTOGRAM EXIST ACCESS	$	1,850.00
MLH-ADULT	SP PLACE NEPHROSTOMY TUBE	$	5,316.00
MLH-ADULT	SP PLACE NEPHROURETERAL CATHETER	$	5,316.00
MLH-ADULT	SP CONVERT NEPHR TO NEPHROURETERAL	$	1,850.00
MLH-ADULT	SP EXCHANGE NEPHROSOTMY CATH	$	1,850.00
MLH-ADULT	RENAL ABLATION 1+ PERCUT UNILATERAL	$	18,350.00
MLH-ADULT	RENAL ABLATION CRYO 1 OR MORE TUMORS	$	22,297.00
MLH-ADULT	INJ LOOPOGRAM	$	587.00
MLH-ADULT	SP URETERAL STENT EXIST ACCESS	$	7,916.00
MLH-ADULT	SP URETERAL STENT NEW ACC WO DRAIN	$	7,916.00
MLH-ADULT	SP URETERAL STENT NEW ACC W DRAIN	$	7,916.00
MLH-ADULT	URETERAL EMBO/OCCL W/IMAGE	$	1,850.00
MLH-ADULT	SP URETERAL BALLOON DILATATION	$	702.00
MLH-ADULT	ASP BLADDER NDL	$	2,357.00
MLH-ADULT	ASP BLADDER NDL W CATH INSERT SUPRAPUBIC	$	2,357.00
MLH-ADULT	INJ CYSTOGRAM/VCUG	$	587.00
MLH-ADULT	INJ RETROGRADE URETHROCSTOGRAPY	$	587.00
MLH-ADULT	BLADDER IRRIGATION SIMP LAVAGE/INSTILLAT	$	735.00
MLH-ADULT	INSERT CATH NON INDWELLING BLADDER	$	336.00
MLH-ADULT	INSERT CATH TEMP INDWELLING SIMP	$	336.00
MLH-ADULT	CATH URETHRA COMPLICATED	$	439.00
MLH-ADULT	CHANGE CYSTOSTOMY TUBE SIMP	$	805.00
MLH-ADULT	CHANGE CYSTOSTOMY TUBE COMPLICATED	$	1,150.00
MLH-ADULT	BLADDER INSTILLATION OF ANTICARCINOGENIC	$	1,043.00
MLH-ADULT	SIMPLE CYSTOMETROGRAM	$	2,357.00
MLH-ADULT	COMPLEX CYSTOMETROGRAM	$	1,406.00
MLH-ADULT	SIMPLE URINE FLOW MEASUREMENT	$	460.00
MLH-ADULT	ELECTRO-UROFLOWMETRY FIRST	$	426.00
MLH-ADULT	EMG STDS ANAL/URTL SPHNCTR OTH/THN NDL	$	426.00

MLH-ADULT	ELECTROMYOGRAM NDL ANAL/URETHRAL SPHINCT	$	1,050.00
MLH-ADULT	US URINE CAPACITY MEASURE	$	188.00
MLH-ADULT	CYSTOSCOPY	$	2,064.00
MLH-ADULT	CYSTO W/REMOVAL OF LESIONS SMALL <0.5CM	$	7,841.00
MLH-ADULT	CYSTO CALIBRAN DILAT URTL STRIX/STENOSIS	$	6,153.00
MLH-ADULT	CYSTOSCOPY INJ CHEMODENERVATION BLADDER	$	4,612.00
MLH-ADULT	CYSTO W/SIMPLE REMOVAL STONE & STENT	$	4,614.00
MLH-ADULT	CYSTO W/URTROSCOPY&/PYELOSCOPY DX	$	2,316.00
MLH-ADULT	DILATION OF URETHRA FEMALE	$	426.00
MLH-ADULT	CIRCUMCISION W CLAMP/OTHER DEVICE	$	2,449.00
MLH-ADULT	PENILE INJECTION	$	536.00
MLH-ADULT	VASECTOMY UNI/BI SPX W/POSTOP SEMEN	$	9,088.00
MLH-ADULT	BIOPSY OF PROSTATE	$	5,496.00
MLH-ADULT	BX PROSTATE STRTCTC SATURA SAMPL IMG GID	$	5,499.00
MLH-ADULT	TRANSPERI PLACEMENT BIODEGRAD MATERIAL	$	11,915.00
MLH-ADULT	NDL/CATH PLACE TRANSPERINEAL PROSTATE	$	18,236.00
MLH-ADULT	PLMT INTERSTI DEV RADIAT TX PROST 1/MULT	$	3,757.00
MLH-ADULT	I&D BARTHOLIN GLAND ABSCESS	$	1,129.00
MLH-ADULT	COLPOCENTESIS/CULDOCENTESIS	$	5,039.00
MLH-ADULT	I&D VAGINAL HEMATOMA OB/POSTPARTUM	$	3,046.00
MLH-ADULT	I&D VAGINAL HEMATOMA NON OB	$	3,046.00
MLH-ADULT	INSERT UTERINE TANDEMS/OVOIDS FOR BRACHY	$	2,051.00
MLH-ADULT	INSERTION OF VAG RADIATION DEV	$	1,232.00
MLH-ADULT	BX CERVIX SING/MULTIPLE W/O FULGURATION	$	1,463.00
MLH-ADULT	MYOMECTOMY EXCISION 1-4 MYOMAS ABD APPRO	$	6,614.00
MLH-ADULT	HYSTERECTOMY TOTAL ABD	$	9,798.00
MLH-ADULT	CATH&INTRO SALINE/CONT SIS/HYSTEROSALPIN	$	587.00
MLH-ADULT	LIGATION/TRANSECTION FALLOPIAN POSTPARTU	$	4,768.00
MLH-ADULT	LIGATION/TRANSECTION FALLOPIAN CESAREAN	$	6,038.00
MLH-ADULT	UNLIST PROCED FEMALE GENITAL SYSTEM/SURG	$	1,903.00
MLH-ADULT	AMNIOCENTESIS DX	$	592.00
MLH-ADULT	AMNIOCENTESIS THER AMNIOTIC FLUID REDUCT	$	592.00
MLH-ADULT	CORDOCENTESIS INTRAUTERINE ANY METHOD	$	592.00
MLH-ADULT	FETAL CONTRACTION STRESS TEST	$	592.00
MLH-ADULT	FETAL NON STRESS TEST	$	592.00
MLH-ADULT	FETAL MONITORING DURING LABOR	$	592.00
MLH-ADULT	TRANSABD AMNIOINFUS INCL US GUID	$	622.00
MLH-ADULT	CURETTAGE POSTPARTUM	$	6,084.00
MLH-ADULT	INSERTION CERVICAL DILATOR	$	1,024.00
MLH-ADULT	VAGINAL REPAIR RETURN TO L&D	$	5,045.00
MLH-ADULT	CERCLAGE CERVIX DURING PREGNANCY VAGINAL	$	7,156.00
MLH-ADULT	CERCLAGE CERVIX DURING PREGNANCY ABD	$	7,156.00
MLH-ADULT	HYSTERORRHAPHY OF RUPTURED UTERUS	$	9,116.00
MLH-ADULT	EXTERNAL CEPHALIC VERSION W/WO TOCOLYSIS	$	2,300.00
MLH-ADULT	DELIVERY PLACENTA	$	2,300.00
MLH-ADULT	CESAREAN DELIVERY	$	6,477.00
MLH-ADULT	HYSTERECTOMY AFTER CESAREAN DELIVERY	$	8,172.00

MLH-ADULT	TRMT INCOMPLETE AB SURGICAL/D&C	$	6,474.00
MLH-ADULT	TRMT MISSED AB 1ST TRIMESTER/D&C	$	6,474.00
MLH-ADULT	TRMT MISSED AB 2ND TRIMESTER/D&C	$	6,474.00
MLH-ADULT	TRMT SEPTIC AB SURGICAL	$	9,069.00
MLH-ADULT	INDUCED AB DILATION & EVACUATION	$	6,048.00
MLH-ADULT	CERCLAGE SUTURE REMOVAL UNDER ANESTH	$	7,156.00
MLH-ADULT	UNLISTED PROC AMNIOINF	$	592.00
MLH-ADULT	BX THYROID PERCUT CORE NDL	$	1,832.00
MLH-ADULT	ASPIRATE/INJECT THYROID CYST	$	1,635.00
MLH-ADULT	PUNC CISTERNAL/LATERAL CERV W/O INJ	$	1,700.00
MLH-ADULT	PUNC CISTERNAL/LATERAL CERV W INJ	$	1,700.00
MLH-ADULT	PUNCT SHUNT TUBING/RSVR ASPIR/INJECT	$	1,703.00
MLH-ADULT	TDH SDRL/VENTR PNXR IMPLTG CATH/DEV	$	1,581.00
MLH-ADULT	TWIST DRILL HOLE EVAC/DRG SUBDURAL HEMA	$	86,492.00
MLH-ADULT	BURR HOLE VENTRICULAR PUNCTURE	$	86,492.00
MLH-ADULT	BURR HOLE/TREPHINE W/DRG BRAIN ABSCE/CYS	$	86,492.00
MLH-ADULT	BURR HOLE W/EVAC&/DRG HEMATOMA XDRL/SDRL	$	86,492.00
MLH-ADULT	BURR HOLE W/ASPIR HEMATO/CYST INTRACERRB	$	86,492.00
MLH-ADULT	CRANIECTO HMTMA SUPRATENTORI INTRACEREB	$	86,492.00
MLH-ADULT	TRANSCATH OCCLUS/EMBOL CNS	$	13,206.00
MLH-ADULT	TRANSCATH OCCLUS/EMBOL NON CNS HEAD/NECK	$	36,798.00
MLH-ADULT	BALLOON ANGIOPLASTY INTRACRAN	$	82,276.00
MLH-ADULT	PTA INTRACRAN VASOSPSM INITIAL	$	13,205.00
MLH-ADULT	PTA INTRACRAN SAME VASOSPM EA ADDL	$	11,138.00
MLH-ADULT	PTA INTRACRAN DIFF VASOSPM EA ADDL	$	11,138.00
MLH-ADULT	PERQ ART TRANSLUM M-THROMBECT &/NFSRQ	$	2,835.00
MLH-ADULT	EVASC PRLNG ADMN RX AGNT INIT VASC TER	$	1,391.00
MLH-ADULT	EVASC PRLNG ADMN RX AGNT EA ADDL VASC	$	0.01
MLH-ADULT	PLMT/RPLCMT NEUROENDOSCOPY ADD-ON	$	953.00
MLH-ADULT	LYSIS EPIDURAL ADHESIONS PERCUT 2+DAYS	$	2,460.00
MLH-ADULT	ASP VERT DISC/PARAVERT TISSUE	$	833.00
MLH-ADULT	DX SPINAL PUNC LUMBAR DX	$	1,260.00
MLH-ADULT	SPINAL PUNCT THER FOR DRNG OF FLUID	$	1,260.00
MLH-ADULT	INJ EPIDURAL BLOOD/CLOT PATCH	$	1,626.00
MLH-ADULT	INJ/INF NEUROLYTIC W OR WO THER	$	4,102.00
MLH-ADULT	INJ/INF NEUROLYTIC W OR WO THER CRV/THRC	$	4,102.00
MLH-ADULT	INJ/INF NEUROLYTIC W OR WO THER LUM/SAC	$	4,102.00
MLH-ADULT	INJ MYELOGRAM	$	587.00
MLH-ADULT	PERCUTANEOUS DISKECTOMY 1/> LEVELS LUMB	$	12,665.00
MLH-ADULT	INJ DISKOGRAPHY EA LVL LUMBAR	$	587.00
MLH-ADULT	INJ DISCOGRAPHY CERVICAL/THORACIC	$	811.00
MLH-ADULT	MYELOGRAPHY CERVICAL W LUMBAR INJECT	$	3,155.00
MLH-ADULT	MYELOGRAPHY THORACIC W LUMBAR INJECT	$	3,155.00
MLH-ADULT	MYELOGRAPHY LUMBOSACRAL W LUMBAR INJ	$	3,155.00
MLH-ADULT	MYELOGRAPHY 2 + REGIONS W LUMBAR INJECT	$	3,155.00
MLH-ADULT	SP INJ DX/THER SUBST CRRV/THRC W/O IMAGE	$	1,703.00
MLH-ADULT	SP INJ DX THER SUBST CERV/THOR W/IMAGE	$	1,703.00

MLH-ADULT	INJ DX THER SUBST LUMB/SACR W/O IMG	$	1,703.00
MLH-ADULT	INJ DX THER SUBST LUMB/SACR W/IMG	$	1,703.00
MLH-ADULT	INJ INTERLAMINAR LUMBAR/SACRAL W/O GUIDE	$	2,146.00
MLH-ADULT	INJ INTERLAMINAR LUMBAR/SACRAL W GUIDE	$	2,146.00
MLH-ADULT	CT SPINAL TAP LUMBAR DX W/FLUORO/CT GDE	$	1,725.00
MLH-ADULT	DX SPINAL TAP DRAIN THER W/FLUORO/CT GD	$	1,725.00
MLH-ADULT	SP IMPLANT REVISE REPOSIT INTRATHEC CATH	$	11,986.00
MLH-ADULT	REMOVAL OF INTRATHECAL PUMP	$	4,913.00
MLH-ADULT	SP IMPLANT REPLACE INTRATHECAL PUMP	$	54,158.00
MLH-ADULT	RHIZOTOMY	$	5,242.00
MLH-ADULT	IMPLANT SPINAL NEUROELECTRODES	$	18,294.00
MLH-ADULT	LAMINECTOMY FOR IMPLANT NEUROELECTRODES	$	28,240.00
MLH-ADULT	REMOVAL NSTIM ELTRD PRQ ARRAY INCL FLUOR	$	6,281.00
MLH-ADULT	INSRT/REDO SPINE NSTIM GENERATOR	$	68,163.00
MLH-ADULT	REVISE/REMOVE NEURORECEIVER	$	10,802.00
MLH-ADULT	INJ ANESTH AGENT INTERCOST NRV 1 LEVEL	$	1,260.00
MLH-ADULT	INJ ANESTH AGENT INTERCOST NRV ADD'L LEV	$	2,460.00
MLH-ADULT	INJ ANESTH PUDENAL NRV	$	2,460.00
MLH-ADULT	INJ ANESTH PARACERV/UTERINE NRV	$	1,013.00
MLH-ADULT	INJ FACET JT/NRV LUMBAR/SACRAL INIT LVL	$	2,423.00
MLH-ADULT	INJ FACET JT/NRV LUMBAR/SACRAL ADDL LVL	$	2,423.00
MLH-ADULT	INJ ANESTH AGENT SPHENO GANGLION	$	865.00
MLH-ADULT	STELLATE GANGLION INJ	$	2,578.00
MLH-ADULT	INJ ANESTH HYPOGASTRIC PLEXUS	$	2,900.00
MLH-ADULT	INJ ANESTH PARAVERT SYMPATH LUMB/THO	$	2,578.00
MLH-ADULT	CELIAC PLEXUS BLOCK	$	2,160.00
MLH-ADULT	DSTRJ NEUROLYTIC AGENT TRIGEMINAL NERVE	$	4,346.00
MLH-ADULT	DEST NEUROLYTIC TRIGEM NERVE 2ND/3RD DIV	$	7,088.00
MLH-ADULT	SP DESTRUCT PERIPERAL NERVE BY NEURO AG	$	2,161.00
MLH-ADULT	CELIAC PLEXUS DESTRUCTION NEUROLYTIC AGE	$	7,088.00
MLH-ADULT	UNLISTED PROCEDURE NERVOUS SYSTEM	$	1,013.00
MLH-ADULT	INTRAVITREAL INJ PHARMACOLOGIC AGENT	$	838.00
MLH-ADULT	TEMPORARY CLOSURE EYELIDS W/SUTURE	$	2,560.00
MLH-ADULT	EAR EXTERNAL DRN SIMP ABSCESS/HEMATOMA	$	655.00
MLH-ADULT	REMOVAL IMPACTED CERUMEN INSTUMEN UNIL	$	256.00
MLH-ADULT	MYELOGRAM POST FOSSA	$	3,155.00
MLH-ADULT	CISTERNOGRAM W/CONTRAST RS&I	$	4,103.00
MLH-ADULT	EYE F/B DETECTION	$	419.00
MLH-ADULT	MANDIBLE COMP 4+VW	$	419.00
MLH-ADULT	MASTOIDS COMP 3+VW EA SIDE	$	419.00
MLH-ADULT	INTERNAL AUDITORY MEATI COMP	$	732.00
MLH-ADULT	FACIAL BONES < 3VW	$	419.00
MLH-ADULT	FACIAL BONES COMP 3+VW W ZYGOMATIC AR	$	419.00
MLH-ADULT	NASAL BONES COMP 3+VW	$	419.00
MLH-ADULT	ORBITS COMP 4+VW	$	419.00
MLH-ADULT	PARANASAL SINUSES < 3VW	$	419.00
MLH-ADULT	PARANASAL SINUSES COMP 3+VW	$	419.00

MLH-ADULT	SELLA TURCICA	$	419.00
MLH-ADULT	SKULL < 4VW	$	419.00
MLH-ADULT	SKULL COMP 4+VW	$	732.00
MLH-ADULT	TMJ OPEN & CLOSED MOUTH UNIL	$	419.00
MLH-ADULT	MRI TMJ/S	$	4,049.00
MLH-ADULT	ORTHOPANTOGRAM	$	419.00
MLH-ADULT	NECK SOFT TISSUE	$	419.00
MLH-ADULT	PHARYNX/LARYNX W FLURO	$	618.00
MLH-ADULT	PHARYNGEAL & SPEECH EVAL BY CINE/VIDEO	$	825.00
MLH-ADULT	CT BRAIN/HEAD WO CONT	$	2,439.00
MLH-ADULT	CT BRAIN/HEAD W CONT	$	3,375.00
MLH-ADULT	CT BRAIN/HEAD W/WO CONT	$	3,929.00
MLH-ADULT	CT ORBIT/SELLA/POST FOSSA/EAR WO CONT	$	2,439.00
MLH-ADULT	CT ORBIT/SELLA/POST FOSSA/EAR W CONT	$	3,375.00
MLH-ADULT	CT ORBIT/SELLA/POST FOSSA/EAR W/WO CONT	$	3,929.00
MLH-ADULT	CT MAXILLOFACIAL AREA WO CONT	$	2,439.00
MLH-ADULT	CT MAXILLOFACIAL AREA W CONT	$	3,375.00
MLH-ADULT	CT MAXILLOFACIAL AREA W/WO CONT	$	3,929.00
MLH-ADULT	CT SOFT TISSUE NECK WO CONT	$	2,439.00
MLH-ADULT	CT SOFT TISSUE NECK W CONT	$	3,375.00
MLH-ADULT	CT SOFT TISSUE NECK W/WO CONT	$	3,929.00
MLH-ADULT	CT ANGIO HEAD W/WO CONT W IMAGE POST PRO	$	3,929.00
MLH-ADULT	CT ANGIO NECK W/WO CONT W IMAGE POST PRO	$	3,929.00
MLH-ADULT	MRI ORBIT/FACE/NECK WO CONT	$	4,724.00
MLH-ADULT	MRI ORBIT/FACE/NECK W CONT	$	5,370.00
MLH-ADULT	MRI ORBIT/FACE/NECK W/WO CONT	$	6,434.00
MLH-ADULT	MRA HEAD WO CONT	$	4,724.00
MLH-ADULT	MRA HEAD W CONT	$	5,370.00
MLH-ADULT	MRA HEAD W/WO CONT	$	6,434.00
MLH-ADULT	MRA NECK WO CONT	$	4,724.00
MLH-ADULT	MRA NECK W CONT	$	5,370.00
MLH-ADULT	MRA NECK W/WO CONT	$	6,434.00
MLH-ADULT	MRI BRAIN & STEM WO CONT	$	4,724.00
MLH-ADULT	MRI BRAIN & STEM W CONT	$	5,370.00
MLH-ADULT	MRI BRAIN & STEM W/WO CONT	$	6,434.00
MLH-ADULT	MRI BRAIN FUNCTIONAL MRI BY TECH	$	3,838.00
MLH-ADULT	MRI BRAIN FUNCTIONAL MRI BY PHYS/PSYCH	$	3,838.00
MLH-ADULT	MRI BRAIN OPEN INTRACRANIAL WO CONT	$	6,434.00
MLH-ADULT	MRI BRAIN OPEN INTRACRANIAL W CONT	$	6,434.00
MLH-ADULT	MRI BRAIN OPEN INTRACRANIAL W/WO CONT	$	6,434.00
MLH-ADULT	CHEST 1 VIEW	$	333.00
MLH-ADULT	CHEST 2 VIEWS	$	333.00
MLH-ADULT	CHEST 3 VIEWS	$	333.00
MLH-ADULT	CHEST XRAY 4+VIEWS	$	613.00
MLH-ADULT	RIBS 3+VW INCL PA CHEST UNI	$	419.00
MLH-ADULT	RIBS 3VW BIL	$	419.00
MLH-ADULT	RIBS W PA CHEST 4+VW BIL	$	732.00

MLH-ADULT	STERNUM 2+VW	$	419.00
MLH-ADULT	STERNOCLAVICULAR JT/JTS 3+VW	$	419.00
MLH-ADULT	CT CHEST W/O CONTRAST PER NAV PROTOCOL	$	2,439.00
MLH-ADULT	CT THORAX W CONT	$	3,375.00
MLH-ADULT	CT THORAX TRIPLE PHASE	$	3,929.00
MLH-ADULT	CT ANGIO CHEST W/WO CONT W IMAGE POST PR	$	3,929.00
MLH-ADULT	MRI CHEST WO CONT	$	4,724.00
MLH-ADULT	MRI CHEST W CONT	$	5,370.00
MLH-ADULT	MRI CHEST W/WO CONT	$	6,434.00
MLH-ADULT	SPINE 1VW	$	419.00
MLH-ADULT	SPINE CERV 2 OR 3 VIEWS	$	419.00
MLH-ADULT	SPINE CERV 4 OR 5 VWS	$	732.00
MLH-ADULT	SPINE CERV 6 OR MORE VIEWS	$	732.00
MLH-ADULT	SPINE THORACIC 2VW	$	419.00
MLH-ADULT	SPINE THORACIC 3VW	$	419.00
MLH-ADULT	SPINE THORACIC 4+VW	$	419.00
MLH-ADULT	SPINE THORACOLUMBAR 2VW	$	419.00
MLH-ADULT	XR SPINE THORACLUMBAR SCOLIOSIS EVAL 1VW	$	357.00
MLH-ADULT	XR SPINE THORACLUMBAR SCOLIOS EVAL 2-3VW	$	592.00
MLH-ADULT	XR SPINE THORACLUMBAR SCOLIOS EVAL 4-5VW	$	1,129.00
MLH-ADULT	XR SPINE THORACLUMBAR SCOLIOS MIN 6 VW	$	1,129.00
MLH-ADULT	SPINE LUMBOSACRAL 2/3VW	$	419.00
MLH-ADULT	SPINE LUMBOSACRAL 4+VW	$	732.00
MLH-ADULT	SPINE LUMBSCRL COMP W BENDING VW MIN 6	$	732.00
MLH-ADULT	SPINE LUMBSCRL BENDING VW 2 0R 3 VW ONLY	$	419.00
MLH-ADULT	CT SPINE CERV WO CONT	$	2,439.00
MLH-ADULT	CT SPINE CERV W CONT	$	3,375.00
MLH-ADULT	CT SPINE CERV W/WO CONT	$	3,929.00
MLH-ADULT	CT SPINE THORACIC WO CONT	$	2,439.00
MLH-ADULT	CT SPINE THORACIC W CONT	$	3,375.00
MLH-ADULT	CT SPINE THORACIC W/WO CONT	$	3,929.00
MLH-ADULT	CT SPINE LUMBAR WO CONT	$	2,439.00
MLH-ADULT	CT SPINE LUMBAR W CONT	$	3,375.00
MLH-ADULT	CT SPINE LUMBAR W/WO CONT	$	3,929.00
MLH-ADULT	MRI SPINE CERV WO CONT	$	4,724.00
MLH-ADULT	MRI SPINE CERV W CONT	$	5,370.00
MLH-ADULT	MRI SPINE THORACIC WO CONT	$	4,724.00
MLH-ADULT	MRI SPINE THORACIC W CONT	$	5,370.00
MLH-ADULT	MRI SPINE LUMBAR WO CONT	$	4,724.00
MLH-ADULT	MRI SPINE LUMBAR W CONT	$	5,370.00
MLH-ADULT	MRI SPINE CERV W/WO CONT	$	6,434.00
MLH-ADULT	MRI SPINE THORACIC W/WO CONT	$	6,434.00
MLH-ADULT	MRI SPINE LUMBAR W/WO CONT	$	6,434.00
MLH-ADULT	PELVIS 1/2VW	$	419.00
MLH-ADULT	PELVIS COMP 3+VW	$	419.00
MLH-ADULT	CT ANGIO PELVIS W/WO CONT W IMAGE POST P	$	3,929.00
MLH-ADULT	CT PELVIS WO CONT	$	2,439.00

MLH-ADULT	CT PELVIS W CONT	$	3,375.00
MLH-ADULT	CT PELVIS TRIPLE PHASE	$	3,929.00
MLH-ADULT	MRI PELVIS WO CONT	$	4,724.00
MLH-ADULT	MRI PELVIS W CONT	$	5,370.00
MLH-ADULT	MRI PELVIS W/WO CONT	$	6,434.00
MLH-ADULT	SACROILIAC JTS < 3VW	$	419.00
MLH-ADULT	SACROILIAC JTS 3+VW	$	419.00
MLH-ADULT	SACRUM & COCCYX 2+VW	$	419.00
MLH-ADULT	MYELOGRAPHY CERVICAL W CERVICAL INJECT	$	3,155.00
MLH-ADULT	MYELOGRAM THORACIC W CERVICAL INJECT	$	3,155.00
MLH-ADULT	MYELOGRAPHY LUMBO SACRAL W CERVICAL INJ	$	3,155.00
MLH-ADULT	MYELOGRAPHY 2 PLUS REGIONS	$	3,155.00
MLH-ADULT	DISKOGRAPHY CERV/THORACIC	$	3,155.00
MLH-ADULT	DISKOGRAPHY LUMBAR	$	3,155.00
MLH-ADULT	ACROMIOCLAVICULAR JTS W/WO WEIGHTED BIL	$	419.00
MLH-ADULT	HUMERUS 2+VW	$	419.00
MLH-ADULT	XR HIPS BIL 2 VWS	$	613.00
MLH-ADULT	XR HIPS BIL 3-4VWS	$	613.00
MLH-ADULT	XR HIPS BIL 5 VW MIN	$	613.00
MLH-ADULT	KNEES STANDING AP BIL	$	419.00
MLH-ADULT	ADBOMEN 1 VIEW	$	333.00
MLH-ADULT	ABDOMEN 2 VIEWS	$	613.00
MLH-ADULT	ABDOMEN 3+ VIEWS	$	613.00
MLH-ADULT	COMPL ACUTE ABD SERIES 2+VWS & 1VW CHEST	$	732.00
MLH-ADULT	CT ABD WO CONT	$	2,439.00
MLH-ADULT	CT ABD W CONT	$	3,375.00
MLH-ADULT	CT ABD TRIPLE PHASE	$	3,929.00
MLH-ADULT	CTA ABD/PELVIS W/WO CONTRAST	$	4,289.00
MLH-ADULT	CT ANGIO ABD W/WO CONT W IMAGE POST PROC	$	3,929.00
MLH-ADULT	CT ABD AND PEL WO CONTRAST	$	4,875.00
MLH-ADULT	CT ABD AND PEL WITH CONTRAST	$	6,749.00
MLH-ADULT	CT ABD AND PEL TRIPLE PHASE	$	7,853.00
MLH-ADULT	MRI ABD WO CONT	$	4,724.00
MLH-ADULT	MRI ABD W CONT	$	5,370.00
MLH-ADULT	MRI ABD W/WO CONT	$	6,434.00
MLH-ADULT	PHARYNX/CERV ESOPHAGUS CONTR W DELAY IMG	$	895.00
MLH-ADULT	DX ESOPHAGUS SINGLE CONTRAST	$	895.00
MLH-ADULT	DX ESOPHAGUS DOUBLE CONTRAST	$	852.00
MLH-ADULT	SWALLOWING FUNCT VIDEO CONT W DELAY IMG	$	895.00
MLH-ADULT	ESOPHAGEAL FB REMOVAL W BALLOON CATH	$	2,038.00
MLH-ADULT	GI UPPER SINGLE CONTRAST W DELAY IMAG	$	895.00
MLH-ADULT	GI UPPER W/WO DELAYED IMAGES W KUB	$	895.00
MLH-ADULT	DX GI UPPER DOUBLE CONTRAST W DELAY IMAG	$	895.00
MLH-ADULT	UGI SMALL BOWEL FOLLOW THRU W/IMAGES	$	129.00
MLH-ADULT	BOWEL SM W MULTI SERIAL IMGES 1 CON	$	895.00
MLH-ADULT	BOWEL SM DBLE CON VIA ENTEROCLYSIS TUBE	$	1,295.00
MLH-ADULT	CONTRAST ENEMA SINGLE CONTRAST AFTER HRS	$	895.00

MLH-ADULT	BARIUM ENEMA DOUBLE CONTRAST AFTER HOURS	$	1,295.00
MLH-ADULT	THER ENEMA CONT/AIR FOR REDUCTION INTUSS	$	895.00
MLH-ADULT	CHOLECYSTOGRAM ORAL CONT	$	895.00
MLH-ADULT	CHOLANGIOGRAM INTRAOPERATIVE	$	969.00
MLH-ADULT	ENDOSCOPIC CATH BILIARY DUCTAL SYSTEM	$	1,938.00
MLH-ADULT	ENDOSCOPIC CATH PANCREATIC DUCTAL SYSTEM	$	1,938.00
MLH-ADULT	ENDOSCOPIC CATH COMBINED BILIARY & PANCR	$	1,938.00
MLH-ADULT	GI LONG TUBE PLACE W MULT FLUORO/FILMS	$	88.00
MLH-ADULT	INTRALUMINAL DILATION STRICT/OBSTRUCT	$	1,524.00
MLH-ADULT	PERCUT DIL BIL STR W/WO ST	$	4,255.00
MLH-ADULT	PYELOGRAM IV W/WO KUB W/WO TOMOGRAPHY	$	1,413.00
MLH-ADULT	PYELOGRAM INF DRIP/BOLUS W NEPHROTOMOGRA	$	1,413.00
MLH-ADULT	PYELOGRAM RETROGRADE W/WO KUB IN OR	$	1,413.00
MLH-ADULT	LOOPOGRAM ANTEGRADE	$	1,413.00
MLH-ADULT	CYSTOGRAM 3+VW	$	1,413.00
MLH-ADULT	VASOGRAM/VESICULOGRAM/EPIDIDYMOGRAM	$	1,413.00
MLH-ADULT	CORPORA CAVERNOSOGRAM	$	1,413.00
MLH-ADULT	URETHROCYSTOGRAM RETROGRADE	$	1,413.00
MLH-ADULT	URETHROCYSTOGRAM VOIDING	$	1,413.00
MLH-ADULT	DX URETER/URETHRA DILATION	$	2,038.00
MLH-ADULT	PELVIMETRY W/WO PLACENTAL LOCAL	$	419.00
MLH-ADULT	MR FETAL IMAG PLAC MAT PEL SNGLE/FIR GES	$	1,608.00
MLH-ADULT	MR FETAL IMAG PLAC MAT PEL EA ADDL GES	$	812.00
MLH-ADULT	HSG	$	2,242.00
MLH-ADULT	PERINEOGRAM/VAGINOGRAM SEX DETERMIN/ANOM	$	1,413.00
MLH-ADULT	MRI CARDIAC MORPH/FUNCT WO CONT	$	3,397.00
MLH-ADULT	MRI CARDIAC MORPH/FUNC W/WO CONT	$	5,193.00
MLH-ADULT	MRI CARDIAC VELOCITY FLOW MAPPING	$	4,667.00
MLH-ADULT	CT CARDIOSCAN	$	99.00
MLH-ADULT	CT HEART W CONTRAST	$	2,347.00
MLH-ADULT	CT HEART CONGENITAL DISEASE	$	2,347.00
MLH-ADULT	CTA CORONARY ART/GRAFTS W CONT&POST PROC	$	2,347.00
MLH-ADULT	AORTAGRAM THORACIC WO SERIALOGRAM	$	8,159.00
MLH-ADULT	AORTOGRAM THORACIC W SERIALOGRAM	$	8,159.00
MLH-ADULT	AORTOGRAM ABD W SERIALOGRAM	$	8,159.00
MLH-ADULT	AORTOGRAM ABD W ILIOFEMORAL EXT LOW BIL	$	8,159.00
MLH-ADULT	CT ANGIO ABD AORTA & EXT RUNOFF W/WO CON	$	3,929.00
MLH-ADULT	ANGIO SPINAL SELECTIVE	$	4,650.00
MLH-ADULT	ANGIO EXT UNIL	$	8,159.00
MLH-ADULT	ANGIO EXT BIL	$	8,159.00
MLH-ADULT	ANGIO VISCERAL SELECTIVE/SUPRASELECTIVE	$	8,159.00
MLH-ADULT	ANGIO ADRENAL SELECTIVE UNIL	$	8,159.00
MLH-ADULT	ANGIO ADRENAL SELECTIVE BIL	$	8,159.00
MLH-ADULT	ANGIO PELVIC SELECTIVE/SUPRASELECTIVE	$	8,159.00
MLH-ADULT	ANGIO PULM SELECTIVE UNIL	$	4,650.00
MLH-ADULT	ANGIO PULM SELECTIVE BIL	$	8,159.00
MLH-ADULT	ANGIO PULM NONSELECTIVE CATH/VENOUS INJ	$	4,650.00

MLH-ADULT	ANGIO SELECT EA ADDL VESSEL AFTER BASIC	$	4,650.00
MLH-ADULT	SHUNTOGRAM PREVIOUSLY PLACED SHUNT NONVA	$	969.00
MLH-ADULT	VENOGRAM EXT UNIL	$	2,605.00
MLH-ADULT	VENOGRAM EXT BIL	$	2,605.00
MLH-ADULT	VENOGRAM CAVAL INFERIOR W SERIALOGRAM	$	4,650.00
MLH-ADULT	VENOGRAM CAVAL SUPERIOR W SERIALOGRAM	$	4,650.00
MLH-ADULT	VENOGRAM RENAL SELECTIVE UNIL	$	2,449.00
MLH-ADULT	VENOGRAM RENAL SELECTIVE BIL	$	2,449.00
MLH-ADULT	VENOGRAM ADRENAL SELECTIVE UNIL	$	2,449.00
MLH-ADULT	VENOGRAM ADRENAL SELECTIVE BIL	$	2,449.00
MLH-ADULT	VENOGRAM SINUS/JUGULAR CATH	$	2,449.00
MLH-ADULT	VENOGRAM SUPERIOR SAGITTAL SINUS	$	2,449.00
MLH-ADULT	VENOGRAM ORBITAL	$	2,449.00
MLH-ADULT	TRANSHEPATIC PORTOGRAM PERCUT W HEMODYNA	$	4,650.00
MLH-ADULT	TRANSHEPATIC PORTOGRAM PERCUT WO HEMODYN	$	5,017.00
MLH-ADULT	VENOGRAM HEPATIC W HEMODYNAMIC EVAL	$	4,650.00
MLH-ADULT	VENOGRAM HEPATIC WO HEMODYNAMIC EVAL	$	4,650.00
MLH-ADULT	VENOUS SAMPLING THROUGH CATH W/WO ANGIO	$	3,131.00
MLH-ADULT	TRANSCATH THER EMBOL ANY METHOD	$	4,255.00
MLH-ADULT	ANGIO FU CATH THER EMBOL/INF NOT THROMB	$	2,242.00
MLH-ADULT	OBSTRUCT MATERIAL REMOVAL PERICATH	$	1,733.00
MLH-ADULT	OBSTRUCT MATERIAL REMOVAL INTRALUMINAL	$	1,163.00
MLH-ADULT	THOR AORTA ENDVS RPR W COV L SBCLV	$	2,107.00
MLH-ADULT	THOR AORTA ENDV RPR WO COV L SUBCLV	$	2,107.00
MLH-ADULT	PLACE THOR AORTA PROX PROSTH	$	2,107.00
MLH-ADULT	PLACE THOR AORTA DISTAL PROSTH	$	2,107.00
MLH-ADULT	TRANSCATH BX	$	8,159.00
MLH-ADULT	TUBE PERCUT/CATH DRNG CHANGE W CONT MONI	$	2,038.00
MLH-ADULT	CT GUIDE ABSCESS DRNG PERCUT W CATH PLAC	$	2,212.00
MLH-ADULT	FLUORO < 1HR	$	825.00
MLH-ADULT	CHEST/ABD FOR FOREIGN BODY, CHILD	$	419.00
MLH-ADULT	ABSCESS/FISTULAR/SINUS TRACT STUDY	$	969.00
MLH-ADULT	SURGICAL SPECIMEN FAXATRON	$	2,518.00
MLH-ADULT	XRAY EXAM CONSULT MADE ELSEWHERE	$	57.00
MLH-ADULT	3D RENDERING W/INTRP WO POSTPROCESS	$	534.00
MLH-ADULT	3D RENDER W/INTRP POSTPROCESS	$	1,393.00
MLH-ADULT	CT LTD/LOCAL FU STUDY	$	1,188.00
MLH-ADULT	MR SPECTROSCOPY	$	4,052.00
MLH-ADULT	MR ELASTOGRAPHY	$	670.00
MLH-ADULT	UNLISTED RADIOLOGY PROCEDURES	$	302.00
MLH-ADULT	US HEAD NEONATAL/ECHOENCEPHALOGRAM	$	927.00
MLH-ADULT	US HEAD & NECK SOFT TISSUES THYROID/PARA	$	927.00
MLH-ADULT	US CHEST	$	927.00
MLH-ADULT	ABD US COMP PED	$	927.00
MLH-ADULT	ECHO EXAM OF ABDOMEN	$	927.00
MLH-ADULT	US ABD AORTA AAA SCRNG	$	631.00
MLH-ADULT	US RETROPERITONEAL B SCAN/REAL TIME COMP	$	927.00

MLH-ADULT	US RETROPERITONEAL/ABD LTD	$	927.00
MLH-ADULT	US KIDNEY TRANSPLANTED W DUPLEX DOPPLER	$	927.00
MLH-ADULT	US SPINE	$	927.00
MLH-ADULT	US OB TRANSABD F&M EVAL < 1ST INIT GEST	$	597.00
MLH-ADULT	US OB TRANSABD F&M EVAL < 1ST EA ADDL GE	$	597.00
MLH-ADULT	US OB COMPLETE 2-3 TRIM	$	927.00
MLH-ADULT	US OB COMPLETE 2-3 TRIMESTER EA ADDL	$	566.00
MLH-ADULT	US OB DETAILED 2-3 TRIMESTER	$	1,499.00
MLH-ADULT	US OB DETAILED 2-3 TRIMESTER EA ADDL	$	983.00
MLH-ADULT	US OB FETAL NUCAL TRANSLUCE	$	845.00
MLH-ADULT	US OB FETAL NUCAL TRANSLUCE EA ADDL	$	534.00
MLH-ADULT	US OB LTD 1+FETUSES	$	566.00
MLH-ADULT	US OB TRANSABD FU/REPEAT EA ADDL FETUS	$	566.00
MLH-ADULT	US OB TRANSVAGINAL	$	566.00
MLH-ADULT	US FETAL BIOPHYSICAL W NON STRESS TESTI	$	927.00
MLH-ADULT	US FETAL BIOPHYS WO NST EA ADDL FETUS	$	927.00
MLH-ADULT	US FETAL DOPPLER VELOCIMETRY UMBIL ARTER	$	1,080.00
MLH-ADULT	US FETAL DOPPLER VELOCIMETRY MIDDLE CERE	$	1,080.00
MLH-ADULT	US FETAL ECHO CV SYSTEM 2D DOCUMENT	$	2,316.00
MLH-ADULT	US FETAL ECHO CV SYSTEM 2D DOCUMENT FU	$	1,250.00
MLH-ADULT	US FETAL ECHO SYSTEM DOPPLER WAVE COMP	$	2,316.00
MLH-ADULT	US FETAL ECHO CV SYSTEM DOPPLER WAVE FU	$	1,250.00
MLH-ADULT	US NON OB TRANSVAGINAL	$	927.00
MLH-ADULT	US HYSTEROSONOGRAM W/WO COLOR FLOW DOPPL	$	927.00
MLH-ADULT	PELVIS NON OB ECHO US PED COMPLETE	$	927.00
MLH-ADULT	US EXAM PELVIC LIMITED	$	566.00
MLH-ADULT	TESTICULAR/SCROTUM US PED	$	927.00
MLH-ADULT	US TRANSRECTAL	$	927.00
MLH-ADULT	US TRANSRECTAL PROSTATE VOL STUDY BRACHY	$	927.00
MLH-ADULT	US EXTR NON-VASC REAL-TIME IMG LMTD	$	537.00
MLH-ADULT	US HIPS INFANT DYNAMIC W MANIPULATION	$	927.00
MLH-ADULT	US HIPS INFANT LTD/STATIC WO MANIPULATIO	$	927.00
MLH-ADULT	US GUIDE PSEUDOANEURYSM/FISTULAE REPAIR	$	1,298.00
MLH-ADULT	US GUIDE VASC ACCESS US EVAL W RECORDING	$	1,431.00
MLH-ADULT	US FOR PARENCHYMAL TISSUE ABLATION	$	1,298.00
MLH-ADULT	ECHO GUIDE FOR BIOPSY	$	1,301.00
MLH-ADULT	US GUIDE FOR AMNIOCENTESIS	$	1,301.00
MLH-ADULT	US GUIDE INTERSTITIAL RADIOELEMENT APPL	$	983.00
MLH-ADULT	US CONTRAST/BUBBLE STUDY INIT LESION	$	586.00
MLH-ADULT	US CONTRAST/BUBBLE STUDY ADDL LESION	$	586.00
MLH-ADULT	US ELASTOGRAPHY ORGAN/PARENCH	$	327.00
MLH-ADULT	US ELASTOGRAPHY TARGET LESION	$	327.00
MLH-ADULT	US ELASTOGRAPHY ADDL TARGET LESION	$	327.00
MLH-ADULT	US GUIDE INTRAOPERATIVE	$	927.00
MLH-ADULT	US PROC UNLISTED	$	927.00
MLH-ADULT	FLUORO GUIDE VAD PLACE/REPLACE/REMOVAL	$	708.00
MLH-ADULT	FLUORO GUIDE BX/ASP/INJ/LOCAL	$	708.00

MLH-ADULT	FLUORO SPINE DX/LP THER INJ NEURLTIC AGT	$	592.00
MLH-ADULT	CT GUIDE STEREO LOCAL	$	3,375.00
MLH-ADULT	CT GUIDE NDL BX	$	3,375.00
MLH-ADULT	CT GUIDE MONITOR VISCERAL TISSUE ABLATIO	$	2,694.00
MLH-ADULT	CT GUIDE RADIATION THER FIELD PLACE	$	1,189.00
MLH-ADULT	MRI GUIDE NEEDLE PLACEMENT	$	3,386.00
MLH-ADULT	MRI GUIDE PARENCHYMAL TISSUE ABLATION	$	3,079.00
MLH-ADULT	MRI BREAST WO CONT UNILATERAL	$	4,724.00
MLH-ADULT	MRI BREAST WO CONT BILATERAL	$	4,724.00
MLH-ADULT	MRI BREAST W/WO CONTRAST UNIL W CAD	$	6,434.00
MLH-ADULT	MRI BREAST W/WO CONTRAST BIL W CAD	$	6,434.00
MLH-ADULT	BREAST GALACTOGRAM SING DUCT	$	969.00
MLH-ADULT	BREAST GALACTOGRAM MULT DUCTS	$	969.00
MLH-ADULT	DIGITAL BREAST TOMOSYNTHESIS UNI	$	278.00
MLH-ADULT	DIGITAL BREAST TOMOSYNTHESIS BIL	$	278.00
MLH-ADULT	SCREENING DIGITAL TOMOSYNTHESIS BIL	$	139.00
MLH-ADULT	BREAST DX MAMMO W/CAD UNILATERAL	$	881.00
MLH-ADULT	BREAST DX MAMMO W/CAD BILATERAL	$	881.00
MLH-ADULT	BREAST SCREEN MAMMO W CAD BIL 2VIEW	$	399.00
MLH-ADULT	BONE AGE STUDY	$	732.00
MLH-ADULT	BONE LENGTH STUDY	$	419.00
MLH-ADULT	CT SKELETON SURVEY LTD	$	732.00
MLH-ADULT	CT SKELETON SURVEY COMPLETE	$	732.00
MLH-ADULT	OSSEOUS SURVEY INFANT	$	732.00
MLH-ADULT	JOINT SURVEY 12VW/2+ JOINTS	$	383.00
MLH-ADULT	CT BONE DENSITY STUDY 1+ SITES AXIAL	$	1,323.00
MLH-ADULT	DXA BONE DENSITY STUDY 1+SITES AXIAL	$	881.00
MLH-ADULT	DXA BONE DENSITY STDY 1+SITES APPENDICUL	$	300.00
MLH-ADULT	MRI BONE MARROW STUDY	$	3,079.00
MLH-ADULT	DXA BONE DENSITY + FRACTURE ASSESS	$	513.00
MLH-ADULT	THER RAD TRMT PLAN SIMP	$	679.00
MLH-ADULT	THER RAD TRMT PLAN INTERMED	$	679.00
MLH-ADULT	THER RAD TRMT PLAN COMPLEX	$	679.00
MLH-ADULT	THER RAD SIMULATION AIDED FIELD SIMP	$	679.00
MLH-ADULT	THER RAD SIMULATION AIDED FIELD INTERMED	$	1,556.00
MLH-ADULT	HDR SIMULATION AIDED FIELD COMPLEX	$	1,556.00
MLH-ADULT	RESPIRATORY MOTION MANAGEMENT SIMULATION	$	1,083.00
MLH-ADULT	3-D RADIOTHER PLAN DOSE-VOLUME HISTOGRAM	$	6,059.00
MLH-ADULT	TTF MAPPING-CLINICAL TXMEENT PLAN-UNLIST	$	679.00
MLH-ADULT	RADIATION DOSIMETRY CALC BASIC	$	679.00
MLH-ADULT	RADIOTHERAPY DOSE PLANNING, IMRT	$	7,139.00
MLH-ADULT	TELETHER ISODOSE PLAN SIMP	$	679.00
MLH-ADULT	TELETHER ISODOSE PLAN COMPLEX	$	1,556.00
MLH-ADULT	BRACHYTHER ISODOSE CALC 1-4 SOURCES SIMP	$	1,556.00
MLH-ADULT	BRACHYTHER ISODOSE CALC 5-10 SOURCE INTE	$	1,556.00
MLH-ADULT	BRACHYTHER ISODOSE CALC 10+ SOURCE COMPL	$	1,556.00
MLH-ADULT	TELETHER PORT PLAN SPEC PARTICLES HEMIBO	$	1,556.00

MLH-ADULT	DOSIMETRY SPECIAL TLD/MICRODOSIMETRY	$	679.00
MLH-ADULT	TRMT DEVICE DESIGN & CONSTRUCT SIMP	$	1,250.00
MLH-ADULT	TRMT DEVICE DESIGN & CONSTRUCT INTERMED	$	1,250.00
MLH-ADULT	TRMT DEVICE DESIGN & CONSTRUCT COMPLEX	$	1,250.00
MLH-ADULT	CONTINUING MEDICAL PHYSICS CONSULT W TRM	$	679.00
MLH-ADULT	MLC IMRT DESIGN & CONSTRUCTION PER IMRT	$	921.00
MLH-ADULT	MEDICAL RADIATION PHYSICS CONSULT SPEC	$	1,556.00
MLH-ADULT	SBRT TX DELIVERY >=1 LESION W/IMAGE GUID	$	7,552.00
MLH-ADULT	RADIATION THERAPY DELIVERY IMRT SIMPLE	$	3,263.00
MLH-ADULT	RADIATION THERAPY DELIVERY IMRT COMPLEX	$	3,263.00
MLH-ADULT	ABC TX DEVICE	$	611.00
MLH-ADULT	MED PHYSICS UNLISTED PROC DOSIMETRY TMNT	$	679.00
MLH-ADULT	RADIATION TRMT DELIVERY MEV SIMPLE	$	863.00
MLH-ADULT	RADIATION TRMT DELIVERY MEV INTERME	$	863.00
MLH-ADULT	RADIATION TRMT DELIVERY MEV COMPLEX	$	863.00
MLH-ADULT	THER RAD PORT FILM/FILMS	$	488.00
MLH-ADULT	NEUTRON BEAM TREATMENT DELIVERY COMPLEX	$	1,072.00
MLH-ADULT	SBRT TX MANAGEM >=1 LESION W/IMAGE GUIDE	$	1,250.00
MLH-ADULT	HDR SPEC TRMT PROC	$	2,099.00
MLH-ADULT	BRACHYTHERAPY INTRACAVITARY:SIMPLE	$	1,526.00
MLH-ADULT	BRACHYTHERAPY INTRACAVITARY:INTERMEDIATE	$	51,761.00
MLH-ADULT	INTRACAVITARY RADIATION SOURCE APPL COMP	$	2,068.00
MLH-ADULT	HDR RDNCL SKN SURF BRACHYTX W/DOS 1 CHAN	$	659.00
MLH-ADULT	HDR RDNCL SKN SURF BRACHYTX W/DOS 2+CHAN	$	659.00
MLH-ADULT	HDR RDNCL NTRSTL/ICAV BRCHTX 1 CHANNEL	$	14,843.00
MLH-ADULT	HDR RDNCL NTRSTL/ICAV BRCHTX 2-12 CHNLS	$	14,843.00
MLH-ADULT	HDR RDNCL NTRSTL/ICAV BRCHTX +12 CHNLS	$	14,843.00
MLH-ADULT	INTERSTITIAL RADIATION SOURCE APPL COMPL	$	51,761.00
MLH-ADULT	SURFACE APPL LDR SOURCE	$	343.00
MLH-ADULT	ISOTOPE/RADIATION HANDLING/LOADING SUPER	$	1.00
MLH-ADULT	UNLISTED BRACHYTHERAPY PROCEDURE	$	14,843.00
MLH-ADULT	NM THYROID UPTAKE SING/MULT QUANT ONLY	$	477.00
MLH-ADULT	NM THYROID IMAGING ONLY	$	639.00
MLH-ADULT	NM THYROID UPTAKE IMAGING W SING/MULT	$	971.00
MLH-ADULT	THYROID CARCINOMA METASTASES WHOLE BODY	$	2,523.00
MLH-ADULT	PARATHYROID PLANAR IMAGE	$	2,107.00
MLH-ADULT	NM PARATHYROID SPECT	$	1,615.00
MLH-ADULT	NM PARATHYROID SPECT W CT IMAGING	$	1,615.00
MLH-ADULT	ADRENAL IMAGING CORTEX AND/OR MEDULLA	$	2,525.00
MLH-ADULT	BONE MARROW SCAN LIMITED	$	2,109.00
MLH-ADULT	BONE MARROW SCAN MULTIPLE	$	2,109.00
MLH-ADULT	BONE MARROW WHOLE BODY	$	2,109.00
MLH-ADULT	RED CELL SURVIVAL STUDY	$	2,107.00
MLH-ADULT	RBC LABELED SEQUESTRATION ORGAN/TISSUE	$	2,107.00
MLH-ADULT	LYMPHATICS & LYMPH NODES IMAGE	$	2,107.00
MLH-ADULT	LIVER IMAGE STATIC ONLY	$	2,107.00
MLH-ADULT	LIVER IMAGE W VASC FLOW	$	2,107.00

MLH-ADULT	LIVER & SPLEEN IMAGE STATIC ONLY	$	2,107.00
MLH-ADULT	LIVER & SPLEEN IMAGE W VASC FLOW	$	2,107.00
MLH-ADULT	HEPATOBIL SYST IMG INCL GB W/O EF	$	2,231.00
MLH-ADULT	HEPATOBIL SYST IMAG INC GB W/EF	$	2,167.00
MLH-ADULT	SALIVARY GLAND IMAGE W SERIAL IMAGE	$	2,107.00
MLH-ADULT	GASTROESOPHAGEAL REFLUX STUDY	$	2,107.00
MLH-ADULT	GASTRIC EMPTYING IMAGING STUDY	$	2,184.00
MLH-ADULT	NM GAST EMPTY STUDY W SMALL BOW TRANS	$	1,955.00
MLH-ADULT	NM GAST EMPT ST W SM BOW/COLN TX MULTDAY	$	2,596.00
MLH-ADULT	GI ACUTE BLOOD LOSS IMAGE	$	2,107.00
MLH-ADULT	INTESTINE IMAGE MECKELS LOCAL	$	2,107.00
MLH-ADULT	PERITONEAL VENOUS SHUNT PATENCY TEST	$	2,107.00
MLH-ADULT	BONE/JT IMAGE LTD AREA	$	2,107.00
MLH-ADULT	BONE/JT IMAGE MULT AREAS	$	2,107.00
MLH-ADULT	BONE/JT IMAGE WHOLE BODY	$	2,163.00
MLH-ADULT	BONE/JT IMAGE 3 PHASE STUDY	$	2,523.00
MLH-ADULT	NM MYOCARD IMAGI PET METOBOLIC EVAL W/CT	$	3,975.00
MLH-ADULT	MYOCRD IMAGE PET PERF RST/STRS SING W/CT	$	3,975.00
MLH-ADULT	MYOCRD IMG PET PERF RST&STRS MULTI W/CT	$	6,213.00
MLH-ADULT	MYOCARD IMAGI PET PERF META DUAL RADIOTR	$	7,593.00
MLH-ADULT	MYOCAR IMG PET PERF META DUAL RADTR W/CT	$	7,593.00
MLH-ADULT	AQMBF PET REST STRESS	$	91.00
MLH-ADULT	NON CARDIAC VASC FLOW IMAGE	$	2,107.00
MLH-ADULT	MYOCARD PERF SPCT SNG STDY NM IMAGE ONLY	$	6,505.00
MLH-ADULT	MYOCARD PERF SPECT MULT STDY NM IMG ONLY	$	6,694.00
MLH-ADULT	MYOCARDIAL PERFUSION PLANAR SING STUDY	$	6,505.00
MLH-ADULT	MYOCARDIAL PERFUSION PLANAR MULT STUDY	$	6,505.00
MLH-ADULT	ACUTE VENOUS THROMBOSIS IMAGE PEPTIDE	$	2,107.00
MLH-ADULT	VENOUS THROMBOSIS IMAGE VENOGRAM BIL	$	2,107.00
MLH-ADULT	MYOCARDIAL IMAGE INFARCT AVID PLANAR	$	2,107.00
MLH-ADULT	MYOCARDIAL IMAGE INFARCT AVID W EJECTION	$	2,523.00
MLH-ADULT	MYOCARDIAL IMAGE INFARCT AVID SPECT	$	2,523.00
MLH-ADULT	CARDIAC BLOOD POOL IMAGE PLANAR SING STU	$	3,251.00
MLH-ADULT	CARDIAC BLOOD POOL IMAGE MULT STUDY WALL	$	3,251.00
MLH-ADULT	MYOCRD IMAGE PET PERF RST/STRS SINGLE	$	3,975.00
MLH-ADULT	MYOCRD IMAGE PET PERF REST/STRESS MULTI	$	3,975.00
MLH-ADULT	PULMONARY VENTILATION IMAGING	$	1,497.00
MLH-ADULT	PULM PERFUSION IMAGE PARTICULATE	$	2,107.00
MLH-ADULT	PULM VENTILATION & PERFUSION IMAGING	$	2,387.00
MLH-ADULT	QUANT DIF PULM PERFUSION W/WO IMAGING	$	1,497.00
MLH-ADULT	QUANT DIFF PULM PRFUSION & VENT W/WO IMG	$	1,497.00
MLH-ADULT	UNLISTED RESPIRATORY PROCEDURE	$	1,317.00
MLH-ADULT	BRAIN IMAGE <4 STAT VW PROC W VASC FLOW	$	2,107.00
MLH-ADULT	BRAIN IMAGE MIN 4 STATIC VWS	$	2,107.00
MLH-ADULT	BRAIN IMAGE MIN 4 STAT VW VASC FLOW	$	2,523.00
MLH-ADULT	CSF IMAGE CISTERNOGRAM	$	2,523.00
MLH-ADULT	CSF IMAGE SHUNT EVAL	$	2,107.00

MLH-ADULT	CSF LEAKAGE DETECT & LOCAL	$	2,523.00
MLH-ADULT	NM KIDNEY IMAGING MORPHOLOGY	$	2,107.00
MLH-ADULT	KIDNEY VASC FLOW ONLY	$	2,107.00
MLH-ADULT	KIDNEY VASC FLOW & FUNCTION SING WO PHAR	$	2,523.00
MLH-ADULT	KIDNEY VASC FLOW & FUNCTION SING W PHARM	$	2,523.00
MLH-ADULT	KIDNEY VASC FLOW & FUNCTION MULT W/WO PH	$	2,523.00
MLH-ADULT	KIDNEY FUNCT STUDY NON-IMAGE RADIOSOTOPI	$	2,107.00
MLH-ADULT	RADIOPHARM VOIDING CYSTOGRAM	$	2,107.00
MLH-ADULT	TESTICULAR IMAGE W VASC FLOW	$	2,107.00
MLH-ADULT	NM RADIOPHARM LOC OF TUMOR 1 AREA/1 DAY	$	2,107.00
MLH-ADULT	NM RADIOPHARM LOC OF TUMOR MULT AREA/DAY	$	2,523.00
MLH-ADULT	NM RADIOPHARM LOC OF TUMOR WHOLE BDY/DAY	$	2,523.00
MLH-ADULT	NM RADPH LOC TUMOR SPECT/TOMO 1AREA/DAY	$	2,523.00
MLH-ADULT	RADIOPHARM LOCAL TUMOR WHOLE BDY 2+DAYS	$	5,053.00
MLH-ADULT	PARATHYROID ADENOMA ID INJ ONLY	$	296.00
MLH-ADULT	NM RADPH LOC TUM SPECT CT SING AREA/DAY	$	3,512.00
MLH-ADULT	NM RADPH LOC TUM SPECT MULTI AREA/DAY	$	3,512.00
MLH-ADULT	NM RADPH LOC TUM SPECT CT MULTI AREA/DAY	$	3,984.00
MLH-ADULT	RADPH QUANT MEAS SINGLE AREA	$	224.00
MLH-ADULT	RADIOPHARM THERAPY ORAL ADMIN	$	3,017.00
MLH-ADULT	RADIOPHARM THERAPY INTRAVENOUS ADMIN	$	3,017.00
MLH-ADULT	RADIOPHARM THER BY INTRACAVITARY ADMIN	$	7,286.00
MLH-ADULT	RADIOPHARM THER MONOCLONAL ANTI IV INFUS	$	7,286.00
MLH-ADULT	RADIOPHARM THER INTRA ARTERIAL PART ADMI	$	3,017.00
MLH-ADULT	BASIC METABOLIC PANEL CALCIUM IONIZED	$	72.00
MLH-ADULT	BASIC METABOLIC PANEL	$	95.00
MLH-ADULT	GENERAL HEALTH PNL	$	105.00
MLH-ADULT	ELECTROLYTE PNL	$	80.00
MLH-ADULT	BMP TO CMP UPGRADE	$	120.00
MLH-ADULT	OBSTETRIC PNL	$	281.00
MLH-ADULT	LIPID PNL	$	184.00
MLH-ADULT	RENAL FUNCTION PNL	$	95.00
MLH-ADULT	ACUTE HEPATITIS PNL	$	638.00
MLH-ADULT	HEPATIC FUNCTION PNL	$	95.00
MLH-ADULT	ADALIMUMAB	$	270.00
MLH-ADULT	AMIKACIN	$	209.00
MLH-ADULT	DRUG SCREEN QUANT CAFFEINE	$	140.00
MLH-ADULT	CARBAMAZEPINE TOTAL	$	201.00
MLH-ADULT	CARBAMAZEPINE FREE	$	138.00
MLH-ADULT	CYCLOSPORINE	$	251.00
MLH-ADULT	DRUG SCREEN QUANT CLOZAPINE	$	185.00
MLH-ADULT	DIGOXIN	$	184.00
MLH-ADULT	ASSAY OF DIGOXIN FREE	$	127.00
MLH-ADULT	VALPORIC ACID M	$	187.00
MLH-ADULT	ETHOSUXIMIDE	$	226.00
MLH-ADULT	DRUG SCREEN QUANT EVEROLIMUS	$	138.00
MLH-ADULT	GENTAMICIN PEAK	$	228.00

MLH-ADULT	DRUG SCREEN QUANT GABAPENTIN	$	133.00
MLH-ADULT	HALOPERIDOL	$	201.00
MLH-ADULT	DRUG SCREEN QUANT LAMOTRIGINE	$	133.00
MLH-ADULT	LIDOCAINE	$	204.00
MLH-ADULT	DRUG SCREEN QUANT LEVETIRACETAM	$	133.00
MLH-ADULT	LITHIUM	$	93.00
MLH-ADULT	DRUG SCREEN QUANT MYCOPHENOLATE	$	181.00
MLH-ADULT	DRUG SCREEN QUANT OXCARBAZEPINE	$	133.00
MLH-ADULT	ASSAY OF PHENOBARBITAL(PRIM/PBARB)	$	160.00
MLH-ADULT	PHENYTOIN TOTAL/DILANTIN	$	184.00
MLH-ADULT	PHENYTOIN FREE	$	191.00
MLH-ADULT	POSACONAZOLE	$	190.00
MLH-ADULT	ASSAY OF PRIMIDONE(PRIM/PBARB)	$	230.00
MLH-ADULT	PROCAINAMIDE W METABOLITES NAPA	$	232.00
MLH-ADULT	QUINIDINE	$	201.00
MLH-ADULT	QUANT DRUG RAPAMYCIN(SIROLIMUS)	$	158.00
MLH-ADULT	TACROLIMUS FK506	$	190.00
MLH-ADULT	THEOPHYLLINE	$	196.00
MLH-ADULT	DRUG SCREEN QUANT TIAGABINE	$	181.00
MLH-ADULT	TOBRAMYCIN PEAK	$	224.00
MLH-ADULT	TOPIRAMATE	$	180.00
MLH-ADULT	VANCOMYCIN OTHER BODY FLUID	$	187.00
MLH-ADULT	DRUG SCREEN QUANT ZONISAMIDE	$	133.00
MLH-ADULT	INFLIXIMAB	$	270.00
MLH-ADULT	LACOSAMIDE	$	190.00
MLH-ADULT	VORICONAZOLE	$	190.00
MLH-ADULT	QUANT DRUG METHOTREXATE	$	190.00
MLH-ADULT	DRUG TEST PRESUMPTIVE DIR OPTICAL OBS	$	110.00
MLH-ADULT	DRUG TEST PRESUPT INSTRMNT DIR OPTIC OBS	$	147.00
MLH-ADULT	DRUG TEST PRESUPT INSTRMNT CHEM ANALYZER	$	559.00
MLH-ADULT	ALCOHOLS	$	150.00
MLH-ADULT	ALCOHOLS BIOMARKERS 1OR 2	$	150.00
MLH-ADULT	ALCOHOLS BIOMARKERS 3 OR MORE	$	150.00
MLH-ADULT	ALKALOIDS NOS	$	247.00
MLH-ADULT	AMPHETAMINES 1 OR 2	$	216.00
MLH-ADULT	AMPHETAMINES 3 OR 4	$	216.00
MLH-ADULT	AMPHETAMINES 5 OR MORE	$	216.00
MLH-ADULT	ANABOLIC STERIODS 1 OR 2	$	358.00
MLH-ADULT	ANABOLIC STERIODS 3 OR MORE	$	358.00
MLH-ADULT	ANALGESICS NON OPIOID 1 OR 2	$	274.00
MLH-ADULT	ANALGESICS NON OPIOID 3-5	$	274.00
MLH-ADULT	ANALGESICS NON OPIOID 6+	$	274.00
MLH-ADULT	ANTIDEPRESSANT SEROTONERGIC CLASS 1 OR 2	$	150.00
MLH-ADULT	ANTIDEPRESSANTS SEROTONERGIC CLASS 3-5	$	150.00
MLH-ADULT	ANTIDEPRESSANT TRICYCLIC/CYCLICAL 1 OR 2	$	239.00
MLH-ADULT	ANTIDEPRESSANT TRICYCLIC/CYCLICAL 3-5	$	239.00
MLH-ADULT	ANTIDEPRESSANT TRICYCLIC/CYCLICAL 6+	$	239.00

MLH-ADULT	ANTIDEPRESSANTS NOS	$	250.00
MLH-ADULT	ANTIEPILEPTICS NOS 1-3	$	204.00
MLH-ADULT	ANTIEPILEPTICS NOS 4-6	$	204.00
MLH-ADULT	ANTIEPILEPTICS NOS 7 OR MORE	$	204.00
MLH-ADULT	ANTIPSYCHOTICS NOS 1-3	$	216.00
MLH-ADULT	ANTIPSYCHOTICS NOS 4-6	$	216.00
MLH-ADULT	ANTIPSYCHOTICS NOS 7 OR MORE	$	216.00
MLH-ADULT	BARBITURATES	$	158.00
MLH-ADULT	BENZODIAZEINES 1-12	$	257.00
MLH-ADULT	BUPRENORPHINE	$	150.00
MLH-ADULT	CANNABINOIDS NATURAL	$	150.00
MLH-ADULT	COCAINE	$	133.00
MLH-ADULT	FENTANYL	$	250.00
MLH-ADULT	GABAPENTIN NON-BLOOD	$	250.00
MLH-ADULT	HEROIN METABOLITE	$	150.00
MLH-ADULT	KETAMINE AND NORKETAMINE	$	150.00
MLH-ADULT	METHADONE	$	232.00
MLH-ADULT	METHYLENEDIOXYAMPHETAMINES	$	150.00
MLH-ADULT	METHYLPHENIDATE	$	250.00
MLH-ADULT	OPIATES 1 OR MORE	$	195.00
MLH-ADULT	OPIOIDS & OPIATE ANALOGS 1 OR 2	$	195.00
MLH-ADULT	OPIOID & OPIATE ANALOG 5/MORE	$	150.00
MLH-ADULT	OXYCODONE	$	150.00
MLH-ADULT	PREGABALIN	$	250.00
MLH-ADULT	PROPOXYPHENE	$	150.00
MLH-ADULT	SEDATIVE HYPNOTICS	$	95.00
MLH-ADULT	SKELETAL MUSCLE RELAXER 1 OR 2	$	245.00
MLH-ADULT	SKELETAL MUSCLE RELAXER 3 OR MORE	$	245.00
MLH-ADULT	TAPENTADOL	$	250.00
MLH-ADULT	TRAMADOL	$	250.00
MLH-ADULT	DRUG OR SUBSTANCE QUAL/QUANT NOS 1-3	$	273.00
MLH-ADULT	DRUG/SUBSTANCE NOS 7/MORE	$	150.00
MLH-ADULT	LAB PATHOLOGY CONSULT LIMITED	$	220.00
MLH-ADULT	URINALYSIS AUTO W MICRO	$	44.00
MLH-ADULT	URINALYSIS DIPSTICK NON AUTO W/O SCOPE	$	33.00
MLH-ADULT	URINALYSIS AUTO WO MICRO	$	31.00
MLH-ADULT	URINALYSIS QUAL/SEMIQUANT ARYLSULFATASE	$	31.00
MLH-ADULT	URINALYSIS MICRO ONLY URINE	$	44.00
MLH-ADULT	URINALYSIS 2/3 GLASS TEST METAB SCRN URI	$	51.00
MLH-ADULT	URINE PREG TEST	$	44.00
MLH-ADULT	VOL MEASURE TIME COLL MAGNESIUM 2HR URIN	$	43.00
MLH-ADULT	BRCA 1&2 SEQ & FULL DUP/DEL ANALYSIS	$	14,193.00
MLH-ADULT	BRCA 1&2 FULL SEQ ANALYSIS	$	3,276.00
MLH-ADULT	BRCA 1&2 FULL DUP/DEL ANALYSIS	$	4,090.00
MLH-ADULT	ABL1 GENE ANALYSIS	$	2,323.00
MLH-ADULT	APC GENE FULL SEQUENCE	$	508.00
MLH-ADULT	BCR/ABL1 GENE MAJOR BP	$	55.00

MLH-ADULT	BCR/ABL1 GENE MINOR BP	$	55.00
MLH-ADULT	BRAF GENE	$	1,262.00
MLH-ADULT	CEBPA GENE FULL SEQUENCE	$	896.00
MLH-ADULT	CALRETICULIN MUTATION ANALYSIS	$	896.00
MLH-ADULT	CFTR GENE COM VARIANTS	$	282.00
MLH-ADULT	CFTR GENE DUP/DELET VARIANTS	$	55.00
MLH-ADULT	CFTR GENE FULL SEQUENCE	$	282.00
MLH-ADULT	CFTR GENE INTRON POLY T	$	282.00
MLH-ADULT	CYP2C9 GENE COM VARIANTS	$	1,287.00
MLH-ADULT	CYTOGENOM CONST MICROARRAY COPY NUMBER	$	55.00
MLH-ADULT	CYTOGEN M ARRAY COPY NUMBER & SNP	$	1,884.00
MLH-ADULT	DPYD GENE COMMON VARIANTS	$	1,224.00
MLH-ADULT	EGFR GENE ANALYSIS	$	2,323.00
MLH-ADULT	F2 GENE	$	221.00
MLH-ADULT	F5 GENE	$	221.00
MLH-ADULT	FMR1 GENE DETECTION	$	445.00
MLH-ADULT	FMR1 GENE CHARACTERIZATION	$	341.00
MLH-ADULT	FLT3 GENE ANAL INRNL TANDEM DUP VARIANT	$	1,168.00
MLH-ADULT	FLT3 GENE ANALYSIS	$	630.00
MLH-ADULT	GBA GENE	$	334.00
MLH-ADULT	GJB2 GENE FULL SEQUENCE	$	334.00
MLH-ADULT	HEXA GENE	$	451.00
MLH-ADULT	HFE GENE	$	277.00
MLH-ADULT	IGH GENE REARRANGE AMP METH	$	226.00
MLH-ADULT	IGK REARRANGEABN CLONAL POP	$	336.00
MLH-ADULT	STR MARKERS SPECIMEN ANAL	$	2,151.00
MLH-ADULT	STR MARKERS SPEC ANAL ADDL	$	1,470.00
MLH-ADULT	CHIMERISM ANAL NO CELL SELEC	$	2,075.00
MLH-ADULT	CHIMERISM ANAL W/CELL SELECT	$	2,608.00
MLH-ADULT	JAK2 GENE	$	55.00
MLH-ADULT	KIT GENE TARGETED SEQ ANALYS	$	2,323.00
MLH-ADULT	KIT GENE ANALYS D816 VARIANT	$	656.00
MLH-ADULT	KRAS GENE IN EXON 2	$	1,390.00
MLH-ADULT	MGMT GENE METHYLATION ANALYSIS	$	872.00
MLH-ADULT	MLH1 GENE	$	1,125.00
MLH-ADULT	MTHFR GENE	$	277.00
MLH-ADULT	MLH1 GENE FULL SEQ	$	4,548.00
MLH-ADULT	MSH2 GENE FULL SEQ	$	1,068.00
MLH-ADULT	MSH6 GENE FULL SEQ	$	2,026.00
MLH-ADULT	MECP2 GENE FULL SEQ	$	336.00
MLH-ADULT	NPM1 GENE	$	1,740.00
MLH-ADULT	PML/RARALPHA COM BREAKPOINTS	$	2,037.00
MLH-ADULT	PTEN GENE FULL SEQUENCE	$	4,228.00
MLH-ADULT	PTEN GENE DUP/DELET VARIANT	$	2,100.00
MLH-ADULT	SNRPN/UBE3A GENE	$	336.00
MLH-ADULT	TRB GENE REARRANGE AMPLIFY	$	2,006.00
MLH-ADULT	TRG GENE REARRANGEMENT ANAL	$	1,935.00

MLH-ADULT	VKORC1 GENE	$	55.00
MLH-ADULT	HLA I & II TYPING LR	$	4,022.00
MLH-ADULT	HLA I & II TYPE VERIFY LR	$	2,407.00
MLH-ADULT	HLA I TYPING COMPLETE LR	$	281.00
MLH-ADULT	HLA I TYPING 1 LOCUS LR	$	1,114.00
MLH-ADULT	HLA I TYPING 1 ANTIGEN LR	$	224.00
MLH-ADULT	HLA II TYPING AG EQUIV LR	$	1,908.00
MLH-ADULT	HLA II TYPING 1 LOCUS LR	$	222.00
MLH-ADULT	HLA II TYPE 1 AG EQUIV LR	$	224.00
MLH-ADULT	HLA I & II TYPING HR	$	3,456.00
MLH-ADULT	HLA I TYPING COMPLETE HR	$	3,198.00
MLH-ADULT	HLA I TYPING 1 LOCUS HR	$	1,794.00
MLH-ADULT	HLA I TYPING 1 ALLELE HR	$	948.00
MLH-ADULT	HLA II TYPING 1 LOC HR	$	224.00
MLH-ADULT	HLA II TYPING 1 ALLELE HR	$	396.00
MLH-ADULT	MOLECULAR PATHOLOGY PROCEDURE LEVEL 1A	$	448.00
MLH-ADULT	MOLECULAR PATHOLOGY PROCEDURE LEVEL 2A	$	959.00
MLH-ADULT	MOLECULAR PATHOLOGY PROCEDURE LEVEL 3A	$	1,297.00
MLH-ADULT	MOLECULAR PATHOLOGY PROCEDURE LEVEL 4A	$	1,297.00
MLH-ADULT	MOLECULAR PATHOLOGY PROCEDURE LEVEL 5A	$	1,924.00
MLH-ADULT	MOLECULAR PATHOLOGY PROCEDURE LEVEL 6A	$	2,109.00
MLH-ADULT	MOLECULAR PATHOLOGY PROCEDURE LEVEL 7A	$	500.00
MLH-ADULT	MOLECULAR PATHOLOGY PROCEDURE LEVEL 8A	$	5,924.00
MLH-ADULT	MOLECULAR PATHOLOGY PROCEDURE LEVEL 9A	$	396.00
MLH-ADULT	FETAL CHRMOML ANEUPLOIDY	$	5,616.00
MLH-ADULT	TARGETED GENOME SEQ PANEL	$	4,215.00
MLH-ADULT	TARGETED GENOMIC SEQ ANALYS	$	4,215.00
MLH-ADULT	UNLISTED MOLELCULAR PATHOLOGY PROCEDURE	$	396.00
MLH-ADULT	ONCO (OVARIAN) FIVE PROTEINS	$	614.00
MLH-ADULT	FETAL CONGENITAL ABNOR ASSAY THREE ANAL	$	25.00
MLH-ADULT	FETAL CONGENITAL ABNOR ASSAY FOUR ANAL	$	32.00
MLH-ADULT	ONCOLOGY BREAST MRNA	$	4,620.00
MLH-ADULT	LIVER FIBROSIS PANEL	$	271.00
MLH-ADULT	KETONES SERUM QUAL	$	64.00
MLH-ADULT	ACETOACETATE SERUM QUANT	$	114.00
MLH-ADULT	ACYLCARNITINES QUANT PLASMA	$	81.00
MLH-ADULT	ACTH/ADRENOCORTICOTROPIC HORMONE	$	536.00
MLH-ADULT	ADENOSINE 5' MONOPHOSPH CYCLIC URINE	$	358.00
MLH-ADULT	ALBUMIN SERUM PLASMA/WHOLE BLOOD	$	69.00
MLH-ADULT	ALBUMIN CSF QUANT	$	31.00
MLH-ADULT	ALBUMIN MICROALBUMIN URINE QUANT	$	31.00
MLH-ADULT	ALBUMIN ISCHEMIA MODIFIED	$	474.00
MLH-ADULT	ALCOHOL BREATH	$	167.00
MLH-ADULT	ALDOLASE	$	134.00
MLH-ADULT	ALDOSTERONE SERUM	$	252.00
MLH-ADULT	ALPHA 1 ANTITRYPSIN TOTAL	$	186.00
MLH-ADULT	ALPHA 1 ANTITRYPSIN PHENOTYPE	$	201.00

MLH-ADULT	ALPHA FETOPROTEIN SERUM	$	232.00
MLH-ADULT	ALPHA FETOPROTEIN AMNIOTIC FLUID	$	232.00
MLH-ADULT	ALPHA-FETOPROTEIN L3	$	619.00
MLH-ADULT	ALUMINUM SERUM	$	286.00
MLH-ADULT	AMINO ACIDS SING QUAL METAB SCRN URINE	$	193.00
MLH-ADULT	AMINO ACID MULT QUAL EACH	$	193.00
MLH-ADULT	AMINO ACIDS SINGLE QUANT	$	234.00
MLH-ADULT	AMINOLEVULINIC ACID DELTA ALA	$	229.00
MLH-ADULT	AMINO ACIDS 6+ QUANT EA	$	81.00
MLH-ADULT	AMMONIA	$	201.00
MLH-ADULT	AMNIOTIC FLUID SCAN	$	95.00
MLH-ADULT	AMYLASE	$	91.00
MLH-ADULT	ANDROSTANEDIOL GLUCURONIDE	$	400.00
MLH-ADULT	ANDROSTENEDIONE	$	405.00
MLH-ADULT	ANGIOTENSIN I CONVERT ENZYME	$	203.00
MLH-ADULT	ASSAY OF APOLIPOPROTEIN	$	215.00
MLH-ADULT	ARSENIC BLOOD	$	286.00
MLH-ADULT	ASCORBIC ACID VIT C	$	137.00
MLH-ADULT	BETA 2 MICROGLOBULIN SERUM	$	224.00
MLH-ADULT	BILE ACIDS TOTAL CHOLYGLYCINE	$	230.00
MLH-ADULT	BILIRUBIN TOTAL	$	71.00
MLH-ADULT	BILIRUBIN DIRECT	$	71.00
MLH-ADULT	BIOTINIDASE EA SPEC	$	81.00
MLH-ADULT	BLD OCLT PROXIDASE ACTV QUAL FECES 1 DET	$	45.00
MLH-ADULT	BLOOD OCCULT QUAL OTH SRCE SINGLE DETERM	$	45.00
MLH-ADULT	BLOOD OCCULT PEROXIDASE QUAL FECES 1-3	$	45.00
MLH-ADULT	FECAL OCCULT IMMUNOASSAY	$	137.00
MLH-ADULT	ASSAY OF CADMIUM	$	319.00
MLH-ADULT	VITAM D 25 HYDROXY	$	410.00
MLH-ADULT	CALCITONIN	$	242.00
MLH-ADULT	CALCIUM FLUID	$	71.00
MLH-ADULT	CALCIUM IONIZED	$	190.00
MLH-ADULT	CALCIUM URINE QUANT	$	83.00
MLH-ADULT	KIDNEY STONE ANALYSIS	$	179.00
MLH-ADULT	CARBOHYDRATE DEFICIENT TRANSFERRIN	$	250.00
MLH-ADULT	CARBON DIOXIDE CO2 ISTAT	$	69.00
MLH-ADULT	CARBOXYHEMOGLOBIN QUANT	$	171.00
MLH-ADULT	CARCINOEMBRYONIC AG CEA	$	262.00
MLH-ADULT	CARNITINE QUANT	$	81.00
MLH-ADULT	CAROTENE	$	128.00
MLH-ADULT	CATECHOLAMINE FRACTION PLASMA/URINE	$	350.00
MLH-ADULT	CERULOPLASMIN	$	150.00
MLH-ADULT	CHEMILUMINESCENT ASSAY	$	200.00
MLH-ADULT	CHLORAMPHENICOL SERUM	$	176.00
MLH-ADULT	CHLORIDE BLOOD	$	64.00
MLH-ADULT	CHLORIDE URINE RANDOM	$	71.00
MLH-ADULT	CHLORIDE FLUID	$	60.00

MLH-ADULT	CHOLESTEROL SERUM/WHOLE BLOOD TOTAL	$	60.00
MLH-ADULT	CHOLINESTERASE/PSEUDOCHOLIN SERUM	$	109.00
MLH-ADULT	CHOLINESTERASE RBC	$	106.00
MLH-ADULT	CHROMIUM	$	272.00
MLH-ADULT	CITRATE	$	386.00
MLH-ADULT	COLLAGEN CROSS LINK	$	203.00
MLH-ADULT	COPPER LIVER	$	173.00
MLH-ADULT	CORTICOSTERONE	$	312.00
MLH-ADULT	CORTISOL FREE URINE	$	191.00
MLH-ADULT	CORTISOL TOTAL	$	225.00
MLH-ADULT	COLUMN CHROMOTOGRAPHY ANALYSIS QUANT	$	273.00
MLH-ADULT	CPK TOTAL REFERRED	$	92.00
MLH-ADULT	CK ISOENZYMES	$	184.00
MLH-ADULT	CK MB FRACTION ONLY	$	161.00
MLH-ADULT	CREATININE BLOOD	$	71.00
MLH-ADULT	C-PEPTIDE URINE	$	72.00
MLH-ADULT	CREATININE CLEARANCE	$	132.00
MLH-ADULT	CRYOFIBRINOGEN	$	120.00
MLH-ADULT	CRYOGLOBULIN QUAL/SEMI QUANT	$	91.00
MLH-ADULT	CYANIDE	$	269.00
MLH-ADULT	B12/FOLATE PROF	$	209.00
MLH-ADULT	CYANOCOBALAMIN B12 BIND CAPACITY UNSATUR	$	200.00
MLH-ADULT	CYSTAIN C	$	97.00
MLH-ADULT	CYSTINE/HOMOCYSTIN METAB SCRN URINE QUAL	$	114.00
MLH-ADULT	DHEA/DEHYDROEPIANDROSTERONE	$	349.00
MLH-ADULT	DHEA SULFATE	$	307.00
MLH-ADULT	DESOXYCORTICOSTERONE 11	$	429.00
MLH-ADULT	DEOXYCORTISOL 11 COMPOUND S METYRAPONE	$	405.00
MLH-ADULT	DIBUCAINE NUMBER	$	169.00
MLH-ADULT	DIHYDROXYVITAMIN D 1 25	$	534.00
MLH-ADULT	ELASTASE PANCREATIC I	$	160.00
MLH-ADULT	ENZYME CELL ACTIVITY	$	251.00
MLH-ADULT	ENZYME CELL ACTIVITY	$	251.00
MLH-ADULT	ELECTROPHORETIC TECHNIQUE	$	477.00
MLH-ADULT	ERYTHROPOIETIN	$	260.00
MLH-ADULT	ESTRADIOL	$	387.00
MLH-ADULT	ASSAY OF ESTROGENS	$	323.00
MLH-ADULT	ESTROGENS TOTAL	$	301.00
MLH-ADULT	ESTRIOL TOTAL	$	334.00
MLH-ADULT	ESTRONE	$	346.00
MLH-ADULT	ETHYLENE GLYCOL	$	145.00
MLH-ADULT	FAT LIPIDS QUANT	$	232.00
MLH-ADULT	ASSAY OF BLOOD FATTY ACIDS NONESTERIFIED	$	184.00
MLH-ADULT	VERY LONG CHAIN FATTY ACID PEROXISOMAL	$	251.00
MLH-ADULT	ANEMIA PROFILE	$	190.00
MLH-ADULT	FETAL FIBRONECTIN	$	891.00
MLH-ADULT	FLUORIDE	$	257.00

MLH-ADULT	FOLIC ACID SERUM	$	203.00
MLH-ADULT	FOLATE (RED CELL)	$	240.00
MLH-ADULT	GALACTOKINASE BLOOD	$	298.00
MLH-ADULT	GALACTOSE	$	155.00
MLH-ADULT	GAMMAGLOBULIN	$	129.00
MLH-ADULT	GAMMAGLOBULIN IGE	$	229.00
MLH-ADULT	GAMMAGLOBULIN IGG SUBCLASSES EA	$	111.00
MLH-ADULT	GASES BLOOD PH ONLY	$	27.00
MLH-ADULT	GASES BLOOD ART	$	269.00
MLH-ADULT	GASES/BLOOD COMBINATION W O2 SATURATION	$	394.00
MLH-ADULT	GASES BLOOD 02 SATURATION ONLY DIRECT ME	$	122.00
MLH-ADULT	GASTRIC ACID FREE/TOTAL EA SPECIMEN	$	92.00
MLH-ADULT	GASTRIN	$	245.00
MLH-ADULT	GLUCAGON	$	200.00
MLH-ADULT	GLUCOSE BODY FLUID	$	55.00
MLH-ADULT	GLUCOSE QUANT BLOOD FASTING	$	55.00
MLH-ADULT	GLUCOSE BLOOD REAGENT STRIP	$	44.00
MLH-ADULT	GLUCOSE GTT 3SPEC/4HR	$	122.00
MLH-ADULT	GLUCOSE GTT EA ADDL BEYOND 3 SPECIMENS	$	55.00
MLH-ADULT	G6PD QUANT DFA	$	134.00
MLH-ADULT	ACCUCHECK GLUCOSE	$	44.00
MLH-ADULT	GLUCOSIDASE BETA	$	298.00
MLH-ADULT	ASSAY OF GGT	$	101.00
MLH-ADULT	ASSAY OF GLUTATHIONE	$	200.00
MLH-ADULT	GLYCATED PROTEIN ALPHA 1 ACID	$	208.00
MLH-ADULT	GONADOTROPIN FSH	$	258.00
MLH-ADULT	GONADOTROPIN LH	$	257.00
MLH-ADULT	GROWTH HORMONE HUMAN SOMATOTROPIN	$	231.00
MLH-ADULT	GROWTH STIMULATION CARDIO IQ ST2 SOLUBLE	$	529.00
MLH-ADULT	ASSAY OF HAPTOGLOBIN QUANT	$	175.00
MLH-ADULT	H PYLORI ANALYSIS (UBIT)	$	635.00
MLH-ADULT	HEAVY METAL QUANT SCREEN	$	304.00
MLH-ADULT	HGB ELECTROPHORESIS	$	123.00
MLH-ADULT	HEMOGLOBIN F FETAL CHEMICAL	$	251.00
MLH-ADULT	HEMOGLOBIN F RED CELL QUAL	$	83.00
MLH-ADULT	HGB GLYCOSYLATED	$	134.00
MLH-ADULT	HEMOGLOBIN METHEMOGLOBIN QUANT	$	43.00
MLH-ADULT	HEMOGLOBIN PLASMA	$	101.00
MLH-ADULT	HGB UNSTABLE SCRN ISOPROPANOL	$	41.00
MLH-ADULT	HEMOGLOBIN URINE	$	48.00
MLH-ADULT	BETA HEXOSAMINIDASE A TOTAL SERUM	$	81.00
MLH-ADULT	ASSAY OF HISTAMINE	$	409.00
MLH-ADULT	HOMOCYSTEINE	$	234.00
MLH-ADULT	HOMOVANILLIC ACID URINE	$	269.00
MLH-ADULT	HYDROXYCORTICOSTEROIDS 17	$	243.00
MLH-ADULT	HYDROXYINDOLACETIC ACID 5 HIAA	$	179.00
MLH-ADULT	HYDROXYPROGESTERONE 17D	$	377.00

MLH-ADULT	HYDROXYPROLINE FREE 24HR URINE	$	315.00
MLH-ADULT	HYDROXYPROLINE TOTAL URINE	$	336.00
MLH-ADULT	IA ANALYTE ENDOMYSIAL AB SEMIQUANT MULT	$	174.00
MLH-ADULT	RIA NONANTIBODY	$	187.00
MLH-ADULT	IA ANALYTE QUANT ANTI MULLERIAN HORMONE	$	179.00
MLH-ADULT	INSULIN PEDIATRIC	$	158.00
MLH-ADULT	INSULIN FREE	$	175.00
MLH-ADULT	IRON	$	91.00
MLH-ADULT	IRON BINDING CAPACITY	$	122.00
MLH-ADULT	KETOSTEROIDS 17	$	178.00
MLH-ADULT	ASSAY OF LACTIC ACID NEURO	$	149.00
MLH-ADULT	LACTATE DEHYDROGENASE/LD CSF	$	84.00
MLH-ADULT	LD ISOENZYMES	$	140.00
MLH-ADULT	LACTOFERRIN FECAL QUANT	$	196.00
MLH-ADULT	LEAD BLOOD	$	167.00
MLH-ADULT	FETAL LUNG MATURITY ASSESS LS RATIO	$	304.00
MLH-ADULT	LEUCINE AMINOPEPTIDASE/LAP	$	116.00
MLH-ADULT	ASSAY LIPASE OTHER SOURCE	$	95.00
MLH-ADULT	LIPOPROTEIN	$	150.00
MLH-ADULT	LIPOPROTEIN BLOOD ELECTROPHORETIC	$	183.00
MLH-ADULT	VAP/LIPOPROTEIN BLOOD FRACTION & QUANT	$	344.00
MLH-ADULT	LIPOPROTEIN	$	273.00
MLH-ADULT	LIPOPROTEIN/HDL	$	114.00
MLH-ADULT	LIPOPROTEIN DIR MEAS LDL CHOLESTEROL	$	102.00
MLH-ADULT	GONADOTROPIN RLSNG HORMONE	$	224.00
MLH-ADULT	ASSAY OF MAGNESIUM	$	94.00
MLH-ADULT	MANGANESE RANDOM URINE	$	343.00
MLH-ADULT	MASS & TANDEM SPECTRO ANAL QUANT	$	250.00
MLH-ADULT	MERCURY BLOOD	$	225.00
MLH-ADULT	ASSAY OF METANEPHRINES FRACTIONATED	$	235.00
MLH-ADULT	METHEMALBUMIN	$	150.00
MLH-ADULT	MUCOPOLYSACCHARIDES ACID QUANT	$	275.00
MLH-ADULT	MYELIN BASIC PROTEIN CSF	$	239.00
MLH-ADULT	MYOGLOBIN	$	179.00
MLH-ADULT	ASSAY MYELOPEROXIDASE P-ANCA	$	119.00
MLH-ADULT	NATRIURECTIC PEPTIDE-PRO BNP	$	307.00
MLH-ADULT	ASSAY, NEPHELOMETRY NOT SPEC	$	134.00
MLH-ADULT	NICKEL 24HR URINE	$	341.00
MLH-ADULT	NUCLEOTIDASE 5	$	153.00
MLH-ADULT	OLIGOCLONAL IMMUNE (OLIGOCLONAL BANDS)	$	280.00
MLH-ADULT	ORGANIC ACID TOTAL GC URINE	$	209.00
MLH-ADULT	ORGANIC ACID QUAL TOTAL SCRN URINE	$	209.00
MLH-ADULT	ORGANIC ACID SING QUANT METHYLMALONIC	$	210.00
MLH-ADULT	OSMOLALITY BLOOD	$	93.00
MLH-ADULT	OSMOLALITY URINE	$	95.00
MLH-ADULT	OSTEOCALCIN	$	396.00
MLH-ADULT	OXALATE SERUM/PLASMA	$	179.00

MLH-ADULT	DCP-DES-GAMMA-CARBOXY-PROTHROMBIN	$	673.00
MLH-ADULT	PARATHORMONE/PTH INTACT W CA	$	573.00
MLH-ADULT	PH BODY FLUID	$	28.00
MLH-ADULT	ASSAY FOR PHENCYCLIDINE	$	147.00
MLH-ADULT	CALPROTECTIN STOOL	$	173.00
MLH-ADULT	PKU BLOOD	$	77.00
MLH-ADULT	PHOSPHATASE ACID TOTAL	$	102.00
MLH-ADULT	PHOSPHATASE ACID PROSTATIC	$	134.00
MLH-ADULT	ALKALINE PHOSPHATASE FRACTIONATION	$	72.00
MLH-ADULT	PHOSPHATASE ALKALINE HEAT STABLE	$	102.00
MLH-ADULT	PHOSPHATASE ALKALINE ISOENZYMES	$	194.00
MLH-ADULT	PHOSPHATIDYLGLYCEROL/PG	$	230.00
MLH-ADULT	PHOSPHOHEXOSE ISOMERASE	$	142.00
MLH-ADULT	PHOSPHORUS INORGANIC FLUID/PHOSPHATE	$	60.00
MLH-ADULT	ASSAY OF URINE PHOSPHORUS	$	72.00
MLH-ADULT	PORPHOBILINOGEN URINE QUAL	$	59.00
MLH-ADULT	PORPHOBILINOGEN URINE QUANT	$	118.00
MLH-ADULT	RUPTURE OF MEMBRANE (ROM PLUS)	$	619.00
MLH-ADULT	PORPHYRINS URINE QUAL	$	130.00
MLH-ADULT	PORPHYRINS URINE QUANTITATION & FRACTION	$	205.00
MLH-ADULT	PORPHYRINS FECES QUANT	$	354.00
MLH-ADULT	POTASSIUM FLUID	$	65.00
MLH-ADULT	POTASSIUM URINE	$	60.00
MLH-ADULT	PREALBUMIN	$	175.00
MLH-ADULT	PREGNANETRIOL	$	260.00
MLH-ADULT	PREGNENOLONE	$	218.00
MLH-ADULT	17 HYDROXYPREGNENOLONE	$	318.00
MLH-ADULT	PROGESTERONE	$	289.00
MLH-ADULT	PROCALCITONIN	$	165.00
MLH-ADULT	PROLACTIN	$	269.00
MLH-ADULT	PROSTAGLANDIN URINE	$	347.00
MLH-ADULT	PROSTATIC SPECIFIC AG TOTAL	$	256.00
MLH-ADULT	PROSTATE SPECIFIC ANTIGEN FREE ASSAY	$	256.00
MLH-ADULT	PROTEIN TOTAL SERUM PLASMA/WHOLE BLOOD	$	51.00
MLH-ADULT	ASSAY OF PROTEIN TOTAL URINE	$	50.00
MLH-ADULT	PROTEIN TOTAL	$	52.00
MLH-ADULT	PROTEIN ELECTROPHORETIC SERUM	$	150.00
MLH-ADULT	PROTEIN ELECTROPHORETIC FRACT/QUANT CSF	$	221.00
MLH-ADULT	PROTEIN WESTERN BLOT W I/R	$	236.00
MLH-ADULT	PROTEIN WESTERN BLOT BAND ID	$	250.00
MLH-ADULT	PROTOPORPHYRIN QUANT ERYTHROCYTE FREE	$	200.00
MLH-ADULT	PROINSULIN	$	247.00
MLH-ADULT	PYRIDOXAL PHOSPHATE VIT B6	$	389.00
MLH-ADULT	ASSAY OF PYRUVATE ACID	$	151.00
MLH-ADULT	PYRUVATE KINASE SCRN	$	132.00
MLH-ADULT	ASSAY NONENDOCRINE RECEPTOR	$	507.00
MLH-ADULT	RENIN PLASMA	$	66.00

MLH-ADULT	ASSAY OF VITAMIN B-2	$	281.00
MLH-ADULT	SELENIUM	$	258.00
MLH-ADULT	SEROTONIN	$	298.00
MLH-ADULT	SEX HORMONE BINDING GLOBULIN	$	301.00
MLH-ADULT	SODIUM ISTAT WHOLE BLOOD	$	66.00
MLH-ADULT	SODIUM URINE	$	68.00
MLH-ADULT	SODIUM FLUID	$	69.00
MLH-ADULT	SOMATOMEDIN C SCRN/INSULIN LIKE GRWTH	$	279.00
MLH-ADULT	ASSAY OF SOMATOSTATIN	$	253.00
MLH-ADULT	SPECTRO ANAL/GALACTOSE 1 PHOSPHATE RBC	$	97.00
MLH-ADULT	SPECIFIC GRAVITY FLUID	$	31.00
MLH-ADULT	SUGAR SING QUAL REDUCING SUBSTANCE STOOL	$	77.00
MLH-ADULT	SUGARS MULTIPLE QUAL	$	116.00
MLH-ADULT	GALACTOSE 1 PHOSPHATE RBC	$	118.00
MLH-ADULT	ASSAY OF URINE SULFATE	$	66.00
MLH-ADULT	TESTOSTERONE FREE	$	291.00
MLH-ADULT	TESTOSTERONE TOTAL	$	358.00
MLH-ADULT	THIAMINE VIT B1	$	295.00
MLH-ADULT	THIOCYANATE	$	162.00
MLH-ADULT	THYROGLOBULIN	$	194.00
MLH-ADULT	THYROXINE TOTAL	$	95.00
MLH-ADULT	T4 FREE BY DYALYSIS	$	125.00
MLH-ADULT	THROXINE BINDING GLOBULIN/TBG	$	162.00
MLH-ADULT	ASSAY THYROID STIM HORMONE	$	232.00
MLH-ADULT	THYROID STIMULATING IMMUNE GLOBULINS TSI	$	336.00
MLH-ADULT	VIT E/TOCOPHEROL ALPHA	$	200.00
MLH-ADULT	ASSAY OF TRANSCORTIN	$	71.00
MLH-ADULT	TRANSFERASE/AST SGOT	$	73.00
MLH-ADULT	TRANSFERASE ALANINE AMINO ALT SGPT	$	73.00
MLH-ADULT	TRANSFERRIN	$	175.00
MLH-ADULT	TRIGLYCERIDE	$	80.00
MLH-ADULT	T3 UPTAKE PEDIATRIC	$	80.00
MLH-ADULT	TRIIODOTHYONINE T3	$	196.00
MLH-ADULT	TRIIODOTHYONINE T3/DEMENTIA PROFILE	$	235.00
MLH-ADULT	TRIIDOTHYRONINE T3 REVERSE	$	219.00
MLH-ADULT	TROPONIN QUANT	$	136.00
MLH-ADULT	TRYPSIN FECES QUAL	$	101.00
MLH-ADULT	TYROSINE	$	145.00
MLH-ADULT	UREA NITROGEN QUANT FLUID	$	55.00
MLH-ADULT	UREA NITROGEN QUANT URINE/UUN RANDOM	$	59.00
MLH-ADULT	URIC ACID SERUM	$	64.00
MLH-ADULT	URIC ACID FLUID	$	66.00
MLH-ADULT	UROBILINOGN 24HR URINE	$	45.00
MLH-ADULT	VANILLYLMANDELIC ACID URINE	$	215.00
MLH-ADULT	VASOACTIVE INTESTINAL PEPTIDE/VIP	$	144.00
MLH-ADULT	VASOPRESSIN/ANTI DIURETIC HORMONE	$	470.00
MLH-ADULT	VITAMIN A RETINOL	$	162.00

MLH-ADULT	ASSAY OF VITAMIN NOT OTHERWISE SPECIFIED	$	162.00
MLH-ADULT	VITAMIN K ASSAY	$	190.00
MLH-ADULT	ASSAY OF VOLATILES	$	223.00
MLH-ADULT	XYLOSE ABSORPTION TEST BLOOD	$	165.00
MLH-ADULT	ZINC	$	156.00
MLH-ADULT	C PEPTIDE PLASMA	$	289.00
MLH-ADULT	BETA HCG SERUM QUANT	$	208.00
MLH-ADULT	BETA HCG SERUM QUAL	$	105.00
MLH-ADULT	UNLISTED CLINICAL CHEMISTRY TEST	$	246.00
MLH-ADULT	BLEEDING TIME	$	61.00
MLH-ADULT	BLOOD COUNT AUTO DIFF WBC	$	92.00
MLH-ADULT	BLOOD COUNT SMEAR MICRO W/MAN DIFF WBC	$	48.00
MLH-ADULT	BL SMEAR W/O DIFF WBC COUNT	$	48.00
MLH-ADULT	BLOOD COUNT DIFF WBC COUNT BUFFY COAT	$	51.00
MLH-ADULT	BLOOD COUNT SPUN MICROHEMATOCRIT	$	32.00
MLH-ADULT	BLOOD COUNT HEMATOCRIT	$	32.00
MLH-ADULT	BLOOD COUNT HEMOGLOBIN	$	32.00
MLH-ADULT	BLOOD COUNT HEMOGRAM/PLT CBC W AUTO DIFF	$	108.00
MLH-ADULT	BLOOD COUNT COM AUTO HEMOGRAM/PLT WO DIF	$	91.00
MLH-ADULT	BLOOD COUNT RBC ONLY	$	41.00
MLH-ADULT	BLOOD COUNT RETIC COUNT MANUAL	$	60.00
MLH-ADULT	BLOOD COUNT RETIC COUNT FLOW CYTOMETRY	$	55.00
MLH-ADULT	BLOOD COUNT WBC ONLY	$	35.00
MLH-ADULT	PLATELET AUTO COUNT	$	61.00
MLH-ADULT	BLOOD SMEAR PERIPHERAL INTERP	$	111.00
MLH-ADULT	BONE MARROW ASPIRATION SMEAR INTERP	$	286.00
MLH-ADULT	CHROMOG SUBSTRATE ASSAY HEPARIN COFACT 2	$	166.00
MLH-ADULT	CLOT FACTOR II MUTATION/PROTHROMBIN GENE	$	184.00
MLH-ADULT	CLOTTING FACTOR V LABILE	$	245.00
MLH-ADULT	CLOTTING FACTOR VII	$	249.00
MLH-ADULT	CLOTTING FACTOR VIII AHG ONE STAGE	$	249.00
MLH-ADULT	CLOTTING FACTOR VIII RELATED AG	$	283.00
MLH-ADULT	CLOTTING FACTOR VIII VON WILLEBRAND	$	318.00
MLH-ADULT	CLOTTING FACTOR VIII VW FACTOR ADAMTS 13	$	318.00
MLH-ADULT	CLOTTING FACTOR VIII VW FACTOR MULTIMETR	$	318.00
MLH-ADULT	CLOTTING FACTOR IX PTC/CHRISTMAS	$	264.00
MLH-ADULT	CLOTTING FACTOR X STUART PROWER	$	249.00
MLH-ADULT	CLOTTING FACTOR XI PTA	$	249.00
MLH-ADULT	FACTOR XII ASSAY	$	185.00
MLH-ADULT	CLOTTING FACTOR XIII/UREA SOL	$	123.00
MLH-ADULT	CLOT HI MOLECULAR WEIGH KININOGEN PLASMA	$	262.00
MLH-ADULT	ANTITHROMBIN III ACTIVITY	$	165.00
MLH-ADULT	CLOTT INHIBITOR/ANTICOAGULANT ATIII ASSA	$	150.00
MLH-ADULT	CLOTTING INHIBITORS PROTEIN C IMMUNO	$	181.00
MLH-ADULT	CLOT INHIBIT/ANTICOAG PROTEIN C FUNCT	$	192.00
MLH-ADULT	CLOTTING INHIBITORS PROTEIN S	$	161.00
MLH-ADULT	CLOTTING INHIBITORS PROTEIN S FREE	$	198.00

MLH-ADULT	ACTIVATED PROTEIN C APC RESISTANCE	$	198.00
MLH-ADULT	FACTOR INHIBITOR TEST	$	179.00
MLH-ADULT	ACT HEPCON	$	59.00
MLH-ADULT	EUGLOBULIN LYSIS	$	116.00
MLH-ADULT	FIBRINOGEN DEGRADATION SPLIT FDP SDP	$	95.00
MLH-ADULT	FIBRIN DEGRADATION D DIMER SEMIQUANT	$	99.00
MLH-ADULT	FIBRIN DEGRADATION D DIMER QUANT/ELISA	$	141.00
MLH-ADULT	FIBRINOGEN ACTIVITY	$	119.00
MLH-ADULT	FIBRINOGEN AG	$	79.00
MLH-ADULT	FIBRINOLYSINS/COAGULOPATHY SCREEN I&R	$	71.00
MLH-ADULT	CLTING VWF PROTEASE ACTIVITY W REFLEX	$	318.00
MLH-ADULT	FBRNLYC FACT INHIBIT ALPHA2 ANTITPLASMIN	$	59.00
MLH-ADULT	FIBRINOLYTIC FACT INHIBIT PLASMINOG ACT	$	181.00
MLH-ADULT	FIBRINOLYTIC PLASMINOGEN W/O ANTIGENIC	$	80.00
MLH-ADULT	HEINZ BODIES DIRECT PRECIPITATION	$	44.00
MLH-ADULT	HEMOGLOBIN FETAL KLEIHAHUER BETKE	$	107.00
MLH-ADULT	HEMOGLOBIN FETAL ROSETTE	$	93.00
MLH-ADULT	HEPARIN ASSAY ANTI XA	$	181.00
MLH-ADULT	LEUKOCYTE ALKALINE PHOSPHATASE W COUNT	$	120.00
MLH-ADULT	MURAMIDASE LYSOZYME	$	258.00
MLH-ADULT	OSMOTIC FRAGILITY RBC INCUBATED	$	184.00
MLH-ADULT	BLOOD PLTLT AGGREGATION P2Y12 INHIBIT	$	298.00
MLH-ADULT	INR POINT OF CARE	$	64.00
MLH-ADULT	HYPER COAG PNL	$	133.00
MLH-ADULT	REPTILASE CLOTTING TIME	$	136.00
MLH-ADULT	SEDIMENTATION RATE ERYTHROCYTE NON AUTO	$	49.00
MLH-ADULT	SEDIMENTATION RATE ERYTHROCYTE AUTO	$	37.00
MLH-ADULT	SICKLING RBC REDUCTION SCREEN	$	77.00
MLH-ADULT	THROMBIN TIME PLASMA	$	80.00
MLH-ADULT	THROMBOPLASTIN INHIB TISS PT	$	133.00
MLH-ADULT	PTT PLASMA REFERRED	$	83.00
MLH-ADULT	VISCOSITY PLASMA	$	162.00
MLH-ADULT	EOSINOPHIL COUNT	$	246.00
MLH-ADULT	AGG FEBRILE EA AG/SALMONELLA TYPHI TITER	$	97.00
MLH-ADULT	ALLERGEN SPECIFIC IGG	$	72.00
MLH-ADULT	ALLERGEN SPEC IGE ALLERGY NON-FOOD	$	72.00
MLH-ADULT	ALLERGEN SPECIFIC IGE	$	155.00
MLH-ADULT	AB ID LEUKOCYTE AB	$	84.00
MLH-ADULT	AB ID PLATELET	$	167.00
MLH-ADULT	AB ID PLATELET AB CELL BOUND	$	173.00
MLH-ADULT	ANTI-NUCLEAR AB CENTROMERE	$	168.00
MLH-ADULT	ANA AB TITER	$	182.00
MLH-ADULT	ANTISTREPTOLYSIN O TITER	$	101.00
MLH-ADULT	ANTISTREPTOLYSIN 0 SCRN STREPTO	$	79.00
MLH-ADULT	PHYS BLOOD BANK SERV XMATCH	$	201.00
MLH-ADULT	TRNSFSN REACTION	$	286.00
MLH-ADULT	PHYS BLOOD BANK SERV AUTHORIZATION	$	659.00

MLH-ADULT	C REACTIVE PROTEIN	$	72.00
MLH-ADULT	C REACTIVE PROTEIN HIGH SENSITIVITY	$	21.00
MLH-ADULT	BETA 2 GLYCOPROTEIN I AB EA	$	207.00
MLH-ADULT	CARDIOLIPIN/PHOSPHOLIPID AB	$	207.00
MLH-ADULT	AB ANTI-PHOSPHATIDYLSERINE	$	207.00
MLH-ADULT	COLD AGGLUTININ TITER	$	111.00
MLH-ADULT	COMPLEMENT AG C 1	$	167.00
MLH-ADULT	COMPLEMENT FUNC ACTIVITY EA COMPONENT	$	167.00
MLH-ADULT	COMPLEMENT TOTAL HEMOLYTIC	$	167.00
MLH-ADULT	COMPLEMENT FIX/FUNGAL SEROLOGY FLUID	$	139.00
MLH-ADULT	CYCLIC CITRULLINATED PEPTIDE ANTIBODY	$	150.00
MLH-ADULT	DEXYRIBONECLEASE AB/ANTIDNASE B FILTER	$	183.00
MLH-ADULT	DNA AB NATIVE/DOUBLE STRANDED	$	191.00
MLH-ADULT	DNA AB SING STRAND EIA	$	167.00
MLH-ADULT	NUCLEAR ANTIGEN ANTIBODY	$	249.00
MLH-ADULT	FLOURESCENT AB SCREEN MITOCHRONDRIAL	$	167.00
MLH-ADULT	FLUOR NONINFEC AG AB TITER	$	167.00
MLH-ADULT	GROWTH HORMONE AB	$	219.00
MLH-ADULT	HISTOPLASMA ANTIBODY HAI	$	114.00
MLH-ADULT	IA TUMOR AG QUANT CA 15 3	$	289.00
MLH-ADULT	IA TUMOR AG QUANT CA 19 9	$	289.00
MLH-ADULT	IA TUMOR AG QUANT CA 125	$	289.00
MLH-ADULT	HETEROPHILE AB SCREEN	$	72.00
MLH-ADULT	IA TUMOR AG QUANT ALPHA FETOPROTEIN CSF	$	289.00
MLH-ADULT	IMMUNOASSAY INFECTIOUS AGENT	$	207.00
MLH-ADULT	IMMUNOELECTROPHORESIS SERUM	$	311.00
MLH-ADULT	IMMUNOELECTROPHORSIS URINE W CONC	$	317.00
MLH-ADULT	IMMUNODIFFUSION NOT ELSEWHERE SPECIFIED	$	175.00
MLH-ADULT	IMMUNODIFFUS GEL DIFUS QUAL OUCHTER HYPE	$	166.00
MLH-ADULT	IMMUNE COMPLEX ASSAY C1Q BINDING	$	338.00
MLH-ADULT	IMMUNOFIX E-PHORESIS SERUM	$	224.00
MLH-ADULT	IMMUNFIX EPHORSIS BETA-2 TRANSFERRIN CSF	$	362.00
MLH-ADULT	INHIBIN A	$	141.00
MLH-ADULT	INSULIN AB	$	298.00
MLH-ADULT	INTRINSIC FACTOR AB BLOCK	$	208.00
MLH-ADULT	ISLET CELL AB	$	186.00
MLH-ADULT	LEUKOCYTE HISTAMINE RELEASE TEST	$	174.00
MLH-ADULT	CELL FUNCT LYMPHOCYTE TRNSFORM INMMUNCE	$	614.00
MLH-ADULT	LYMPHOCYTE TRANSFORMATION BLAST	$	663.00
MLH-ADULT	B CELLS TOTAL COUNT	$	435.00
MLH-ADULT	MONONUCLEAR CELL ANTIGEN	$	351.00
MLH-ADULT	NATURAL KILLER CELLS TOTAL COUNT	$	528.00
MLH-ADULT	T CELL TOTAL COUNT	$	522.00
MLH-ADULT	T CELLS ABSOLUTE CD4/CD8 COUNT	$	651.00
MLH-ADULT	T CELLS ABSOLUTE CD4 COUNT	$	280.00
MLH-ADULT	STEM CELLS CD34 TOTAL COUNT	$	528.00
MLH-ADULT	MICROSOMAL AB ANTI THYROID PEROXIDOSE	$	201.00

MLH-ADULT	NEUTRALIZATION TEST VIRAL	$	109.00
MLH-ADULT	NITROBLUE TETRAZOLIUM DYE TEST	$	97.00
MLH-ADULT	PARTICLE AGG HAEMOPHILUS INFLUENZA URINE	$	141.00
MLH-ADULT	PARTICLE AGGLUT ANTBDY TITER	$	110.00
MLH-ADULT	RHEUMATOID FACTOR QUAL	$	79.00
MLH-ADULT	RHEUMATOID FACTOR FLUID	$	79.00
MLH-ADULT	TB TEST QUANTIFERON LBT GOLD	$	716.00
MLH-ADULT	PPD-IJ 5TU/.1ML (TUBERSOL)-TB SKIN TEST	$	18.63
MLH-ADULT	SYPHILIS TEST QUAL CSF VDRL	$	57.00
MLH-ADULT	SYPHILIS TEST QUANT RPR	$	60.00
MLH-ADULT	AB ADENOVIRUS RESPIRATORY PANEL	$	179.00
MLH-ADULT	AB ASPERGILLUS	$	204.00
MLH-ADULT	AB BACTERIUM NOT ELSEWHERE SPECIFIED	$	179.00
MLH-ADULT	AB BARTONELLA CAT SCRATCH DISEASE PNL	$	141.00
MLH-ADULT	AB BLASTOMYCES CSF	$	179.00
MLH-ADULT	AB BORDETELLA PERTUSSIS	$	182.00
MLH-ADULT	AB LYME DISEASE WESTERN BLOT	$	164.00
MLH-ADULT	AB LYME DISEASE	$	207.00
MLH-ADULT	AB BRUCELLA ABORTUS	$	124.00
MLH-ADULT	AB CAMPYLOBACTER	$	149.00
MLH-ADULT	AB CANDIDA	$	167.00
MLH-ADULT	AB CHLAMYDIA IFA	$	165.00
MLH-ADULT	AB CHLAMYDIA PNEUMONIAE IGM	$	176.00
MLH-ADULT	AB COCCIDIODES SERUM	$	160.00
MLH-ADULT	AB COXIELLA BURNETII Q FEVER	$	168.00
MLH-ADULT	AB CMV IGG/CYTOMEGALOVIRUS	$	199.00
MLH-ADULT	AB CMV IGM/CYTOMEGALOVIRUS	$	207.00
MLH-ADULT	AB DIPHTHERIA	$	207.00
MLH-ADULT	AB ENCEPHALITIS CALIFORNIA	$	182.00
MLH-ADULT	AB ENCEPHALITIS EASTERN EQUINE	$	182.00
MLH-ADULT	AB ENCEPHALITIS ST LOUIS ARBOA & ARBOC	$	182.00
MLH-ADULT	AB ENCEPHALITIS WESTERN EQUINE	$	182.00
MLH-ADULT	ENTEROVIRUS ANTIBODY	$	180.00
MLH-ADULT	AB EB EARLY/EPSTEIN BARR VIRUS EARLY AG	$	181.00
MLH-ADULT	AB EPSTEIN BARR VIRUS NUCLEAR AG EBNA	$	207.00
MLH-ADULT	AB EBVCA/EPSTEIN BARR VIRAL CAPSID IGG	$	207.00
MLH-ADULT	AB EHRLICHIA	$	141.00
MLH-ADULT	FRANCISELLA TULARENSIS	$	97.00
MLH-ADULT	AB FUNGUS SACCHAROMYCES CEREVISIAE AB	$	169.00
MLH-ADULT	AB GIARDIA LAMBLIA, IFA	$	204.00
MLH-ADULT	AB HELICOBACTER PYLORI	$	201.00
MLH-ADULT	HELMINTH ANTIBODY	$	180.00
MLH-ADULT	AB HAEMOPHILUS INFLUENZA TYPE B	$	207.00
MLH-ADULT	AB HTLV/HIV WESTERN BLOT	$	269.00
MLH-ADULT	AB HEPATITIS DELTA	$	207.00
MLH-ADULT	AB HERPES CSF	$	200.00
MLH-ADULT	AB HERPES SIMP AB TYPE 1	$	182.00

MLH-ADULT	AB HERPES SIMP TYPE II	$	269.00
MLH-ADULT	AB HISTOPLASMA CAPSULATUM	$	174.00
MLH-ADULT	AB HIV 1	$	79.90
MLH-ADULT	AB HIV - II	$	187.00
MLH-ADULT	AB HIV I & HIV II SING RESULT	$	191.00
MLH-ADULT	HEPATITIS B CORE AB/HBCAB IGG	$	167.00
MLH-ADULT	HEPATITIS B CORE AB IGM	$	164.00
MLH-ADULT	HEPATITIS B SURFACE AB/HBSAB	$	150.00
MLH-ADULT	HEPATITIS BE AB	$	161.00
MLH-ADULT	HEPATITIS A AB IGG&IGM	$	162.00
MLH-ADULT	HEPATITIS A AB IGM	$	156.00
MLH-ADULT	AB INFLUENZA A&B	$	187.00
MLH-ADULT	AB LEGIONNAIRE IFA	$	208.00
MLH-ADULT	AB LEPTOSPIRA	$	122.00
MLH-ADULT	AB LYMPHOCYTE CHORIOMENINGITIS VIRUS CSF	$	178.00
MLH-ADULT	AB MUMPS IFA	$	180.00
MLH-ADULT	AB MYCOPLASMA PNEUMONIAE IGG	$	183.00
MLH-ADULT	AB NORCARDIA	$	182.00
MLH-ADULT	AB PARVOVIRUS B19, IGG, IGM	$	207.00
MLH-ADULT	PLASMODIUM MALARIA AB	$	182.00
MLH-ADULT	AB PROTOZOA E HISTOLYTICA	$	122.00
MLH-ADULT	AB RESPIRATORY SYNCYTIAL VIRUS PANEL	$	179.00
MLH-ADULT	AB RICKETTSIA IGG	$	269.00
MLH-ADULT	AB RUBELLA	$	200.00
MLH-ADULT	AB RUBEOLA IGG	$	179.00
MLH-ADULT	SALMONELLA ABCDE	$	182.00
MLH-ADULT	AB TETANUS	$	206.00
MLH-ADULT	AB TOXOPLASMA	$	200.00
MLH-ADULT	AB TOXOPLASMA IGM	$	200.00
MLH-ADULT	AB TREPON PALLIDUM FTA ABS IFA SERUM IGM	$	183.00
MLH-ADULT	AB TRICHINELLA	$	175.00
MLH-ADULT	AB VARICELLA ZOSTER	$	179.00
MLH-ADULT	AB WEST NILE VIRUS IGM	$	159.00
MLH-ADULT	AB WEST NILE VIRUS	$	136.00
MLH-ADULT	VIRUS ANTIBODY NOS	$	179.00
MLH-ADULT	THYROGLOBULIN AB	$	221.00
MLH-ADULT	HEPATITIS C AB	$	200.00
MLH-ADULT	HEPATITIS C AB CONFIRM RIBA	$	165.00
MLH-ADULT	LYMPHOCYTE ASSAY VISUAL CROSSMATCH	$	725.00
MLH-ADULT	HLA C1&2 AB SCRN-FLOW CYT	$	549.00
MLH-ADULT	HLA TYPING B27 SING AG	$	358.00
MLH-ADULT	HLA TYPE A/B/C TRANSPLANT	$	802.00
MLH-ADULT	HLA TYPG DR/DQ NARCOLEPSY PNL	$	893.00
MLH-ADULT	HLA TYPING MIXED LYMPHOCYTE CX REACTION	$	782.00
MLH-ADULT	FLOW CYTO AUTO-CROSSMATCH T&B CELL	$	125.00
MLH-ADULT	HLA CLASS I&II AB QUAL	$	400.00
MLH-ADULT	HLA CLASS I/II ANTIBODY QUAL	$	297.00

MLH-ADULT	HLA CLASS I PHENOTYPE QUAL	$	801.00
MLH-ADULT	HLA CLASS II PHENOTYPE QUAL	$	689.00
MLH-ADULT	HLA CLASS 1	$	1,212.00
MLH-ADULT	HLA CLASS 2	$	1,102.00
MLH-ADULT	AB SCRN RBC EA	$	139.00
MLH-ADULT	AB ELUTION RBC EA	$	139.00
MLH-ADULT	AB ID EA PNL EA SERUM	$	394.00
MLH-ADULT	ANTIHUMAN GLOBULIN TEST COOMBS DIRECT	$	74.00
MLH-ADULT	ANTIHUMAN GLOB INDIR AB TITER ISOHEMAGGL	$	72.00
MLH-ADULT	AUTOLOG BLOOD PROCESS & STOR PREDEPOSIT	$	394.00
MLH-ADULT	ABO/DIRECT COOMBS	$	48.00
MLH-ADULT	BLOOD TYPING RH(D)	$	139.00
MLH-ADULT	BLOOD TYPE AG SCRN COMPAT BLOOD REAGENT	$	132.00
MLH-ADULT	BLOOD TYPING PATIENT ANTIGEN TYPE	$	42.00
MLH-ADULT	BLOOD TYPING RH PHENOTYPE(DCECE)COMPLETE	$	107.00
MLH-ADULT	COMPATABILITY TEST EA UNIT	$	394.00
MLH-ADULT	COMPATIBILITY TEST ANTIGLOBULIN TECH	$	394.00
MLH-ADULT	COMPATIBILITY TEST EA UNIT ELECTRONIC	$	106.00
MLH-ADULT	FRESH FROZEN PLASMA THAWING EA UNIT	$	106.00
MLH-ADULT	HEMO/AGGLUT ACIDIFIED SERUM SUGAR WATER	$	134.00
MLH-ADULT	IRRADIATION BLOOD PRODUCT EA UNIT	$	139.00
MLH-ADULT	VOLUME REDUCT BLOOD/BLOOD PRODCT EA UNIT	$	125.00
MLH-ADULT	POOLING PLATELETS/OTHER BLOOD PRODUCTS	$	106.00
MLH-ADULT	PRETREATMENT SERUM RBC AB ID DILUTION	$	111.00
MLH-ADULT	PRETREAT SERUM RBC AB COLD ID EA ABSORP	$	139.00
MLH-ADULT	SPLITTING BLOOD/BLOOD PRODUCTS EA UNIT	$	106.00
MLH-ADULT	CONCENTRATION MYCO PCR CULT&SMR	$	94.00
MLH-ADULT	BLOOD CX G	$	144.00
MLH-ADULT	CX BACTERIAL STOOL	$	132.00
MLH-ADULT	CX BACTERIAL STOOL AEROBIC ADD PATHOGENS	$	32.00
MLH-ADULT	CX BACT ISOLATION BODY FLUID & GRAM STAI	$	120.00
MLH-ADULT	CULTURE WOUND QUANT	$	107.00
MLH-ADULT	CX BACT ANAEROBIC	$	132.00
MLH-ADULT	CULTURE ANAEROBE IDENT EACH	$	111.00
MLH-ADULT	CULTURE AEROBIC IDENTIFY ANTIBIOTIC	$	111.00
MLH-ADULT	CULTURE SCREEN ONLY	$	93.00
MLH-ADULT	CX BACTERIAL URINE	$	111.00
MLH-ADULT	CX BACTERIAL W ISOLATION URINE	$	111.00
MLH-ADULT	CX FUNGI ISOLATION SKIN/HAIR/NAIL	$	107.00
MLH-ADULT	CX FUNGI EXCEPT BLOOD	$	116.00
MLH-ADULT	CX FUNGI BLOOD	$	125.00
MLH-ADULT	CX FUNGI DEFINITIVE YEAST IDENTIFICATION	$	125.00
MLH-ADULT	CX MYCOPLASMA HOMINIS	$	201.00
MLH-ADULT	CX CHLAMYDIA VIRAL	$	272.00
MLH-ADULT	CX AFB BLOOD	$	150.00
MLH-ADULT	CX MYCOBACTERIAL DEFINITIVE ID EA ISO	$	151.00
MLH-ADULT	CX TYPING CHLAMYDIA & STAIN	$	83.00

MLH-ADULT	CULTURE TYPE IMMUNOLOGIC	$	72.00
MLH-ADULT	CX TYPE NUC ACID PROBE B DERMATITIDIS	$	278.00
MLH-ADULT	STAPH AUREUS/MRSA DNA AMP PROBE PCR	$	337.00
MLH-ADULT	DNA/RNA SEQUENCING	$	1,108.00
MLH-ADULT	MACROSCOPIC EXAM INSECT	$	57.00
MLH-ADULT	MACROSCOPIC EXAM PARASITE	$	61.00
MLH-ADULT	PINWORM EXAM	$	57.00
MLH-ADULT	HOMOGENIZATION TISSUE CULTURE	$	61.00
MLH-ADULT	OVA & PARASITES DIRECT SMEARS	$	123.00
MLH-ADULT	SUSCEPT STUD ANTIMICRO ANAEROB ID/E TEST	$	66.00
MLH-ADULT	SUSCEPTIBILITY STUDIES SPECT BETA LACTAM	$	95.00
MLH-ADULT	MICROBE SUSCEPTIBLE MIC	$	121.00
MLH-ADULT	MICROBE SUSCEPTIBLE MLC	$	142.00
MLH-ADULT	MICROBE SUSCEPT MACROBROTH	$	67.00
MLH-ADULT	MICROBE SUSCEPT MYCOBACTERIUM	$	95.00
MLH-ADULT	SMEAR BACT	$	59.00
MLH-ADULT	SMEAR FLOURESCENT ACID STAIN LEPTOSPIRA	$	65.00
MLH-ADULT	SMEAR PRIMARY SOURCE W/INTERP	$	83.00
MLH-ADULT	SMEAR COMPLEX STAIN TRICHROME	$	252.00
MLH-ADULT	OVA & PARASITES SMEAR WET MOUNT	$	57.00
MLH-ADULT	TISSUE EXAM KOH SLIDE	$	57.00
MLH-ADULT	VIRUS ISO TISSUE CX INOC ID VIRAL RESPI	$	360.00
MLH-ADULT	VIRUS INOCULATION TISSUE ADDL	$	225.00
MLH-ADULT	VIRUS ISO BLOOD SHELL VIAL	$	69.00
MLH-ADULT	INFECT AG BORDETELLA PERTUSSIS AG DFA	$	158.00
MLH-ADULT	INFECT AG CHLAMYDIA TRACHOMATIS	$	158.00
MLH-ADULT	IAA IMMUNOFLUO CYTOMEGALOVIRUS DFA	$	158.00
MLH-ADULT	INFECT AG CRYPTOSPORIDIUM	$	158.00
MLH-ADULT	INFECT AGENT AG IMMUNO HERP SIMP II DFA	$	158.00
MLH-ADULT	HERPES SIMPLEX VR AG DFA	$	158.00
MLH-ADULT	LEGIONELLA PNEUMOPHILA AG DETECTION DFA	$	160.00
MLH-ADULT	INFECT AG DETECT PNEUMONCYSTIS CARINII	$	160.00
MLH-ADULT	INFECT AG VARICELLA ZOSTER VIRUS	$	158.00
MLH-ADULT	ASPERGILLUS AG EIA	$	119.00
MLH-ADULT	INFECT AG CLOS DIFFICLE TOXIN	$	158.00
MLH-ADULT	INFECT AG CRYPTOSPORIDIUM QUAL	$	158.00
MLH-ADULT	INFECT AG GIARDIA QUAL	$	165.00
MLH-ADULT	INFECT AGENT AG ENTAMOEBA HIST EIA	$	158.00
MLH-ADULT	HELICOBACTER PYLORI STOOL	$	150.00
MLH-ADULT	INFECT AG HEPATITIS B SURFACE AG/HBSAG	$	122.00
MLH-ADULT	INFECT AGENT AG HEPATITIS B E ANTIGEN	$	122.00
MLH-ADULT	INFECT AGENT AG ENZYME IA HISTOPLAS CAP	$	160.00
MLH-ADULT	IA HIV-1 W/HIV-1 & HIV-2 AB	$	232.00
MLH-ADULT	INFECT AG HIV 1	$	245.00
MLH-ADULT	INFECT AG INFLUENZA A/B EA	$	48.00
MLH-ADULT	INFECT AG ANTIGEN RESP SYNCYTIAL VIRUS	$	158.00
MLH-ADULT	INFECT AGENT AG ROTAVIRUS EIA	$	174.00

MLH-ADULT	INFECT AG SHIGA-LIKE TOXIN STOOL	$	158.00
MLH-ADULT	AG DETECT NOS EIA MULT	$	158.00
MLH-ADULT	INFECT AG STREP GROUP B AG URINE	$	106.00
MLH-ADULT	IA DNA BARTONELLA HENSELAE & QUINTANA	$	485.00
MLH-ADULT	LYME DISEASE DNA RT PCR AMPLIFIED PROBE	$	485.00
MLH-ADULT	INFECT AG DNA/RNA QUANT CANDIDA	$	352.00
MLH-ADULT	MENINGITIS/ENCEPHALITIS PANEL BY PCR	$	4,002.00
MLH-ADULT	CHLAMYDIA PNEUMONIAE AMP PROBE TECH	$	485.00
MLH-ADULT	CHLAMYDIA TRACHOMATIS DNA PROBE/IAA	$	277.00
MLH-ADULT	CHLAMYDIA TRACHOMATIS AMP PROBE TECH	$	485.00
MLH-ADULT	C DIFF AMPLIFIED PROBE	$	316.00
MLH-ADULT	INFECT AG CMV DNA, QUAL RT-PCR	$	273.00
MLH-ADULT	IA DNA QUAN PCR CYTOMEGALOVIRUS AMNIO FL	$	594.00
MLH-ADULT	IA RNA ENTEROVIRUS PROBE&REVRS TRNS PCR	$	331.00
MLH-ADULT	INFEC AG AVIAN INFLUENZA H5 GENE PCR QUL	$	456.00
MLH-ADULT	INFLUENZA A&B	$	146.00
MLH-ADULT	INFLUENZA DNA AMP PROB ADDL	$	146.00
MLH-ADULT	IADNA/RNA GI PATHOGENS 6-11 TARGETS	$	2,135.00
MLH-ADULT	IADNA-DNA/RNA PROBE TQ 12-25	$	567.00
MLH-ADULT	INFECT AG DNA/RNA QUANT GARDNERELLA VAG	$	419.00
MLH-ADULT	INFECT AG RNA/DNA HEPATITIS B AMP PROBE	$	485.00
MLH-ADULT	INFECT AG DNA HBV QUANT PCR	$	594.00
MLH-ADULT	INFECT AG RNA/DNA HEPATITIS C DIRECT	$	277.00
MLH-ADULT	INFECT AG RNA HEPATITIS C VIRUS PCR	$	485.00
MLH-ADULT	INFECT AG RNA HEPATITIS C QUANT PCR	$	594.00
MLH-ADULT	INFECT AG HERPES SIMPLEX VIRUS 1&2 PCR	$	485.00
MLH-ADULT	INFECT AG DNA/RNA HERP SIM I&II QUANT RT	$	594.00
MLH-ADULT	HHV-6,DNA,AMP PROBE QUALIT REAL TIME PCR	$	486.00
MLH-ADULT	INFECT AG DNA HERPES VIRUS-6 QUANT PCR	$	579.00
MLH-ADULT	INFECT AG DNA/RNA HIV I AMP PROBE	$	486.00
MLH-ADULT	INFECT AG RNA HIV 1 QUANT	$	1,181.00
MLH-ADULT	LEGIONELLA PNEUMOPHILA AMP PROBE TECH	$	485.00
MLH-ADULT	INFECT AG MYCOBACTERIA DNA AMP PROBE	$	338.00
MLH-ADULT	INFECT AG M.TUBERCULO DNA DIRECT PROBE	$	188.00
MLH-ADULT	INFECT AG DNA MYCOB TB AMP PCR	$	485.00
MLH-ADULT	INFECT AG M.AVIUM-INTRA DNA DIRECT PROBE	$	191.00
MLH-ADULT	INFECT AG DNA MAI AMP PROBE QUAL PCR	$	485.00
MLH-ADULT	INFECT AG DNA MYCOPLASMA PNEUMONIAE	$	277.00
MLH-ADULT	MYCOPLASMA PNEUMONIAE AMP PROBE TECH	$	485.00
MLH-ADULT	INFECT AG DNA NEISSERIA GONORRHOEAE PROB	$	277.00
MLH-ADULT	INFECT AG DNA NEISSERIA GONORRHOEAE PROB	$	485.00
MLH-ADULT	HPV LOW RISK TYPES	$	485.00
MLH-ADULT	HPV HIGH RISK TYPES	$	485.00
MLH-ADULT	HPV HIGH RISK TYPES 16 AND 18 ONLY	$	485.00
MLH-ADULT	INFECT AG PARAINFLUENZA PNL 1-3 RT-PCR	$	1,296.00
MLH-ADULT	RESPIRTORY VIRUS PANEL PCR	$	2,137.00
MLH-ADULT	IA RESP VIRUS 12-25 TARGETS	$	2,000.00

MLH-ADULT	INFECT AG DNA/RNA MRSA PCR	$	331.00
MLH-ADULT	TRICHOMONAS VAGINALIS AMPLIFIED PROBE	$	352.00
MLH-ADULT	INFECT AG ZIKA VIRUS DNA/RNA AMP PROBE	$	443.00
MLH-ADULT	INFECT AG DNA/RNA HUMAN PAPILLOMAVIRUS	$	277.00
MLH-ADULT	DETECT AGENT NOS DNA AMP	$	146.00
MLH-ADULT	DETECT AGENT NOS DNA QUANT	$	594.00
MLH-ADULT	INFECT AG DNA BARTONELLA ROCHALIMAEA PCR	$	486.00
MLH-ADULT	INFECT AG CLOSTRIDIUM DIFFICILE TOXIN A	$	158.00
MLH-ADULT	HIV-1/2 AB AG	$	231.00
MLH-ADULT	INFECT AG DETECT RSV ASSAY W/OPTIC	$	161.00
MLH-ADULT	IA HUMAN ADENOVIRUS ASSAY W/OPTIC	$	121.00
MLH-ADULT	INFECT AG IA STREP A RAPID ANTIGEN POC	$	158.00
MLH-ADULT	AGENT NOS ASSAY W/OPTIC	$	158.00
MLH-ADULT	INFECTIOUS AGENT PHENOTYPE DRUG SUSCEPT	$	1,504.00
MLH-ADULT	INFECT AG GENOTYPE ANALYSIS HIV-1	$	2,493.00
MLH-ADULT	INFECT AG GENOTYPE ANAL HEPATITIS C VIRU	$	2,493.00
MLH-ADULT	INFECT AG PHENOTYPE ANAL HIV	$	6,775.00
MLH-ADULT	GENOTYPE DNA/RNA HIV	$	1,112.00
MLH-ADULT	IA GENOTYPE CYTOMEGALOVIRUS	$	2,601.00
MLH-ADULT	BOTULISM WORK UP	$	39.00
MLH-ADULT	CYTOPATH FLUIDS ENDO CYTO BRUSH	$	200.00
MLH-ADULT	CYTOPATHOLOGY CYTOSPIN CONCENTRATION TEC	$	200.00
MLH-ADULT	CYTOPATH CONCENTRATE THIN PREP NON GYN	$	200.00
MLH-ADULT	CYTOPATH CERV/VAGINAL W INTERP	$	80.00
MLH-ADULT	CYTOPATH CERV/VAG IN FLUID THIN PREP	$	281.00
MLH-ADULT	CYTOPATH C/V THIN LAYER REDO	$	281.00
MLH-ADULT	CYTOPATH CERV/VAG MANUAL SCRN	$	147.00
MLH-ADULT	CYTOPATH SLIDES CERV/VAG SCRN/RESCRN	$	147.00
MLH-ADULT	CYTOPATH OTHER SCRN & INTERP	$	147.00
MLH-ADULT	CYTOPATH SMEAR TOUCH PREP SCREEN & INTER	$	200.00
MLH-ADULT	CYTOPATH SMEARS 5+ SLIDES &/MULT STAINS	$	200.00
MLH-ADULT	CYTOPATH SLIDE CERV/VAGINAL 1 SLIDE	$	147.00
MLH-ADULT	CYTOPATH CERV/VAG W SCRN & RESCRN	$	147.00
MLH-ADULT	CYTOPATH FNA EVAL	$	200.00
MLH-ADULT	CYTOPATH EVAL FNA INTERP & REPORT	$	200.00
MLH-ADULT	CYTOPATHOLOGY EVAL FNA ADD'L SCREEN	$	200.00
MLH-ADULT	TRANSPLANT FLOW CYTOMETRY CROSSMATCH	$	371.00
MLH-ADULT	FLO CYTOM/TC,1 MARK CD55,59 EXP RED CELL	$	119.00
MLH-ADULT	FLOW CYTO EA ADDL MARK ADD ON LEUK ADH	$	105.00
MLH-ADULT	FLOW CYTOMETRY INTERPRETATION 2-8 MARKER	$	119.00
MLH-ADULT	FLOW CYTOMETRY INTERPRETATION 9-15 MARK	$	119.00
MLH-ADULT	FLOW CYTOMETRY INTERPRETATION 16+ MARKER	$	349.00
MLH-ADULT	FLOW CYTOMETRY CROSSMATCH	$	394.00
MLH-ADULT	TISSUE CX NON NEOPLASTIC LYMPHOCYTE	$	1,615.00
MLH-ADULT	TISSUE CULTURE SKIN/BIOPSY	$	1,952.00
MLH-ADULT	TISSUE CX NON NEOPLAS CHORIONIC/PLACENTA	$	1,373.00
MLH-ADULT	TISS CX NEOPLAS CX CELLS FISH PROCESS	$	1,752.00

MLH-ADULT	TISSUE CX NEOPLASTIC DISORDERS SOLID TUM	$	2,044.00
MLH-ADULT	CHROM ANAL 5 CELLS + 1 KARYOTYPE	$	2,449.00
MLH-ADULT	CHROM ANAL INFANT	$	1,728.00
MLH-ADULT	CHROM ANAL 45 CELLS MOSAICISM BLOOD	$	2,084.00
MLH-ADULT	CHROM ANAL 20-25 CELL CYTO RTN/CHROM STD	$	1,728.00
MLH-ADULT	CHROM ANAL AMNIOTIC FLUID 15 CELLS	$	2,491.00
MLH-ADULT	MOLECULAR CYTOGENETICS DNA PROBE EA	$	201.00
MLH-ADULT	FISH 10-30 CELLS PERV PROBE	$	445.00
MLH-ADULT	MOLECULAR CYTOGENETICS ANALYZE 25/99CELL	$	483.00
MLH-ADULT	MOLE CYTO INTRPHSE INSITU 100-300	$	557.00
MLH-ADULT	CHROM ANAL ADDITIONAL KARYOTYPE EA STUDY	$	349.00
MLH-ADULT	CHROMOSOME COUNT ADD CELLS EA STUDY	$	262.00
MLH-ADULT	CHROMOSOME ANAL ADDL HIGH STUDY EXT BAND	$	471.00
MLH-ADULT	CYTO/MOLECULAR I/R FISH RESULTS	$	187.00
MLH-ADULT	UNLISTED CYTOGENETIC STUDY	$	107.00
MLH-ADULT	LVL I SURGICAL PATH GROSS EXAM ONLY	$	107.00
MLH-ADULT	LVL 2 SURGICAL PATH GROSS EXAM	$	107.00
MLH-ADULT	LVL 3 SURGICAL PATH GROSS EXAM	$	200.00
MLH-ADULT	LVL 4 SURG PATH GROSS MICROSCOPIC EXAM	$	200.00
MLH-ADULT	LVL 5 SURGICAL PATH GROSS EXAM	$	286.00
MLH-ADULT	LVL 6 SURGICAL PATH GROSS EXAM	$	286.00
MLH-ADULT	DECALCIFICATION	$	107.00
MLH-ADULT	SPECIAL STAIN GROUP 1 MICRO W INTER/REP	$	107.00
MLH-ADULT	SPECIAL STAIN GRP 2 ALL OTH	$	107.00
MLH-ADULT	HISTO STAIN FROZEN TISSUE BLOCK	$	120.00
MLH-ADULT	ACID PHOSPHATASE STAIN	$	107.00
MLH-ADULT	CONSULT REFERRED SLIDES	$	107.00
MLH-ADULT	CONSULT/MATERIAL PREP REG	$	200.00
MLH-ADULT	COMPREHENSIVE REVIEW OF DATA	$	200.00
MLH-ADULT	PATH CONSULT DURING OR	$	107.00
MLH-ADULT	PATH CONSULT OR 1ST FROZEN	$	200.00
MLH-ADULT	PATH CONSULT OR EA ADDL	$	107.00
MLH-ADULT	PATH CONSULT CYTOLOGIC EXAM INITIAL SITE	$	262.00
MLH-ADULT	PATH CONSULT CYTOLOGIC EXAM EA ADDL SITE	$	144.00
MLH-ADULT	IMMUNOHISTO/CYTO EA ADDL AB PER BLOCK	$	301.00
MLH-ADULT	IMCYTCHM PLACENTAL ALAKALINE PHOSPHATASE	$	286.00
MLH-ADULT	IMMUNOHISTO/CYTO EA AB PER BLOCK	$	143.00
MLH-ADULT	IMMUNOFLUORESCENT STUDY	$	200.00
MLH-ADULT	ELECTRON MICROSCOPY DX	$	286.00
MLH-ADULT	IMMUNOFLUOR AB ADDL STAIN	$	492.00
MLH-ADULT	MORPH ANALYSIS TUMOR IMMUNOHIST EA AB	$	349.00
MLH-ADULT	TUMOR IHC USING COMPUTER ASST TECH	$	349.00
MLH-ADULT	NERVE BX TEASING PREP	$	200.00
MLH-ADULT	EXAM & SELECTION TISSUE MOLECULAR ID	$	82.00
MLH-ADULT	IN SITU HYBRIDIZATION EA ADDL PROBE	$	462.00
MLH-ADULT	IN SITU HYBRID ISH HPV LOW/HI W/INTERP	$	286.00
MLH-ADULT	INSITU HYBRID COMPUT ASST MORPHMTRC ANAL	$	351.00

MLH-ADULT	INSITU HYBRIDIZATION MANUAL MORPHOMETRIC	$	348.00
MLH-ADULT	M/PHMTRC ALYSISHQUANT/SEMIQ	$	320.00
MLH-ADULT	PROTEIN ANALYSIS W/PROBE	$	197.00
MLH-ADULT	MORPHOMETRIC ALYS ISH QUANT/SEMIQ	$	670.00
MLH-ADULT	M/PHMTRC ALYS ISHQUANT/SEMIQ	$	670.00
MLH-ADULT	MICRODISSECTION MANUAL	$	786.00
MLH-ADULT	CELL COUNT MISC BODY FLUIDS	$	65.00
MLH-ADULT	CELL COUNT W DIFF COUNT BF	$	77.00
MLH-ADULT	LEUKOCYTE ASSESSMENT FECAL	$	45.00
MLH-ADULT	CRYSTAL ID BY LIGHT MICROSCOPY	$	99.00
MLH-ADULT	FAT STAIN/FECES/URINE/RESP SECRETIONS	$	60.00
MLH-ADULT	MEAT FIBERS FECES	$	51.00
MLH-ADULT	NASAL SMEARS EOSINOPHILS	$	57.00
MLH-ADULT	SWEAT COLLECTION IONTOPHORESIS TEST	$	298.00
MLH-ADULT	IMMUNIZATION ADMIN 1 VACCINE	$	108.00
MLH-ADULT	IMMUNIZATION ADMIN EA ADDL VACCINE	$	75.00
MLH-ADULT	EMERGENT HEMODIALYSIS CHRONIC IP SINGLE	$	2,681.00
MLH-ADULT	EMERGENT HEMODIALYSIS REPEATED EVAL	$	3,408.00
MLH-ADULT	CAPD IP (SINGLE EVAL)	$	2,681.00
MLH-ADULT	CRRT	$	5,877.00
MLH-ADULT	ESOPHAG MOTILITY STUDY 2D W/I&R	$	1,472.00
MLH-ADULT	ESOPH G-ESOP RFLX TLMTR ELTRD PLMT	$	1,329.00
MLH-ADULT	ANORECTAL MANOMETRY	$	1,103.00
MLH-ADULT	LIVER ELASTOGRAPHY W/O IMAG W/I&R	$	712.00
MLH-ADULT	NASOPHARYNGOSCOPY W ENDOSCOPE	$	466.00
MLH-ADULT	FACIAL NRV FUNCTION STUDY ELECTRONEUROGR	$	406.00
MLH-ADULT	POSITIONAL NYSTAGMUS TEST	$	145.00
MLH-ADULT	CALORIC VSTBLR TEST W/REC BI BITHERMAL	$	741.00
MLH-ADULT	CALORIC VSTBLR TEST W/REC BI MONOTHERMAL	$	741.00
MLH-ADULT	BASIC VESTIBULAR EVALUATION	$	2,189.00
MLH-ADULT	SPONTANEOUS NYSTAGMUS TEST W RECORD	$	602.00
MLH-ADULT	POSITIONAL NYSTAGMUS TEST 4+ W RECORD	$	559.00
MLH-ADULT	OPTOKINETIC NYSTAGMUS TEST W RECORD	$	527.00
MLH-ADULT	OSCILLATING TRACKING TEST W RECORD	$	504.00
MLH-ADULT	SINUSOIDAL VERT AXIS ROTATIONAL TEST	$	811.00
MLH-ADULT	VERTICAL ELECTRODE USE	$	402.00
MLH-ADULT	COMPUTER DYNAMIC POSTUROGRAPHY	$	868.00
MLH-ADULT	ACOUSTICS IMMITTANCE TESTING LIMITED	$	167.00
MLH-ADULT	SCREENING TEST PURE TONE AIR ONLY	$	112.00
MLH-ADULT	AUDIOMETRY PURE TONE THRESHOLD AIR ONLY	$	145.00
MLH-ADULT	AUDIOMETRY PURE TONE THRESHOLD AIR&BONE	$	214.00
MLH-ADULT	SPEECH AUDITORY THRESHOLD RECEPTION	$	122.00
MLH-ADULT	SPEECH AUDIOMETRY THRESHOLD W SPEECH REC	$	188.00
MLH-ADULT	AUDIOMETRY THRESHOLD EVAL & SPEECH RECOG	$	394.00
MLH-ADULT	STENGER TEST PURE TONE	$	113.00
MLH-ADULT	TYMPANOMETRY TEST	$	155.00
MLH-ADULT	ACOUSTIC REFLEX TEST	$	124.00

MLH-ADULT	ACOUSTICS IMMITTANCE TESTING EXTENDED	$	167.00
MLH-ADULT	SPEECH TEST FILTERED	$	129.00
MLH-ADULT	SYNTHETIC SENTENCE IDENTIFICATION TEST	$	130.00
MLH-ADULT	STENGER TEST SPEECH	$	237.00
MLH-ADULT	VISUAL REINFORCEMENT AUDIOMETRY	$	237.00
MLH-ADULT	CONDITIONING PLAY AUDIOMETRY	$	237.00
MLH-ADULT	SELECT PICTURE AUDIOMETRY	$	290.00
MLH-ADULT	ELECTROCOCHLEOGRAPHY	$	805.00
MLH-ADULT	AUDITORY EVOKED POTENTIALS COMPREHENSIVE	$	805.00
MLH-ADULT	AUDITORY EVOKED POTENTIAL LTD	$	805.00
MLH-ADULT	EVOKED OTOACOUSTIC EMSMS LTD 3-6 FREQ	$	491.00
MLH-ADULT	EVOKED OTOACOUSTIC EMSNS COMP/DX MIN 12	$	657.00
MLH-ADULT	HEARING AID EXAM & SELECTION MONAURAL	$	1,500.00
MLH-ADULT	HEARING AID EXAM & SELECTION BINAURAL	$	2,995.00
MLH-ADULT	HEARING AID CHECK MONAURAL	$	185.00
MLH-ADULT	HEARING AID CHECK BINAURAL	$	372.00
MLH-ADULT	ELECTROACOUSTIC EVAL HEARING AID MONAURA	$	36.00
MLH-ADULT	ELECTROACOUSTIC EVAL HEARING AID BINAURA	$	80.00
MLH-ADULT	DX ANALYSIS COCHLEAR < 7YR W PROGRAMMING	$	1,155.00
MLH-ADULT	DX ANALYSIS COCHLEAR < 7YR SUBSEQUENT PR	$	811.00
MLH-ADULT	DX ANALYSIS COCHLEAR > 7YR W PROGRAMMING	$	779.00
MLH-ADULT	DX ANALYSIS COCHLEAR > 7YR SUBSEQUENT PR	$	531.00
MLH-ADULT	EVAL CENTRAL AUDITORY FUNCT INIT 60MINS	$	402.00
MLH-ADULT	EVAL CENTRAL AUDITORY FUNC EA ADDL 15MIN	$	106.00
MLH-ADULT	EVAL AUDITORY STATUS EA ADDL 15MIN	$	156.00
MLH-ADULT	UNLISTED OTORHINOLARYNGOLOGICAL SERVICE	$	272.00
MLH-ADULT	CARDIOPULM RESUSCITATION	$	2,749.00
MLH-ADULT	TEMP TRANSCUTANEOUS PACING	$	2,691.00
MLH-ADULT	CARDIOVERSION ARRHYTHMIA ELECT EXTERNAL	$	2,749.00
MLH-ADULT	ARRHYTHMIA CARDIOVERSION INTERNAL	$	2,749.00
MLH-ADULT	PERCUT TRANSLUMINAL CORONARY THROMB MECH	$	2,204.00
MLH-ADULT	TRANSCATH PLACE BRACHYTHER CORONARY INTR	$	19,838.00
MLH-ADULT	THROMBOLYSIS CORONARY INTRACORONARY INF	$	1,624.00
MLH-ADULT	ENDOLU CORONARY IVUS OCT I&R INIT VESSEL	$	1,049.00
MLH-ADULT	ENDOLU CORONARY IVUS OCT I&R ADDL VESSEL	$	1,049.00
MLH-ADULT	VALVULOPLASTY BALLOON PERCUT AORTIC VALV	$	13,124.00
MLH-ADULT	VALVULOPLASTY BALLOON PERCUT MITRAL VALV	$	21,075.00
MLH-ADULT	VALVULOPLASTY BALLOON PERCUT PULM VALVE	$	13,124.00
MLH-ADULT	ATRIAL SEPTECTOMY/SEPTOSTOMY TRANSVENOUS	$	18,101.00
MLH-ADULT	ATRIAL SEPTECTOMY/SEPTOSTOMY BLADE METHO	$	18,101.00
MLH-ADULT	PTA PULM ART BALLOON SING VESSEL	$	13,124.00
MLH-ADULT	PTA PULM ART BALLOON EA ADDL VESSEL	$	13,124.00
MLH-ADULT	EKG ROUTINE W 12+ LEADS TRACING ONLY ED	$	271.00
MLH-ADULT	CV STRESS TEST TREADMILL TRACING ONLY	$	666.00
MLH-ADULT	EXT EKG 48HR HOOKUP ONLY	$	666.00
MLH-ADULT	EKG MONITOR REPORT UP TO 48 HRS W R&I	$	666.00
MLH-ADULT	XRNL PT ACTIV ECG RECORD MONITOR 30 DAYS	$	382.00

MLH-ADULT	SAECG W/WO EKG	$	163.00
MLH-ADULT	PROGRMG EVAL IMPLANTABLE DEV 1 LEAD PM	$	134.00
MLH-ADULT	PROGRM EVAL IMPLANTABLE DEV DUAL LEAD PM	$	134.00
MLH-ADULT	PROGRAM DEVICE EVAL MULTPLE LEAD PM	$	134.00
MLH-ADULT	PROGRMG EVAL IMPLANTABLE DEV 1 DEFIB	$	134.00
MLH-ADULT	PROGRMG EVAL IMPLANTABLE DEV 2 DEFIB	$	134.00
MLH-ADULT	PROGRAM EVAL TRANSVNS IMPT MULTPLE DEFIB	$	134.00
MLH-ADULT	PROGM DEV EVAL SUBQ CARDIAC RYTM MON SYS	$	134.00
MLH-ADULT	INTERROG EVAL/PERSON 1/DUAL/MLT LEAD PM	$	134.00
MLH-ADULT	INTERR EVAL/PER 1/DUAL/MLT DEFIB TRANSVN	$	134.00
MLH-ADULT	INTERROG EVAL/PERSON 1/DUAL/MLT DEFIB	$	134.00
MLH-ADULT	TRANSTELEPHONIC RHYTHM STRIP PM EVAL	$	134.00
MLH-ADULT	INTERROG EVAL REMOTE</90 1/2/MLT LEAD PM	$	194.00
MLH-ADULT	INTERROG EVAL REMOTE</90 1/2/MLT DEFIB	$	194.00
MLH-ADULT	TTE CONGENITAL CARDIAC ANOMALIES COMPLET	$	1,739.00
MLH-ADULT	TTE CONGEN CARDIAC ANOMALIES FOLLOW UP	$	1,739.00
MLH-ADULT	TTE 2D MODE W/DOP COMPLT SPEC&COLOR FLOW	$	5,565.00
MLH-ADULT	TTE 2D INCLUDE M MODE RECORDING COMPLETE	$	936.00
MLH-ADULT	TTE 2D INCLUDE M MODE RECORDING LIMITED	$	936.00
MLH-ADULT	TEE 2D W/WO M MODE RECORD PROBE PLACEMT	$	2,400.00
MLH-ADULT	TEE IMAGE ACQUISITION INTERPT AND REPORT	$	2,520.00
MLH-ADULT	TEE CONGENITAL CARDIAC ANOMALIES PROBE	$	2,400.00
MLH-ADULT	ECHO-TEE MONITORING PROBE/IMAGE/INTERP	$	1,798.00
MLH-ADULT	ECHOCARDIOGRAM DOPPLER WAVE SPECT COMP	$	2,316.00
MLH-ADULT	ECHO DOPPLER LIMITED/FOLLOW UP	$	936.00
MLH-ADULT	ECHOCARDIOGRAM DOPPLER COLOR FLOW VELO	$	936.00
MLH-ADULT	ECHO TRANSTHORAC REAL-TIME STRESS W I/R	$	1,739.00
MLH-ADULT	TTE 2D-MODE REST & STRESS CONT ECG COMPL	$	1,739.00
MLH-ADULT	ECHO-TEE GDN TCAT ICAR/GRT VSL INTERVENT	$	1,798.00
MLH-ADULT	MYOCRD STRAIN IMAGING SPCKL TRCK	$	936.00
MLH-ADULT	HEART CATH RT	$	15,678.00
MLH-ADULT	LEFT HEART CATH W OR W/O LV	$	20,978.00
MLH-ADULT	RIGHT AND LEFT HEART CATH W/W/O LV	$	20,978.00
MLH-ADULT	CORONARY ANGIOGRAPHY	$	23,795.00
MLH-ADULT	Coronary Angiography W SVBG and/or IM	$	27,098.00
MLH-ADULT	Coronary Angiography W Right Heart	$	39,473.00
MLH-ADULT	Coronary Angio W SVGB and/or IM W Rt Hrt	$	42,778.00
MLH-ADULT	LT HEART AND CORONARIES W LV	$	26,998.00
MLH-ADULT	LT HRT AND CORONARIES WLVW SVGB &/or IM	$	28,995.00
MLH-ADULT	Rt & Lt Hrt W Coronary Angiography W LV	$	26,998.00
MLH-ADULT	Rt & Lt Hrt W Coronary Angio WLVW SVGB &	$	30,304.00
MLH-ADULT	LT HEART CATH BY TRANSEPTAL PUNCTURE	$	15,678.00
MLH-ADULT	DRUG ADMIN & HEMODYNMIC MEAS	$	533.00
MLH-ADULT	INSERT&PLACE CATH FLOW DIRECTED MONITORI	$	7,202.00
MLH-ADULT	ENDOMYOCARDIAL BX	$	7,202.00
MLH-ADULT	HEART CATH RT CONGENITAL CARDIAC ANOMALI	$	15,678.00
MLH-ADULT	HEART CATH RT & LT RETROGRADE CONGENITAL	$	15,678.00

MLH-ADULT	HEART CATH RT & LT TRANS INTACT CONGENIT	$	15,678.00
MLH-ADULT	HEART CATH RT & LT TRANS EXIST CONGENITA	$	15,678.00
MLH-ADULT	INDICATOR DILUTION CARDIAC OUTPUT MEASUR	$	306.00
MLH-ADULT	INDICATOR DILUTION CARDIAC OUTPUT SUBSEQ	$	306.00
MLH-ADULT	NJX SEL HRT ART CONGNTL HRT CATH W/S&I	$	6,021.00
MLH-ADULT	NJX SEL HRT ART/GRFT CONGNTL HRT CATH W/	$	3,304.00
MLH-ADULT	NJX SEL L VENT/ATRIAL ANGIO HRT CTH S&I	$	3,204.00
MLH-ADULT	NJX SEL R VENT/ATRIAL ANGIO HRT CTH S&I	$	2,325.00
MLH-ADULT	Supravalvular Aortography	$	1,630.00
MLH-ADULT	Pulmonary Angiography	$	6,021.00
MLH-ADULT	INTRAVASC DISTAL BLOOD VELOCITY INIT VES	$	1,534.00
MLH-ADULT	INTRAVASC DISTAL BLOOD VELOCITY ADDL VES	$	1,534.00
MLH-ADULT	PERCUT TRANSCATH CLOSURE SEPTAL DEFECT	$	19,838.00
MLH-ADULT	PERCUT TRANSCATH CLOSURE VENTRIC DEFECT	$	20,830.00
MLH-ADULT	PERQ TRANSCATH CLOSURE PDA	$	50,679.00
MLH-ADULT	PERQ TRANSCATH SEPTAL REDUXN	$	2,336.00
MLH-ADULT	PERQ TRANSCATH CLS MITRAL INIT DEVICE	$	49,634.00
MLH-ADULT	PERQ TRANSCATH CLS AORTIC INIT DEVICE	$	49,634.00
MLH-ADULT	PERQ TRANSCATH CLS EA ADD'L DEVICE	$	24,816.00
MLH-ADULT	BUNDLE OF HIS RECORDING	$	7,897.00
MLH-ADULT	INTRA ATRIAL RECORDING	$	7,897.00
MLH-ADULT	VENTRICULAR RT RECORDING	$	7,897.00
MLH-ADULT	INTRAVENTRICULAR/ATRIAL MAPPING TACHYCAR	$	23,686.00
MLH-ADULT	INTRAVENTRICULAR PACING	$	6,497.00
MLH-ADULT	INTRACARDIAC EP 3D MAPPING	$	23,686.00
MLH-ADULT	ESOPHAGEAL RECORDING ATRIAL ELECTROGRAM	$	23,602.00
MLH-ADULT	ARRHYTHMIA INDUCTION BY ELECT PACING	$	23,686.00
MLH-ADULT	EP EVAL WO ARRHYTHMIA INDUCTION	$	26,156.00
MLH-ADULT	EP EVAL W ARRHYTHMIA INDUCTION RT ATRIAL	$	26,156.00
MLH-ADULT	EP EVAL W ARRHYTHMIA INDUCTION LT ATRIAL	$	26,156.00
MLH-ADULT	EP EVAL W ARRHYTHMIA W LT VENTRICULAR PA	$	26,156.00
MLH-ADULT	EP PRGM STIM & PACING AFTER IV DRUG INF	$	23,686.00
MLH-ADULT	EP FU W INDUCTION/ATTEMPTED OF ARRHYTHMI	$	23,686.00
MLH-ADULT	ICD IMPLANT	$	3,099.00
MLH-ADULT	EP EVAL W TESTING SING/DUAL PACING GENER	$	3,099.00
MLH-ADULT	EP EVAL SNG/DUAL PAC CARDIO DEFIB TRANVN	$	3,099.00
MLH-ADULT	EP EVAL SUBCUTANEOUS IMPLANT DEFIBRIL	$	3,099.00
MLH-ADULT	EP ABLATION OF AV NODE FUNCT/AV CONDUCT	$	32,828.00
MLH-ADULT	EPHYS EVAL W/ ABLAT SUPRAVENT ARRHYTHMIA	$	46,341.00
MLH-ADULT	EPHYS EVAL W/ ABLATION VENT TACHYCARDIA	$	46,341.00
MLH-ADULT	ICAR CATHETER ABLATION ARRHYTHMIA ADD ON	$	23,171.00
MLH-ADULT	EPHYS EVL TRNS TX ATR FIB ISOLA PULM VEI	$	46,341.00
MLH-ADULT	ABLATE L/R ATR FIB W/ ISOLATED PULM ADDL	$	23,171.00
MLH-ADULT	TILT TABLE EVAL W ECG & BP MONITOR W/WO	$	1,688.00
MLH-ADULT	INTRACARDIAC ECHO THER/DX INTERVENTION	$	2,400.00
MLH-ADULT	ELECTRONIC ANAL ANTITACHYCARDIA PACE SYS	$	171.00
MLH-ADULT	CARDIAC MONITOR THER OP PER SESSION	$	1,005.00

MLH-ADULT	UNLISTED CARDIOVASCULAR OCCLUSION TEMP	$	772.00
MLH-ADULT	CAROTID DUPLEX SCAN EXTRACRAN ART BIL	$	1,049.00
MLH-ADULT	CAROTID DUPLEX SCAN EXTRACRAN ART UNI	$	1,049.00
MLH-ADULT	TRANSCRANIAL DOPPLER INTRA ART COMP	$	1,049.00
MLH-ADULT	TRANSCRANIAL DOPPLER INTRA ART LTD	$	1,049.00
MLH-ADULT	EXT ART PHYSIOLOGIC 1-2 LVLS	$	772.00
MLH-ADULT	EXT ART PHYSIOLOGIC 3> LVLS/1PROVOCATIVE	$	772.00
MLH-ADULT	EXT LOWER DUPLEX ART/ART BYPASS GRAFT BI	$	1,049.00
MLH-ADULT	EXT UPPER DUPLEX ART/ART BYPASS GRAFT BI	$	1,049.00
MLH-ADULT	EXT LOWER VENOUS DOPPLER W COMPRESS BIL	$	1,049.00
MLH-ADULT	EXT LOWER VENOUS DOPPLER W COMPRESS UNI	$	1,049.00
MLH-ADULT	ABD/RETROPER DUPLEX ART IN/VEIN OUT COMP	$	1,049.00
MLH-ADULT	ABD/RETROPER DUPLEX ART IN/VEIN OUT LTD	$	1,049.00
MLH-ADULT	AORTA/IVC/ILIAC/BYPASS GRAFTS DUPLEX COM	$	1,049.00
MLH-ADULT	PENILE VESSELS DUPLEX ART IN/VEIN COMP	$	1,049.00
MLH-ADULT	PENILE VESSELS DUPLEX ART IN/VEIN LTD	$	1,049.00
MLH-ADULT	VENT ASSIST & MGMT INIT DAY	$	1,277.00
MLH-ADULT	VENT ASSIST & MGMT SUBSEQUENT DAY	$	1,277.00
MLH-ADULT	SPIROMETRY	$	627.00
MLH-ADULT	BRONCHODILA RESPONSE PRE/POST SPIROMETRY	$	1,328.00
MLH-ADULT	BRONCHOSPASM EVAL W PROVOCATION	$	1,328.00
MLH-ADULT	VITAL CAPACITY TOTAL	$	532.00
MLH-ADULT	MAX VOLUNTARY VENT/BREATHING CAPACITY	$	627.00
MLH-ADULT	PULM STRESS TEST W/MEASURE HR,OXYG,OXIM	$	676.00
MLH-ADULT	1ST SHORT TX/SPUTUM INDUCT OF DATE	$	218.00
MLH-ADULT	AERSL INHL PENTAMIDINE	$	879.00
MLH-ADULT	1ST HR CONT/HR LONG TX OF DATE	$	785.00
MLH-ADULT	ADD'L HR CONT/HR LONG TX OF DATE	$	785.00
MLH-ADULT	CPAP INITIATION & MGMT	$	2,730.00
MLH-ADULT	AEROSOL TRMT DEMO/EVAL	$	301.00
MLH-ADULT	1ST MANUAL CPT OF DATE	$	301.00
MLH-ADULT	ADD'L MANUAL CPT OF DATE	$	301.00
MLH-ADULT	MECHANICAL CHEST WALL OSCILL FUNCTION	$	270.00
MLH-ADULT	OXYGEN UPTAKE EXPIRED GAS REST INDIRECT	$	627.00
MLH-ADULT	PLETHYSMOGRAPHY VOL W/WO AIRWAY RESIST	$	461.00
MLH-ADULT	GAS DILUT/WASHOUT W/WO DISTRIB VENT&VOL	$	461.00
MLH-ADULT	AIRWAY RESISTANCE OSCILLOMETRY	$	461.00
MLH-ADULT	C02/MEMBANE DIFFUSING CAPACITY	$	554.00
MLH-ADULT	PULSE OX O2 SATURATION SING DETERMINATIO	$	90.00
MLH-ADULT	PULSE OX O2 SATURATION MULT DETERMINATIO	$	234.00
MLH-ADULT	PULSE OX O2 SATURATION CONTINUOUS OVERNI	$	847.00
MLH-ADULT	CARBON DIOXIDE EXPIRED GAS DETERMINATION	$	627.00
MLH-ADULT	EEG W/VIDEO 8 CHANNELS MINIMUM	$	699.00
MLH-ADULT	EEG W/O VIDEO 2-12 HRS UNMONITORED	$	699.00
MLH-ADULT	EEG W/O VIDEO 2-12 HRS INTMT MONITORING	$	699.00
MLH-ADULT	EEG W/O VIDEO 2-12 HRS REAL TIME MONITOR	$	699.00
MLH-ADULT	EEG W/O VIDEO 12-26 HRS UNMONITORED	$	1,340.00

MLH-ADULT	EEG W/O VIDEO 12-26 HRS INTERM MONITOR	$	1,340.00
MLH-ADULT	EEG W/O VIDEO 12-26HRS REAL TIME MONITOR	$	1,340.00
MLH-ADULT	VEEG 2-12 HRS UNMONITORED	$	699.00
MLH-ADULT	VEEG 2-12 HRS INTERMITTENT MONTORING	$	699.00
MLH-ADULT	VEEG 2-12 HRS REAL TIME MONTORING	$	1,340.00
MLH-ADULT	VEEG 12-26 HRS UNMONITORED	$	1,340.00
MLH-ADULT	VEEG 12-26 HRS INTERMITTENT MONTORING	$	1,340.00
MLH-ADULT	VEEG 12-26 HRS REAL TIME MONTORING	$	2,509.00
MLH-ADULT	POLYSOM <6 YRS +4 ADDL PARAM	$	4,424.00
MLH-ADULT	POLYSOM <6 YRS CPAP/BILVL VENT 4/> PARAM	$	4,424.00
MLH-ADULT	SLP STDY UNATT W/HRT RATE/O2SAT/RESP/SLP	$	591.00
MLH-ADULT	ACTIGRAPHY TEST RECORDING ANALYSIS I&R	$	299.00
MLH-ADULT	SLEEP LATENCY MULT TRIALS/MWT ASSESS SLE	$	3,319.00
MLH-ADULT	SLP STDY UNATT W/HRT RATE/O2SAT/RESP/SLP	$	591.00
MLH-ADULT	SLP STDY ATTD W/HRT RATE/O2SAT/RESP/SLP	$	1,032.00
MLH-ADULT	POLYSOM 6/>YRS 4/> ADDL PARAM	$	4,424.00
MLH-ADULT	POLYSOM 6/>YRS CPAP 4/> PARM	$	4,424.00
MLH-ADULT	EEG EXTENDED MONITORING 41-60MIN	$	1,195.00
MLH-ADULT	EEG EXTENDED MONITORING 61-119 MIN	$	1,195.00
MLH-ADULT	EEG RECORDING WAKE & DROWSY	$	949.00
MLH-ADULT	EEG RECORDING WAKE & ASLEEP	$	949.00
MLH-ADULT	EEG RECORDING IN COMA/SLEEP ONLY	$	949.00
MLH-ADULT	EEG CEREBRAL DEATH EVAL ONLY	$	949.00
MLH-ADULT	ELECTROCORTICOGRAM DURING SURGERY	$	996.00
MLH-ADULT	INSERT ELECTRODES FOR EEG	$	1,002.00
MLH-ADULT	EMG NDL 1 EXT W/WO RELATED PARASPINAL	$	466.00
MLH-ADULT	EMG NDL 2 EXT W/WO RELATED PARASPINAL	$	466.00
MLH-ADULT	EMG NDL 3 EXT W/WO RELATED PARASPINAL	$	466.00
MLH-ADULT	EMG NDL 4 EXT W/WO RELATED PARASPINAL	$	466.00
MLH-ADULT	EMG NDL LARNYX	$	563.00
MLH-ADULT	EMG NDL HEMIDIAPHRAGM	$	563.00
MLH-ADULT	EMG CN SUPPLIED MUSCLES UNILAT	$	466.00
MLH-ADULT	EMG CN SUPPLIED MUSCLES BIL	$	466.00
MLH-ADULT	EMG THORACIC PARASPINAL EXCLUDING T1/T2`	$	563.00
MLH-ADULT	EMG NDL LTD MUSCLE NOT THORACIC/CRANIAL/	$	466.00
MLH-ADULT	EMG NDL SING ELECTRODE ALL SITES EA MUSC	$	299.00
MLH-ADULT	ELECTRICAL STIMULATION CHEMODENERVATION	$	259.00
MLH-ADULT	NDL EMG CHEMODENERVATION	$	259.00
MLH-ADULT	EMG NDL EA EXT W/PARASPINL AREA LIMITED	$	466.00
MLH-ADULT	EMG NDL EA EXT W/PARASPINL AREA COMPLETE	$	466.00
MLH-ADULT	EMG NDL NON MSCLES W/NERVE CONDUCTION	$	466.00
MLH-ADULT	MOTOR &/ SENS NRVE CNDJ TEST	$	357.00
MLH-ADULT	NERVE CONDUCTION STUDIES 1-2 STUDIES	$	466.00
MLH-ADULT	NERVE CONDUCTION STUDIES 3-4 STUDIES	$	466.00
MLH-ADULT	NERVE CONDUCTION STUDIES 5-6 STUDIES	$	466.00
MLH-ADULT	NERVE CONDUCTION STUDIES 7-8 STUDIES	$	466.00
MLH-ADULT	NERVE CONDUCTION STUDIES 9-10 STUDIES	$	482.00

MLH-ADULT	NERVE CONDUCTION STUDIES 11-12 STUDIES	$	482.00
MLH-ADULT	NERVE CONDUCTION STUDIES 13 OR MORE	$	482.00
MLH-ADULT	ANS FUNCT TEST CARDIOVAGAL INNERVATION	$	299.00
MLH-ADULT	VASOMOTOR ADRENERGIC INNERVATION	$	332.00
MLH-ADULT	ANS SUD0MOTO SWEAT TEST &/SKIN POTEN SYM	$	332.00
MLH-ADULT	AUTONOMIC NERV SYS FUNCT 5MIN TILT TEST	$	332.00
MLH-ADULT	SOMATOSENSORY EVOKED POTENTIAL UPPER EXT	$	1,181.00
MLH-ADULT	SOMATOSENSORY EVOKED POTENTIAL LOWER EXT	$	1,181.00
MLH-ADULT	CENTRAL MOTOR MAPPING UPPER LIMB	$	483.00
MLH-ADULT	CENTRAL MOTOR MAPPING LOWER LIMB	$	483.00
MLH-ADULT	VISUAL EVOKED POTENTIAL TEST	$	1,181.00
MLH-ADULT	BLINK REFLEX BY ELECTRODX TEST	$	299.00
MLH-ADULT	NEUROMUSCULAR JUNCTION TEST DIFF NERVE	$	466.00
MLH-ADULT	SOMATOSENSORY EVOKED UPPER & LOWER EXT	$	1,181.00
MLH-ADULT	CENTRAL MOTOR MAPPING UPPER & LOWER	$	818.00
MLH-ADULT	IONM IN OPERATNG ROOM 15 MIN	$	1,451.00
MLH-ADULT	IONM REMOTE/>1 PT OR PER HR	$	0.01
MLH-ADULT	PARASYMP& SYMP HRT RATE VARIABILITY TEST	$	184.00
MLH-ADULT	EEG MONITORING/GIVING DRUGS	$	1,247.00
MLH-ADULT	EEG DURING NONINTRACRANCIAL SURGERY	$	949.00
MLH-ADULT	EEG DIGITAL ANALYSIS	$	996.00
MLH-ADULT	WADA ACTIVATION TEST WITH EEG	$	2,765.00
MLH-ADULT	FUNCT MAPPING ELECTRODE BRAIN INITIAL HR	$	1,181.00
MLH-ADULT	FUNCT MAPPING ELECTRODE BRAIN EA ADDL HR	$	1,181.00
MLH-ADULT	MEG REC/ANAL EVOKED SINGLE MODALITY	$	5,109.00
MLH-ADULT	MEG REC/ANAL EVOKED EACH ADDL MODALITY	$	5,109.00
MLH-ADULT	ANALYZE NEUROSTIM SIMPLE/COMPLX W/O PROG	$	337.00
MLH-ADULT	CRANIAL NEUROSTIM SIMPLE	$	108.00
MLH-ADULT	CRANIAL NEUROSTIM COMPLEX	$	341.00
MLH-ADULT	SPEECH AND LANGUAGE MAPPING	$	271.00
MLH-ADULT	FUNCTIONAL BRAIN MAPPING	$	583.00
MLH-ADULT	HEALTH RISK ASSESSMENT TEST	$	91.00
MLH-ADULT	IV INF HYDRATION INITIAL 31 MIN TO 1HR	$	338.00
MLH-ADULT	HYDRATION EA ADDL HR	$	118.00
MLH-ADULT	INF THER/PROPHYLACTIC/DX IV INIT 1ST HR	$	579.00
MLH-ADULT	INF THER/PROPHYLAC/DX IV EA ADDL HR	$	118.00
MLH-ADULT	INF THER/PROPH/DX ADDL SEQ NEW DRUG 1HR	$	167.00
MLH-ADULT	INF THER/PROPH/DX IV CONCURRENT	$	0.01
MLH-ADULT	SUBQ INFUSION THERAPY UP TO 1HR	$	602.00
MLH-ADULT	SUBQ INFUSION THERAPY EA ADD'L HR	$	167.00
MLH-ADULT	SUBQ INFUSION THERAPY RESET PUMP	$	118.00
MLH-ADULT	INJ THER/PROPHYLACTIC/DX SQ/IM	$	118.00
MLH-ADULT	INJ THER/PROPH/DX IV PUSH INIT DRUG	$	167.00
MLH-ADULT	INJ THER/PROP/DX IV PUSH EA ADD NEW SEQ	$	167.00
MLH-ADULT	INJ THER/PRO/DX PUSH SAME DRUG EA ADD'L	$	0.01
MLH-ADULT	CHEMO ADMIN SQ/IM NON HORMONAL ANTI NEOP	$	163.00
MLH-ADULT	CHEMO ADMIN SQ/IM HORMONAL ANTI NEOPLAST	$	163.00

MLH-ADULT	CHEMOTHER ADMIN IV PUSH INIT DRUG	$	563.00
MLH-ADULT	CHEMOTHER ADMIN IV PUSH EA ADDL DRUG	$	328.00
MLH-ADULT	CHEMOTHER ADMIN IV INF </=1HR INIT DRUG	$	897.00
MLH-ADULT	CHEMOTHER ADMIN IV INF EA ADDL HR	$	163.00
MLH-ADULT	CHEMOTHER ADMIN INTRA INF TECH >8HR PUMP	$	897.00
MLH-ADULT	CHEMOTHE ADMIN INTRA INF ADDL SEQ </=1HR	$	328.00
MLH-ADULT	CHEMO ADMIN IA PUSH	$	378.00
MLH-ADULT	CHEMO ADMIN INF TECH ONLY </=1HR	$	1,442.00
MLH-ADULT	CHEMOTHER ADMIN PLEURAL CAV THORACENTESI	$	563.00
MLH-ADULT	CHEMOTHER ADMIN INTO CNS SPINAL PUNCTURE	$	897.00
MLH-ADULT	REFILING/MAINT PORTABLE PUMP	$	563.00
MLH-ADULT	IRRIG DRUG DELIVERY DEVICE	$	190.00
MLH-ADULT	CHEMOTHER INJ SUBARACH VIA SUBQ RESERVOI	$	328.00
MLH-ADULT	DEBRIDEMENT OPEN WOUND 20 SQ CM<	$	401.00
MLH-ADULT	DEBRIDEMENT OPEN WOUND 20 SQ CM< EA ADDL	$	512.00
MLH-ADULT	TISSUE REMOVAL DEBRIDE NON SELECT WO ANE	$	337.00
MLH-ADULT	NEGATIVE PRESSURE WOUND THER</= 50 SQ CM	$	401.00
MLH-ADULT	NEGATIVE PRESSURE WOUND THER > 50 SQ CM	$	512.00
MLH-ADULT	MEDICAL NUTRITION THER INIT 15MIN	$	114.00
MLH-ADULT	MEDICAL NUTRITION THER SUBSEQ 15MIN	$	96.00
MLH-ADULT	MEDICAL NUTRITION THER GRP 30MIN	$	53.00
MLH-ADULT	SELF MGMT EDUC & TRAIN 2 TO 4 PTS 30MIN	$	151.00
MLH-ADULT	TELEPHONE CALL 5-10 MINUTES	$	49.00
MLH-ADULT	TELEPHONE CALL 11-20 MINUTES	$	88.00
MLH-ADULT	TELEPHONE CALL 21-30 MINUTES	$	135.00
MLH-ADULT	SPECIMEN HANDLING FEE	$	21.00
MLH-ADULT	POSTOP FOLLOW-UP VISIT	$	0.01
MLH-ADULT	MOD CONSC SEDATE SAME PHY < 5YRS 15 MIN	$	604.00
MLH-ADULT	MOD CONSC SEDATE SAME PHY >= 5YRS 15 MIN	$	604.00
MLH-ADULT	MOD CONSC SEDATION SAME PHYS EA ADDL 15	$	604.00
MLH-ADULT	MOD CONSC SEDATE OTH PHY >/= 5YRS 15 MIN	$	604.00
MLH-ADULT	MOD CONSC SEDATE OTH PHY EA ADDL 15 MIN	$	604.00
MLH-ADULT	PHLEBOTOMY THER	$	207.00
MLH-ADULT	CLINIC VISIT NEW LVL I	$	131.00
MLH-ADULT	CLINIC VISIT NEW PT EXPANDED	$	195.00
MLH-ADULT	CLINIC VISIT NEW PT DETAILED	$	214.00
MLH-ADULT	CLINIC VISIT NEW PT COMPREHENSIVE	$	258.00
MLH-ADULT	CLINIC VISIT NEW PT COMPLEX	$	311.00
MLH-ADULT	CLINIC VISIT ESTABLISHED LVL I	$	131.00
MLH-ADULT	CLINIC VISIT ESTABLISHED LVL II	$	195.00
MLH-ADULT	CLINIC VISIT ESTABLISHED LVL III	$	214.00
MLH-ADULT	CLINIC VISIT ESTABLISHED LVL IV	$	258.00
MLH-ADULT	CLINIC VISIT ESTABLISHED LVL V	$	311.00
MLH-ADULT	OFFICE CONSULT NEW/ESTAB PATIENT 15 MIN	$	214.00
MLH-ADULT	OFFICE CONSULT NEW/ESTAB PATIENT 30 MIN	$	311.00
MLH-ADULT	OFFICE CONSULT NEW/ESTAB PATIENT 40 MIN	$	311.00
MLH-ADULT	OFFICE CONSULT NEW/ESTAB PATIENT 60 MIN	$	311.00

MLH-ADULT	OFFICE CONSULT NEW/ESTAB PATIENT 80 MIN	$	311.00
MLH-ADULT	TEAM CONF W PAT BY HC PROF=>30MIN	$	224.00
MLH-ADULT	TEAM CONF W/O PAT BY HC PROF=>30MIN	$	224.00
MLH-ADULT	TRANSITIONAL CARE MANAGE SRVC 14DAY DISC	$	406.00
MLH-ADULT	TRANSITIONAL CARE MANAGE SRVC 7DAY DISC	$	365.00
MLH-ADULT	ASP PUNC BREAST CYST BIL	$	2,226.00
MLH-ADULT	ASP PUNC BREAST CYST EA ADDL BIL	$	2,226.00
MLH-ADULT	INJ MAMMARY DUCTOGRAM/GALACTOGRAM BIL	$	1,177.00
MLH-ADULT	BREAST STEREO GUIDE BX NDL PLACE INT BIL	$	5,564.00
MLH-ADULT	BRST STEREO GUIDE BX NDL PLCE EA ADD BIL	$	2,781.00
MLH-ADULT	US GUIDE BREAST BX NDL PLACE 1ST LES BIL	$	5,564.00
MLH-ADULT	US GUIDE BREAST BX NDL PLACE EA ADD BIL	$	2,781.00
MLH-ADULT	MR BREAST BX 1ST LESION BIL	$	8,255.00
MLH-ADULT	MR BREAST BX EA ADDL LESION BIL	$	8,255.00
MLH-ADULT	BREAST MAMMO GUIDE NDL PLACE INT LSN BIL	$	2,268.00
MLH-ADULT	BREAST MAMMO GUIDE NDLE PLACE EA ADD BIL	$	1,133.00
MLH-ADULT	BREAST STEREO GUIDE NDL PLAC INT LSN BIL	$	2,268.00
MLH-ADULT	BREAST STEREO GUIDE NDL PLACE EA ADD BIL	$	1,133.00
MLH-ADULT	US GUIDE BREAST NDL PLACE INT LSN BIL	$	2,268.00
MLH-ADULT	US GUIDE BREAST NDL PLAC EA ADD BIL	$	1,133.00
MLH-ADULT	MR GUIDE BREAST NDL PLACE INT LSN BIL	$	2,268.00
MLH-ADULT	MR GUIDE BREAST NDL PLACE EA ADD BIL	$	1,133.00
MLH-ADULT	BX MUSCLE PERCUT NDL BIL	$	3,636.00
MLH-ADULT	BX BONE TROCAR/NDL SUPERFICIAL BIL	$	3,807.00
MLH-ADULT	BX BONE TROCAR/NDL DEEP BIL	$	3,807.00
MLH-ADULT	ASP/INJ ARTHROCENTESIS JT/BURSA MAJOR BI	$	2,027.00
MLH-ADULT	INJ ARTHROGRAM TMJ BIL	$	1,177.00
MLH-ADULT	BX SOFT TISSUE SHOULDER SUPERFICIAL BIL	$	10,674.00
MLH-ADULT	BX SOFT TISSUE SHOULDER DEEP BIL	$	12,554.00
MLH-ADULT	INJ ARTHROGRAM SHOULDER BIL	$	1,177.00
MLH-ADULT	INJ ARTHROGRAM ELBOW BIL	$	1,177.00
MLH-ADULT	INJ ARTHROGRAM WRIST BIL	$	1,177.00
MLH-ADULT	INJ ARTHROGRAM HIP WO ANESTH BIL	$	1,177.00
MLH-ADULT	INJ SI JT ARTHRGRPHY/ANES/STRD W/IMG BIL	$	1,114.00
MLH-ADULT	INJ ARTHROGRAM ANKLE BIL	$	1,177.00
MLH-ADULT	STRAPPING SHOULDER BIL	$	1,150.00
MLH-ADULT	STRAPPING ELBOW/WRIST BIL	$	1,150.00
MLH-ADULT	STRAPPING HAND/FINGER BIL	$	1,150.00
MLH-ADULT	STRAPPING KNEE BIL	$	1,151.00
MLH-ADULT	STRAPPING ANKLE AND/OR FOOT BIL	$	1,151.00
MLH-ADULT	STRAPPING UNNA BOOT BIL	$	1,151.00
MLH-ADULT	APPLY MULTLAY COMPRS LWR LEG BIL	$	743.00
MLH-ADULT	BX PLEURA PERCUT NDL BIL	$	3,636.00
MLH-ADULT	BX LUNG/MEDIASTINUM PERCUT NDL BIL	$	8,271.00
MLH-ADULT	INJ EXT VENOGRAPHY BIL	$	1,177.00
MLH-ADULT	INTRO NDL/CATH CAROTID/VERTEBRAL ART BIL	$	1,177.00
MLH-ADULT	PLACE CATH 1ST ORD EXT INIT BIL	$	1,777.00

MLH-ADULT	PLACE CATH 2ND ORD EXT INIT BIL	$	1,777.00
MLH-ADULT	PLACE CATH ART EXT 3RD INIT BIL	$	1,777.00
MLH-ADULT	PLACE CATH ART EXT 3RD ADDL BIL	$	1,777.00
MLH-ADULT	NM INJ RADTRAC FOR ID OF SNTNL NODE BIL	$	2,349.00
MLH-ADULT	BX SALIVARY GLAND NDL BIL	$	2,226.00
MLH-ADULT	INJ SIALOGRAM BIL	$	1,177.00
MLH-ADULT	BX RENAL PERCUT TROCAR/NDL BIL	$	8,271.00
MLH-ADULT	REM URETE STENT TRANSURETHRAL BIL	$	4,557.00
MLH-ADULT	REM NEPH TUBE W INDWEL URET STENT BIL	$	2,749.00
MLH-ADULT	ENDOVAS TEMP BALL ART OCCL HEAD/NECK BIL	$	28,658.00
MLH-ADULT	INJ ANESTH AGENT FEMORAL BIL	$	2,520.00
MLH-ADULT	INJ ANESTH AGNT OTH PERIPH NRV/BRNCH BIL	$	2,520.00
MLH-ADULT	INJ ANESTHETIC AGENT CERV/THOR 1LVL BIL	$	1,295.00
MLH-ADULT	INJ ANESTHETIC AGENT EACH ADDTL BIL	$	660.00
MLH-ADULT	INJ ANESTHETIC AGENT LUM/SAC 1LVL BIL	$	1,013.00
MLH-ADULT	INJ ANESTHETIC LUM/SAC EACH ADDTL BIL	$	525.00
MLH-ADULT	INJ DX AGENT PARAVERT FACET/NRV BIL	$	4,926.00
MLH-ADULT	INJ DX AGNT PARAVERT FCT/NRV 2ND LVL BIL	$	1,520.00
MLH-ADULT	INJ DX AGNT PARAVERT FCT/NRV 3RD LVL BIL	$	1,520.00
MLH-ADULT	INJ FACET JT/NRV LUMBAR/SACRAL INIT LVL	$	4,846.00
MLH-ADULT	INJ FACET JT/NRV LUMBAR/SACRAL ADDL BIL	$	4,846.00
MLH-ADULT	INJ FACET JT/NRV LUM/SAC 3RD & ADDT BIL	$	1,734.00
MLH-ADULT	SP DESTROY CERV/THOR FACET JNT BIL	$	10,357.00
MLH-ADULT	SP DESTROY CERV/THOR FACET JNT ADDL BIL	$	10,357.00
MLH-ADULT	SP DESTROY LUMB/SAC FACET JNT BIL	$	10,357.00
MLH-ADULT	SP DESTROY L/S FACET JNT ADDL BIL	$	10,357.00
MLH-ADULT	ARTHROGRAM TMJ BIL	$	3,126.00
MLH-ADULT	CLAVICLE COMP BIL	$	837.00
MLH-ADULT	SCAPULA COMP BIL	$	837.00
MLH-ADULT	SHOULDER 1VW BIL	$	837.00
MLH-ADULT	SHOULDER COMP 2+VW BIL	$	837.00
MLH-ADULT	ARTHROGRAM SHOULDER BIL	$	3,126.00
MLH-ADULT	ELBOW 2VW BIL	$	837.00
MLH-ADULT	ELBOW COMP 3+VW BIL	$	837.00
MLH-ADULT	ARTHROGRAM ELBOW BIL	$	3,126.00
MLH-ADULT	FOREARM 2VW BIL	$	837.00
MLH-ADULT	EXT UPPER INFANT 2+VW BIL	$	837.00
MLH-ADULT	WRIST 2VW BIL	$	837.00
MLH-ADULT	WRIST 3+VW BIL	$	837.00
MLH-ADULT	ARTHROGRAM WRIST BIL	$	3,126.00
MLH-ADULT	HAND 2VW BIL	$	837.00
MLH-ADULT	HAND 3+VW BIL	$	837.00
MLH-ADULT	FINGERS 2+VW BIL	$	837.00
MLH-ADULT	CT EXT UPPER WO CONT BIL	$	4,877.00
MLH-ADULT	CT EXT UPPER W CONT BIL	$	6,746.00
MLH-ADULT	CT EXT UPPER W/WO CONT BIL	$	7,854.00
MLH-ADULT	CT ANGIO EXT UPPER W/WO CONT W IMAGE BIL	$	7,854.00

MLH-ADULT	MRI EXT UPPER NON JT WO CONT BIL	$	9,459.00
MLH-ADULT	MRI EXT UPPER NON JT W CONT BIL	$	5,370.00
MLH-ADULT	MRI EXT UPPER NON JT W/WO CONT BIL	$	12,869.00
MLH-ADULT	MRI EXT UPPER JT WO CONT BIL	$	4,724.00
MLH-ADULT	MRI EXT UPPER JT W CONT BIL	$	10,744.00
MLH-ADULT	MRI EXT UPPER JT W/WO CONT BIL	$	12,869.00
MLH-ADULT	ARTHROGRAM HIP BIL	$	3,126.00
MLH-ADULT	KNEE 1/2VW BIL	$	837.00
MLH-ADULT	KNEE 3VW BIL	$	837.00
MLH-ADULT	KNEE COMP 4+VW BIL	$	837.00
MLH-ADULT	ARTHROGRAM KNEE BIL	$	3,126.00
MLH-ADULT	TIBIA & FIBULA 2VW BIL	$	837.00
MLH-ADULT	EXT LOWER INFANT 2+VW BIL	$	1,457.00
MLH-ADULT	ANKLE 2VW BIL	$	837.00
MLH-ADULT	ANKLE COMP 3+VW BIL	$	837.00
MLH-ADULT	ARTHROGRAM ANKLE BIL	$	3,126.00
MLH-ADULT	FOOT 2VW BIL	$	837.00
MLH-ADULT	FOOT COMP 3+VW BIL	$	837.00
MLH-ADULT	CALCANEUS HEEL 2+VW BIL	$	837.00
MLH-ADULT	TOES 2+VW BIL	$	837.00
MLH-ADULT	CT EXT LOWER WO CONT BIL	$	4,877.00
MLH-ADULT	CT EXT LOWER W CONT BIL	$	6,746.00
MLH-ADULT	CT EXT LOWER W/WO CONT BIL	$	7,854.00
MLH-ADULT	CT ANGIO EXT LOWER W/WO CONT W IMAGE BIL	$	7,854.00
MLH-ADULT	MRI EXT LOWER NON JT WO CONT BIL	$	9,459.00
MLH-ADULT	MRI EXT LOWER NON JT W CONT BIL	$	10,744.00
MLH-ADULT	MRI EXT LOWER NON JT W/WO CONT BIL	$	12,869.00
MLH-ADULT	MRI EXT LOWER JT WO CONT BIL	$	9,458.00
MLH-ADULT	MRI EXT LOWER JT W CONT BIL	$	10,744.00
MLH-ADULT	MRI EXT LOWER JT W/WO CONT BIL	$	12,869.00
MLH-ADULT	UROGRAPHY ANTEGRADE BIL	$	2,825.00
MLH-ADULT	RENAL CYST STUDY TRANSLUMBAR CONT VI BIL	$	4,473.00
MLH-ADULT	FALLOPIAN TUBE TRANSCERV CATH BIL	$	1,894.00
MLH-ADULT	US BREAST LIMITED AXILLA/1AREA BIL	$	1,132.00
MLH-ADULT	US EXTR NON-VASC REAL-TIME IMG COMPL BIL	$	1,855.00
MLH-ADULT	US AXILLA BIL	$	1,074.00
MLH-ADULT	TRMT DEVICE DESIGN & CONSTRUCT INTER 2ND	$	1,250.00
MLH-ADULT	ADD'L SHORT TX/SPUTUM INDUCT/DATE	$	218.00
MLH-ADULT	EMG NDL LARNYX UNILATERAL	$	563.00
MLH-ADULT	NEURO(PRION DISEASE)CEREBROSPINAL FLUID	$	594.00
MLH-ADULT	CT BRAIN CEREBRAL ANALYSIS FOR PERFUS	$	3,929.00
MLH-ADULT	TRANSCATH PLACE STENT EXTRACRAN INIT VES	$	34,153.00
MLH-ADULT	TRANSCATH PLACE STENT EXTRACRAN ADDL VES	$	34,153.00
MLH-ADULT	CAROTID INTIMA-MEDIA THICKNESS	$	224.00
MLH-ADULT	ATHERECTOMY OPEN/PERCUT AORTA S&I EA VSL	$	21,365.00
MLH-ADULT	ATHEREC OPEN/PERCUT BRCHIOCPH S&I EA VSL	$	21,365.00
MLH-ADULT	ATHEREC OPEN/PERCUT ILLIAC S&I EA VSL	$	21,365.00

MLH-ADULT	TMVI/REPLACE PERCUTANEOUS APPROACH	$	26,185.00
MLH-ADULT	TMVI/REPLACE TRANSTHORACIC EXPOSURE	$	26,185.00
MLH-ADULT	TRANSAPICAL MITRAL VALVE REPAIR	$	34,153.00
MLH-ADULT	TRANSCAT MITRAL VALVE ANNULUS RECONSTR	$	34,153.00
MLH-ADULT	ASP PUNC BREAST CYST LT	$	1,115.00
MLH-ADULT	ASP PUNC BREAST CYST RT	$	1,115.00
MLH-ADULT	ASP PUNC BREAST CYST EA ADDL LT	$	1,115.00
MLH-ADULT	ASP PUNC BREAST CYST EA ADDL RT	$	1,115.00
MLH-ADULT	INJ MAMMARY DUCTOGRAM/GALACTOGRAM LT	$	587.00
MLH-ADULT	INJ MAMMARY DUCTOGRAM/GALACTOGRAM RT	$	587.00
MLH-ADULT	BREAST STEREO GUIDE BX NDL PLACE INT LT	$	2,781.00
MLH-ADULT	BREAST STEREO GUIDE BX NDL PLACE INT RT	$	2,781.00
MLH-ADULT	BRST STEREO GUIDE BX NDL PLCE EA ADD LT	$	1,391.00
MLH-ADULT	BRST STEREO GUIDE BX NDL PLCE EA ADD RT	$	1,391.00
MLH-ADULT	US GUIDE BREAST BX NDL PLACE 1ST LES LT	$	2,781.00
MLH-ADULT	US GUIDE BREAST BX NDL PLACE 1ST LES RT	$	2,781.00
MLH-ADULT	US GUIDE BREAST BX NDL PLACE EA ADD LT	$	1,391.00
MLH-ADULT	US GUIDE BREAST BX NDL PLACE EA ADD RT	$	1,391.00
MLH-ADULT	MR BREAST BX 1ST LESION LT	$	4,128.00
MLH-ADULT	MR BREAST BX 1ST LESION RT	$	4,128.00
MLH-ADULT	MR BREAST BX EA ADDL LESION LT	$	4,128.00
MLH-ADULT	MR BREAST BX EA ADDL LESION RT	$	4,128.00
MLH-ADULT	BREAST MAMMO GUIDE NDL PLACE INT LSN LT	$	1,133.00
MLH-ADULT	BREAST MAMMO GUIDE NDL PLACE INT LSN RT	$	1,133.00
MLH-ADULT	BREAST MAMMO GUIDE NDLE PLACE EA ADD LT	$	566.00
MLH-ADULT	BREAST MAMMO GUIDE NDLE PLACE EA ADD RT	$	566.00
MLH-ADULT	BREAST STEREO GUIDE NDL PLACE INT LSN LT	$	1,133.00
MLH-ADULT	BREAST STEREO GUIDE NDL PLACE INT LSN RT	$	1,133.00
MLH-ADULT	BREAST STEREO GUIDE NDL PLACE EA ADD LT	$	566.00
MLH-ADULT	BREAST STEREO GUIDE NDL PLACE EA ADD RT	$	566.00
MLH-ADULT	US GUIDE BREAST NDL PLACE INT LSN LT	$	1,133.00
MLH-ADULT	US GUIDE BREAST NDL PLACE INT LSN RT	$	1,133.00
MLH-ADULT	US GUIDE BREAST NDL PLAC EA ADD LT	$	566.00
MLH-ADULT	US GUIDE BREAST NDL PLAC EA ADD RT	$	566.00
MLH-ADULT	MR GUIDE BREAST NDL PLACE INT LSN LT	$	1,133.00
MLH-ADULT	MR GUIDE BREAST NDL PLACE INT LSN RT	$	1,133.00
MLH-ADULT	MR GUIDE BREAST NDL PLACE EA ADD LT	$	566.00
MLH-ADULT	MR GUIDE BREAST NDL PLACE EA ADD RT	$	566.00
MLH-ADULT	BX MUSCLE PERCUT NDL LT	$	1,820.00
MLH-ADULT	BX BONE TROCAR/NDL SUPERFICIAL LT	$	1,903.00
MLH-ADULT	ASP/INJ ARTHROCENTESIS JT/BURSA SM LT	$	1,013.00
MLH-ADULT	ASP/INJ ARTHRO JT BURSA SM RT WO USG	$	1,013.00
MLH-ADULT	US ARTHROCENT ASP/INJ SMALL JNT W USG LT	$	719.00
MLH-ADULT	US ARTHROCENT ASP/INJ SMALL JNT W USG RT	$	719.00
MLH-ADULT	ASP/INJ ARTHRO JT BURSA INTER LT WO USG	$	1,013.00
MLH-ADULT	ASP/INJ ARTHRO JT BURSA INTER RT WO USG	$	1,013.00
MLH-ADULT	ASP/INJ ARTHRO JT BURSA MAJ LT WO USG LT	$	1,013.00

MLH-ADULT	ASP/INJ ARTHRO JT BURSA MAJ RT WO USG RT	$	1,013.00
MLH-ADULT	INJ ARTHROGRAM TMJ LT	$	587.00
MLH-ADULT	INJ ARTHROGRAM TMJ RT	$	587.00
MLH-ADULT	BX SOFT TISSUE SHOULDER SUPERFICIAL LT	$	5,339.00
MLH-ADULT	BX SOFT TISSUE SHOULDER SUPERFICIAL RT	$	5,339.00
MLH-ADULT	BX SOFT TISSUE SHOULDER DEEP LT	$	6,277.00
MLH-ADULT	BX SOFT TISSUE SHOULDER DEEP RT	$	6,277.00
MLH-ADULT	INJ ARTHROGRAM SHOULDER LT	$	587.00
MLH-ADULT	INJ ARTHROGRAM SHOULDER RT	$	587.00
MLH-ADULT	INJ ARTHROGRAM ELBOW LT	$	587.00
MLH-ADULT	INJ ARTHROGRAM ELBOW RT	$	587.00
MLH-ADULT	INJ ARTHROGRAM WRIST LT	$	587.00
MLH-ADULT	INJ ARTHROGRAM WRIST RT	$	587.00
MLH-ADULT	INJ ARTHROGRAM HIP WO ANESTH LT	$	587.00
MLH-ADULT	INJ ARTHROGRAM HIP WO ANESTH RT	$	587.00
MLH-ADULT	INJ SI JT ARTHRGRPHY/ANES/STRD W/IMG LT	$	557.00
MLH-ADULT	INJ SI JT ARTHRGRPHY/ANES/STRD W/IMG RT	$	557.00
MLH-ADULT	BX SOFT TISSUE LEG/ANKLE SUPERFICIAL LT	$	1,894.00
MLH-ADULT	BX SOFT TISSUE LEG/ANKLE SUPERFICIAL RT	$	1,894.00
MLH-ADULT	INJ ARTHROGRAM ANKLE LT	$	587.00
MLH-ADULT	INJ ARTHROGRAM ANKLE RT	$	587.00
MLH-ADULT	APPL CAST HAND/LOWER FOREARM ADULT OT	$	579.00
MLH-ADULT	APPL CAST FINGER ADULT OT	$	579.00
MLH-ADULT	APPL LONG ARM SPLINT ADULT OT	$	579.00
MLH-ADULT	APPL SHORT ARM SPLINT STATIC PED	$	579.00
MLH-ADULT	APPL SHORT ARM SPLINT DYNAMIC ADULT OT	$	579.00
MLH-ADULT	APPL FINGER SPLINT STATIC ADULT OT	$	579.00
MLH-ADULT	APPL FINGER SPLINT DYNAMIC ADULT OT	$	579.00
MLH-ADULT	STRAPPING THORAX	$	579.00
MLH-ADULT	STRAPPING SHOULDER LT	$	579.00
MLH-ADULT	STRAPPING SHOULDER PED RT	$	579.00
MLH-ADULT	STRAPPING ELBOW/WRIST LT	$	579.00
MLH-ADULT	STRAPPING ELBOW/WRIST PED RT	$	579.00
MLH-ADULT	STRAPPING HAND/FINGER LT	$	579.00
MLH-ADULT	STRAPPING HAND/FINGER PED RT	$	579.00
MLH-ADULT	APPL LONG LEG CAST	$	996.00
MLH-ADULT	APPL CYLINDER CAST	$	996.00
MLH-ADULT	APPL SHORT LEG CAST PED	$	579.00
MLH-ADULT	APPL RIGID TOTAL CONTACT LEG CAST	$	996.00
MLH-ADULT	STRAPPING KNEE LT	$	579.00
MLH-ADULT	STRAPPING KNEE PED RT	$	579.00
MLH-ADULT	STRAPPING ANKLE AND/OR FOOT LT	$	579.00
MLH-ADULT	STRAPPING ANKLE AND/OR FOOT PED RT	$	579.00
MLH-ADULT	STRAPPING UNNA BOOT LT	$	579.00
MLH-ADULT	STRAPPING UNNA BOOT RT	$	579.00
MLH-ADULT	APPLY MULTLAY COMPRS LWR LEG LT	$	373.00
MLH-ADULT	APPLY MULTLAY COMPRS LWR LEG RT	$	373.00

MLH-ADULT	BX PLEURA PERCUT NDL LT	$	1,820.00
MLH-ADULT	BX PLEURA PERCUT NDL RT	$	1,820.00
MLH-ADULT	BX LUNG/MEDIASTINUM PERCUT NDL LT	$	4,131.00
MLH-ADULT	BX LUNG/MEDIASTINUM PERCUT NDL RT	$	4,131.00
MLH-ADULT	INJ EXT PSEUDOANEURYSM PERCUT TRMT LT	$	1,050.00
MLH-ADULT	INJ EXT PSEUDOANEURYSM PERCUT TRMT RT	$	1,050.00
MLH-ADULT	INJ EXT VENOGRAPHY LT	$	587.00
MLH-ADULT	INJ EXT VENOGRAPHY RT	$	587.00
MLH-ADULT	CATH PLACE SELECTIVE VENOUS 1ST ORDER LT	$	587.00
MLH-ADULT	CATH PLACE SELECTIVE VENOUS 1ST ORDER RT	$	587.00
MLH-ADULT	CATH PLACE SELECTIVE VENOUS 2ND ORDER LT	$	587.00
MLH-ADULT	CATH PLACE SELECTIVE VENOUS 2ND ORDER RT	$	587.00
MLH-ADULT	PLACE CATH SELECTIVE PULM ART LT	$	587.00
MLH-ADULT	PLACE CATH SELECTIVE PULM ART RT	$	587.00
MLH-ADULT	PLACE CATH SELECTIVE PULM ART SEGMENT LT	$	587.00
MLH-ADULT	PLACE CATH SELECTIVE PULM ART SEGMENT RT	$	587.00
MLH-ADULT	INTRO NDL/CATH CAROTID/VERTEBRAL ART LT	$	587.00
MLH-ADULT	INTRO NDL/CATH CAROTID/VERTEBRAL ART RT	$	587.00
MLH-ADULT	INTRO NDL/CATH UPPER/LOWER EXT ART LT	$	587.00
MLH-ADULT	INTRO NDL/CATH UPPER/LOWER EXT ART RT	$	587.00
MLH-ADULT	PLACE CATH 1ST ORD THORACIC/BRACH INIT L	$	884.00
MLH-ADULT	PLACE CATH 1ST ORD THORACIC/BRACH INIT R	$	884.00
MLH-ADULT	PLACE CATH 2ND ORD THORACIC/BRACH INIT L	$	884.00
MLH-ADULT	PLACE CATH 2ND ORD THORACIC/BRACH INIT R	$	884.00
MLH-ADULT	PLACE CATH 3RD ORD THORACIC/BRACH INIT L	$	884.00
MLH-ADULT	PLACE CATH 3RD ORD THORACIC/BRACH INIT R	$	884.00
MLH-ADULT	PLACE CATH 2ND/3RD/+ORD THORACIC/ ADDL L	$	884.00
MLH-ADULT	PLACE CATH 2ND/3RD/+ORD THORACIC/ ADDL R	$	884.00
MLH-ADULT	PLACE CATH ART ABD/PELVIC 1ST INIT LT	$	884.00
MLH-ADULT	PLACE CATH ART ABD/PELVIC 1ST INIT RT	$	884.00
MLH-ADULT	PLACE CATH 2ND ORD EXT INIT LT	$	884.00
MLH-ADULT	PLACE CATH 2ND ORD EXT INIT RT	$	884.00
MLH-ADULT	PLACE CATH 3RD+ ORD EXT INIT LT	$	884.00
MLH-ADULT	PLACE CATH 3RD+ ORD EXT INIT RT	$	884.00
MLH-ADULT	PLACE CATH 2ND/3RD/+ ORD EXT ADDL LT	$	884.00
MLH-ADULT	PLACE CATH 2ND/3RD/+ ORD EXT ADDL RT	$	884.00
MLH-ADULT	NM INJ RADTRAC FOR ID OF SNTNL NODE LT	$	1,174.00
MLH-ADULT	NM INJ RADTRAC FOR ID OF SNTNL NODE LT	$	1,174.00
MLH-ADULT	BX SALIVARY GLAND NDL LT	$	1,115.00
MLH-ADULT	BX SALIVARY GLAND NDL RT	$	1,115.00
MLH-ADULT	INJ SIALOGRAM LT	$	587.00
MLH-ADULT	INJ SIALOGRAM RT	$	587.00
MLH-ADULT	BX RENAL PERCUT TROCAR/NDL LT	$	4,131.00
MLH-ADULT	BX RENAL PERCUT TROCAR/NDL RT	$	4,131.00
MLH-ADULT	REM URETE STENT TRANSURETHRAL LT	$	2,254.00
MLH-ADULT	REM URETE STENT TRANSURETHRAL RT	$	2,254.00
MLH-ADULT	REM NEPH TUBE W INDWEL URET STENT LT	$	1,371.00

MLH-ADULT	REM NEPH TUBE W INDWEL URET STENT RT	$	1,371.00
MLH-ADULT	MANOMETRIC STUDY CATH/TUBE WHITAKER LT	$	460.00
MLH-ADULT	MANOMETRIC STUDY CATH/TUBE WHITAKER RT	$	460.00
MLH-ADULT	ENDOVASC TEMP BALL ART OCCL HEAD/NECK LT	$	14,328.00
MLH-ADULT	ENDOVASC TEMP BALL ART OCCL HEAD/NECK RT	$	14,328.00
MLH-ADULT	INJ ANESTH GREATER OCCIPITAL NRV LT	$	1,011.00
MLH-ADULT	INJ ANESTH AGENT FEMORAL LT	$	1,260.00
MLH-ADULT	INJ ANESTH AGENT FEMORAL RT	$	1,260.00
MLH-ADULT	INJ ANESTH AGNT OTH PERIPH NRV/BRNCH LT	$	1,260.00
MLH-ADULT	INJ ANESTH AGNT OTH PERIPH NRV/BRNCH RT	$	1,260.00
MLH-ADULT	INJ ANESTHETIC AGENT CERV/THOR 1LVL LT	$	647.00
MLH-ADULT	INJ ANESTHETIC AGENT CERV/THOR 1LVL RT	$	647.00
MLH-ADULT	INJ ANESTHETIC AGENT EACH ADDTL LT	$	331.00
MLH-ADULT	INJ ANESTHETIC AGENT EACH ADDTL RT	$	331.00
MLH-ADULT	INJ ANESTHETIC AGENT LUM/SAC 1LVL LT	$	506.00
MLH-ADULT	INJ ANESTHETIC AGENT LUM/SAC 1LVL RT	$	506.00
MLH-ADULT	INJ ANESTHETIC LUM/SAC EACH ADDTL LT	$	260.00
MLH-ADULT	INJ ANESTHETIC LUM/SAC EACH ADDTL RT	$	260.00
MLH-ADULT	INJ DX AGENT PARAVERT FACET/NRV LT	$	2,460.00
MLH-ADULT	INJ DX AGENT PARAVERT FACET/NRV RT	$	2,460.00
MLH-ADULT	INJ DX AGNT PARAVERT FCT/NRV 2ND LVL LT	$	759.00
MLH-ADULT	INJ DX AGNT PARAVERT FCT/NRV 2ND LVL RT	$	759.00
MLH-ADULT	INJ DX AGNT PARAVERT FCT/NRV 3RD LVL LT	$	759.00
MLH-ADULT	INJ DX AGNT PARAVERT FCT/NRV 3RD LVL RT	$	759.00
MLH-ADULT	INJ FACET JT/NRV LUMBAR/SACRAL INIT LVL	$	2,423.00
MLH-ADULT	INJ FACET JT/NRV LUMBAR/SACRAL INIT LVL	$	2,423.00
MLH-ADULT	INJ FACET JT/NRV LUMBAR/SACRAL ADDL LT	$	2,423.00
MLH-ADULT	INJ FACET JT/NRV LUMBAR/SACRAL ADDL RT	$	2,423.00
MLH-ADULT	INJ FACET JT/NRV LUM/SAC 3RD & ADDT LT	$	865.00
MLH-ADULT	INJ FACET JT/NRV LUM/SAC 3RD & ADDT RT	$	865.00
MLH-ADULT	SP DESTROY CERV/THOR FACET JNT LT	$	5,179.00
MLH-ADULT	SP DESTROY CERV/THOR FACET JNT RT	$	5,179.00
MLH-ADULT	SP DESTROY CERV/THOR FACET JNT ADDL LT	$	5,179.00
MLH-ADULT	SP DESTROY CERV/THOR FACET JNT ADDL RT	$	5,179.00
MLH-ADULT	SP DESTROY LUMB/SAC FACET JNT LT	$	5,179.00
MLH-ADULT	SP DESTROY LUMB/SAC FACET JNT RT	$	5,179.00
MLH-ADULT	SP DESTROY L/S FACET JNT ADDL LT	$	5,179.00
MLH-ADULT	SP DESTROY L/S FACET JNT ADDL RT	$	5,179.00
MLH-ADULT	MANDIBLE PARTIAL < 4VW RT	$	419.00
MLH-ADULT	ARTHROGRAM TMJ LT	$	1,561.00
MLH-ADULT	ARTHROGRAM TMJ RT	$	1,561.00
MLH-ADULT	SALIVARY GLAND FOR CALCULUS	$	419.00
MLH-ADULT	RIBS 2VW LT	$	419.00
MLH-ADULT	RIBS 2VW RT	$	419.00
MLH-ADULT	CLAVICLE COMP LT	$	419.00
MLH-ADULT	CLAVICLE COMP RT	$	419.00
MLH-ADULT	SCAPULA COMP LT	$	419.00

MLH-ADULT	SCAPULA COMP RT	$	419.00
MLH-ADULT	SHOULDER 1VW LT	$	419.00
MLH-ADULT	SHOULDER 1VW RT	$	419.00
MLH-ADULT	SHOULDER COMP 2+VW LT	$	419.00
MLH-ADULT	SHOULDER COMP 2+VW RT	$	419.00
MLH-ADULT	ARTHROGRAM SHOULDER LT	$	1,561.00
MLH-ADULT	ARTHROGRAM SHOULDER RT	$	1,561.00
MLH-ADULT	ELBOW 2VW LT	$	419.00
MLH-ADULT	ELBOW 2VW RT	$	419.00
MLH-ADULT	ELBOW COMP 3+VW LT	$	419.00
MLH-ADULT	ELBOW COMP 3+VW RT	$	419.00
MLH-ADULT	ARTHROGRAM ELBOW LT	$	1,561.00
MLH-ADULT	ARTHROGRAM ELBOW RT	$	1,561.00
MLH-ADULT	FOREARM 2VW LT	$	419.00
MLH-ADULT	FOREARM 2VW RT	$	419.00
MLH-ADULT	EXT UPPER INFANT 2+VW LT	$	419.00
MLH-ADULT	EXT UPPER INFANT 2+VW RT	$	419.00
MLH-ADULT	WRIST 2VW LT	$	419.00
MLH-ADULT	WRIST 2VW RT	$	419.00
MLH-ADULT	WRIST 3+VW LT	$	419.00
MLH-ADULT	WRIST 3+VW RT	$	419.00
MLH-ADULT	ARTHROGRAM WRIST LT	$	1,561.00
MLH-ADULT	ARTHROGRAM WRIST RT	$	1,561.00
MLH-ADULT	HAND 2VW LT	$	419.00
MLH-ADULT	HAND 2VW RT	$	419.00
MLH-ADULT	HAND 3+VW LT	$	419.00
MLH-ADULT	HAND 3+VW RT	$	419.00
MLH-ADULT	FINGERS 2+VW LT	$	419.00
MLH-ADULT	FINGERS 2+VW RT	$	419.00
MLH-ADULT	CT EXT UPPER WO CONT LT	$	2,439.00
MLH-ADULT	CT EXT UPPER WO CONT RT	$	2,439.00
MLH-ADULT	CT EXT UPPER W CONT LT	$	3,375.00
MLH-ADULT	CT EXT UPPER W CONT RT	$	3,375.00
MLH-ADULT	CT EXT UPPER W/WO CONT LT	$	3,929.00
MLH-ADULT	CT EXT UPPER W/WO CONT RT	$	3,929.00
MLH-ADULT	CT ANGIO EXT UPPER W/WO CONT W IMAGE LT	$	3,929.00
MLH-ADULT	CT ANGIO EXT UPPER W/WO CONT W IMAGE RT	$	3,929.00
MLH-ADULT	MRI EXT UPPER NON JT WO CONT LT	$	4,723.00
MLH-ADULT	MRI EXT UPPER NON JT WO CONT RT	$	4,723.00
MLH-ADULT	MRI EXT UPPER NON JT W CONT LT	$	5,372.00
MLH-ADULT	MRI EXT UPPER NON JT W CONT RT	$	5,372.00
MLH-ADULT	MRI EXT UPPER NON JT W/WO CONT LT	$	6,434.00
MLH-ADULT	MRI EXT UPPER NON JT W/WO CONT RT	$	6,434.00
MLH-ADULT	MRI EXT UPPER JT WO CONT LT	$	4,723.00
MLH-ADULT	MRI EXT UPPER JT WO CONT RT	$	4,723.00
MLH-ADULT	MRI EXT UPPER JT W CONT LT	$	5,372.00
MLH-ADULT	MRI EXT UPPER JT W CONT RT	$	5,372.00

MLH-ADULT	MRI EXT UPPER JT W/WO CONT LT	$	6,434.00
MLH-ADULT	MRI EXT UPPER JT W/WO CONT RT	$	6,434.00
MLH-ADULT	XR HIP UNI 1 VW LT	$	357.00
MLH-ADULT	XR HIP UNI 1 VW RT	$	357.00
MLH-ADULT	XR HIP UNI W PELVIS 2-3VW LT	$	357.00
MLH-ADULT	XR HIP UNI W PELVIS 2-3VW RT	$	357.00
MLH-ADULT	XR HIP UNI W PELVIS 4 VW MIN LT	$	613.00
MLH-ADULT	XR HIP UNI W PELVIS 4 VW MIN RT	$	613.00
MLH-ADULT	ARTHROGRAM HIP LT	$	1,561.00
MLH-ADULT	ARTHROGRAM HIP RT	$	1,561.00
MLH-ADULT	XR FEMUR 1 VW LT	$	357.00
MLH-ADULT	XR FEMUR 1 VW RT	$	357.00
MLH-ADULT	XR FEMUR 2 VW MINIMUM LT	$	357.00
MLH-ADULT	XR FEMUR 2 VW MINIMUM RT	$	357.00
MLH-ADULT	KNEE 1/2VW LT	$	419.00
MLH-ADULT	KNEE 1/2VW RT	$	419.00
MLH-ADULT	KNEE 3VW LT	$	419.00
MLH-ADULT	KNEE 3VW RT	$	419.00
MLH-ADULT	KNEE COMP 4+VW LT	$	419.00
MLH-ADULT	KNEE COMP 4+VW RT	$	419.00
MLH-ADULT	ARTHROGRAM KNEE LT	$	1,561.00
MLH-ADULT	ARTHROGRAM KNEE RT	$	1,561.00
MLH-ADULT	TIBIA & FIBULA 2VW LT	$	419.00
MLH-ADULT	TIBIA & FIBULA 2VW RT	$	419.00
MLH-ADULT	EXT LOWER INFANT 2+VW LT	$	732.00
MLH-ADULT	EXT LOWER INFANT 2+VW RT	$	732.00
MLH-ADULT	ANKLE 2VW LT	$	419.00
MLH-ADULT	ANKLE 2VW RT	$	419.00
MLH-ADULT	ANKLE COMP 3+VW LT	$	419.00
MLH-ADULT	ANKLE COMP 3+VW RT	$	419.00
MLH-ADULT	ARTHROGRAM ANKLE LT	$	1,561.00
MLH-ADULT	ARTHROGRAM ANKLE RT	$	1,561.00
MLH-ADULT	FOOT 2VW FORCED PLANTAR FLEXION LT	$	419.00
MLH-ADULT	FOOT 2VW FORCED PLANTAR FLEXION RT	$	419.00
MLH-ADULT	FOOT COMP 3+VW LT	$	419.00
MLH-ADULT	FOOT COMP 3+VW RT	$	419.00
MLH-ADULT	CALCANEUS HEEL 2+VW LT	$	419.00
MLH-ADULT	CALCANEUS HEEL 2+VW RT	$	419.00
MLH-ADULT	TOES 2+VW LT	$	419.00
MLH-ADULT	TOES 2+VW RT	$	419.00
MLH-ADULT	CT EXT LOWER WO CONT LT	$	2,439.00
MLH-ADULT	CT EXT LOWER WO CONT RT	$	2,439.00
MLH-ADULT	CT EXT LOWER W CONT LT	$	3,375.00
MLH-ADULT	CT EXT LOWER W CONT RT	$	3,375.00
MLH-ADULT	CT EXT LOWER W/WO CONT LT	$	3,929.00
MLH-ADULT	CT EXT LOWER W/WO CONT RT	$	3,929.00
MLH-ADULT	CT ANGIO EXT LOWER W/WO CONT W IMAGE LT	$	3,929.00

MLH-ADULT	CT ANGIO EXT LOWER W/WO CONT W IMAGE RT	$	3,929.00
MLH-ADULT	MRI EXT LOWER NON JT WO CONT LT	$	4,723.00
MLH-ADULT	MRI EXT LOWER NON JT WO CONT RT	$	4,723.00
MLH-ADULT	MRI EXT LOWER NON JT W CONT LT	$	5,372.00
MLH-ADULT	MRI EXT LOWER NON JT W CONT RT	$	5,372.00
MLH-ADULT	MRI EXT LOWER NON JT W/WO CONT LT	$	6,434.00
MLH-ADULT	MRI EXT LOWER NON JT W/WO CONT RT	$	6,434.00
MLH-ADULT	MRI EXT LOWER JT WO CONT LT	$	4,724.00
MLH-ADULT	MRI EXT LOWER JT WO CONT RT	$	4,723.00
MLH-ADULT	MRI EXT LOWER JT W CONT LT	$	5,372.00
MLH-ADULT	MRI EXT LOWER JT W CONT RT	$	5,372.00
MLH-ADULT	MRI EXT LOWER JT W/WO CONT LT	$	6,434.00
MLH-ADULT	MRI EXT LOWER JT W/WO CONT RT	$	6,434.00
MLH-ADULT	PYELOGRAM RETROGRADE W/WO KUB IN OR	$	1,413.00
MLH-ADULT	UROGRAPHY ANTEGRADE LT	$	1,413.00
MLH-ADULT	UROGRAPHY ANTEGRADE RT	$	1,413.00
MLH-ADULT	RENAL CYST STUDY TRANSLUMBAR CONT VI LT	$	2,242.00
MLH-ADULT	RENAL CYST STUDY TRANSLUMBAR CONT VI RT	$	2,242.00
MLH-ADULT	FALLOPIAN TUBE TRANSCERV CATH LT	$	1,894.00
MLH-ADULT	FALLOPIAN TUBE TRANSCERV CATH RT	$	1,894.00
MLH-ADULT	LYMPHANGIOGRAM PELVIC/ABD LT	$	2,332.00
MLH-ADULT	LYMPHANGIOGRAM PELVIC/ABD RT	$	2,332.00
MLH-ADULT	US BREAST COMP 4 QUAD/AX/RETRO UNI/LT	$	566.00
MLH-ADULT	US BREAST COMP 4 QUAD/AX/RETRO UNI/RT	$	566.00
MLH-ADULT	US BREAST LIMITED AXILLA/1AREA UNI/LT	$	566.00
MLH-ADULT	US BREAST LIMITED AXILLA/1AREA UNI/RT	$	566.00
MLH-ADULT	US EXTR NON-VASC REAL-TIME IMG COMPL LT	$	927.00
MLH-ADULT	US EXTR NON-VASC REAL-TIME IMG COMPL RT	$	927.00
MLH-ADULT	US AXILLA LT	$	537.00
MLH-ADULT	US AXILLA RT	$	537.00
MLH-ADULT	BREAST MAMMO DX W/CAD CONV FROM SCRN UNI	$	881.00
MLH-ADULT	BIOFEEDBACK TRAINING ANY MODALITY	$	417.00
MLH-ADULT	ST TRMT INDIVIDUAL	$	611.00
MLH-ADULT	ST TRMT GRP PED	$	591.00
MLH-ADULT	CLINIC EVALUATION OF SPEECH FLUENCY	$	343.00
MLH-ADULT	CLINIC EVALUATION SPEECH PRODUCTION	$	280.00
MLH-ADULT	CLINIC EVAL SPEECH SOUND LANG COMPREHEN	$	581.00
MLH-ADULT	BEHAVRAL QUALIT ANALYS VOICE	$	291.00
MLH-ADULT	DYSPHAGIA TRMT	$	621.00
MLH-ADULT	EVAL VOICE PROSTHETIC DEVICE	$	1,037.00
MLH-ADULT	EVAL NON SPEECH GEN DEVICE PED IST HR	$	1,037.00
MLH-ADULT	THER SERVICE NON SPEECH DEVICE ADULT	$	1,037.00
MLH-ADULT	EVAL SPEECH GENERATING DEV INIT HR PED	$	874.00
MLH-ADULT	THER SERVICE SPEECH GENERATIN DEVICE PED	$	642.00
MLH-ADULT	EVAL ORAL & PHARYNGEAL SWALLOW FUNCT	$	1,042.00
MLH-ADULT	MOTION FLUORO EVAL SWALLOW BY VIDEO	$	1,042.00
MLH-ADULT	FEES BY CINE/VIDEO RECORD	$	331.00

MLH-ADULT	FEE LARYNGEAL SENSORY TEST BY CINE/V	$	208.00
MLH-ADULT	PRQ TRLUML CORONARY ANGIO ONE ART/BRANCH	$	16,725.00
MLH-ADULT	PRQ TRLUML CORONARY ANGIO ONE ART/BRANCH	$	16,725.00
MLH-ADULT	PRQ TRLUML CORONARY ANGIO ONE ART/BRANCH	$	16,725.00
MLH-ADULT	PRQ TRLUML CORONARY ANGIO ONE ART/BRANCH	$	16,725.00
MLH-ADULT	PRQ TRLUML CORONARY ANGIO ONE ART/BRANCH	$	16,725.00
MLH-ADULT	PRQ TRLUML CORONARY ANGIOPLA ADDL BRANCH	$	16,725.00
MLH-ADULT	PRQ TRLUML CORONARY ANGIOPLA ADDL BRANCH	$	16,725.00
MLH-ADULT	PRQ TRLUML CORONARY ANGIOPLA ADDL BRANCH	$	16,725.00
MLH-ADULT	PRQ TRLUML CORONARY ANGIOPLA ADDL BRANCH	$	16,725.00
MLH-ADULT	PRQ TRLUML CORONARY ANGIOPLA ADDL BRANCH	$	16,725.00
MLH-ADULT	PRQ TRLUML CORON ANGIO/ATHER ONE ART/BRN	$	31,896.00
MLH-ADULT	PRQ TRLUML CORON ANGIO/ATHER ONE ART/BRN	$	31,896.00
MLH-ADULT	PRQ TRLUML CORON ANGIO/ATHER ONE ART/BRN	$	31,896.00
MLH-ADULT	PRQ TRLUML CORON ANGIO/ATHER ONE ART/BRN	$	31,896.00
MLH-ADULT	PRQ TRLUML CORON ANGIO/ATHER ONE ART/BRN	$	31,896.00
MLH-ADULT	PRQ TRLUML CORO ANGIO/ATHER ADDL ART/BRN	$	31,896.00
MLH-ADULT	PRQ TRLUML CORO ANGIO/ATHER ADDL ART/BRN	$	31,896.00
MLH-ADULT	PRQ TRLUML CORO ANGIO/ATHER ADDL ART/BRN	$	31,896.00
MLH-ADULT	PRQ TRLUML CORO ANGIO/ATHER ADDL ART/BRN	$	31,896.00
MLH-ADULT	PRQ TRLUML CORO ANGIO/ATHER ADDL ART/BRN	$	31,896.00
MLH-ADULT	PRQ TRLUM CORO STENT W/ANGIO ONE ART/BRN	$	25,405.00
MLH-ADULT	PRQ TRLUM CORO STENT W/ANGIO ONE ART/BRN	$	25,405.00
MLH-ADULT	PRQ TRLUM CORO STENT W/ANGIO ONE ART/BRN	$	25,405.00
MLH-ADULT	PRQ TRLUM CORO STENT W/ANGIO ONE ART/BRN	$	25,405.00
MLH-ADULT	PRQ TRLUM CORO STENT W/ANGIO ONE ART/BRN	$	25,405.00
MLH-ADULT	PRQ TRLUM CORO STENT W/ANGIO ADDL ART/BR	$	25,405.00
MLH-ADULT	PRQ TRLUM CORO STENT W/ANGIO ADDL ART/BR	$	25,405.00
MLH-ADULT	PRQ TRLUM CORO STENT W/ANGIO ADDL ART/BR	$	25,405.00
MLH-ADULT	PRQ TRLUM CORO STENT W/ANGIO ADDL ART/BR	$	25,405.00
MLH-ADULT	PRQ TRLUM CORO STENT W/ANGIO ADDL ART/BR	$	25,405.00
MLH-ADULT	PRQ TRLUM CORO STENT/ATH/ANGI ONE ART/BR	$	25,405.00
MLH-ADULT	PRQ TRLUM CORO STENT/ATH/ANGI ONE ART/B	$	25,405.00
MLH-ADULT	PRQ TRLUM CORO STENT/ATH/ANGI ONE ART/BR	$	25,405.00
MLH-ADULT	PRQ TRLUM CORO STENT/ATH/ANGI ONE ART/BR	$	25,405.00
MLH-ADULT	PRQ TRLUM CORO STENT/ATH/ANGI ONE ART/BR	$	25,405.00
MLH-ADULT	PRQ TRLUML CORO STENT/ATH/ANGIO ADDL BRN	$	25,405.00
MLH-ADULT	PRQ TRLUML CORO STENT/ATH/ANGIO ADDL BRN	$	25,405.00
MLH-ADULT	PRQ TRLUML CORO STENT/ATH/ANGIO ADDL BRN	$	25,405.00
MLH-ADULT	PRQ TRLUML CORO STENT/ATH/ANGIO ADDL BRN	$	25,405.00
MLH-ADULT	PRQ TRLUML CORO STENT/ATH/ANGIO ADDL BRN	$	25,405.00
MLH-ADULT	PRQ TRLUM CORO BYP GRFT REVASC ONE VESSL	$	25,405.00
MLH-ADULT	PRQ TRLUM CORO BYP GRFT REVASC ONE VESSL	$	25,405.00
MLH-ADULT	PRQ TRLUM CORO BYP GRFT REVASC ONE VESSL	$	25,405.00
MLH-ADULT	PRQ TRLUM CORO BYP GRFT REVASC ONE VESSL	$	25,405.00
MLH-ADULT	PRQ TRLUM CORO BYP GRFT REVASC ONE VESSL	$	25,405.00
MLH-ADULT	PRQ TRLUM CORO BYP GRFT REVASC ADDL VESS	$	25,405.00

MLH-ADULT	PRQ TRLUM CORO BYP GRFT REVASC ADDL VESS	$	25,405.00
MLH-ADULT	PRQ TRLUM CORO BYP GRFT REVASC ADDL VESS	$	25,405.00
MLH-ADULT	PRQ TRLUM CORO BYP GRFT REVASC ADDL VESS	$	25,405.00
MLH-ADULT	PRQ TRLUM CORO BYP GRFT REVASC ADDL VESS	$	25,405.00
MLH-ADULT	PRQ TRLUM CORO TOT OCCLU REVASC MI 1 VSL	$	25,405.00
MLH-ADULT	PRQ TRLUM CORO TOT OCCLU REVASC MI 1 VSL	$	25,405.00
MLH-ADULT	PRQ TRLUM CORO TOT OCCLU REVASC MI 1 VSL	$	25,405.00
MLH-ADULT	PRQ TRLUM CORO TOT OCCLU REVASC MI 1 VSL	$	25,405.00
MLH-ADULT	PRQ TRLUM CORO CHRON OCCLUS REVASC 1 VS	$	25,405.00
MLH-ADULT	PRQ TRLUM CORO CHRON OCCLUS REVASC 1 VS	$	25,405.00
MLH-ADULT	PRQ TRLUM CORO CHRON OCCLUS REVASC 1 VS	$	25,405.00
MLH-ADULT	PRQ TRLUM CORO CHRON OCCLUS REVASC 1 VSL	$	25,405.00
MLH-ADULT	PRQ TRLUM CORO CHRON OCCLUS REVASC 1 VS	$	25,405.00
MLH-ADULT	PRQ TRLU CORO CHRN OCCLUS REVAS ADDL VSL	$	25,405.00
MLH-ADULT	PRQ TRLU CORO CHRN OCCLUS REVAS ADDL VSL	$	25,405.00
MLH-ADULT	PRQ TRLU CORO CHRN OCCLUS REVAS ADDL VSL	$	25,405.00
MLH-ADULT	PRQ TRLU CORO CHRN OCCLUS REVAS ADDL VSL	$	25,405.00
MLH-ADULT	PRQ TRLU CORO CHRN OCCLUS REVAS ADDL VSL	$	25,405.00
MLH-ADULT	EXT LOWER DUPLEX ART/ART BYPASS GRAFT LT	$	1,049.00
MLH-ADULT	EXT LOWER DUPLEX ART/ART BYPASS GRAFT RT	$	1,049.00
MLH-ADULT	EXT UPPER DUPLEX ART/ART BYPASS GRAFT LT	$	1,049.00
MLH-ADULT	EXT UPPER DUPLEX ART/ART BYPASS GRAFT RT	$	1,049.00
MLH-ADULT	HEMODIALYSIS ACCESS DUPLEX SCAN LT	$	1,049.00
MLH-ADULT	HEMODIALYSIS ACCESS DUPLEX SCAN RT	$	1,049.00
MLH-ADULT	RANGE OF MOTION EXT/TRUNK SECTION EA	$	210.00
MLH-ADULT	RANGE OF MOTION HAND W/WO COMPARISON	$	176.00
MLH-ADULT	APHASIA ASSESSMENT EA HR	$	509.00
MLH-ADULT	DEV SCREENING LTD PED W/INTERP & REPORT	$	456.00
MLH-ADULT	DEV TESTING W/INTERP & REPORT 1ST HR	$	395.00
MLH-ADULT	DEV TEST W/INTERP & REPORT EA ADDL 30MIN	$	395.00
MLH-ADULT	COLD PACK APPL	$	111.00
MLH-ADULT	TRACTION MECHANICAL APPL 1+AREAS	$	112.00
MLH-ADULT	VASOPNEUMATIC DEVICE APPL 1+AREAS	$	100.00
MLH-ADULT	PARAFIN BATH APPL 1+AREAS	$	56.00
MLH-ADULT	WHIRLPOOL APPL 1+AREAS	$	131.00
MLH-ADULT	DIATHERMY APPL 1+AREAS	$	32.00
MLH-ADULT	ULTRAVIOLET APPL 1+AREAS	$	49.00
MLH-ADULT	ELECT STIM 15MIN	$	142.00
MLH-ADULT	IONTOPHORESIS 15MIN	$	118.00
MLH-ADULT	CONT BATH 15MIN	$	107.00
MLH-ADULT	US 15MIN	$	90.00
MLH-ADULT	HUBBARD TANK 15MIN HYDROTHER	$	188.00
MLH-ADULT	THER EXERCISE 1+AREAS 15MIN	$	218.00
MLH-ADULT	NEUROMUSCULAR REEDUCATION 1+AR 15MIN	$	226.00
MLH-ADULT	AQUATIC THER W THER EXERC 1+AR 15MIN	$	237.00
MLH-ADULT	GAIT TRAINING I 1+AREAS 15MIN	$	190.00
MLH-ADULT	MASSAGE 1+AREAS 15MIN	$	172.00

MLH-ADULT	THER COGNITIVE FUNCT DIRECT INT 15MIN	$	69.00
MLH-ADULT	THER COGNITIVE FUNCT DIRECT ADDL 15MIN	$	67.00
MLH-ADULT	UNLISTED PROC THER PED	$	125.00
MLH-ADULT	MANUAL THER MOBILIZATION/MANIP 15MIN PED	$	204.00
MLH-ADULT	THER PROC GRP	$	146.00
MLH-ADULT	PT EVAL LOW COMPLEX 20 MIN	$	279.00
MLH-ADULT	PT EVAL MOD COMPLEX 30 MIN	$	279.00
MLH-ADULT	PT EVAL HIGH COMPLEX 45 MIN	$	279.00
MLH-ADULT	PT RE-EVAL EST PLAN CARE 20 MINS	$	189.00
MLH-ADULT	OT EVAL LOW COMPLEX 30 MIN	$	271.00
MLH-ADULT	OT EVAL MOD COMPLEX 45 MIN	$	271.00
MLH-ADULT	OT EVAL HIGH COMPLEX 60 MIN	$	271.00
MLH-ADULT	OT RE-EVAL EST PLAN CARE 30 MIN	$	179.00
MLH-ADULT	THER ACTIVITY FUNCT PERFORM 15MIN	$	271.00
MLH-ADULT	SENSORY INTEGRATIVE TECHNIQUES 15MIN	$	198.00
MLH-ADULT	ADDL 15MIN PED	$	246.00
MLH-ADULT	COMMUN/WORK REINTEGRATION TRN 15MIN PED`	$	198.00
MLH-ADULT	WHEELCHAIR MGMT ASS/FIT/TRN 15MIN	$	207.00
MLH-ADULT	WORK HARDENING INIT 2HR	$	825.00
MLH-ADULT	WORK HARDENING ADDL HR	$	413.00
MLH-ADULT	DEBRIDEM OPEN WOUND 20 SQ CM OR LESS PED	$	401.00
MLH-ADULT	DEBRIDEM OPEN WOUND 20 SQ CM EA ADDL PED	$	512.00
MLH-ADULT	DEBRIDEMENT OPEN WOUND 20 SQ CM EA ADDL	$	512.00
MLH-ADULT	TISSUE REMOV DEBRIDE NONSELECT WO AN PED	$	337.00
MLH-ADULT	NEGATIVE PRESSURE WOUND THER</= 50 SQ CM	$	401.00
MLH-ADULT	NEGATIVE PRESSURE WOUND THER > 50 SQ CM	$	512.00
MLH-ADULT	PHYSICAL PERFORM TEST/M 15MIN ISOKINETIC	$	212.00
MLH-ADULT	ASSISTIVE TECH ASSESS 15MIN	$	272.00
MLH-ADULT	ORTHOTIC MGMT&TRN EXT/TRUNK EA 15MIN	$	212.00
MLH-ADULT	PROSTHET MGMT&TRN EXT/TRUNK EA 15MIN PED	$	195.00
MLH-ADULT	ORTHOTICS/PROSTC MGMT SUBSQ VISIT 15 MIN	$	175.00
MLH-ADULT	UNLISTED PROC REHAB STANDARDIZED TESTING	$	564.00
MLH-ADULT	UNLIST PROC REHAB PRESSURE GARMENT M PED	$	674.00
MLH-ADULT	MEDICAL NUTRITION THER INIT 15MIN	$	114.00
MLH-ADULT	TOBACCO USE COUNSEL 3-10 MIN	$	97.00
MLH-ADULT	TOBACCO USE COUNSEL >10 MIN	$	97.00
MLH-ADULT	TRANSITIONAL CARE MANAGE SRVC 14DAY DISC	$	406.00
MLH-ADULT	TRANSITIONAL CARE MANAGE SRVC 7DAY DISC	$	365.00
MLH-ADULT	APP LOW COST SKIN SUBSTITUTE 1ST 25SQ CM	$	1,548.00
MLH-ADULT	APP LOW COST SKIN SUBS EA ADD'L 25SQ CM	$	1,548.00
MLH-ADULT	APP LOW COST SKIN SUBSTITUTE 1ST 25SQ CM	$	1,548.00
MLH-ADULT	APP LOW COST SKIN SUBS EA ADD'L 25SQ CM	$	1,548.00
MLH-ADULT	MRA ABD W CONT	$	5,370.00
MLH-ADULT	MRA ABD WO CONT	$	4,724.00
MLH-ADULT	MRA ABD W/WO CONT	$	6,434.00
MLH-ADULT	MRA CHEST W CONT	$	5,370.00
MLH-ADULT	MRA CHEST WO CONT	$	4,724.00

MLH-ADULT	MRA CHEST W/WO CONT	$	6,434.00
MLH-ADULT	MRA EXT LOWER W CONT	$	5,370.00
MLH-ADULT	MRA EXT LOWER WO CONT BIL	$	9,458.00
MLH-ADULT	MRA EXT LOWER WO CONT LT	$	4,724.00
MLH-ADULT	MRA EXT LOWER WO CONT RT	$	4,724.00
MLH-ADULT	MRA EXT LOWER W/WO CONT BIL	$	12,869.00
MLH-ADULT	MRA EXT LOWER W/WO CONT LT	$	6,434.00
MLH-ADULT	MRA EXT LOWER W/WO CONT RT	$	6,434.00
MLH-ADULT	MRA PELIVS W CONT	$	5,370.00
MLH-ADULT	MRA PELIVS WO CONT	$	4,724.00
MLH-ADULT	MRA PELIVS W/WO CONT	$	6,434.00
MLH-ADULT	TTE CONGEN CARDIAC ANOMALY COM W/CONTRST	$	2,353.00
MLH-ADULT	TTE CONGEN CARDIAC ANOMALY F/U W/CONTRST	$	2,353.00
MLH-ADULT	TTE 2D M MODE RECORDING COMP W/CONTRST	$	2,353.00
MLH-ADULT	TTE 2D M MODE RECORDING LMTD W/CONTRAST	$	2,353.00
MLH-ADULT	TTE 2D M MODE W/DOP COLOR FLW W/CONTRST	$	2,353.00
MLH-ADULT	TTE 2D REST/STRESS ECG COMP W/CONTRST	$	2,353.00
MLH-ADULT	MRA SPINE W OR WO CONT	$	4,052.00
MLH-ADULT	MRA EXT UPPER W OR WO CONT	$	3,986.00
MLH-ADULT	PERC DRUG-ELUTE COR STENT SING	$	32,276.00
MLH-ADULT	PERC DRUG-ELUTE COR STENT ADDL BRANCH	$	32,276.00
MLH-ADULT	PERC DRUG-ELUTE COR STENT ATHER SING	$	32,276.00
MLH-ADULT	PERC DRUG-ELUTE COR STENT ATHER ADD BRAN	$	32,276.00
MLH-ADULT	PERC DRUG-ELUTE COR REVASC CABG SING	$	32,276.00
MLH-ADULT	PERC DRUG-ELUTE COR REVASC CABG ADD BRAN	$	32,276.00
MLH-ADULT	PERC DRUG-ELUTE COR REVASC W/AMI SING	$	32,276.00
MLH-ADULT	PERC DRUG-ELUTE COR REVASC CHRONIC SING	$	32,276.00
MLH-ADULT	PERC DRUG-ELUTE COR REVASC CHRONIC ADDL	$	32,276.00
MLH-ADULT	ADMINISTRATION PNEUMOCOCCAL VACCINE	$	110.00
MLH-ADULT	PAP/GYN EXAM MEDICARE PREVENTIVE	$	192.00
MLH-ADULT	COLORECTAL CANCER SCREENING;FLEX SIGMOID	$	1,764.00
MLH-ADULT	COLORECTAL CANCER SCREENING;HIGH RISK	$	2,812.00
MLH-ADULT	DIABETES OP SELF MGMT TRN INDIVIDUAL 30M	$	151.00
MLH-ADULT	DIABETES OP SELF MGMT GROUP 30MIN	$	90.00
MLH-ADULT	COLON CA SCRN NON HI RISK INDIVIDUAL	$	2,544.00
MLH-ADULT	WOUND CLOSURE UTILIZING TISSUE ADHESIVE	$	221.00
MLH-ADULT	CLOSURE DEVICE PLACEMENT	$	2,099.00
MLH-ADULT	HYPERBARIC OXYGEN FULL BDY PER 30MIN	$	565.00
MLH-ADULT	ANGIO ILIAC ART W CARDIAC CATH	$	884.00
MLH-ADULT	ELECT STIM UNATTENDED 1+ AREAS ULCERS	$	106.00
MLH-ADULT	ELECT STIM UNATTENDED 1+AREAS WOUND CARE	$	106.00
MLH-ADULT	ELECT STIM 1+ OTHER THAN WOUND CARE OT	$	106.00
MLH-ADULT	ELECT STIM 1+ OTHER THAN WOUND CARE PT	$	106.00
MLH-ADULT	LDCT FOR LUNG CA SCREEN	$	662.00
MLH-ADULT	OBESITY COUNSELING 15MIN FACE TO FACE	$	184.00
MLH-ADULT	PREPARE FECAL MICROBIOTA	$	322.00
MLH-ADULT	CRYOPRECIPITATE EA UNIT	$	260.00

MLH-ADULT	WBC POOR BLOOD EA UNIT	$	1,351.00
MLH-ADULT	PLASMA FRESH FROZ SING DONOR EA UNI ALIQ	$	295.00
MLH-ADULT	RBC EA UNIT	$	669.00
MLH-ADULT	WASHED RBC UNIT ALIQ	$	2,440.00
MLH-ADULT	PLATELET CONC LEUKOREDUCED EA UNIT	$	383.00
MLH-ADULT	PLATELET CONC LEUKORED IRRADIAT EA ALIQ	$	626.00
MLH-ADULT	PLATELET LEUKOREDUCED APHERESIS/PHRESIS	$	3,246.00
MLH-ADULT	PLATELET LEUKORED IRRADIATED APHERE ALIQ	$	3,543.00
MLH-ADULT	BLOOD LEUKORED IRRADIATED EA UNIT ALIQ	$	1,534.00
MLH-ADULT	PLASMA CRYOPRECIPITATE REDUCED EA UNIT	$	757.00
MLH-ADULT	GRANULOCYTES APHERESIS	$	4,139.00
MLH-ADULT	BLOOD LEUKOREDUCED FROZEN/DEGLYCEROL EA	$	2,137.00
MLH-ADULT	PLASMA FRESH FROZEN SINGLE DONOR 24HRS	$	755.00
MLH-ADULT	PLATELETS PHERESIS PATH-REDUCED EA UNIT	$	2,231.00
MLH-ADULT	PATHOGEN TEST FOR PLATELETS	$	165.00

FACILITY	CPT4 DESCRIPTION	2020 MLH CHG
MLH-LBCH	US FINE NEEDLE ASP BX FIRST LES	$ 1,684.00
MLH-LBCH	US FINE NEEDLE ASP BX EACH ADDL LESION	$ 1,684.00
MLH-LBCH	FINE NDLE ASP FLUORO GUIDE FIRST LES	$ 1,684.00
MLH-LBCH	DX FINE NDLE ASP FLUORO GUIDE EA ADD LES	$ 1,684.00
MLH-LBCH	CT FINE NEEDLE ASP BX FIRST LESION	$ 1,684.00
MLH-LBCH	CT FINE NEEDLE ASP BX EA ADDL LES	$ 1,684.00
MLH-LBCH	MR FINE NEEDLE ASP BX FIRST LESION	$ 1,684.00
MLH-LBCH	MR FINE NEEDLE ASP BX EACH ADDL LESION	$ 1,684.00
MLH-LBCH	US DRAIN EXTREMITY/ABDWALL/NECK	$ 633.00
MLH-LBCH	ABSCESS DRAIN SIMP/SING	$ 1,035.00
MLH-LBCH	ABSCESS DRN COMP/MULT	$ 1,035.00
MLH-LBCH	FOREIGN BODY REMOVAL SQ TISSUE SIMP	$ 1,029.00
MLH-LBCH	FOREIGN BODY REMOVAL SQ TISSUE COMP	$ 2,669.00
MLH-LBCH	ASP PUNC ABSCESS/HEMATOMA/BULLA/CYST	$ 495.00
MLH-LBCH	INCISION & DRAINAGE WOUND COMPLEX	$ 2,990.00
MLH-LBCH	DEBRIDE INFECTED SKIN UP TO 10% BODY SUF	$ 974.00
MLH-LBCH	BX TANGENTIAL OF SKIN SINGLE LESION	$ 512.00
MLH-LBCH	BX TANGENTIAL OF SKIN SINGLE ADDL LESION	$ 512.00
MLH-LBCH	BX PUNCH OF SKIN SINGLE LESION	$ 512.00
MLH-LBCH	BX PUNCH OF SKIN EA ADDL LESION	$ 512.00
MLH-LBCH	SKIN TAG REMOVAL FIBROSUBCUT UP TO 15 LE	$ 758.00
MLH-LBCH	EXCISION BENIGN LESION TRUNK 3.1/4.0CM	$ 4,779.00
MLH-LBCH	EXC H-F-NK-SP B9+MARG 1.1-2	$ 3,490.00
MLH-LBCH	EXCISION OTR BENIGN LESION 0.5CM OR LESS	$ 1,998.00
MLH-LBCH	EXCISION OTR BENIGN LESION DIAM 0.6-1 CM	$ 1,781.00
MLH-LBCH	EXCISION OTR BENIGN LESION DIA 1.1-2.0CM	$ 1,998.00
MLH-LBCH	EXCISION FACIAL LESION DIAMETR </=0.5CM	$ 4,001.00
MLH-LBCH	EXCISION OTR BENIGN LESION DIA 3.1-4.0CM	$ 4,001.00
MLH-LBCH	EXCISION OTR BENIGN LESION DIAM >4.0CM	$ 6,591.00
MLH-LBCH	AVULSION OF NAIL PLATE PART/COMP SING	$ 643.00
MLH-LBCH	EVACUATION OF SUBUNGUAL HEMATOMA	$ 155.00
MLH-LBCH	NAIL/NAIL MATRIX REMOVAL PARTIAL/COMP	$ 1,989.00
MLH-LBCH	NAIL FOLD SKIN WEDGE EXCISION	$ 974.00
MLH-LBCH	SP REMOVAL NON BIO DRUG IMPL	$ 1,063.00
MLH-LBCH	HEAD/TRUNK/EXT < 2.5CM WOUND SUPERFICIAL	$ 719.00
MLH-LBCH	HEAD/TRUNK/EXT 2.6-7.5CM WOUND SUPERFICI	$ 719.00
MLH-LBCH	HEAD/TRUNK/EXT 7.6-12.5CM WOUND SUPERFIC	$ 719.00
MLH-LBCH	FACE/EAR/EYELID/NOSE < 2.5CM REPAIR SUPE	$ 719.00
MLH-LBCH	FACE/EAR/EYELID/NOSE 2.6-5CM REPAIR SUPE	$ 719.00
MLH-LBCH	FACE WOUND 5.1-7.5CM REPAIR SIMP	$ 719.00
MLH-LBCH	FACE WOUND 7.6-12.5CM REPAIR SIMP	$ 719.00
MLH-LBCH	CLOSURE OF SPLIT WOUND	$ 1,705.00
MLH-LBCH	SCALP/TRUNK/EXT < 2.5CM WND REPAIR INTMD	$ 719.00
MLH-LBCH	SCALP/TRU/EXT 2.6-7.5CM WND REPAIR INTMD	$ 719.00
MLH-LBCH	SCALP/TR/EXT 7.6-12.5CM WND REPAIR INTMD	$ 719.00
MLH-LBCH	NECK/HAND/FOOT < 2.5CM WND REPAIR INTMD	$ 719.00

MLH-LBCH	NECK/HAND/FT 2.6-7.5CM WND REPAIR INTMD	$	719.00
MLH-LBCH	NECK/HAND/FT 7.6-12.5CM WND REPA INTMD	$	719.00
MLH-LBCH	FACE/EAR/EYELID/NSE<2.5CM WND REPA INTMD	$	1,079.00
MLH-LBCH	FACE/EAR/EYELID/NSE 2.6-5CM WND REPA INT	$	1,079.00
MLH-LBCH	FACE/EAR/EYLID/NSE 5.1-7.5CM WND REP INT	$	1,079.00
MLH-LBCH	FACE/EAR/EYELID/NS7.6-12.5CM WND REP INT	$	1,079.00
MLH-LBCH	FACE/EAR/EYELID/NS12.6-20.0CM WND REP IN	$	1,079.00
MLH-LBCH	TRUNK 1.1-2.5CM REPAIR COMP	$	1,071.00
MLH-LBCH	TRUNK 2.6-7.5CM REPAIR COMP	$	1,071.00
MLH-LBCH	SCALP/EXT 1.1-2.5CM REPAIR COMP	$	1,071.00
MLH-LBCH	SCALP/EXT 2.6-7.5CM REPAIR COMP	$	1,071.00
MLH-LBCH	FACE/HAND/FOOT 1.1-2.5CM REPAIR COMP	$	1,071.00
MLH-LBCH	FACE/HAND/FOOT 2.6-7.5CM REPAIR COMP	$	1,071.00
MLH-LBCH	EYELID/NOSE/EAR/LIP 1.1-2.5CM REPAIR COM	$	1,071.00
MLH-LBCH	EYELID/NOSE/EAR/LIP 2.6-7.5CM REPAIR COM	$	1,071.00
MLH-LBCH	ABRASION LESION SING	$	431.00
MLH-LBCH	ABRASION LESION EA ADDL 4 LESIONS OR LES	$	431.00
MLH-LBCH	SUTURE REMOVAL UNDER ANESTHESIA	$	899.00
MLH-LBCH	BURN DRESSING/DEBRIDEMENT SM	$	646.00
MLH-LBCH	BURN DRESSING/DEBRIDEMENT MED	$	646.00
MLH-LBCH	CHEMICAL CAUTERIZATION TISSUE	$	646.00
MLH-LBCH	UNLIST PROC SKIN, MUC MEMBR SUBQ TISSUE	$	125.00
MLH-LBCH	EXPLORATION OF PENETRATING WOUND EXTREM	$	3,017.00
MLH-LBCH	BX MUSCLE NDL PERCUTANEOUS	$	1,911.00
MLH-LBCH	BX BONE TROCAR/NDL SUPERFICIAL	$	1,998.00
MLH-LBCH	BX BONE TROCAR/NDL DEEP	$	1,998.00
MLH-LBCH	INJ SINUS TRACT DX	$	616.00
MLH-LBCH	REM FOREIGN BDY MUSCLE/TENDON SHEAT SMPL	$	3,490.00
MLH-LBCH	INJ SINGLE TENDON ORIGIN/INSERTION	$	1,821.00
MLH-LBCH	SP INJ SING/MULTI TRIGGER 1/2 MUSCLES	$	865.00
MLH-LBCH	SP INJ SING/MULTI TRIGGER 3/MORE	$	865.00
MLH-LBCH	US ARTHROCENTESIS ASP INJ SMALL JOINT	$	1,013.00
MLH-LBCH	US ARTHROCENT ASP/INJ INTERMED JOINT	$	1,013.00
MLH-LBCH	US ARTHROCENTESIS ASP/INJ MAJOR JOINT	$	1,013.00
MLH-LBCH	INSERT & REMOVAL OF WIRE W SKELETAL TRAC	$	7,468.00
MLH-LBCH	CT ABLATION BONE TUMOR PERCUT RADIOFREQ	$	15,008.00
MLH-LBCH	I & D DEEP ABSCESS/HEMATOMA NECK/THORAX	$	5,150.00
MLH-LBCH	BX SOFT TISSUE NECK/THORAX	$	1,998.00
MLH-LBCH	BX SOFT TISSUE BACK/FLANK SUPERFICIAL	$	1,998.00
MLH-LBCH	OPEN TX &/OR REDUCT OF ODONTOID FRACTION	$	27,494.00
MLH-LBCH	VERTEBROPLASTY CERVICOTHORACIC UNI/BIL	$	10,270.00
MLH-LBCH	VERTEBROPLASTY LUMBOSACRALACIC UNI/BIL	$	10,270.00
MLH-LBCH	VERTEBROPLASTY CERVIOTHOR/LUMBAR EA ADDL	$	10,270.00
MLH-LBCH	KYPHO CERVICOTHORACIC UNI/BIL	$	25,789.00
MLH-LBCH	KYPHO LUMBOSACRAL UNI/BIL	$	25,789.00
MLH-LBCH	KYPHO THORACIC/LUMBAR EACH ADDL	$	25,789.00
MLH-LBCH	PERCUT INTRADISCAL UNI/BIL SING LVL	$	1,683.00

MLH-LBCH	PERCUT INTRADISCAL UNI/BIL 1+LVL	$	756.00
MLH-LBCH	CLOSED TRMT RADIAL HEAD SUBLAXATION W	$	800.00
MLH-LBCH	CLTX MTCARPHLNGL DISLC 1 W/MNPJ W/O ANES	$	586.00
MLH-LBCH	TREAT FINGER/THUMB EA W/O MANIPULATION	$	586.00
MLH-LBCH	TREAT FINGER DISC W/MANIPUL W/O ANES	$	327.00
MLH-LBCH	LNGTH/SHRT OF TENDON,LEG/ANKLE;1 TENDON	$	10,548.00
MLH-LBCH	CAST APPLICATION HALO BODY	$	1,046.00
MLH-LBCH	CAST APPL RISSER JACKET LOCAL BODY ONLY	$	1,046.00
MLH-LBCH	CAST APPL RISSER JACKET LOCAL BODY W/HEA	$	1,046.00
MLH-LBCH	CAST APPL BODY SHOULDER TO HIP	$	608.00
MLH-LBCH	CAST APPL BODY SHOULDER TO HIPS W HEAD	$	1,046.00
MLH-LBCH	CAST APPL SHOULDER TO HIP W ONE THIGH	$	1,046.00
MLH-LBCH	CAST APPL SHOULDER TO HIP W BOTH THIGHS	$	1,046.00
MLH-LBCH	CAST APPL FIGURE EIGHT	$	1,046.00
MLH-LBCH	CAST APPL SHOULDER SPICA	$	1,046.00
MLH-LBCH	CAST APPL PLASTER VELPEAU	$	1,046.00
MLH-LBCH	CAST APPL LONG ARM	$	1,046.00
MLH-LBCH	CAST APPL SHORT ARM	$	608.00
MLH-LBCH	CAST APPL GAUNLET HAND/LOWER FOREARM	$	608.00
MLH-LBCH	CAST APPL FINGER	$	608.00
MLH-LBCH	SPLINT APPL LONG ARM SHOULDER TO HAND	$	608.00
MLH-LBCH	SPLINT APPL SHORT ARM STATIC FOREARM HAN	$	608.00
MLH-LBCH	SPLINT APPL FINGER STATIC	$	608.00
MLH-LBCH	CAST APPL HIP SPICA ONE LEG	$	608.00
MLH-LBCH	CAST APPL HIP SPICA ONE&1/2 OR BOTH LEGS	$	1,046.00
MLH-LBCH	CAST APPL LEG LONG THIGH TO TOES	$	1,046.00
MLH-LBCH	CAST APPL LONG LEG WALKER OR AMBULATORY	$	1,046.00
MLH-LBCH	CAST APPL LONG LEG BRACE	$	1,046.00
MLH-LBCH	CAST APPL CYLINDER	$	1,046.00
MLH-LBCH	CAST APPL LEG SHORT BELOW KNEE TO TOES	$	608.00
MLH-LBCH	CAST APPL SHORT LEG WALKER/AMBULATORY	$	1,046.00
MLH-LBCH	CAST APPL PATELLAR TENDON BEARING	$	608.00
MLH-LBCH	CAST PREVIOUSLY APPLIED ADD WALKER	$	1,046.00
MLH-LBCH	CAST APPL RIGID TOTAL CONTACT	$	1,046.00
MLH-LBCH	CAST APPL CLUBFOOT LONG/SHORT LEG	$	806.00
MLH-LBCH	SPLINT APPL LONG LEG SPLIT THIGH TO ANKL	$	704.00
MLH-LBCH	SPLINT APPL SHORT LEG CALF TO FOOT	$	704.00
MLH-LBCH	STRAPPING ANKLE/FOOT	$	608.00
MLH-LBCH	CAST REMOVAL/BIVALVING BODY/BOOT/GAUNTLE	$	608.00
MLH-LBCH	CAST REMOVAL/BIVALVING FULL ARM/LEG	$	608.00
MLH-LBCH	CAST REPAIR SPICA/BODY CAST/JACKET	$	608.00
MLH-LBCH	CAST WINDOWING	$	608.00
MLH-LBCH	CAST WEDGING	$	608.00
MLH-LBCH	WEDGING OF CLUBFOOT CAST	$	608.00
MLH-LBCH	FOREIGN BODY REMOVAL INTRANASAL OFFICE	$	269.00
MLH-LBCH	NASAL HEMORRHAGE CONTROL SIMP ANT	$	660.00
MLH-LBCH	NASAL ENDOSCOPY DX UNI/BIL	$	566.00

MLH-LBCH	INTUBATION ENDOTRACHEAL EMERG PROC	$	2,994.00
MLH-LBCH	DX LARYNGOSCOPY W/WO TRACH EXCLUDE NBORN	$	4,264.00
MLH-LBCH	LARYNGOSCOPY FLEXIBLE DX	$	566.00
MLH-LBCH	BRONCH DX W/WO CELL WASHING	$	3,721.00
MLH-LBCH	BRONCH W BRUSHING	$	3,588.00
MLH-LBCH	BRONCH W BRONCHIAL ALVEOLAR LAVAGE	$	3,588.00
MLH-LBCH	BRONCH W BX SING/MULTIPLE SITES	$	3,588.00
MLH-LBCH	BRONCH W/PLMT FIDUCIAL MARKERS SING/MULT	$	3,838.00
MLH-LBCH	BRONCH W/COMPUTER-ASST IMAGE-GUIDED NAV	$	3,838.00
MLH-LBCH	BRONCHOSCOPY W/TRANSBRONCHIAL BX SINGLE	$	3,588.00
MLH-LBCH	BRONC W TRANSBRONCH NDL ASP BX	$	3,588.00
MLH-LBCH	BRONCH W DILATION/CLOSED REDUCTION FRAC	$	3,588.00
MLH-LBCH	BRONCH W TRACHEAL STENT PLACEMENT	$	3,588.00
MLH-LBCH	BRONCH W FB REMOVAL	$	3,588.00
MLH-LBCH	BRONCH W TUMOR EXCISION	$	3,588.00
MLH-LBCH	BRONCH W TUMOR DESTRUCT/STENOSIS RELIEF	$	3,588.00
MLH-LBCH	BRONCH W CATH PLACE INTRACAVITARY RADIOE	$	3,588.00
MLH-LBCH	BRONCH W THER ASP TRACHEOBRONCH TREE INI	$	3,588.00
MLH-LBCH	CATHETER ASPIRATION NASOTRACHEAL SPX	$	579.00
MLH-LBCH	INSERT CATH INDWELL TUNNEL	$	1,749.00
MLH-LBCH	THORACOSTOMY TUBE INCL CONN TO DRIAN SYS	$	2,169.00
MLH-LBCH	REMOVAL TUNNEL PLEURAL CUFFED CATH	$	1,726.00
MLH-LBCH	PLACE INTERSTITIAL DEVICE RADTX GUIDE	$	4,107.00
MLH-LBCH	THORACENTESIS W/O IMAGE GUIDANCE	$	1,716.00
MLH-LBCH	THORACENTESIS WITH IMAGE GUIDANCE	$	1,716.00
MLH-LBCH	PERC PLURAL DRN W/O CAT INS W IMG GUIDE	$	1,716.00
MLH-LBCH	PERC PLURAL DRN W/CAT INS W IMG GUIDE	$	1,716.00
MLH-LBCH	CHEST TUBE PLEURODESIS	$	2,056.00
MLH-LBCH	CHEST FIBRINOLYSIS 1ST DAY	$	2,056.00
MLH-LBCH	CHEST TUBE FIBRINOLYSIS SUBSEQUENT DAY	$	2,056.00
MLH-LBCH	PERCUT ABLATE TX PULM TUMORS EXTNSN UNIL	$	14,433.00
MLH-LBCH	PERICARDIOCENTESIS W/IMAGING	$	4,502.00
MLH-LBCH	PERICARDIAL DRAIN W/CATH =/<6YR NO CCA	$	2,066.00
MLH-LBCH	INCISION OF HEART SAC	$	3,177.00
MLH-LBCH	PERICARDIAL WINDOW/PARTIAL RESECTION	$	1,719.00
MLH-LBCH	INS NEW/RPLCMT PRM PACEMAKR ATRIAL	$	71,334.00
MLH-LBCH	INS NEW/RPLCMT PRM PACEMAKR VENTRICULAR	$	71,334.00
MLH-LBCH	INS NEW/RPLCMT PRM PACEMAKR ATRIAL &VENT	$	71,334.00
MLH-LBCH	INSERT/REPLACE TEMP CARDIAC PACEMAKER	$	17,365.00
MLH-LBCH	INS PM PLS GEN W/EXIST SINGLE LEAD	$	54,724.00
MLH-LBCH	INS PM PLS GEN W/EXIST DUAL LEAD	$	54,724.00
MLH-LBCH	PACEMAKER UPGRADE FROM SING TO DUAL CHAM	$	71,334.00
MLH-LBCH	PACEMAKER/IMP DEFIB REPOS RT ATRIAL/VENT	$	18,233.00
MLH-LBCH	INST 1 TRANSVENOUS ELECT PM/IMP DEFIB	$	18,233.00
MLH-LBCH	INST2 TRANSVENOUS ELEC PM/IMP DEFIB	$	18,233.00
MLH-LBCH	INS PACEMAKER GEN ONLY W/EXIST MULT LEAD	$	32,062.00
MLH-LBCH	RELOCATION OF SKIN POCKET FOR PACEMAKER	$	5,981.00

MLH-LBCH	SKIN POCKET REVISION IMPLANT-DEFIB	$	5,981.00
MLH-LBCH	INS ELECTRODE TO EXISTING PLACED PA/IMP	$	11,282.00
MLH-LBCH	INSERT ELECT AT TIME OF INSERT PACEM/IMP	$	10,417.00
MLH-LBCH	REPOSITON EXST CARDIAC VENOUS LT VENT	$	71,334.00
MLH-LBCH	REMOVE&REPLACE PERM PM GEN SINGLE LEAD	$	88,011.00
MLH-LBCH	REMOVE&REPLACE PERM PM GEN DUAL LEAD	$	90,843.00
MLH-LBCH	REMOVE&REPLACE PERM PM GEN MULTI LEAD	$	90,843.00
MLH-LBCH	IMPLANTABLE DEFIB GEN INSERT DUAL LEADS	$	105,978.00
MLH-LBCH	IMPLANTABLE DEFIB GEN W/MULTI LEADS	$	105,978.00
MLH-LBCH	REMOVAL OF PM GENERATOR ONLY	$	6,998.00
MLH-LBCH	PACEMAKER ELECTRODE REMOVAL SING LEAD	$	7,862.00
MLH-LBCH	PACEMAKER ELECTRODE REMOVAL DUAL LEAD	$	7,862.00
MLH-LBCH	INSERT SING/DUAL IMPLANTABLE DEFIB	$	89,937.00
MLH-LBCH	REMVL IMPLANTABLE DEFIB GEN ONLY	$	6,998.00
MLH-LBCH	REMOVAL IMPLANT DEFIB TRANSVENOUS EXT	$	7,862.00
MLH-LBCH	INS/REP PERM IMPT DEFIB LEADS SING/DUAL	$	91,475.00
MLH-LBCH	ABLATION ATRIA LIMITED ADD-ON	$	2,901.00
MLH-LBCH	ABLATION ATRIA EXTENS ADD-ON W/O BYPASS	$	3,275.00
MLH-LBCH	REMV&REPL IMPLANTABLE DEFIB GEN SING	$	105,978.00
MLH-LBCH	REMV&REPL IMPLANTABLE DEFIB DUAL LEAD	$	105,978.00
MLH-LBCH	REMV&REPL IMPLANTABLE DEFIB MULTI LEAD	$	105,978.00
MLH-LBCH	INSJ/RPLCMT SUBQ IMPLANTABLE DEFIB	$	99,554.00
MLH-LBCH	INSERT SUBQ IMPLANTABLE DEFIB	$	29,503.00
MLH-LBCH	REMOVAL SUBQ IMPLANTABLE DEFIB	$	9,266.00
MLH-LBCH	REPOST PREV IMPLANTED DEFIB ELETRODE	$	9,266.00
MLH-LBCH	PPM LEADLESS INSRT/REPLC W IMG GDE/EVAL	$	46,863.00
MLH-LBCH	SUBQ CARDIAC RHYT MONITOR INSERT W PROGR	$	22,598.00
MLH-LBCH	SUBQ CARDIAC RHYT MONITOR REMOVAL	$	1,768.00
MLH-LBCH	IMPLANT PRESSURE SENSOR W/ANGIO	$	85,286.00
MLH-LBCH	PERQ CLSR TCAT L ATR APNDGE W/ENDO IMPLT	$	26,185.00
MLH-LBCH	REPL AORTIC VALVE PERQ FEM ART APPROACH	$	27,494.00
MLH-LBCH	REPL AORTIC VALVE OPEN FEM ART APPROACH	$	27,494.00
MLH-LBCH	REPL AORTIC VALVE OPEN AXILLRY ART APPRO	$	27,494.00
MLH-LBCH	REPL AORTIC VALVE OPEN ILIAC ART APPRCH	$	27,494.00
MLH-LBCH	REPL AORTIC VALVE OPEN TRANSAORTIC APPR	$	27,494.00
MLH-LBCH	TRANSCATH TRANSAPICAL REPL AORTIC VALVE	$	27,494.00
MLH-LBCH	REPL AORTIC VALVE W/BYP PRQ ART/VEN APPR	$	4,563.00
MLH-LBCH	REPL AORTIC VALVE W/BYP OPEN ART/VEN APP	$	4,563.00
MLH-LBCH	REPLACE AORTIC VALVE W/BYP	$	4,563.00
MLH-LBCH	RPLCMT PROST AORTIC VALV OPN W/CP BYPASS	$	9,056.00
MLH-LBCH	RPR MITRAL VALVE TRANS PERC INT PROSTH	$	35,861.00
MLH-LBCH	RPR MITRAL VALVE TRANS PERC ADD'L PROSTH	$	35,861.00
MLH-LBCH	IMPLANT TCAT PULM VALVE PERQ	$	20,332.00
MLH-LBCH	APPLY R&L PULM ART BANDS	$	6,003.00
MLH-LBCH	TRANSTHOR CATH INSERT HYBRID APP STGE1	$	3,380.00
MLH-LBCH	REPR ENDOVAS THOR AORT WO SUBC	$	26,796.00
MLH-LBCH	PLCE ENDOVASC PROSTH THOR AORTA INIT EXT	$	19,709.00

MLH-LBCH	PLCE ENDOVASC PROSTH THOR AORTA ADDL EXT	$	19,709.00
MLH-LBCH	PLACE ENDOVASC PROSTH THOR AORTA DELAYED	$	17,001.00
MLH-LBCH	PULM EMBOL W BYPASS INTRO	$	4,858.00
MLH-LBCH	ECMO/ECLS DAILY MANAGEMENT VENOUS	$	8,866.00
MLH-LBCH	ECMO/ECLS DAILY MANAGEMENT ARTERIAL	$	5,177.00
MLH-LBCH	INSERT INTRA AORTIC BALLOON ASSIST PERCU	$	8,176.00
MLH-LBCH	INTRA AORTIC BALLOON ASSIST REMOVAL PERC	$	8,176.00
MLH-LBCH	INSERT VAD ARTERY ACCESS	$	8,176.00
MLH-LBCH	REMOVE VAD DIFF SESSION-IMPELLA	$	8,176.00
MLH-LBCH	REPOSITION VAD DIFF SESSION	$	8,176.00
MLH-LBCH	UNLISTED PROCEDURE CARDIAC SURGERY	$	2,019.00
MLH-LBCH	THROMB ILIAC VEIN ABD INCISION	$	616.00
MLH-LBCH	THROMB FEMOROPOPLITEAL VEIN LEG INCISION	$	16,292.00
MLH-LBCH	THROMB FEMOROPOPLITEAL VEIN LEG&ABD INCI	$	17,334.00
MLH-LBCH	ENDOVAS REPR AORTIC SM TUBE NON-RUPTUE	$	4,015.00
MLH-LBCH	ENDOVAS REPR AORTIC SM TUBE RUPTUE	$	6,009.00
MLH-LBCH	ENDOVAS REPR AORTA/ILIAC GRAFT NON-RUPT	$	4,728.00
MLH-LBCH	ENDOVAS REPR AORTA/ILIAC GRAFT RUPTURE	$	7,509.00
MLH-LBCH	ENDOVAS REP AORTA/ILIAC BIILIAC GRFT NRP	$	4,981.00
MLH-LBCH	ENDOVAS REP AORTA/ILIAC BIILIAC GRF RUP	$	7,499.00
MLH-LBCH	EVASC RPR ILIAC ART GRAFT NON-RUPT UNIL	$	3,745.00
MLH-LBCH	EVASC RPR ILIAC ART GRAFT RUPTURE UNIL	$	6,033.00
MLH-LBCH	PLACE PROSTH ABD AORTIC/ILIAC REPR	$	1,053.00
MLH-LBCH	DELAY PLACE PROSTH AAA REPR INIT	$	2,610.00
MLH-LBCH	DELAY PLACE PROSTH AAA REPR ADD'L	$	971.00
MLH-LBCH	TRANSCATH DELIV FIXATION DEVICE TO GRAFT	$	2,352.00
MLH-LBCH	PERCUT ACCESS/CLOSURE FEM ART FOR GRAFT	$	442.00
MLH-LBCH	ENDOVASC RPR ILIAC ARTERY W NDGFT PLCMNT	$	1,256.00
MLH-LBCH	ENDOVAS RPR ILIAC ARTERY N/A NDGFT PLCMT	$	3,501.00
MLH-LBCH	XPOSE FOR ENDOPROSTH ILIAC UNIL	$	3,584.00
MLH-LBCH	XPOSE F/ENDOPROSTH CARDIO BYPASS F/R E	$	3,584.00
MLH-LBCH	VISCER &INFRARENAL ABDOM AORTA 2 PROSTH	$	19,709.00
MLH-LBCH	FEM-FEM BYPASS GRAFT	$	18,694.00
MLH-LBCH	NDL/INTRACATH VEIN INTRO	$	181.00
MLH-LBCH	INTRO CATH SUPERIOR/INFERIOR VENA CAVA	$	616.00
MLH-LBCH	CATH PLACE SELECTIVE VENOUS 1ST ORDER	$	616.00
MLH-LBCH	CATH PLACE SELECTIVE VENOUS 2ND ORDER	$	616.00
MLH-LBCH	INTRO CATH RT HEART/MAIN PULM ART	$	616.00
MLH-LBCH	INTRO NDL/CATH AORTIC TRANSLUMBAR	$	616.00
MLH-LBCH	INTRO CATH AORTA	$	616.00
MLH-LBCH	PLACE CATH 1ST ORD THORACIC/BRACH INIT	$	928.00
MLH-LBCH	PLACE CATH 2ND ORD THORACIC/BRACH INIT	$	928.00
MLH-LBCH	PLACE CATH ART THORACIC 3RD+ INIT	$	928.00
MLH-LBCH	PLACE CATH ART THORACIC 2/3+ ADDL	$	928.00
MLH-LBCH	ANGIO CERVICOCEREBR ARCH W/CATH Pl	$	9,230.00
MLH-LBCH	ANGIO CCA/SEL UNI EXTRCRANIAL	$	9,230.00
MLH-LBCH	ANGIO CCA/SEL UNI INTRACRANIAL All IMAGE	$	9,230.00

MLH-LBCH	ANGIO ICA SEL UNIL INTRACRANIAL ALL IMG	$	15,092.00
MLH-LBCH	ANG SUBC/INNOM SEL UNIL All IMG	$	9,230.00
MLH-LBCH	ANGIO VERTEBRAL SEL UNI	$	15,092.00
MLH-LBCH	ANGIO EXTERNAL CAROTID SEL UNI	$	1,117.00
MLH-LBCH	ANG EA SEL INTRAC BRCH ICA/VERT UNIL	$	5,318.00
MLH-LBCH	PLACE CATH 1ST ORD ABD/LE	$	928.00
MLH-LBCH	PLACE CATH 2ND ORD ABD/PELVIC INIT	$	928.00
MLH-LBCH	DISTINCT PROC CATH PLACE 3RD+ ORD EXT I	$	928.00
MLH-LBCH	PLACE CATH 2ND/3RD/ORD ABD/PELVIC ADDL	$	928.00
MLH-LBCH	ANGIO RENAL 1ST ORDER SEL UNIL INC FLUSH	$	19,175.00
MLH-LBCH	ANGIO RENAL BIL 1ST ORDER INCL FLUSH	$	20,104.00
MLH-LBCH	ANGIO RENAL 2ND+ORDER UNIL SEL INCL FLSH	$	19,175.00
MLH-LBCH	ANGIO RENAL 2ND+ORDER BIL INCL FLUSH	$	20,104.00
MLH-LBCH	UNLISTED PROC VASC INJ OCCLUSION TEMP	$	616.00
MLH-LBCH	VENIPUNCTURE < 3YR FEMORAL/JUGULAR	$	155.00
MLH-LBCH	MIDLINE CATH-VENIPUNCTURE DX THER >3YRS	$	411.00
MLH-LBCH	TRANSFUSION BLOOD/BLOOD COMPONENT	$	2,520.00
MLH-LBCH	TRANSFUSION INTRAUTERINE FETAL	$	1,455.00
MLH-LBCH	ENDOVENOUS ABLATION THERAPY 1ST VEIN	$	14,191.00
MLH-LBCH	ENDOVENOUS ABLATION THERAPY ADD ON	$	14,191.00
MLH-LBCH	CATH PORTAL VEIN PERCUT ANY METHOD	$	616.00
MLH-LBCH	CATH VENOUS SELECTIVE ORGAN BLOOD SAMPLE	$	616.00
MLH-LBCH	CATH UMBILICAL VEIN NEWBORN FOR DX/THER	$	616.00
MLH-LBCH	APHERESIS THER FOR RBC	$	7,263.00
MLH-LBCH	APHERESIS THER FOR PLASMA PHERESIS	$	7,534.00
MLH-LBCH	INSERT NONTUNNEL VENOUS CATH <5 YR	$	6,179.00
MLH-LBCH	INSERT NONTUNNEL VENOUS CATH > 5 YR	$	6,179.00
MLH-LBCH	INSERT TUNNEL VAD WO SQ PORT <5YR	$	10,439.00
MLH-LBCH	INSERT TUNNEL VENOUS CATH WO SQ 5+ YR	$	10,062.00
MLH-LBCH	INSERT TUNNEL VAD W SQ PORT <5YR	$	10,062.00
MLH-LBCH	INSERT TUNNEL VAD W SQ PORT 5+YR	$	10,062.00
MLH-LBCH	INSERT TUNNEL VAD W SQ PUMP	$	10,062.00
MLH-LBCH	INSERT TUNNEL VAD 2 CATH 2 SITES WO PORT	$	10,062.00
MLH-LBCH	INSERT TUNNEL VAD 2 CATH 2 SITES W PORT	$	10,062.00
MLH-LBCH	INSERT PICC WO PORT/PUMP <5 YR	$	5,541.00
MLH-LBCH	INSERT PICC WO PORT/PUMP 5+ YR	$	5,541.00
MLH-LBCH	INSERT PERIPHERALLY VAD W PORT <5 YR	$	10,062.00
MLH-LBCH	INSERT PERIPHERALLY VAD W PORT 5+ YR	$	10,062.00
MLH-LBCH	SP INSERT PICC LINE <5 YR RAD W IMAGE	$	1,802.00
MLH-LBCH	SP INSERT PICC LINE 5+ YR RAD W IMAGE	$	3,179.00
MLH-LBCH	REPAIR TUNNEL/NONTUNNEL CATH WO SQ PORT	$	2,057.00
MLH-LBCH	REPAIR CENTRAL VAD W SQ PORT/PUMP	$	2,057.00
MLH-LBCH	REPLACE CATH ONLY CENTRAL VAD W SQ PORT	$	2,057.00
MLH-LBCH	REPLACE COMP NONTUNNEL VENOUS CATH WO	$	5,808.00
MLH-LBCH	REPLACE COMP TUNNEL CATH WO SQ PORT/PUMP	$	5,808.00
MLH-LBCH	REPLACE COMP TUNNEL CATH W SQ PORT	$	11,920.00
MLH-LBCH	REPLACE COMP TUNNEL CATH W SQ PUMP	$	11,920.00

MLH-LBCH	SP REPLC COMP PICC WO SQ PORT/PUMP W/IMG	$	5,341.00
MLH-LBCH	REPLACE COMP PICC W SQ PORT	$	5,341.00
MLH-LBCH	REM TUNNEL VENOUS CATH WO SQ PRT/PMP	$	2,235.00
MLH-LBCH	REM TUNNELED CENTRAL VAD WSQ PMP/PRT	$	2,235.00
MLH-LBCH	BLOOD COLLECTION FROM VENOUS ACCESS DEVI	$	93.00
MLH-LBCH	COLLECT BLOOD FROM PICC	$	215.00
MLH-LBCH	DECLOT THROMBOLYTIC AGENT DEVICE/CATH	$	800.00
MLH-LBCH	REMOVE PERICATH MATERIAL BY SEPARATE ACC	$	2,314.00
MLH-LBCH	REPOSITION CENTRAL VENOUS CATH FLUORO	$	1,998.00
MLH-LBCH	CONTRAST INJ RAD EVAL CVAD	$	750.00
MLH-LBCH	ART PUNCT WITHDRAWAL OF BLOOD	$	164.00
MLH-LBCH	CATH/CANNULATION ART SAMPLING/MON PERCUT	$	678.00
MLH-LBCH	CATH UMBILICAL ART NEWBORN FOR DX/THER	$	616.00
MLH-LBCH	NDL FOR INTRAOSSEOUS INFUSION PLACE	$	973.00
MLH-LBCH	REV AV FISTULA WO THROM	$	16,200.00
MLH-LBCH	CANNULA EXT DECLOT WO BALLOON	$	10,062.00
MLH-LBCH	CANNULA EXT DECLOT W BALLOON	$	10,062.00
MLH-LBCH	DX ANGIO AV SHUNT	$	2,296.00
MLH-LBCH	SP ANGIO AV SHUNT PTA PERIPHERAL	$	16,202.00
MLH-LBCH	ANGIO AV SHUNT STENT PERIPHERAL	$	34,381.00
MLH-LBCH	SP AV SHUNT DECLOT	$	16,202.00
MLH-LBCH	SP AV SHUNT DECLOT PTA PERIPH SEG	$	32,744.00
MLH-LBCH	AV SHUNT DECLOT STENT PERIPH SEG	$	52,116.00
MLH-LBCH	SP ADDL AV SHUNT PTA CENT SEG	$	16,202.00
MLH-LBCH	SP ADDL AV SHUNT STENT CENT SEG	$	16,202.00
MLH-LBCH	SP ADDL AV SHUNT EMBO	$	16,202.00
MLH-LBCH	INSERTION OF TIPS	$	35,118.00
MLH-LBCH	REVISION OF TIPS	$	32,824.00
MLH-LBCH	PERCUT TRANSLUM ARTERIAL THROMBEC INIT	$	20,351.00
MLH-LBCH	PERC TRNSLUM ARTERIA THROMB ADDL	$	8,290.00
MLH-LBCH	PERC SEC TRNSLUM ARTERIAL THROMB	$	8,290.00
MLH-LBCH	PERC TRNSLUM VENOUS THROMB	$	20,351.00
MLH-LBCH	PERC TRNSLUM VENOUS THROMB RPT	$	20,351.00
MLH-LBCH	INS ENDOVAS VENA CAVA FILTR	$	27,654.00
MLH-LBCH	REDO ENDOVAS VENA CAVA FILTR	$	9,887.00
MLH-LBCH	REM ENDOVAS VENA CAVA FILTER	$	26,629.00
MLH-LBCH	THROMBOLYSIS CEREBRAL IV INF	$	837.00
MLH-LBCH	PRQ TRANSCATH RTRVL INTRVAS FB W/IMAGING	$	9,727.00
MLH-LBCH	BX TRANSCATH	$	4,338.00
MLH-LBCH	TRANSCATH THER ART INF THROMB INIT DAY	$	3,431.00
MLH-LBCH	TRANSCATH THER VEN INF THROMB INIT DAY	$	3,431.00
MLH-LBCH	TRANSCATH THER ART/VEN ING THROMB SUB	$	7,657.00
MLH-LBCH	TRANSCAT THER CESS THROM INCL CLOSURE	$	7,657.00
MLH-LBCH	TRANSCATH STENT PLACE W DISTAL PROTECTIO	$	34,153.00
MLH-LBCH	TRANSCATH STENT PLACE W/O DISTAL PROTEC	$	35,861.00
MLH-LBCH	TRANSCATH STENT PLACEMT RETRO CAROTID	$	35,861.00
MLH-LBCH	TCAT PLCMT IV STENT	$	35,861.00

MLH-LBCH	REVASC PTA INIT ILIAC ART UNIL	$	24,634.00
MLH-LBCH	REVASC STENT INIT ILIAC ART UNIL	$	69,063.00
MLH-LBCH	REVASC PTA ILIAC ART EA ADDL UNIL	$	22,433.00
MLH-LBCH	REVASC STENT ILIAC ART EA ADDL UNIL	$	66,859.00
MLH-LBCH	REVASC PTA FEM/POP ART UNIL	$	24,634.00
MLH-LBCH	REVASC ATHEREC FEM/POP ART UNIL	$	47,069.00
MLH-LBCH	REVASC STENT FEM/POP ART UNIL	$	69,063.00
MLH-LBCH	REVASC STENT/ATHEREC FEM/POP ART UNIL	$	91,493.00
MLH-LBCH	REVASC PTA INIT TIB/PERO ART UNIL	$	24,634.00
MLH-LBCH	REVASC ATHEREC INIT TIB/PERO ART UNIL	$	33,203.00
MLH-LBCH	REVASC STENT INIT TIB/PERO ART UNIL	$	69,063.00
MLH-LBCH	REVASC STENT/ATHER INIT TIB/PERO ART	$	60,685.00
MLH-LBCH	REVASC PTA TIB/PERO EA ADDL ART	$	22,433.00
MLH-LBCH	REVASC ATHEREC/TIB/PERO EA ADDL ART	$	44,865.00
MLH-LBCH	REVASC STENT TIB/PERO EA ADDL ART	$	66,859.00
MLH-LBCH	REVAS STENT ATHER TIB/PERO EA ADDL ART	$	89,293.00
MLH-LBCH	STENT ART EXCPT LE CAR EXTCR VERT	$	39,376.00
MLH-LBCH	OPEN/PERQ PLACE INTRAVAS STENT EA ADD'L	$	18,353.00
MLH-LBCH	STENT VEIN INITIAL	$	37,501.00
MLH-LBCH	OPEN/PERQ PLC INTRA STENT SAME ADD'L	$	18,353.00
MLH-LBCH	VASC EMBOLIZE/OCCLUDE VENOUS RS&I	$	36,798.00
MLH-LBCH	VAS EMBOLIZE/OCCLUDE ARTERY RS&I	$	36,798.00
MLH-LBCH	VAS EMBO TUMOR/ORG ISCH/INFAR	$	36,798.00
MLH-LBCH	VAS EMBOLIZATION OR OCCLUSION HEMORRHAGE	$	38,177.00
MLH-LBCH	SP PTA ART EG AO UE VISC RNL	$	16,202.00
MLH-LBCH	SP ADDL PTA ART EG AO UE VISC RNL	$	16,202.00
MLH-LBCH	SP PTA VEIN EXP AV SHUNT	$	16,202.00
MLH-LBCH	SP ADDL PTA VEIN EXP AV SHUNT	$	16,202.00
MLH-LBCH	INTRAVASC US NON CORONARY VESSEL INITIAL	$	7,514.00
MLH-LBCH	INTRAVASC NON CORONARY VESSEL EA ADDL	$	7,514.00
MLH-LBCH	LIG/BANDING ANGIOACCESS ARVEN FSTL	$	9,349.00
MLH-LBCH	LIGATION OF INFERIOR VENA CAVA	$	14,407.00
MLH-LBCH	PHLEBECTOMY STAB VARICOSE VEINS 10/20	$	9,836.00
MLH-LBCH	PHLEBECTOMY STAB VARICOSE VEINS >20	$	9,836.00
MLH-LBCH	BONE MARROW ASPIRATION	$	3,264.00
MLH-LBCH	BONE MARROW BX NDL/TROCAR	$	4,990.00
MLH-LBCH	DX BONE BX/ASP	$	4,334.00
MLH-LBCH	LYMPH NODES BX SITE	$	7,320.00
MLH-LBCH	BX/EXCISION LYMPH NODES NDL SUPERFICIAL	$	1,911.00
MLH-LBCH	SP INJ LYMPHANGIOGRAM	$	1,626.00
MLH-LBCH	ESOPHAG RIGID TRANSORAL W/DIVERT W/CRICO	$	7,682.00
MLH-LBCH	ESOPHAGOSCOPY RIDGID TRNSO /REMOVAL FB	$	4,031.00
MLH-LBCH	ESOPHAG FLEX TRANSORAL DX BRUSH/WASH	$	3,419.00
MLH-LBCH	ESOPH FLEX TRANSORAL W SUBMUCOSAL INJ	$	3,419.00
MLH-LBCH	ESOPHAG RIGIG/FLEX W BX SING/MULT	$	3,419.00
MLH-LBCH	ESOPHAG RIGID/FLEX W VARICES INJ SCLERO	$	3,419.00
MLH-LBCH	ESOPHAG RIGID/FLEX W VARICES BAND LIGAT	$	3,419.00

MLH-LBCH	ESOPHAGOSCOPY FLEX MUCOSAL RESECTION	$	3,133.00
MLH-LBCH	ESOPHAGOSCOP STENT PLACEMENT	$	3,419.00
MLH-LBCH	ESOPHAGOSCOPY RETRO BALLOON	$	2,678.00
MLH-LBCH	ESOPHAGOSC DILATE BALLOON 30	$	2,678.00
MLH-LBCH	ESOPHAG FLEX TRANSORAL W FB REMOVAL	$	3,419.00
MLH-LBCH	ESOPH FLEX TRANSOR W POLYP REMOV HOT BX	$	3,419.00
MLH-LBCH	ESOPH FLEX TRANSORAL W POLYP REMOV SNARE	$	3,419.00
MLH-LBCH	ESOPHAG TRANSENDOSCOPY BALLOON DILATION	$	3,419.00
MLH-LBCH	ESOPH GW INSERTION W DILATION	$	3,256.00
MLH-LBCH	ESOPHAGOSCOPY LESION ABLATION	$	3,419.00
MLH-LBCH	EGD BALLOON DIL ESOPH 30MM>	$	2,678.00
MLH-LBCH	EGD FLEX TRANSORAL DX BRUSH/WASH	$	3,419.00
MLH-LBCH	EGD W SUBMUCOSAL INJ ANY SUBSTANCE	$	3,419.00
MLH-LBCH	EGD W BX SING/MULT	$	3,419.00
MLH-LBCH	EGD W TRANSMURAL DRNG OF PSEUDOCYST	$	3,419.00
MLH-LBCH	EGD INSERTION TUBE OR CATH	$	3,419.00
MLH-LBCH	EGD US FINE NEEDLE BX/ASPIR	$	3,474.00
MLH-LBCH	EGD W INJ SCLEROSIS ESOPHAG/GAS VARICES	$	3,419.00
MLH-LBCH	EGD W BAND LIGATION GASTRIC VARICES	$	3,419.00
MLH-LBCH	EGD DILATION OF GASTRIC DUODENAL STRICT	$	3,419.00
MLH-LBCH	EGD PLACE GASTROSTOMY TUBE	$	3,419.00
MLH-LBCH	EGD W FB REMOVAL	$	3,419.00
MLH-LBCH	EGD W GW INSERT & ESOPHAGUS OVER GW	$	3,419.00
MLH-LBCH	EGD W TRANSENDO BALLN DILATION ESOPHAG	$	3,419.00
MLH-LBCH	EGD W POLYP REMOVAL HOT BX FORCE	$	3,419.00
MLH-LBCH	EGD W POLYP REMOVAL SNARE TECH	$	3,419.00
MLH-LBCH	EGD US GUIDED TRANSMURAL INJXN/FID MARK	$	3,256.00
MLH-LBCH	EGD ENDO MUCOSAL RESECTION	$	3,256.00
MLH-LBCH	EGD W BLEEDING CONTROL	$	3,419.00
MLH-LBCH	EGD W ENDOSCOPIC US	$	3,419.00
MLH-LBCH	ERCP DX INCL SPEC BRUSH/WASH	$	7,254.00
MLH-LBCH	ERCP W BX SING/MULT	$	7,254.00
MLH-LBCH	ERCP W SPHINCTEROTOMY/PAPILLOTOMY	$	7,254.00
MLH-LBCH	ERCP W CALCULI REMOVAL DUCT BILIARY/PANC	$	7,254.00
MLH-LBCH	ERCP W/DESTR CALCULI ANY METHOD	$	7,254.00
MLH-LBCH	EGD ENDOSCOPIC STENT PLACE	$	3,419.00
MLH-LBCH	EGD LESION ABLATION	$	2,678.00
MLH-LBCH	ERCP DUCT STENT PLACEMENT	$	7,254.00
MLH-LBCH	ERCP REMOVE FORGN BODY DUCT	$	7,335.00
MLH-LBCH	ERCP STENT EXCHANGE W/DILATE	$	7,254.00
MLH-LBCH	ERCP EA DUCT/AMPULLA DILATE	$	7,254.00
MLH-LBCH	ERCP LESION ABLATE W/DILATE	$	7,254.00
MLH-LBCH	ESOPHAG DILATION UNGUID/BOUGIE SING/MULT	$	2,678.00
MLH-LBCH	ESOPHAG DILATION OVER GW	$	2,678.00
MLH-LBCH	NG TUBE PLACEMENT W FLOURO	$	1,134.00
MLH-LBCH	GASTRIC INTUBAT & ASPIR TX W/LAVAGE TRM	$	1,546.00
MLH-LBCH	GASTROSTOMY TUBE CHG PERCUT W/O IMAGING	$	1,198.00

MLH-LBCH	REPOSITIONING GASTRIC TUBE	$	1,198.00
MLH-LBCH	SP CLOSURE/PLUG GASTROSTOMY	$	9,262.00
MLH-LBCH	JEJUNOSTOMY TUBE/NDL CATH ENTERAL ALIMEN	$	616.00
MLH-LBCH	ENTEROSCOPY NO ILEUM DX W/WO BRUSH/WASH	$	3,290.00
MLH-LBCH	ENTEROSCOPY NO ILEUM W BX SING/MULT	$	3,290.00
MLH-LBCH	ENTEROSCOPY>2ND PRTN W/RMVL LESION SNARE	$	3,133.00
MLH-LBCH	ENTEROSCOPY NO ILEUM W BLEEDING CONTROL	$	3,290.00
MLH-LBCH	ENTEROSCOPY W ILEUM DX W/WO BRUSH/WASH	$	3,290.00
MLH-LBCH	ENTEROSCOPY W ILEUM W BX SING/MULT	$	3,290.00
MLH-LBCH	ENTEROSCOPY W ILEUM W BLEEDING CONTROL	$	3,290.00
MLH-LBCH	ILEOS STOMA DIAG BY BRUSH/WASH	$	2,390.00
MLH-LBCH	ILEOS STOMA W/ TNDSC BALLOON DILAT	$	3,365.00
MLH-LBCH	SM BOWEL ENDO INCL ILEUM W BIOSPY SGL/MU	$	3,290.00
MLH-LBCH	ILEOS W/ ENDO STENT PLACEMENT	$	3,365.00
MLH-LBCH	COLONOSCOPY STOMA W/BX SINGLE/MULTIPLE	$	2,919.00
MLH-LBCH	COLON STOMA W/ ABLAT TUMOR/POLYP/LESION	$	3,116.00
MLH-LBCH	COLON STOMA W/ ENDO STENT PLACEMENT	$	3,116.00
MLH-LBCH	COLON STOMA W/ ENDO MUCOSAL RESECT	$	3,116.00
MLH-LBCH	COLON STOMA W/ DIR SUBMUCOSAL INJ	$	2,968.00
MLH-LBCH	COLON STOMA W/ TNDSC BALLOON DILAT	$	3,116.00
MLH-LBCH	COLON STOMA W/ENDOSCOPIC US	$	3,116.00
MLH-LBCH	COLON STOMA W/TNDSC US	$	3,116.00
MLH-LBCH	COLON STOMA W/DCMPRN W/PLACE DCMPRN TUBE	$	2,968.00
MLH-LBCH	INTRO GI TUBE LONG	$	1,208.00
MLH-LBCH	GASTROTOSTOMY TUBE MANIPULATION	$	3,289.00
MLH-LBCH	BX ANORECTAL WALL ANAL APPROACH	$	6,413.00
MLH-LBCH	PROCTOSIGMOID RIGID W BX SING/MULT	$	1,296.00
MLH-LBCH	SIGMOID FLEX DX W/WO BRUSH/WASH	$	1,296.00
MLH-LBCH	SIGMOID FLEX W BX SING/MULT	$	1,296.00
MLH-LBCH	SIGMOID FLEX W FB REMOVAL	$	1,296.00
MLH-LBCH	SIGMOID FLEX W POLYP REMOVAL HOT BX	$	2,706.00
MLH-LBCH	SIGMOID FLEX W BLEEDING CONTROL	$	2,706.00
MLH-LBCH	SIGMOID FLEX W SUBMUCOSAL INJ ANY SUBSTA	$	2,706.00
MLH-LBCH	SIGMOID FLEX W DECOMPRESS VOLVULUS PLMT	$	2,706.00
MLH-LBCH	SIGMOID FLEX W POLYP REMOVAL SNARE TECH	$	1,305.00
MLH-LBCH	SIGMOID FLEX W BALLOON DILATION	$	3,387.00
MLH-LBCH	SIGMOID FLEX W/ABLTJ TUMOR/POLYP/LESION	$	3,133.00
MLH-LBCH	SIGMOID FLEX W/ENDOSCOP STENT PLACEMENT	$	3,133.00
MLH-LBCH	SIGMOID FLEX W/ENDOSCOP MUCOSAL RESECT	$	3,266.00
MLH-LBCH	SIGMOID FLEX W/BAND LIGATION HEMORRHOID	$	3,266.00
MLH-LBCH	COLON FLEX DX W BRUSH/WASH	$	3,448.00
MLH-LBCH	COLON FLEX W FB REMOVAL	$	3,448.00
MLH-LBCH	COLON FLEX W BX SING/MULT	$	3,448.00
MLH-LBCH	COLON FLEX W SUBMUCOSAL INJ ANY SUBSTANC	$	3,821.00
MLH-LBCH	COLON FLEX W BLEEDING CONTROL	$	3,284.00
MLH-LBCH	COLON FLEX W POLYP REMOVAL HOT BX	$	3,448.00
MLH-LBCH	COLON FLEX W POLYP REMOVAL SNARE TECH	$	3,448.00

MLH-LBCH	COLON FLEX W BALLOON DILATION	$	3,821.00
MLH-LBCH	COLON FLEX W/ABLTJ TUMOR/POLYP/LESION	$	3,448.00
MLH-LBCH	COLON FLEX W/ENDOSCOP STENT PLACEMENT	$	3,448.00
MLH-LBCH	COLON FLEX W/ENDOSCOP MUCOSAL RESECT	$	3,116.00
MLH-LBCH	COLON FLEX W/DCMPRN W/PLACE DCMPRN TUBE	$	3,116.00
MLH-LBCH	COLON FLEX W/BAND LIGATION HEMORRHOID	$	3,116.00
MLH-LBCH	COLONOSCOPY PROCEDURE UNLISTED	$	29,503.00
MLH-LBCH	DILATION OF ANAL SPINCTER W ANESTH NOT	$	6,413.00
MLH-LBCH	DILATION OF RECTAL NARROWING	$	2,947.00
MLH-LBCH	REMOVAL FECAL IMPACTION/FB W ANEST	$	1,079.00
MLH-LBCH	ANOSCOPY DX INCL COLLJ BRUSH/WASH	$	314.00
MLH-LBCH	ANOSCOPY DX W/BRUSH/WASH	$	519.00
MLH-LBCH	ANOSCOPY W BX SING/MULT	$	5,127.00
MLH-LBCH	ANOSCOPY DX W/BX SING/MULTI	$	3,266.00
MLH-LBCH	ANOSCOPY W FB REMOVAL	$	2,104.00
MLH-LBCH	ANOSCOPY W POLYP REMOVAL SING CAUTERY/HO	$	5,127.00
MLH-LBCH	ANOSCOPY W POLYP REMOVAL SING SNARE TECH	$	5,127.00
MLH-LBCH	ANOSCOPY W POLYP REMOVAL MULT SNARE TECH	$	5,127.00
MLH-LBCH	UNLISTED PROC ANUS	$	6,413.00
MLH-LBCH	BX LIVER NDL PERCUTANEOUS	$	3,008.00
MLH-LBCH	ABLATION 1+ LIVER TUMOR PERCUT RADIOFREQ	$	17,300.00
MLH-LBCH	ABLATION 1+ LIVER TUMOR PERQ CRYOBLATION	$	16,166.00
MLH-LBCH	UNLISTED LIVER ABLATION	$	1,912.00
MLH-LBCH	CHOLESCYSTOMY PERCUTANEOUS COMPLETE	$	4,614.00
MLH-LBCH	INJ CHOLANGIOGRAM PERCU EXIST ACCESS	$	7,681.00
MLH-LBCH	INJ CHOLANGIOGRAM PERCU NEW ACCESS	$	7,681.00
MLH-LBCH	PLACE BIL DRAIN CATH CHOLANG EXT	$	7,681.00
MLH-LBCH	SP PLACE BIL DRAIN CATH CHOLANG INT EXT	$	8,065.00
MLH-LBCH	CONVERT EXT BIL DRN TO INT EXT	$	7,681.00
MLH-LBCH	EXCH BIL CATH W CHOLANGIOG	$	7,681.00
MLH-LBCH	REMOV BIL DRN W CHOLOANGIOG	$	1,703.00
MLH-LBCH	SP BIL STENT W CHOLANG/DRAIN PLACE/REM	$	14,093.00
MLH-LBCH	BIL STENT NEW ACC W/O DRAIN	$	14,093.00
MLH-LBCH	BIL STENT NEW ACC W DRAIN	$	14,093.00
MLH-LBCH	SP WIRE ACCESS PTC FOR ERCP	$	7,681.00
MLH-LBCH	DILATATION BIL DUCTS/AMPULLA	$	447.00
MLH-LBCH	SP BILIARY BX	$	608.00
MLH-LBCH	SP REMOVE CALCULI/DEBRIS FROMBIL DUCT	$	792.00
MLH-LBCH	SP BILIARY BRUSHING PERCUT	$	9,503.00
MLH-LBCH	ENDOSCOPY BILIARY W DILATION WO STENT	$	7,653.00
MLH-LBCH	ENDOSCOPY BILIARY W DILATION W STENT	$	7,653.00
MLH-LBCH	BX PANCREAS PERCUT NDL	$	4,338.00
MLH-LBCH	DRNG PERITONEAL ABSCESS/LOCAL PERIT OPEN	$	616.00
MLH-LBCH	ABDOMINAL PARACENTESIS W/O IMAGING	$	1,794.00
MLH-LBCH	ABDOM PARACEN DX/THER W/IMAGING GUIDAN	$	1,796.00
MLH-LBCH	PERITONEAL LAVAGE W/WO IMAGINGNG	$	1,796.00
MLH-LBCH	BX ABD/RETROPERITONEAL MASS PERCUT NDL	$	4,338.00

MLH-LBCH	SCLEROTHERAPY FLUID COLLECTION	$	3,490.00
MLH-LBCH	INJ AIR/CONT PERITONEAL CAVITY	$	616.00
MLH-LBCH	DRAIN VISCERAL ORGAN	$	4,848.00
MLH-LBCH	DRAIN VISC PERITO/RETRO AROUND ORGAN	$	4,848.00
MLH-LBCH	TRANSRECTAL IMAGE GUIDED RETROPERI DRAIN	$	7,224.00
MLH-LBCH	INSJ INTRAPERITONEAL CATHETER W/IMG GID	$	10,558.00
MLH-LBCH	INSERT PERITO CATH W SUBC PORT	$	11,169.00
MLH-LBCH	INSERT PERITO CATH DRNG DIALYSIS PERMANT	$	11,169.00
MLH-LBCH	REM TUNNEL PERITONEAL CATH	$	4,844.00
MLH-LBCH	EXCHANGE PLACED ABSCESS/CYST DRNG CATH	$	4,844.00
MLH-LBCH	INJ CONT ABSCESS/CYST BY CATH/TUBE	$	616.00
MLH-LBCH	GASTROSTOMY TUBE INSERT PERCUT	$	2,664.00
MLH-LBCH	JEJUN/DUODEN TUBE PLACE, PERC	$	5,622.00
MLH-LBCH	INSERTION OF CECOSTOMY/COLONIC TUBE	$	4,330.00
MLH-LBCH	CONVERT GASTRO TO JUJUM TUBE	$	5,622.00
MLH-LBCH	REPLACMT OF GASTRO TUBE W/ CONT	$	2,352.00
MLH-LBCH	REPLACMT OF DUODENOS OR JUJUN TUBE	$	2,352.00
MLH-LBCH	REPLACMT OF GASTRO-JEJUN TUBE	$	1,283.00
MLH-LBCH	MECH REM OBST MAT FROM GASTRO TUBE	$	1,283.00
MLH-LBCH	CONTRAST INJ OF GASTROSTOMY TUBE	$	552.00
MLH-LBCH	UNLISTED PROCEDURE ABDOMEN	$	1,608.00
MLH-LBCH	REMOVAL & REPLAC URET STENT PERC	$	10,239.00
MLH-LBCH	REM(SNARE/CAPTURE)URET STENT PERC	$	10,239.00
MLH-LBCH	EXT/INT NEPHROURETERAL CAHT REM/REPL	$	5,310.00
MLH-LBCH	NEPHROSTOGRAM NEW ACCESS W/S&I	$	1,850.00
MLH-LBCH	NEPHROSTOGRAM EXIST ACCESS	$	1,850.00
MLH-LBCH	PLACE NEPHROSTOMY TUBE	$	5,316.00
MLH-LBCH	PLACE NEPHROURETERAL CATHETER	$	5,316.00
MLH-LBCH	CONVERT NEPHR TO NEPHROURETERAL	$	1,850.00
MLH-LBCH	EXCHANGE NEPHROSOTMY CATH	$	1,850.00
MLH-LBCH	RENAL ABLATION CRYO 1 OR MORE TUMORS	$	23,412.00
MLH-LBCH	INJ LOOPOGRAM	$	616.00
MLH-LBCH	SP URETERAL STENT EXIST ACCESS	$	7,916.00
MLH-LBCH	SP URETERAL STENT NEW ACC WO DRAIN	$	7,916.00
MLH-LBCH	SP URETERAL STENT NEW ACC W DRAIN	$	8,312.00
MLH-LBCH	URETERAL EMBO/OCCL W/IMAGE	$	1,943.00
MLH-LBCH	SP URETERAL BALLOON DILATATION	$	702.00
MLH-LBCH	BLADDER BY NDL ASPIR	$	1,652.00
MLH-LBCH	ASP BLADDER NDL W CATH INSERT SUPRAPUBIC	$	2,357.00
MLH-LBCH	INJ CYSTOGRAM/VCUG	$	616.00
MLH-LBCH	INJ RETROGRADE URETHROCYSTOGRAM	$	616.00
MLH-LBCH	CATH URETHRA SIMP	$	649.00
MLH-LBCH	CATH URETHRA SIMP	$	649.00
MLH-LBCH	SP INSRT TEMP NDWELL BLADDER CATH CMPLEX	$	461.00
MLH-LBCH	CHANGE CYSTOSTOMY TUBE SIMP	$	845.00
MLH-LBCH	CHANGE CYSTOSTOMY TUBE COMPLICATED	$	1,208.00
MLH-LBCH	CYSTOMETROGRAM COMPLEX	$	2,357.00

MLH-LBCH	COMPLX CMG W/VOID PRESS&URETHRAL PROFILE	$	1,066.00
MLH-LBCH	UROFLOWMETRY COMPLEX	$	460.00
MLH-LBCH	ELECTROMYOGRAM NOT NDL ANAL/URETHRAL SPH	$	460.00
MLH-LBCH	MEAS POST-VOID RESIDUAL URINE&/BLDR CAP	$	197.00
MLH-LBCH	CYSTOURETHROSCOPY W URETEROSCOPY/PYEL DX	$	2,432.00
MLH-LBCH	CIRCUMCISION NEWBORN W CLAMP/OTHER DEVIC	$	2,571.00
MLH-LBCH	BX PROSTATE NDL/PUNCH SING/MULT ANY APPR	$	2,290.00
MLH-LBCH	CAUTERIZATION OF CERVIX ELECTRO/THERMAL	$	5,256.00
MLH-LBCH	INSERTION INTRAUTERINE DEVICE IUD	$	531.00
MLH-LBCH	REMOVAL INTRAUTERINE DEVICE (IUD)	$	531.00
MLH-LBCH	CATH&INTRO SALINE/CONT SIS/HYSTEROSALPIN	$	616.00
MLH-LBCH	AMNIOCENTESIS DX	$	622.00
MLH-LBCH	AMNIOCENTESIS THER AMNIOTIC FLUID REDUCT	$	622.00
MLH-LBCH	CORDOCENTESIS INTRAUTERINE	$	438.00
MLH-LBCH	CHORIONIC VILLUS SAMPLING	$	622.00
MLH-LBCH	FETAL NON STRESS TEST	$	622.00
MLH-LBCH	TRANSABD AMNIOINFUS INCL US GUID	$	653.00
MLH-LBCH	FETAL UMB CORD OCCL INCL US GUID	$	653.00
MLH-LBCH	FETAL FLUID DRAINAGE INCL US GUID	$	653.00
MLH-LBCH	FETAL SHUNT PLACEMENT INCL US GUID	$	653.00
MLH-LBCH	EXTERNAL CEPHALIC VERSION W/WO TOCOLYSIS	$	2,300.00
MLH-LBCH	MULTIFETAL PREGNANCY REDUCTION	$	888.00
MLH-LBCH	BX THYROID PERCUT CORE NDL	$	1,924.00
MLH-LBCH	ASPIRATE/INJECT THYROID CYST	$	1,171.00
MLH-LBCH	VENTRIC PUNCT BRAIN CANAL W INJECT MED	$	1,704.00
MLH-LBCH	PUNC CISTERNAL/LATERAL CERV W/O INJ	$	1,785.00
MLH-LBCH	PUNC CISTERNAL/LATERAL CERV W INJ	$	1,785.00
MLH-LBCH	PUNCTURE SHUNT TUBING ASP/INJECT PROCED	$	1,788.00
MLH-LBCH	TDH SDRL/VENTR PNXR IMPLTG CATH/DEV	$	1,660.00
MLH-LBCH	TWIST DRILL HOLE EVAC/DRG SUBDURAL HEMA	$	90,817.00
MLH-LBCH	BURR HOLE VENTRICULAR PUNCTURE	$	90,817.00
MLH-LBCH	BURR HOLE/TREPHINE W/DRG BRAIN ABSCE/CYS	$	90,817.00
MLH-LBCH	BURR HOLE W/EVAC&/DRG HEMATOMA XDRL/SDRL	$	90,817.00
MLH-LBCH	BURR HOLE W/ASPIR HEMATO/CYST INTRACERRB	$	90,817.00
MLH-LBCH	CRANIECTO HMTMA SUPRATENTORI INTRACEREB	$	90,817.00
MLH-LBCH	TRANSCATH OCCLUS/EMBOL CNS	$	13,866.00
MLH-LBCH	TRANSCATH OCCLUS/EMBOL NON CNS HEAD/NECK	$	35,046.00
MLH-LBCH	BALLOON ANGIOPLASTY INTRACRAN	$	86,390.00
MLH-LBCH	PTA INTRACRAN VASOSPSM INITIAL	$	13,865.00
MLH-LBCH	PTA INTRACRAN SAME VASOSPM EA ADDL	$	11,695.00
MLH-LBCH	PTA INTRACRAN DIFF VASOSPM EA ADDL	$	11,695.00
MLH-LBCH	PERQ ART TRANSLUM M-THROMBECT &/NFSRQ	$	2,977.00
MLH-LBCH	EVASC PRLNG ADMN RX AGNT INIT VASC TER	$	1,461.00
MLH-LBCH	PLMT/RPLCMT NEUROENDOSCOPY ADD-ON	$	1,001.00
MLH-LBCH	LYSIS EPIDURAL ADHESIONS PERCUT 2+DAYS	$	2,583.00
MLH-LBCH	PERCUT ASPIRATION SPINAL CORD CYST	$	2,223.00
MLH-LBCH	SPINAL PUNC LUMBAR DX	$	1,707.00

MLH-LBCH	INJECTION EPIDURAL BLOOD/CLOT PATCH	$	1,707.00
MLH-LBCH	INJ/INF NEUROLYTIC W OR WO THER	$	4,213.00
MLH-LBCH	INJ/INF NEUROLYTIC W OR WO THER CRV/THRC	$	4,307.00
MLH-LBCH	INJ/INF NEUROLYTIC W OR WO THER LUM/SAC	$	4,307.00
MLH-LBCH	INJ PROC MYELOGRAPHY/CT SPINAL NOT C1-C2	$	616.00
MLH-LBCH	PERCUTANEOUS DISKECTOMY 1/> LEVELS LUMB	$	13,298.00
MLH-LBCH	INJ DISKOGRAPHY EA LVL LUMBAR	$	616.00
MLH-LBCH	INJ DISCOGRAPHY CERVICAL/THORACIC	$	852.00
MLH-LBCH	MYELOGRAPHY CERVICAL W LUMBAR INJECT	$	3,155.00
MLH-LBCH	MYELOGRAPHY THORACIC W LUMBAR INJECT	$	3,155.00
MLH-LBCH	MYELOGRAPHY LUMBOSACRAL W LUMBAR INJ	$	3,155.00
MLH-LBCH	MYELOGRAPHY 2 + REGIONS W LUMBAR INJECT	$	3,155.00
MLH-LBCH	SP INJ DX/THER SUBST CRRV/THRC W/O IMAGE	$	1,703.00
MLH-LBCH	SP INJ DX THER SUBST CERV/THOR W/IMAGE	$	1,703.00
MLH-LBCH	SP INJ DX THER SUBST LUMB/SACR	$	1,703.00
MLH-LBCH	SPINAL TAP LUMBAR DX W/FLUORO/CT GDE	$	1,725.00
MLH-LBCH	SPINAL TAP DRAIN THER W/FLUORO/CT GD	$	1,725.00
MLH-LBCH	SP IMPLANT REVISE REPOSIT INTRATHEC CATH	$	12,585.00
MLH-LBCH	REMOVAL OF INTRATHECAL PUMP	$	5,159.00
MLH-LBCH	SP IMPLANT REPLACE INTRATHECAL PUMP	$	56,866.00
MLH-LBCH	RHIZOTOMY	$	5,504.00
MLH-LBCH	IMPLANT SPINAL NEUROELECTRODES	$	19,209.00
MLH-LBCH	LAMINECTOMY FOR IMPLANT NEUROELECTRODES	$	28,240.00
MLH-LBCH	REMOVAL NSTIM ELTRD PRQ ARRAY INCL FLUOR	$	6,595.00
MLH-LBCH	INSRT/REDO SPINE NSTIM GENERATOR	$	71,571.00
MLH-LBCH	REVISE/REMOVE NEURORECEIVER	$	11,342.00
MLH-LBCH	INJ ANESTH AGENT INTERCOST NRV 1 LEVEL	$	1,323.00
MLH-LBCH	INJ ANESTH AGENT INTERCOST NRV ADD'L LEV	$	2,583.00
MLH-LBCH	INJ ANESTH PERIPHERAL NRV HUNT CANAL I	$	1,304.00
MLH-LBCH	INJ FACET JT/NRV LUMBAR/SACRAL INIT LVL	$	2,544.00
MLH-LBCH	INJ FACET JT/NRV LUMBAR/SACRAL ADDL LVL	$	2,544.00
MLH-LBCH	INJ ANESTH AGENT SPHENO GANGLION	$	908.00
MLH-LBCH	STELLATE GANGLION INJ	$	2,707.00
MLH-LBCH	INJ ANESTH PARAVERT SYMPATH LUMB/THO	$	2,707.00
MLH-LBCH	CELIAC PLEXUS BLOCK	$	2,268.00
MLH-LBCH	DSTRJ NEUROLYTIC AGENT TRIGEMINAL NERVE	$	4,563.00
MLH-LBCH	DEST NEUROLYTIC TRIGEM NERVE 2ND/3RD DIV	$	7,442.00
MLH-LBCH	SP DESTRUCT PERIPERAL NERVE BY NEURO AG	$	2,269.00
MLH-LBCH	CHEMODENERVATION 1 EXTREMITY 1-4 MUSCLES	$	1,704.00
MLH-LBCH	CHEMODENERV 1 EXTREM EA ADDL 1-4 MUSCLES	$	1,704.00
MLH-LBCH	CELIAC PLEXUS DESTRUCTION NEUROLYTIC AGE	$	7,088.00
MLH-LBCH	UNLISTED PROCEDURE NERVOUS SYSTEM	$	1,064.00
MLH-LBCH	FOREIGN BODY REMOVAL EYE SUPERFICIAL CON	$	645.00
MLH-LBCH	FOREIGN BODY REMOVAL CORNEAL WO SLIT LAM	$	645.00
MLH-LBCH	EAR EXTERNAL DRN SIMP ABSCESS/HEMATOMA	$	688.00
MLH-LBCH	FOREIGN BODY REMOVAL EAR WO ANESTHESIA	$	269.00
MLH-LBCH	REMOVAL IMPACTED CERUMEN IRRIG/LAVA UNIL	$	256.00

MLH-LBCH	REMOVAL IMPACTED CERUMEN INSTUMEN UNIL	$	269.00
MLH-LBCH	MYELOGRAM POST FOSSA	$	3,313.00
MLH-LBCH	MANDIBLE PARTIAL < 4VW	$	440.00
MLH-LBCH	MANDIBLE COMP 4+VW	$	440.00
MLH-LBCH	MASTOIDS < 3VW	$	440.00
MLH-LBCH	MASTOIDS COMP 3+VW EA SIDE	$	440.00
MLH-LBCH	INTERNAL AUDITORY MEATI COMP	$	769.00
MLH-LBCH	FACIAL BONES < 3VW	$	440.00
MLH-LBCH	FACIAL BONES COMP 3+VW	$	440.00
MLH-LBCH	NASAL BONES COMP 3+VW	$	440.00
MLH-LBCH	ORBITS COMP 4+VW	$	440.00
MLH-LBCH	PARANASAL SINUSES < 3VW	$	440.00
MLH-LBCH	SINUSES PARANASAL COMP 3+VW	$	440.00
MLH-LBCH	SELLA TURCICA	$	440.00
MLH-LBCH	SKULL COMP 4+VW	$	440.00
MLH-LBCH	SKULL COMP 4+VIEW	$	769.00
MLH-LBCH	TMJ OPEN & CLOSED MOUTH UNIL	$	440.00
MLH-LBCH	TMJ OPEN & CLOSED MOUTH BILATERAL	$	440.00
MLH-LBCH	MRI TMJ/S	$	4,251.00
MLH-LBCH	ORTHOPANTOGRAM	$	440.00
MLH-LBCH	NECK SOFT TISSUE	$	440.00
MLH-LBCH	PHARYNX/LARYNX W FLURO	$	690.00
MLH-LBCH	PHARYNGEAL & SPEECH EVAL CINE/VIDEO	$	866.00
MLH-LBCH	CT BRAIN/HEAD WO CONT	$	2,561.00
MLH-LBCH	CT BRAIN/HEAD W CONT	$	3,544.00
MLH-LBCH	CT BRAIN/HEAD W/WO CONT	$	4,125.00
MLH-LBCH	CT ORBIT/SELLA/POST FOSSA/EAR WO CONT	$	2,561.00
MLH-LBCH	CT ORBIT/SELLA/POST FOSSA/EAR W CONT	$	3,544.00
MLH-LBCH	CT ORBIT/SELLA/POST FOSSA/EAR W/WO CONT	$	4,125.00
MLH-LBCH	CT MAXILLOFACIAL AREA WO CONT	$	2,561.00
MLH-LBCH	CT MAXILLOFACIAL AREA W CONT	$	3,544.00
MLH-LBCH	CT MAXILLOFACIAL AREA W/WO CONT	$	4,125.00
MLH-LBCH	CT SOFT TISSUE NECK WO CONT	$	2,561.00
MLH-LBCH	CT SOFT TISSUE NECK W CONT	$	3,544.00
MLH-LBCH	CT SOFT TISSUE NECK W/WO CONT	$	4,125.00
MLH-LBCH	CT ANGIO HEAD W/WO CONT W IMAGE POST PRO	$	4,125.00
MLH-LBCH	CT ANGIO NECK W/WO CONT W IMAGE POST PRO	$	4,125.00
MLH-LBCH	MRI ORBIT/FACE/NECK WO CONT	$	4,960.00
MLH-LBCH	MRI ORBIT/FACE/NECK W CONT	$	5,639.00
MLH-LBCH	MRI ORBIT/FACE/NECK W/WO CONT	$	6,756.00
MLH-LBCH	MRA HEAD WO CONT	$	4,960.00
MLH-LBCH	MRA HEAD W CONT	$	5,639.00
MLH-LBCH	MRA HEAD W/WO CONT	$	6,756.00
MLH-LBCH	MRA NECK WO CONT	$	4,960.00
MLH-LBCH	MRA NECK W CONT	$	5,639.00
MLH-LBCH	MRA NECK W/WO CONT	$	6,756.00
MLH-LBCH	MRI BRAIN & STEM WO CONT	$	4,960.00

MLH-LBCH	MRI BRAIN & STEM W CONT	$	5,639.00
MLH-LBCH	MRI BRAIN & STEM W/WO CONT	$	6,756.00
MLH-LBCH	MRI BRAIN FUNCTIONAL MRI BY TECH	$	3,838.00
MLH-LBCH	MRI BRAIN FUNCTIONAL MRI BY PHYS/PSYCH	$	4,030.00
MLH-LBCH	MRI BRAIN OPEN INTRACRANIAL WO CONT	$	7,009.00
MLH-LBCH	MRI BRAIN OPEN INTRACRANIAL W CONT	$	7,009.00
MLH-LBCH	MRI BRAIN OPEN INTRACRANIAL W/WO CONT	$	7,009.00
MLH-LBCH	CHEST 1VW	$	333.00
MLH-LBCH	CHEST 2 VIEWS	$	333.00
MLH-LBCH	CHEST 3 VIEWS	$	333.00
MLH-LBCH	CHEST XRAY 4+VIEWS	$	613.00
MLH-LBCH	RIBS 2 VW UNIL	$	882.00
MLH-LBCH	RIBS 3+VW INCL PA CHEST UNI	$	440.00
MLH-LBCH	RIBS 3VW BIL	$	440.00
MLH-LBCH	RIBS W PA CHEST 4+VW BIL	$	769.00
MLH-LBCH	STERNUM 2+VW	$	440.00
MLH-LBCH	STERNOCLAVICULAR JT/JTS 3+VW	$	440.00
MLH-LBCH	CT THORAX WO CONT	$	2,561.00
MLH-LBCH	CT THORAX W CONT	$	3,544.00
MLH-LBCH	CT THORAX W/WO CONT	$	4,125.00
MLH-LBCH	CT ANGIO CHEST W/WO CONT W IMAGE POST PR	$	4,125.00
MLH-LBCH	MRI CHEST WO CONT	$	4,960.00
MLH-LBCH	MRI CHEST W CONT	$	5,639.00
MLH-LBCH	MRI CHEST W/WO CONT	$	6,756.00
MLH-LBCH	SPINE 1VW	$	440.00
MLH-LBCH	SPINE CERV 2VW OR 3VW	$	440.00
MLH-LBCH	SPINE CERV 4 OR 5 VW	$	769.00
MLH-LBCH	SPINE CERV 6 OR MORE	$	769.00
MLH-LBCH	SPINE THORACIC 2VW	$	440.00
MLH-LBCH	SPINE THORACIC 3VW	$	441.00
MLH-LBCH	SPINE THORACIC 4+VW	$	440.00
MLH-LBCH	SPINE THORACOLUMBAR 2VW	$	440.00
MLH-LBCH	XR SPINE THORACLUMBAR SCOLIOS EVAL 1VW	$	357.00
MLH-LBCH	XR SPINE THORACLUMBAR SCOLIOS EVAL 2-3VW	$	592.00
MLH-LBCH	XR SPINE THORACLUMBAR SCOLIOS EVAL 4-5VW	$	1,129.00
MLH-LBCH	XR SPINE THORACLUMBAR SCOLIOS EVAL 6 VW	$	1,129.00
MLH-LBCH	SPINE LUMBOSACRAL 2/3VW	$	440.00
MLH-LBCH	SPINE LUMBOSACRAL 4+VW	$	769.00
MLH-LBCH	SPINE LUMBOSACRAL COMP INCL BENDING VW	$	769.00
MLH-LBCH	SPINE LUMBSCRL BENDING VW 2 0R 3 VW ONLY	$	440.00
MLH-LBCH	CT SPINE CERV WO CONT	$	2,561.00
MLH-LBCH	CT SPINE CERV W CONT	$	3,544.00
MLH-LBCH	CT SPINE CERV W/WO CONT	$	4,125.00
MLH-LBCH	CT SPINE THORACIC WO CONT	$	2,561.00
MLH-LBCH	CT SPINE THORACIC W CONT	$	3,544.00
MLH-LBCH	CT SPINE THORACIC W/WO CONT	$	4,125.00
MLH-LBCH	CT SPINE LUMBAR WO CONT	$	2,561.00

MLH-LBCH	CT SPINE LUMBAR W CONT	$	3,544.00
MLH-LBCH	CT SPINE LUMBAR W/WO CONT	$	4,125.00
MLH-LBCH	MRI SPINE CERV WO CONT	$	4,960.00
MLH-LBCH	MRI SPINE CERV W CONT	$	5,639.00
MLH-LBCH	MRI SPINE THORACIC WO CONT	$	4,960.00
MLH-LBCH	MRI SPINE THORACIC W CONT	$	5,639.00
MLH-LBCH	MRI SPINE LUMBAR WO CONT	$	4,960.00
MLH-LBCH	MRI SPINE LUMBAR W CONT	$	5,639.00
MLH-LBCH	MRI SPINE CERV W/WO CONT	$	6,756.00
MLH-LBCH	MRI SPINE THORACIC W/WO CONT	$	6,756.00
MLH-LBCH	MRI SPINE LUMBAR W/WO CONT	$	6,756.00
MLH-LBCH	PELVIS 1VW	$	440.00
MLH-LBCH	PELVIS COMP 3+VW	$	440.00
MLH-LBCH	CT ANGIO PELVIS W/WO CONT W IMAGE POST P	$	4,125.00
MLH-LBCH	CT PELVIS WO CONT	$	2,561.00
MLH-LBCH	CT PELVIS W CONT	$	3,544.00
MLH-LBCH	CT PELVIS W/WO CONT	$	4,125.00
MLH-LBCH	MRI PELVIS WO CONT	$	4,960.00
MLH-LBCH	MRI PELVIS W CONT	$	5,639.00
MLH-LBCH	MRI PELVIS W/WO CONT	$	6,756.00
MLH-LBCH	SACROILIAC JTS < 3VW	$	440.00
MLH-LBCH	SACROILIAC JTS 3+VW	$	440.00
MLH-LBCH	SACRUM & COCCYX 2+VW	$	440.00
MLH-LBCH	MYELOGRAPHY CERVICAL W CERVICAL INJECT	$	3,313.00
MLH-LBCH	MYELOGRAPHY, THORACIC, RADIOLOGICAL S&I	$	3,313.00
MLH-LBCH	MYELOGRAPY LUMBOSAC RS&I	$	3,313.00
MLH-LBCH	MYELOGRAPHY 2 PLUS REGIONS	$	3,313.00
MLH-LBCH	EPIDUROGRAPHY	$	923.00
MLH-LBCH	DISKOGRAPHY CERV/THORACIC	$	3,313.00
MLH-LBCH	DISKOGRAPHY LUMBAR	$	3,313.00
MLH-LBCH	SCAPULA	$	330.00
MLH-LBCH	ACROMIOCLAVICULAR JTS W/WO WEIGHTED BIL	$	440.00
MLH-LBCH	HUMERUS 2+VW	$	440.00
MLH-LBCH	XR HIPS BIL W PELVIS 2 VWS	$	613.00
MLH-LBCH	XR HIPS BIL 3-4VWS	$	613.00
MLH-LBCH	XR HIPS BIL 5 VW MIN	$	613.00
MLH-LBCH	XR FEMUR 1VW LT	$	357.00
MLH-LBCH	PATELLA 1-2VW	$	440.00
MLH-LBCH	KNEES STANDING AP BIL	$	440.00
MLH-LBCH	ADBOMEN 1 VIEW	$	333.00
MLH-LBCH	ABDOMEN 2 VIEWS	$	613.00
MLH-LBCH	ABDOMEN 3+ VIEWS	$	613.00
MLH-LBCH	ABD ACUTE SERIES W DECUB/ERECT& CHEST 1V	$	769.00
MLH-LBCH	CT ABD WO CONT	$	4,125.00
MLH-LBCH	CT ABD W CONT	$	3,544.00
MLH-LBCH	CT ABD TRIPLE PHASE	$	4,125.00
MLH-LBCH	CTA ABD/PELVIS W/WO CONTRAST	$	4,503.00

MLH-LBCH	CT ANGIO ABD W/WO CONT W IMAGE POST PROC	$	4,125.00
MLH-LBCH	CT ABD AND PEL WO CONTRAST	$	5,119.00
MLH-LBCH	CT ABD AND PEL WITH CONTRAST	$	7,086.00
MLH-LBCH	CT ABD AND PEL W/WO CONTRAST	$	8,246.00
MLH-LBCH	MRI ABD WO CONT	$	4,960.00
MLH-LBCH	MRI ABD W CONT	$	5,639.00
MLH-LBCH	MRI ABD W/WO CONT	$	6,756.00
MLH-LBCH	PHARYNX/CERV ESOPHAGUS CONTR W DELAY IMG	$	940.00
MLH-LBCH	DX ESOPHAGUS SINGLE CONTRAST	$	940.00
MLH-LBCH	DX ESOPHAGUS DOUBLE CONTRAST	$	852.00
MLH-LBCH	SWALLOWING FUNCT VIDEO CONT W DELAY IMG	$	940.00
MLH-LBCH	ESOPHAGEAL FB REMOVAL W BALLOON CATH	$	2,140.00
MLH-LBCH	GI UPPER SINGLE CONTRAST W DELAY IMAG	$	940.00
MLH-LBCH	GI UPPER W/WO DELAYED IMAGES W KUB	$	940.00
MLH-LBCH	DX GI UPPER DOUBLE CONTRAST W DELAY IMAG	$	940.00
MLH-LBCH	UGI SMALL BOWEL FOLLOW THRU W/IMAGES	$	129.00
MLH-LBCH	DX BOWEL SM W MULTI SERIAL IMGES 1 CON	$	940.00
MLH-LBCH	BOWEL SM DBLE CON VIA ENTEROCLYSIS TUBE	$	1,360.00
MLH-LBCH	CONTRAST ENEMA SINGLE CONTRAST AFTER HRS	$	940.00
MLH-LBCH	BARIUM ENEMA DOUBLE CONTRAST AFTER HOURS	$	1,360.00
MLH-LBCH	THERAPEUTIC ENEMA CONTRAST/AIR FOR REDUC	$	940.00
MLH-LBCH	CHOLECYSTOGRAM ORAL CONT	$	940.00
MLH-LBCH	CHOLANGIOGRAM INTRAOPERATIVE	$	1,017.00
MLH-LBCH	ENDOSCOPIC CATH BILIARY DUCTAL SYSTEM	$	2,035.00
MLH-LBCH	ENDOSCOPIC CATH PANCREATIC DUCTAL SYSTEM	$	2,035.00
MLH-LBCH	ENDOSCOPIC CATH COMBINED BILIARY & PANCR	$	2,035.00
MLH-LBCH	GI LONG TUBE PLACE W MULT FLUORO/FILMS	$	88.00
MLH-LBCH	INTRALUMINAL DILATION STRICT/OBSTRUCT	$	1,600.00
MLH-LBCH	TRANSHEPATIC DILATION BILIARY DUCT STRIC	$	4,468.00
MLH-LBCH	PYELOGRAM IV W/WO KUB W/WO TOMOGRAPHY	$	1,484.00
MLH-LBCH	PYELOGRAM INF DRIP/BOLUS W NEPHROTOMOGRA	$	1,484.00
MLH-LBCH	PYELOGRAM RETROGRADE W/WO KUB IN OR	$	1,484.00
MLH-LBCH	LOOPOGRAM ANTEGRADE	$	1,484.00
MLH-LBCH	CYSTOGRAM 3+VW	$	1,484.00
MLH-LBCH	VASOGRAM/VESICULOGRAM/EPIDIDYMOGRAM	$	1,484.00
MLH-LBCH	CORPORA CAVERNOSOGRAM	$	1,484.00
MLH-LBCH	URETHROCYSTOGRAM RETROGRADE	$	1,484.00
MLH-LBCH	URETHROCYSTOGRAM VOIDING	$	1,484.00
MLH-LBCH	SP URETER/URETHRA DILATION	$	2,140.00
MLH-LBCH	PELVIMETRY W/WO PLACENTAL LOCAL	$	440.00
MLH-LBCH	MR FETAL IMAG PLAC MAT PEL SNGLE/FIR GES	$	1,608.00
MLH-LBCH	MR FETAL IMAG PLAC MAT PEL EA ADDL GES	$	812.00
MLH-LBCH	HSG	$	2,354.00
MLH-LBCH	PERINEOGRAM/VAGINOGRAM SEX DETERMIN/ANOM	$	1,484.00
MLH-LBCH	MRI CARDIAC MORPH/FUNCT WO CONT	$	3,567.00
MLH-LBCH	MRI CARDIAC MORPH/FUNC W/WO CONT	$	5,453.00
MLH-LBCH	CMRI MORPHOLOGY&FUNCT W/W/O CONT & IMAGE	$	2,011.00

MLH-LBCH	MRI CARDIAC VELOCITY FLOW MAPPING	$	4,900.00
MLH-LBCH	CT CARDIOSCAN	$	109.00
MLH-LBCH	CT HEART W CONTRAST	$	2,464.00
MLH-LBCH	CT HEART CONGENITAL DISEASE	$	2,464.00
MLH-LBCH	CTA CORONARY ART/GRAFTS W CONT&POST PROC	$	2,464.00
MLH-LBCH	AORTAGRAM THORACIC WO SERIALOGRAM	$	8,567.00
MLH-LBCH	AORTOGRAM THORACIC W SERIALOGRAM	$	8,567.00
MLH-LBCH	AORTOGRAM ABD W SERIALOGRAM	$	8,567.00
MLH-LBCH	AORTOGRAM ABD W ILIOFEMORAL EXT LOW BIL	$	8,567.00
MLH-LBCH	CT ANGIO ABD AORTA & EXT RUNOFF W/WO CON	$	4,125.00
MLH-LBCH	ANGIO SPINAL SELECTIVE	$	4,883.00
MLH-LBCH	ANGIO EXT UNIL	$	8,567.00
MLH-LBCH	ANGIO EXT BIL	$	8,567.00
MLH-LBCH	ANGIO VISCERAL SELECTIVE/SUPRASELECTIVE	$	8,567.00
MLH-LBCH	ANGIO ADRENAL SELECTIVE UNIL	$	8,567.00
MLH-LBCH	ANGIO ADRENAL SELECTIVE BIL	$	8,567.00
MLH-LBCH	ANGIO PELVIC SELECTIVE/SUPRASELECTIVE	$	8,567.00
MLH-LBCH	ANGIO PULM SELECTIVE UNIL	$	4,883.00
MLH-LBCH	ANGIO PULM SELECTIVE BIL	$	8,567.00
MLH-LBCH	ANGIO PULM NONSELECTIVE CATH/VENOUS INJ	$	4,883.00
MLH-LBCH	ANGIO INTERNAL MAMMARY	$	4,883.00
MLH-LBCH	ANGIO SELECT EA ADDL VESSEL AFTER BASIC	$	4,650.00
MLH-LBCH	LYMPHANGIOGRAPHY-EXTREM-U	$	2,332.00
MLH-LBCH	LYMPHANGIOGRAPHY-EXTREM-B	$	2,332.00
MLH-LBCH	LYMPHANGIOGRAPHY-PELV/ABD	$	2,332.00
MLH-LBCH	SHUNTOGRAM PREVIOUSLY PLACED SHUNT NONVA	$	1,017.00
MLH-LBCH	VENOGRAM EXT UNIL	$	2,735.00
MLH-LBCH	VENOGRAM EXT BIL	$	2,735.00
MLH-LBCH	VENOGRAM CAVAL INFERIOR W SERIALOGRAM	$	4,883.00
MLH-LBCH	VENOGRAM CAVAL SUPERIOR W SERIALOGRAM	$	4,883.00
MLH-LBCH	VENOGRAM RENAL SELECTIVE UNILATERAL	$	2,571.00
MLH-LBCH	VENOGRAM RENAL SELECTIVE BIL	$	2,571.00
MLH-LBCH	VENOGRAM ADRENAL SELECTIVE UNIL	$	2,571.00
MLH-LBCH	VENOGRAM ADRENAL SELECTIVE BIL	$	2,571.00
MLH-LBCH	VENOGRAM SINUS/JUGULAR CATH	$	2,571.00
MLH-LBCH	VENOGRAM SUPERIOR SAGITTAL SINUS	$	2,571.00
MLH-LBCH	VENOGRAM ORBITAL	$	2,571.00
MLH-LBCH	TRANSHEPATIC PORTOGRAM PERCUT W HEMODYNA	$	4,883.00
MLH-LBCH	TRANSHEPATIC PORTOGRAM PERCUT WO HEMODYN	$	5,268.00
MLH-LBCH	VENOGRAM HEPATIC W HEMODYNAMIC EVAL	$	4,883.00
MLH-LBCH	VENOGRAM HEPATIC WO HEMODYNAMIC EVAL	$	4,883.00
MLH-LBCH	VENOUS SAMPLING THROUGH CATH W/WO ANGIO	$	3,288.00
MLH-LBCH	TRANSCATH THER EMBOL ANY METHOD	$	4,468.00
MLH-LBCH	ANGRPH CATH F-UP STD TCAT OTH THAN THROM	$	2,354.00
MLH-LBCH	OBSTRUCT MATERIAL REMOVAL PERICATH	$	1,820.00
MLH-LBCH	OBSTRUCT MATERIAL REMOVAL INTRALUMINAL	$	1,221.00
MLH-LBCH	THOR AORTA ENDVS RPR W COV L SBCLV	$	2,212.00

MLH-LBCH	THOR AORTA ENDV RPR WO COV L SUBCLV	$	2,212.00
MLH-LBCH	PLACE THOR AORTA PROX PROSTH	$	2,212.00
MLH-LBCH	PLACE THOR AORTA DISTAL PROSTH	$	2,212.00
MLH-LBCH	TRANSCATH BX	$	8,567.00
MLH-LBCH	TUBE PERCUT/CATH DRNG CHANGE W CONT MONI	$	2,140.00
MLH-LBCH	CT/FLUORO/US GUIDE DRNG PERCUT W CATH	$	2,323.00
MLH-LBCH	FLUORO </= 1HR	$	866.00
MLH-LBCH	CHEST/ABD FOR FOREIGN BODY, CHILD	$	440.00
MLH-LBCH	ABSCESS/FISTULAR/SINUS TRACT STUDY	$	1,017.00
MLH-LBCH	XRAY EXAM CONSULT MADE ELSEWHERE	$	60.00
MLH-LBCH	3D RENDERING W/INTRP WO POSTPROCESS	$	561.00
MLH-LBCH	3D RENDERING W/INTRP W POSTPROCESS	$	1,463.00
MLH-LBCH	CT LTD/LOCAL FU STUDY	$	1,247.00
MLH-LBCH	MR SPECTROSCOPY	$	4,255.00
MLH-LBCH	MR ELASTOGRAPHY	$	670.00
MLH-LBCH	UNLISTED RADIOLOGY PROCEDURES	$	302.00
MLH-LBCH	US HEAD NEONATAL/ECHOENCEPHALOGRAM	$	973.00
MLH-LBCH	US HEAD & NECK SOFT TISSUES THYROID/PARA	$	973.00
MLH-LBCH	US CHEST	$	1,012.00
MLH-LBCH	US ABD COMP	$	973.00
MLH-LBCH	US ABD LTD SING ORGAN/FU	$	973.00
MLH-LBCH	US ABD AORTA AAA SCRNG	$	631.00
MLH-LBCH	US RETROPERITONEAL B SCAN/REAL TIME COMP	$	973.00
MLH-LBCH	US RETROPERITONEAL/ABD LTD	$	973.00
MLH-LBCH	US KIDNEY TRANSPLANTED W DUPLEX DOPPLER	$	973.00
MLH-LBCH	US SPINE	$	973.00
MLH-LBCH	RTU PG UTRUS 1 TRI ABD 1/1 GEST	$	627.00
MLH-LBCH	RTU PG UTRUS 1 TRI TRNSABD EA GEST	$	627.00
MLH-LBCH	RTU UTRUS AFTR 1 TRI ABD 1/1 GEST	$	973.00
MLH-LBCH	RTU UTRUS AFTR 1 TRI ABD EA GEST	$	594.00
MLH-LBCH	RTU PG UTRUS FETL ANAT ABD 1/1 GEST	$	1,574.00
MLH-LBCH	RTU PG UTRUS FETL ANAT ABD EA GEST	$	1,032.00
MLH-LBCH	US OB FETAL NUCAL TRANSLUCE	$	887.00
MLH-LBCH	RTU PG UTRUS LTD 1/MORE FETUSES	$	594.00
MLH-LBCH	RTU PG UTRUS F/U TRANSABD FETUS	$	594.00
MLH-LBCH	RTU PG UTRUS W/IMAG DOC TRANSVAG	$	594.00
MLH-LBCH	FETAL BIOPHYSIC PROFILE W/NON-STRESS TES	$	973.00
MLH-LBCH	FETAL BIOPHYSIC PROFILE W/O NON-STRESS T	$	973.00
MLH-LBCH	DOPPLER VELOCIMETRY FETAL UMBIL ARTERY	$	1,134.00
MLH-LBCH	DOPPLER VELOCIMETRY FETAL MIDDLE CEREBRA	$	1,134.00
MLH-LBCH	FETAL ECHO EVALUATION W/WO M MODE	$	2,432.00
MLH-LBCH	FETAL ECHO FOLLOWUP/REPEAT 2D W/WO M MOD	$	1,313.00
MLH-LBCH	FETAL DOPPLER PW/CW COMPLETE	$	2,432.00
MLH-LBCH	FETAL DOPPLER FOLLOWUP/REPEAT	$	1,313.00
MLH-LBCH	ULTRASOUND TRANSVAGINAL	$	973.00
MLH-LBCH	US HYSTEROSONOGRAM W/WO COLOR FLOW DOPPL	$	973.00
MLH-LBCH	US PELVIC NON OB COMP	$	973.00

MLH-LBCH	US PELVIC NON OB LTD/FU	$	594.00
MLH-LBCH	US SCROTUM	$	973.00
MLH-LBCH	US TRANSRECTAL	$	973.00
MLH-LBCH	US EXTR NON-VASC REAL-TIME IMG LMTD	$	537.00
MLH-LBCH	US HIPS INFANT DYNAMIC W MANIPULATION	$	973.00
MLH-LBCH	US HIPS INFANT LTD/STATIC WO MANIPULATIO	$	973.00
MLH-LBCH	US GUIDE PSEUDOANEURYSM/FISTULAE REPAIR	$	1,363.00
MLH-LBCH	US GUIDE VASC ACCESS US EVAL W RECORDING	$	1,503.00
MLH-LBCH	US FOR PARENCHYMAL TISSUE ABLATION	$	1,363.00
MLH-LBCH	ULTRASOUND GUIDANCE FETAL TRANS CORDO	$	1,366.00
MLH-LBCH	ULTRASOUND GUIDANCE NEEDLE PLACEMENT	$	1,366.00
MLH-LBCH	ULTRASOUND GUIDANCE FOR CVS	$	1,366.00
MLH-LBCH	ULTRASOUND GUIDANCE AMNIO	$	1,366.00
MLH-LBCH	US CONTRAST/BUBBLE STUDY INIT LESION	$	586.00
MLH-LBCH	US CONTRAST/BUBBLE STUDY ADDL LESION	$	586.00
MLH-LBCH	US ELASTOGRAPHY ORGAN/PARENCH	$	327.00
MLH-LBCH	US ELASTOGRAPHY TARGET LESION	$	327.00
MLH-LBCH	US ELASTOGRAPHY ADDL TARGET LESION	$	327.00
MLH-LBCH	US GUIDE INTRAOPERATIVE	$	973.00
MLH-LBCH	US PROC UNLISTED	$	973.00
MLH-LBCH	FLUORO GUIDE VAD PLACE/REPLACE/REMOVAL	$	743.00
MLH-LBCH	FLUORO GUIDE BX/ASP/INJ/LOCAL	$	743.00
MLH-LBCH	FLUORO SPINE DX/THER INJ W NEUROLYTIC AG	$	622.00
MLH-LBCH	CT GUIDE STEREO LOCAL	$	3,544.00
MLH-LBCH	CT GUIDE NDL BX	$	3,544.00
MLH-LBCH	CT GUIDE MONITOR VISCERAL TISSUE ABLATIO	$	2,829.00
MLH-LBCH	CT GUIDE RADIATION THER FIELD PLACE	$	1,247.00
MLH-LBCH	BREAST DX MAMMO W/CAD UNILATERAL	$	881.00
MLH-LBCH	BREAST DX MAMMO W/CAD BILATERAL	$	881.00
MLH-LBCH	BREAST SCREEN MAMMO W CAD BIL 2VIEW	$	399.00
MLH-LBCH	BONE AGE STUDY	$	769.00
MLH-LBCH	BONE LENGTH STUDY	$	440.00
MLH-LBCH	OSSEOUS SURVEY LTD	$	769.00
MLH-LBCH	OSSEOUS SURVEY COMP AXIAL & APPENDICULAR	$	769.00
MLH-LBCH	OSSEOUS SURVEY INFANT	$	769.00
MLH-LBCH	CT BONE DENSITY STUDY 1+ SITES AXIAL	$	1,389.00
MLH-LBCH	DXA BONE DENSITY STUDY 1+SITES AXIAL	$	925.00
MLH-LBCH	DXA BONE DENSITY STDY 1+SITES APPENDICUL	$	315.00
MLH-LBCH	NM DXA BONE DENSITY + FRACTURE ASSESSMEN	$	513.00
MLH-LBCH	DXA VERTEBRAL FRACTURE ASSESSMENT	$	513.00
MLH-LBCH	NM THYROID UPTAKE SING/MULT QUANT ONLY	$	477.00
MLH-LBCH	NM THYROID IMAGING ONLY	$	639.00
MLH-LBCH	NM THYROID UPTAKE IMAGING W SING/MULT	$	971.00
MLH-LBCH	THYROID CARCINOMA METASTASES WHOLE BODY	$	2,649.00
MLH-LBCH	PARATHYROID PLANAR IMAGE	$	2,212.00
MLH-LBCH	NM PARATHYROID SPECT	$	1,615.00
MLH-LBCH	NM PARATHYROID SPECT W CT IMAGING	$	1,615.00

MLH-LBCH	P-32 RADIONUCLIDE SYNOV	$	1,652.00
MLH-LBCH	BONE MARROW SCAN MULTIPLE	$	2,109.00
MLH-LBCH	RBC LABELED SEQUESTRATION ORGAN/TISSUE	$	2,212.00
MLH-LBCH	SPLEEN IMAGING ONLY W/WO VASCULAR FLOW	$	1,652.00
MLH-LBCH	LYMPHATICS & LYMPH NODES IMAGE	$	2,212.00
MLH-LBCH	WBC TAG	$	825.00
MLH-LBCH	LIVER IMAGE STATIC ONLY	$	2,212.00
MLH-LBCH	LIVER IMAGE W VASC FLOW	$	2,212.00
MLH-LBCH	LIVER & SPLEEN IMAGE STATIC ONLY	$	2,212.00
MLH-LBCH	LIVER & SPLEEN IMAGE W VASC FLOW	$	2,212.00
MLH-LBCH	HEPATOBIL SYST IMG INCL GB W/O EF	$	2,275.00
MLH-LBCH	HEPATOBIL SYST IMAG INC GB W/EF	$	2,275.00
MLH-LBCH	SALIVARY GLAND IMAGE W SERIAL IMAGE	$	2,212.00
MLH-LBCH	GASTROESOPHAGEAL REFLUX STUDY	$	2,212.00
MLH-LBCH	GASTRIC EMPTYING IMAGING STUDY	$	2,212.00
MLH-LBCH	NM GAST EMPTY STUDY W SMALL BOW TRANS	$	1,955.00
MLH-LBCH	NM GAST EMPT ST W SM BOW/COLN TX MULTDAY	$	2,596.00
MLH-LBCH	GI ACUTE BLOOD LOSS IMAGE	$	2,212.00
MLH-LBCH	GASTROINTESTINAL PROTEIN LOSS	$	1,103.00
MLH-LBCH	INTESTINE IMAGE MECKELS LOCAL	$	2,212.00
MLH-LBCH	PERITONEAL VENOUS SHUNT PATENCY TEST	$	2,212.00
MLH-LBCH	BONE/JT IMAGE LTD AREA	$	2,212.00
MLH-LBCH	BONE/JT IMAGE MULT AREAS	$	2,212.00
MLH-LBCH	BONE/JT IMAGE WHOLE BODY	$	2,212.00
MLH-LBCH	BONE/JT IMAGE 3 PHASE STUDY	$	2,649.00
MLH-LBCH	NM MYOCARD IMAGI PET METOBOLIC EVAL W/CT	$	3,975.00
MLH-LBCH	MYOCRD IMAGE PET PERF RST/STRS SING W/CT	$	3,975.00
MLH-LBCH	MYOCRD IMG PET PERF RST&STRS MULTI W/CT	$	6,213.00
MLH-LBCH	MYOCARD IMAGI PET PERF META DUAL RADIOTR	$	7,593.00
MLH-LBCH	MYOCAR IMG PET PERF META DUAL RADTR W/CT	$	7,593.00
MLH-LBCH	AQMBF PET REST STRESS	$	91.00
MLH-LBCH	NON CARDIAC VASC FLOW IMAGE	$	2,212.00
MLH-LBCH	MYOCARDIAL PERF SPECT SING STUDY	$	6,830.00
MLH-LBCH	MYOCARDIAL PERF SPECT MULT STUDY	$	6,830.00
MLH-LBCH	MYOCARDIAL PERFUSION PLANAR SING STUDY	$	6,830.00
MLH-LBCH	MYOCARDIAL PERFUSION PLANAR MULT STUDY	$	6,830.00
MLH-LBCH	ACUTE VENOUS THROMBOSIS IMAGE PEPTIDE	$	2,212.00
MLH-LBCH	VENOUS THROMBOSIS IMAGE VENOGRAM BIL	$	2,212.00
MLH-LBCH	MYOCARDIAL IMAGE INFARCT AVID PLANAR	$	2,212.00
MLH-LBCH	MYOCARDIAL IMAGE INFARCT AVID W EJECTION	$	2,649.00
MLH-LBCH	MYOCARDIAL IMAGE INFARCT AVID SPECT	$	2,649.00
MLH-LBCH	CARDIAC BLOOD POOL IMAGE PLANAR SING STU	$	3,414.00
MLH-LBCH	CARDIAC BLOOD POOL IMAGE MULT STUDY WALL	$	3,414.00
MLH-LBCH	FIRST PASS STUDY	$	2,550.00
MLH-LBCH	MYOCRD IMAGE PET PERF RST/STRS SINGLE	$	3,975.00
MLH-LBCH	MYOCRD IMAGE PET PERF REST/STRESS MULTI	$	3,975.00
MLH-LBCH	PULMONARY VENTILATION IMAGING	$	1,572.00

MLH-LBCH	PULM PERFUSION IMAGE PARTICULATE	$	2,212.00
MLH-LBCH	PULM VENTILATION & PERFUSION IMAGING	$	2,454.00
MLH-LBCH	QUANT DIF PULM PERFUSION W/WO IMAGING	$	1,572.00
MLH-LBCH	QUANT DIFF PULM PRFUSION & VENT W/WO IMG	$	1,572.00
MLH-LBCH	UNLISTED RESPIRATORY PROCEDURE	$	1,383.00
MLH-LBCH	BRAIN IMAGE <4 STAT VW PROC W VASC FLOW	$	2,212.00
MLH-LBCH	BRAIN IMAGE MIN 4 STAT VW VASC FLOW	$	2,649.00
MLH-LBCH	CSF IMAGE CISTERNOGRAM	$	2,649.00
MLH-LBCH	CSF IMAGE SHUNT EVAL	$	2,212.00
MLH-LBCH	CSF LEAKAGE DETECT & LOCAL	$	2,649.00
MLH-LBCH	NM KIDNEY IMAGING MORPHOLOGY	$	2,212.00
MLH-LBCH	KIDNEY VASC FLOW ONLY	$	2,212.00
MLH-LBCH	KIDNEY VASC FLOW & FUNCTION SING WO PHAR	$	2,649.00
MLH-LBCH	KIDNEY VASC FLOW & FUNCTION SING W PHARM	$	2,649.00
MLH-LBCH	KIDNEY VASC FLOW & FUNCTION MULT W/WO PH	$	2,649.00
MLH-LBCH	RADIOPHARM VOIDING CYSTOGRAM	$	2,212.00
MLH-LBCH	TESTICULAR IMAGE W VASC FLOW	$	2,212.00
MLH-LBCH	NM RADIOPHARM LOC OF TUMOR 1 AREA/1 DAY	$	2,212.00
MLH-LBCH	NM RADIOPHARM LOC OF TUMOR MULT AREA/DAY	$	2,649.00
MLH-LBCH	NM RADIOPHARM LOC OF TUMOR WHOLE BDY/DAY	$	2,649.00
MLH-LBCH	NM RADPH LOC TUMOR SPECT/TOMO 1AREA/DAY	$	2,649.00
MLH-LBCH	RADIOPHARM LOCAL TUMOR WHOLE BDY 2+DAYS	$	5,306.00
MLH-LBCH	NM RADPH LOC TUM SPECT CT SING AREA/DAY	$	3,512.00
MLH-LBCH	NM RADPH LOC TUM SPECT MULTI AREA/DAY	$	3,512.00
MLH-LBCH	NM RADPH LOC TUM SPECT CT MULTI AREA/DAY	$	3,984.00
MLH-LBCH	RADPH QUANT MEAS SINGLE AREA	$	224.00
MLH-LBCH	RADIOPHARM THERAPY INTRAVENOUS ADMIN	$	3,168.00
MLH-LBCH	RADIOPHARM THER BY INTRACAVITARY ADMIN	$	7,650.00
MLH-LBCH	RADIOPHARM THER MONOCLONAL ANTI IV INFUS	$	7,650.00
MLH-LBCH	RADIOPHARM THER INTRA ARTERIAL PART ADMI	$	3,168.00
MLH-LBCH	BASIC METABOLIC PNL CALCIUM TOTAL	$	47.00
MLH-LBCH	GENERAL HEALTH PNL	$	411.00
MLH-LBCH	ELECTROLYTE PNL	$	80.00
MLH-LBCH	COMP METABOLIC PNL	$	60.00
MLH-LBCH	LIPID PNL	$	92.00
MLH-LBCH	RENAL FUNCTION PNL	$	48.00
MLH-LBCH	ACUTE HEPATITIS PNL	$	638.00
MLH-LBCH	HEPATIC FUNCTION PNL	$	48.00
MLH-LBCH	AMIKACIN	$	209.00
MLH-LBCH	DRUG SCREEN QUANT CAFFEINE	$	140.00
MLH-LBCH	CARBAMAZEPINE TOTAL	$	201.00
MLH-LBCH	CARBAMAZEPINE FREE LEVEL	$	138.00
MLH-LBCH	CYCLOSPORINE	$	32.00
MLH-LBCH	DRUG SCREEN QUANT CLOZAPINE	$	185.00
MLH-LBCH	DIGOXIN	$	184.00
MLH-LBCH	VALPROIC ACID	$	94.00
MLH-LBCH	ETHOSUXIMIDE	$	20.00

MLH-LBCH	DRUG SCREEN QUANT EVEROLIMUS	$	138.00
MLH-LBCH	GENTAMICIN FLUID	$	228.00
MLH-LBCH	DRUG SCREEN QUANT GABAPENTIN	$	133.00
MLH-LBCH	HALOPERIDOL	$	201.00
MLH-LBCH	DRUG SCREEN QUANT LAMOTRIGINE	$	65.00
MLH-LBCH	LIDOCAINE	$	204.00
MLH-LBCH	DRUG SCREEN QUANT LEVETIRACETAM	$	67.00
MLH-LBCH	LITHIUM	$	93.00
MLH-LBCH	DRUG SCREEN QUANT MYCOPHENOLATE	$	181.00
MLH-LBCH	DRUG SCREEN QUANT OXCARBAZEPINE	$	67.00
MLH-LBCH	PHENOBARBITAL	$	160.00
MLH-LBCH	PHENYTOIN TOTAL/DILANTIN	$	184.00
MLH-LBCH	PHENYTOIN FREE	$	191.00
MLH-LBCH	ASSAY OF PRIMIDONE(PRIM/PBARB)	$	230.00
MLH-LBCH	PROCAINAMIDE W METABOLITES NAPA	$	232.00
MLH-LBCH	QUINIDINE	$	201.00
MLH-LBCH	QUANT DRUG RAPAMYCIN(SIROLIMUS)	$	32.00
MLH-LBCH	TACROLIMUS FK506	$	95.00
MLH-LBCH	THEOPHYLLINE	$	196.00
MLH-LBCH	DRUG SCREEN QUANT TIAGABINE	$	181.00
MLH-LBCH	TOBRAMYCIN OTHER BODY FLUID	$	224.00
MLH-LBCH	ASSAY OF TOPIRAMATE MEDTOX	$	45.00
MLH-LBCH	VANCOMYCIN OTHER BODY FLUID	$	187.00
MLH-LBCH	DRUG SCREEN QUANT ZONISAMIDE	$	67.00
MLH-LBCH	QUANT DRUG METHOTREXATE	$	190.00
MLH-LBCH	ALCOHOLS	$	150.00
MLH-LBCH	ALCOHOLS BIOMARKERS 1OR 2	$	150.00
MLH-LBCH	ALKALOIDS NOS	$	247.00
MLH-LBCH	AMPHETAMINES 1 OR 2	$	216.00
MLH-LBCH	AMPHETAMINES 3 OR 4	$	216.00
MLH-LBCH	AMPHETAMINES 5 OR MORE	$	216.00
MLH-LBCH	ANABOLIC STERIODS 1 OR 2	$	358.00
MLH-LBCH	ANABOLIC STERIODS 3 OR MORE	$	358.00
MLH-LBCH	ANALGESICS NON OPIOID 1 OR 2	$	274.00
MLH-LBCH	ANALGESICS NON OPIOID 3-5	$	274.00
MLH-LBCH	ANALGESICS NON OPIOID 6+	$	274.00
MLH-LBCH	ANTIDEPRESSANT SEROTONERGIC CLASS 1 OR 2	$	608.00
MLH-LBCH	ANTIDEPRESSANTS SEROTONERGIC CLASS 3-5	$	608.00
MLH-LBCH	ANTIDEPRESSANT TRICYCLIC/CYCLICAL 1 OR 2	$	239.00
MLH-LBCH	ANTIDEPRESSANT TRICYCLIC/CYCLICAL 3-5	$	239.00
MLH-LBCH	ANTIDEPRESSANT TRICYCLIC/CYCLICAL 6+	$	239.00
MLH-LBCH	ANTIDEPRESSANTS NOS	$	608.00
MLH-LBCH	ANTIEPILEPTICS NOS 1-3	$	204.00
MLH-LBCH	ANTIEPILEPTICS NOS 4-6	$	204.00
MLH-LBCH	ANTIEPILEPTICS NOS 7 OR MORE	$	204.00
MLH-LBCH	ANTIPSYCHOTICS NOS 1-3	$	216.00
MLH-LBCH	ANTIPSYCHOTICS NOS 4-6	$	216.00

MLH-LBCH	ANTIPSYCHOTICS NOS 7 OR MORE	$	216.00
MLH-LBCH	BARBITURATES	$	158.00
MLH-LBCH	BENZODIAZEINES 1-12	$	257.00
MLH-LBCH	BUPRENORPHINE	$	265.00
MLH-LBCH	CANNABINOIDS NATURAL	$	83.00
MLH-LBCH	COCAINE	$	133.00
MLH-LBCH	FENTANYL	$	243.00
MLH-LBCH	GABAPENTIN NON-BLOOD	$	45.00
MLH-LBCH	HEROIN METABOLITE	$	402.00
MLH-LBCH	KETAMINE AND NORKETAMINE	$	159.00
MLH-LBCH	METHADONE	$	232.00
MLH-LBCH	METHYLENEDIOXYAMPHETAMINES	$	320.00
MLH-LBCH	METHYLPHENIDATE	$	164.00
MLH-LBCH	OPIATES 1 OR MORE	$	195.00
MLH-LBCH	OPIOID & OPIATE ANALOG 5/MORE	$	483.00
MLH-LBCH	OXYCODONE	$	168.00
MLH-LBCH	PREGABALIN	$	175.00
MLH-LBCH	PROPOXYPHENE	$	62.00
MLH-LBCH	SEDATIVE HYPNOTICS	$	95.00
MLH-LBCH	SKELETAL MUSCLE RELAXER 1 OR 2	$	245.00
MLH-LBCH	SKELETAL MUSCLE RELAXER 3 OR MORE	$	245.00
MLH-LBCH	TAPENTADOL	$	521.00
MLH-LBCH	TRAMADOL	$	256.00
MLH-LBCH	DRUG OR SUBSTANCE QUAL/QUANT NOS 1-3	$	273.00
MLH-LBCH	DRUG/SUBSTANCE NOS 7/MORE	$	150.00
MLH-LBCH	LAB PATHOLOGY CONSULT LIMITED	$	220.00
MLH-LBCH	BLOOD SMEAR INTERPERTATION	$	290.00
MLH-LBCH	URINALYSIS AUTO W MICRO	$	22.00
MLH-LBCH	LACTOSE TOLERANCE STOOL	$	35.00
MLH-LBCH	URINALYSIS AUTO WO MICRO	$	16.00
MLH-LBCH	URINALYSIS QUAL/SEMIQUANT ARYLSULFATASE	$	30.00
MLH-LBCH	URINALYSIS MICRO ONLY URINE	$	47.00
MLH-LBCH	URINE PREGNANCY TEST	$	44.00
MLH-LBCH	VOL MEASURE TIMED COLLECT EA. URINE	$	43.00
MLH-LBCH	DMD DUPLICATION/DELETION ANALYSIS	$	750.00
MLH-LBCH	ASPA GENE	$	55.00
MLH-LBCH	APC GENE FULL SEQUENCE	$	508.00
MLH-LBCH	APC GENE KNOWN FAM VARIANTS	$	500.00
MLH-LBCH	APC GENE DUP/DELET VARIANTS	$	646.00
MLH-LBCH	AR GENE CHARAC ALLELES	$	959.00
MLH-LBCH	BCR/ABL1 GENE MAJOR BP	$	55.00
MLH-LBCH	BCR/ABL1 GENE MINOR BP	$	55.00
MLH-LBCH	BRAF GENE	$	1,262.00
MLH-LBCH	CALRETICULIN MUTATION ANALYSIS	$	896.00
MLH-LBCH	CFTR GENE COM VARIANTS	$	282.00
MLH-LBCH	CFTR GENE KNOWN FAM VARIANTS	$	400.00
MLH-LBCH	CFTR GENE DUP/DELET VARIANTS	$	55.00

MLH-LBCH	CFTR GENE FULL SEQUENCE	$	282.00
MLH-LBCH	CFTR GENE INTRON POLY T	$	282.00
MLH-LBCH	CYP2C19 GENE COM VARIANTS	$	2,142.00
MLH-LBCH	CYP2D6 GENE COM VARIANTS	$	3,179.00
MLH-LBCH	CYP2C9 GENE COM VARIANTS	$	55.00
MLH-LBCH	CYTOGENOM CONST MICROARRAY COPY NUMBER	$	55.00
MLH-LBCH	CYTOGEN M ARRAY COPY NUMBER & SNP	$	1,884.00
MLH-LBCH	DPYD GENE COMMON VARIANTS	$	1,224.00
MLH-LBCH	EGFR GENE ANALYSIS	$	2,323.00
MLH-LBCH	F2 GENE	$	221.00
MLH-LBCH	F5 GENE	$	221.00
MLH-LBCH	FMR1 GENE DETECTION	$	386.00
MLH-LBCH	FMR1 GENE CHARACTERIZATION	$	341.00
MLH-LBCH	FLT3 GENE ANAL INRNL TANDEM DUP VARIANT	$	1,168.00
MLH-LBCH	FLT3 GENE ANALYSIS	$	630.00
MLH-LBCH	GBA GENE	$	334.00
MLH-LBCH	GJB2 GENE FULL SEQUENCE	$	334.00
MLH-LBCH	GJB6 GENE COM VARIANTS	$	334.00
MLH-LBCH	HEXA GENE	$	451.00
MLH-LBCH	HFE GENE	$	277.00
MLH-LBCH	IKBKAP GENE	$	226.00
MLH-LBCH	IGH GENE REARRANGE AMP METH	$	226.00
MLH-LBCH	IGK REARRANGEABN CLONAL POP	$	336.00
MLH-LBCH	STR MARKERS SPECIMEN ANAL	$	2,151.00
MLH-LBCH	STR MARKERS SPEC ANAL ADDL	$	1,470.00
MLH-LBCH	JAK2 GENE	$	55.00
MLH-LBCH	HUNTINGTIN DISEASE GENE ANALYSIS	$	959.00
MLH-LBCH	KIT GENE ANALYS D816 VARIANT	$	656.00
MLH-LBCH	HUNTINGTIN DISEASE SCREEN	$	1,924.00
MLH-LBCH	KRAS GENE IN EXON 2	$	1,390.00
MLH-LBCH	MGMT GENE METHYLATION ANALYSIS	$	872.00
MLH-LBCH	MTHFR GENE	$	277.00
MLH-LBCH	MECP2 GENE FULL SEQ	$	336.00
MLH-LBCH	MECP2 GENE KNOWN VARIANT	$	250.00
MLH-LBCH	MECP2 GENE DUP/DELET VARIANT	$	330.00
MLH-LBCH	NPM1 GENE	$	1,740.00
MLH-LBCH	PML/RARALPHA COM BREAKPOINTS	$	2,037.00
MLH-LBCH	PML/RARALPHA 1 BREAKPOINT	$	3,036.00
MLH-LBCH	PTEN GENE FULL SEQUENCE	$	4,228.00
MLH-LBCH	PTEN GENE DUP/DELET VARIANT	$	2,100.00
MLH-LBCH	PMP22 GENE DUP/DELET	$	5,309.00
MLH-LBCH	SMA CARRIER SCREEN	$	6,713.00
MLH-LBCH	SMPD1 GENE COMMON VARIANTS	$	329.00
MLH-LBCH	SNRPN/UBE3A GENE	$	336.00
MLH-LBCH	TRB GENE REARRANGE AMPLIFY	$	2,006.00
MLH-LBCH	TRG GENE REARRANGEMENT ANAL	$	1,935.00
MLH-LBCH	VKORC1 GENE	$	55.00

MLH-LBCH	HLA I & II TYPING LR	$	4,022.00
MLH-LBCH	HLA I TYPING COMPLETE LR	$	281.00
MLH-LBCH	HLA I TYPING 1 ANTIGEN LR	$	224.00
MLH-LBCH	HLA II TYPING AG EQUIV LR	$	1,908.00
MLH-LBCH	HLA II TYPING 1 LOCUS LR	$	222.00
MLH-LBCH	HLA II TYPE 1 AG EQUIV LR	$	224.00
MLH-LBCH	HLA I & II TYPING HR	$	3,456.00
MLH-LBCH	HLA I TYPING COMPLETE HR	$	3,198.00
MLH-LBCH	HLA I TYPING 1 LOCUS HR	$	1,794.00
MLH-LBCH	HLA I TYPING 1 ALLELE HR	$	948.00
MLH-LBCH	HLA II TYPING 1 LOC HR	$	224.00
MLH-LBCH	HLA II TYPING 1 ALLELE HR	$	396.00
MLH-LBCH	MOLECULAR PATHOLOGY PROCEDURE LEVEL 1A	$	500.00
MLH-LBCH	MOLECULAR PATHOLOGY PROCEDURE LEVEL 2A	$	500.00
MLH-LBCH	MOLECULAR PATHOLOGY PROCEDURE LEVEL 3A	$	500.00
MLH-LBCH	MOLECULAR PATHOLOGY PROCEDURE LEVEL 4A	$	500.00
MLH-LBCH	MOLECULAR PATHOLOGY PROCEDURE LEVEL 5A	$	500.00
MLH-LBCH	MOLECULAR PATHOLOGY PROCEDURE LEVEL 6A	$	500.00
MLH-LBCH	MOLECULAR PATHOLOGY PROCEDURE LEVEL 7A	$	500.00
MLH-LBCH	MOLECULAR PATHOLOGY PROCEDURE LEVEL 8A	$	500.00
MLH-LBCH	MOLECULAR PATHOLOGY PROCEDURE LEVEL 9A	$	500.00
MLH-LBCH	AORTIC DYSFUNCTION/DILATION SEQ PANEL	$	3,528.00
MLH-LBCH	AORTIC DYSFUNCTION DUPL/DELETION SEQ PNL	$	9,451.00
MLH-LBCH	EXOME SEQUENCE ANALYSIS	$	396.00
MLH-LBCH	EXOME SEQUENCE ANALYSIS EA COMPATOR	$	396.00
MLH-LBCH	FETAL CHRMOML ANEUPLOIDY	$	5,616.00
MLH-LBCH	HEARING LOSS GENOMIC SEQ ANAL PANEL	$	11,375.00
MLH-LBCH	HEARING LOSS GENOMIC DUP/DEL PANEL	$	4,757.00
MLH-LBCH	INHERITED CARDMYPTHY GENOMIC 5 GENES	$	5,616.00
MLH-LBCH	NUC MITOCHONDRIAL 100 GENE GENOMIC SEQ	$	4,150.00
MLH-LBCH	NOONAN SPECTRUM DISORDERS	$	396.00
MLH-LBCH	GENETIC TESTING SEVERE INHERITED COND	$	17,140.00
MLH-LBCH	TARGETED GENOMIC SEQ ANALYS	$	4,215.00
MLH-LBCH	WHOLE MITOCHONDRIAL GENOME	$	550.00
MLH-LBCH	ADVANCED DNA MUTATIONS/DELETIONS	$	290.00
MLH-LBCH	UNLISTED MOLECULAR PROCEDURE 1	$	500.00
MLH-LBCH	ONCO (OVARIAN) FIVE PROTEINS	$	614.00
MLH-LBCH	FETAL CONGENITAL ABNOR ASSAY THREE ANAL	$	25.00
MLH-LBCH	FETAL CONGENITAL ABNOR ASSAY FOUR ANAL	$	32.00
MLH-LBCH	KETONES SERUM QUAL	$	61.00
MLH-LBCH	ACETONE QUANT BETA HYDROXYBUTYRATE	$	114.00
MLH-LBCH	ACYLCARNITINES QUANT PLASMA	$	223.00
MLH-LBCH	ACTH/ADRENOCORTICOTROPIC HORMONE	$	536.00
MLH-LBCH	ADENOSINE 5' MONOPHOSPH CYCLIC URINE	$	358.00
MLH-LBCH	ALBUMIN SERUM PLASMA/WHOLE BLOOD	$	69.00
MLH-LBCH	ALBUMIN FLUID	$	69.00
MLH-LBCH	MICROALBUMIN QUANTITATIVE	$	42.00

MLH-LBCH	ALCOHOL BREATH	$	167.00
MLH-LBCH	ALDOLASE	$	11.00
MLH-LBCH	ALDOSTERONE SERUM	$	64.00
MLH-LBCH	ALPHA 1 ANTITRYPSIN TOTAL	$	186.00
MLH-LBCH	ALPHA 1 ANTITRYPSIN PHENOTYPE	$	201.00
MLH-LBCH	ALPHA FETOPROTEIN SERUM	$	11.00
MLH-LBCH	ALPHA FETOPROTEIN AMNIOTIC FLUID	$	232.00
MLH-LBCH	ALUMINUM SERUM	$	286.00
MLH-LBCH	AMINO ACIDS SING QUAL METAB SCRN URINE	$	193.00
MLH-LBCH	AMINO ACID MULT QUAL EACH	$	193.00
MLH-LBCH	AMINO ACIDS SINGLE QUANT	$	351.00
MLH-LBCH	AMINOLEVULINIC ACID DELTA ALA	$	229.00
MLH-LBCH	AMINO ACIDS 6+ QUANT EA	$	81.00
MLH-LBCH	AMMONIA	$	201.00
MLH-LBCH	BILIRUBIN NET ABSORBANCE	$	95.00
MLH-LBCH	AMYLASE	$	46.00
MLH-LBCH	ANDROSTANEDIOL GLUCURONIDE	$	400.00
MLH-LBCH	ANDROSTENEDIONE	$	78.00
MLH-LBCH	ANGIOTENSIN I CONVERT ENZYME	$	62.00
MLH-LBCH	ASSAY OF APOLIPOPROTEIN	$	215.00
MLH-LBCH	ARSENIC, HAIR OR NAILS	$	262.00
MLH-LBCH	ASCORBIC ACID VIT C	$	137.00
MLH-LBCH	BETA 2 MICROGLOBULIN SERUM	$	224.00
MLH-LBCH	BILE ACIDS TOTAL CHOLYGLYCINE	$	230.00
MLH-LBCH	BILE ACIDS CHOLYLGLYCINE	$	230.00
MLH-LBCH	BILIRUBIN AMNIOTIC FLUID TOTAL	$	71.00
MLH-LBCH	BILIRUBIN DIRECT	$	71.00
MLH-LBCH	BILIRUBIN FECES QUAL	$	64.00
MLH-LBCH	BIOTINIDASE EA SPEC	$	81.00
MLH-LBCH	BLD OCLT PROXIDASE ACTV QUAL FECES 1 DET	$	45.00
MLH-LBCH	BLOOD OCCULT QUALITATIVE GASTRIC	$	45.00
MLH-LBCH	ASSAY OF CADMIUM	$	319.00
MLH-LBCH	VITAMIN D 25 HYDROXY	$	205.00
MLH-LBCH	CALCITONIN	$	242.00
MLH-LBCH	CALCIUM TOTAL SERUM	$	155.00
MLH-LBCH	CALCIUM IONIZED	$	190.00
MLH-LBCH	CALCIUM URINE QUANT RANDOM	$	42.00
MLH-LBCH	CALCULUS ANALYSIS QUAL	$	162.00
MLH-LBCH	KIDNEY STONE ANALYSIS	$	179.00
MLH-LBCH	CARBOHYDRATE DEFICIENT TRANSFERRIN	$	250.00
MLH-LBCH	CARBON DIOXIDE CO2 ISTAT	$	69.00
MLH-LBCH	CARBOXYHEMOGLOBIN QUANT	$	171.00
MLH-LBCH	CARCINOEMBRYONIC AG CEA	$	262.00
MLH-LBCH	CARNITINE QUANT	$	222.00
MLH-LBCH	CAROTENE	$	128.00
MLH-LBCH	CATECHOLAMINES BLOOD	$	235.00
MLH-LBCH	CATECHOLAMINE FRACTION PLASMA/URINE	$	350.00

MLH-LBCH	CERULOPLASMIN	$	39.00
MLH-LBCH	CHEMILUMINESCENT ASSAY	$	200.00
MLH-LBCH	CHLORAMPHENICOL SERUM	$	176.00
MLH-LBCH	CHLORIDE BLOOD	$	64.00
MLH-LBCH	CHLORIDE URINE RANDOM	$	71.00
MLH-LBCH	CHLORIDE FLUID	$	30.00
MLH-LBCH	CHOLESTEROL SERUM/WHOLE BLOOD TOTAL	$	60.00
MLH-LBCH	CHOLINESTERASE/PSEUDOCHOLIN SERUM	$	109.00
MLH-LBCH	CHOLINESTERASE RBC	$	106.00
MLH-LBCH	CHROMIUM	$	271.00
MLH-LBCH	CITRATE URINE 24HR	$	386.00
MLH-LBCH	COLLAGEN CROSS LINK	$	204.00
MLH-LBCH	COPPER LIVER	$	41.00
MLH-LBCH	CORTICOSTERONE	$	312.00
MLH-LBCH	CORTISOL FREE URINE	$	191.00
MLH-LBCH	CORTISOL TOTAL DST	$	113.00
MLH-LBCH	COLMN CHROMAT ANAL QUANT	$	43.00
MLH-LBCH	CREATINE KINASE CK CPK TOTAL	$	46.00
MLH-LBCH	CK ISOENZYMES	$	184.00
MLH-LBCH	CK MB FRACTION ONLY	$	161.00
MLH-LBCH	CREATININE BLOOD	$	36.00
MLH-LBCH	CREATININE FLUID	$	36.00
MLH-LBCH	CREATININE CLEARANCE	$	132.00
MLH-LBCH	CRYOFIBRINOGEN	$	120.00
MLH-LBCH	CRYOGLOBULIN QUAL/SEMIQUANT	$	91.00
MLH-LBCH	CYANIDE	$	269.00
MLH-LBCH	CYANOCOBALAMIN VITAMIN B12 RIA	$	32.00
MLH-LBCH	CYANOCOBALAMIN B12 BIND CAPACITY UNSATUR	$	200.00
MLH-LBCH	CYSTINE/HOMOCYSTIN METAB SCRN URINE QUAL	$	114.00
MLH-LBCH	DHEA/DEHYDROEPIANDROSTERONE	$	349.00
MLH-LBCH	DHEA SULFATE	$	50.00
MLH-LBCH	DESOXYCORTICOSTERONE 11	$	429.00
MLH-LBCH	DEOXYCORTISOL 11 SPECIFIC S	$	405.00
MLH-LBCH	DIBUCAINE NUMBER	$	169.00
MLH-LBCH	DIHYDROXYVITAMIN D 1 25	$	52.00
MLH-LBCH	ELASTASE PANCREATIC I	$	160.00
MLH-LBCH	ENZYME CELL ACTIVITY	$	43.00
MLH-LBCH	ENZYME CELL ACTIVITY	$	251.00
MLH-LBCH	ELECTROP TECHNIQUE ACETYLCHOLINESTREASE	$	477.00
MLH-LBCH	ERYTHROPOIETIN	$	260.00
MLH-LBCH	ESTRADIOL	$	68.00
MLH-LBCH	ESTROGENS TOTAL	$	301.00
MLH-LBCH	ESTRIOL TOTAL	$	334.00
MLH-LBCH	ESTRONE	$	346.00
MLH-LBCH	ETHYLENE GLYCOL	$	145.00
MLH-LBCH	FAT LIPIDS QUANT	$	232.00
MLH-LBCH	ASSAY OF BLOOD FATTY ACIDS NONESTERIFIED	$	184.00

MLH-LBCH	VERY LONG CHAIN FATTY ACIDS	$	251.00
MLH-LBCH	FERRITIN	$	95.00
MLH-LBCH	FETAL FIBRONECTIN	$	891.00
MLH-LBCH	FLUORIDE	$	257.00
MLH-LBCH	FOLIC ACID SERUM	$	203.00
MLH-LBCH	FOLATE (RED CELL)	$	240.00
MLH-LBCH	GALACTOKINASE BLOOD	$	298.00
MLH-LBCH	GALACTOSE	$	266.00
MLH-LBCH	GAMMAGLOBULIN	$	65.00
MLH-LBCH	GAMMAGLOBULIN IGE	$	13.00
MLH-LBCH	GAMMAGLOBULIN IGG SUBCLASSES EA	$	93.00
MLH-LBCH	GASES BLOOD PH ONLY	$	27.00
MLH-LBCH	GASES BLOOD ART	$	135.00
MLH-LBCH	GASES BLOOD O2 SAT DIRECT MEASUREMNT	$	394.00
MLH-LBCH	GASES BLOOD O2 MEASURED OXIMETRY	$	122.00
MLH-LBCH	GASTRIC ACID FREE/TOTAL EA SPECIMEN	$	122.00
MLH-LBCH	GASTRIN	$	245.00
MLH-LBCH	GLUCAGON	$	200.00
MLH-LBCH	GLUCOSE URINE QUANT	$	54.00
MLH-LBCH	GLUCOSE QUANT BLOOD FASTING	$	28.00
MLH-LBCH	GLUCOSE POST 2HR PP	$	66.00
MLH-LBCH	GTT 3 SPECIMENS W GLUCOSE	$	61.00
MLH-LBCH	GLUCOSE GTT EA ADDL BEYOND 3 SPECIMENS	$	28.00
MLH-LBCH	G6PD QUANT DFA	$	134.00
MLH-LBCH	ACCUCHECK GLUCOSE	$	22.00
MLH-LBCH	GLUCOSIDASE BETA, FIBROBLASTS	$	298.00
MLH-LBCH	GGT GGTP GLUTAMYLTRANSFERASE GAMMA	$	51.00
MLH-LBCH	ASSAY OF GLUTATHIONE	$	200.00
MLH-LBCH	GLYCATED PROTEIN ALPHA 1 ACID	$	208.00
MLH-LBCH	GONADOTROPIN FSH	$	182.00
MLH-LBCH	GONADOTROPIN LH	$	168.00
MLH-LBCH	GROWTH HORMONE HUMAN SOMATOTROPIN	$	116.00
MLH-LBCH	HAPTOGLOBIN	$	175.00
MLH-LBCH	H PYLORI ANALYSIS (UBIT)	$	635.00
MLH-LBCH	HEAVY METAL QUANT SCREEN	$	304.00
MLH-LBCH	HEMOGLOBIN ELECTROPHORESIS/HGB A2	$	21.00
MLH-LBCH	HEMOGLOBIN F FETAL CHEMICAL	$	251.00
MLH-LBCH	HEMOGLOBIN F RED CELL QUAL	$	83.00
MLH-LBCH	HGB GLYCOSYLATED	$	67.00
MLH-LBCH	HEMOGLOBIN METHEMOGLOBIN QUANT	$	43.00
MLH-LBCH	HEMOGLOBIN PLASMA	$	101.00
MLH-LBCH	HGB UNSTABLE SCRN ISOPROPANOL	$	41.00
MLH-LBCH	HEMOGLOBIN URINE	$	48.00
MLH-LBCH	ASSAY OF HEMOSIDERIN QUAL	$	46.00
MLH-LBCH	B HEXOSAMINIDASE A&B ENZYME	$	81.00
MLH-LBCH	ASSAY OF HISTAMINE	$	409.00
MLH-LBCH	HOMOCYSTEINE URINE	$	234.00

MLH-LBCH	HOMOVANILLIC ACID URINE	$	269.00
MLH-LBCH	HYDROXYCORTICOSTEROIDS 17 OHCS	$	243.00
MLH-LBCH	HYDROXYINDOLACETIC ACID 5 HIAA	$	179.00
MLH-LBCH	HYDROXYPROGESTERONE 17D	$	98.00
MLH-LBCH	HYDROXYPROLINE FREE 24HR URINE	$	315.00
MLH-LBCH	HYDROXYPROLINE TOTAL URINE	$	336.00
MLH-LBCH	IA ANALYTE INFECT AG ANTI PR3 CANCA	$	87.00
MLH-LBCH	RIA NONANTIBODY	$	32.00
MLH-LBCH	IMMUNOASSAY ANALYTE QUANTITATIVE NOS	$	59.00
MLH-LBCH	INSULIN TOTAL SERUM	$	79.00
MLH-LBCH	INSULIN FREE	$	175.00
MLH-LBCH	IRON	$	46.00
MLH-LBCH	IRON BINDING CAPACITY	$	122.00
MLH-LBCH	KETOSTEROIDS 17	$	178.00
MLH-LBCH	LACTATE	$	149.00
MLH-LBCH	LACTATE DEHYDROGENASE/LD CSF	$	15.00
MLH-LBCH	LD ISOENZYMES	$	140.00
MLH-LBCH	LEAD BLOOD	$	84.00
MLH-LBCH	FETAL LUNG MATURITY/L S RATIO L S FG GRE	$	304.00
MLH-LBCH	LEUCINE AMINOPEPTIDASE/LAP	$	116.00
MLH-LBCH	LIPASE	$	48.00
MLH-LBCH	LIPOPROTEIN	$	150.00
MLH-LBCH	LIPOPROTEIN BLOOD ELECTROPHORETIC	$	183.00
MLH-LBCH	VAP/LIPOPROTEIN BLOOD FRACTION & QUANT	$	344.00
MLH-LBCH	LIPOPROTEIN/HDL	$	114.00
MLH-LBCH	LIPOPROTEIN DIR MEAS LDL CHOLESTEROL	$	102.00
MLH-LBCH	GONADOTROPIN RLSNG HORMONE	$	224.00
MLH-LBCH	MAGNESIUM FLUID	$	47.00
MLH-LBCH	MALATE DEHYROGENASE	$	102.00
MLH-LBCH	MANGANESE RANDOM URINE	$	343.00
MLH-LBCH	MASS & TANDEM SPECTRO ANAL QUANT	$	250.00
MLH-LBCH	MERCURY BLOOD	$	225.00
MLH-LBCH	ASSAY OF METANEPHRINES FRACTIONATED	$	95.00
MLH-LBCH	MUCOPOLYSACCHARIDES ACID QUANT	$	275.00
MLH-LBCH	MYELIN BASIC PROTEIN CSF	$	239.00
MLH-LBCH	MYOGLOBIN	$	179.00
MLH-LBCH	ASSAY MYELOPEROXIDASE P-ANCA	$	32.00
MLH-LBCH	NATRIURETIC PEPTIDE BNP POC	$	307.00
MLH-LBCH	ASSAY, NEPHELOMETRY NOT SPEC	$	63.00
MLH-LBCH	NICKEL 24HR URINE	$	341.00
MLH-LBCH	NUCLEOTIDASE 5	$	153.00
MLH-LBCH	OLIGOCLONAL IMMUNE (OLIGOCLONAL BANDS)	$	280.00
MLH-LBCH	ORGANIC ACID TOTAL GC/MS URINE	$	257.00
MLH-LBCH	ORGANIC ACID QUAL TOTAL SCRN URINE	$	210.00
MLH-LBCH	ORGANIC ACID SINGLE QUANT	$	210.00
MLH-LBCH	OSMOLALITY BLOOD	$	93.00
MLH-LBCH	OSMOLALITY URINE	$	95.00

MLH-LBCH	OSTEOCALCIN	$	394.00
MLH-LBCH	OXALATE SERUM/PLASMA	$	179.00
MLH-LBCH	DCP-DES-GAMMA-CARBOXY-PROTHROMBIN	$	673.00
MLH-LBCH	PTH SERUM	$	94.00
MLH-LBCH	PH BODY FLUID	$	28.00
MLH-LBCH	ASSAY FOR PHENCYCLIDINE	$	147.00
MLH-LBCH	PKU BLOOD	$	77.00
MLH-LBCH	PHOSPHATASE ACID TOTAL	$	102.00
MLH-LBCH	PHOSPHATASE ACID PROSTATIC	$	134.00
MLH-LBCH	PHOSPHATASE ALKALINE	$	72.00
MLH-LBCH	PHOSPHATASE ALKALINE HEAT STABLE	$	102.00
MLH-LBCH	PHOSPHATASE ALKALINE ISOENZYMES	$	194.00
MLH-LBCH	PHOSPHATIDYLGLYCEROL/PG	$	230.00
MLH-LBCH	PHOSPHOHEXOSE ISOMERASE	$	142.00
MLH-LBCH	PHOSPHORUS INORGANIC SERUM/PHOSPHATE	$	30.00
MLH-LBCH	PHOSPHORUS INORGANIC URINE 24HR	$	72.00
MLH-LBCH	PORPHOBILINOGEN URINE QUAL	$	59.00
MLH-LBCH	PORPHOBILINOGEN URINE QUANT	$	118.00
MLH-LBCH	PORPHYRINS URINE QUANTITATION & FRACTION	$	205.00
MLH-LBCH	PORPHYRINS FECES QUANT	$	354.00
MLH-LBCH	POTASSIUM SERUM PLASMA OR WHOLE BLOOD	$	65.00
MLH-LBCH	POTASSIUM URINE 24HR	$	60.00
MLH-LBCH	PREALBUMIN	$	88.00
MLH-LBCH	PREGNANETRIOL URINE	$	260.00
MLH-LBCH	PREGNENOLONE	$	187.00
MLH-LBCH	17 HYDROXYPREGNENOLONE	$	317.00
MLH-LBCH	PROGESTERONE	$	289.00
MLH-LBCH	PROCALCITONIN	$	165.00
MLH-LBCH	ASSAY OF PROLACTIN	$	52.00
MLH-LBCH	PROSTAGLANDIN URINE	$	347.00
MLH-LBCH	PROSTATIC SPECIFIC AG TOTAL	$	256.00
MLH-LBCH	PROSTATE SPECIFIC ANTIGEN FREE ASSAY	$	256.00
MLH-LBCH	PROTEIN TOTAL SERUM PLASMA/WHOLE BLOOD	$	51.00
MLH-LBCH	PROTEIN TOTAL URINE 24HR	$	25.00
MLH-LBCH	PROTEIN TOTAL CSF	$	52.00
MLH-LBCH	PAPPA SERUM	$	157.00
MLH-LBCH	PROTEIN ELECTROPHORETIC SERUM	$	150.00
MLH-LBCH	PROTEIN ELECTROPHORETIC FRACT/QUANT CSF	$	221.00
MLH-LBCH	PROTEIN WESTERN BLOT W I/R	$	236.00
MLH-LBCH	PROTEIN WEST BLOT WITH I/R	$	250.00
MLH-LBCH	PROTOPORPHYRIN RBC QUANT	$	200.00
MLH-LBCH	PROTOPORPHYRIN FREE ERYTHROCYTE	$	99.00
MLH-LBCH	PROINSULIN	$	247.00
MLH-LBCH	PYRIDOXAL PHOSPHATE VIT B6	$	389.00
MLH-LBCH	ASSAY OF PYRUVATE ACID	$	15.00
MLH-LBCH	PYRUVATE KINASE SCRN	$	132.00
MLH-LBCH	ASSAY NONENDOCRINE RECEPTOR	$	507.00

MLH-LBCH	RENIN IVC B1	$	66.00
MLH-LBCH	ASSAY OF VITAMIN B-2	$	41.00
MLH-LBCH	SELENIUM	$	258.00
MLH-LBCH	SEROTONIN	$	298.00
MLH-LBCH	SEX HORMONE BINDING GLOBULIN	$	41.00
MLH-LBCH	SODIUM SERUM PLASMA/WHOLE BLOOD	$	68.00
MLH-LBCH	SODIUM URINE	$	34.00
MLH-LBCH	SODIUM FECAL 72HR	$	69.00
MLH-LBCH	SOMATOMEDIN C SCRN/INSULIN LIKE GRWTH	$	140.00
MLH-LBCH	ASSAY OF SOMATOSTATIN	$	253.00
MLH-LBCH	MITOCHONDRIAL RESPIRATORY CHAIN ENZYME	$	97.00
MLH-LBCH	SPECIFIC GRAVITY FLUID	$	31.00
MLH-LBCH	SUGARS CHROMATOGRAPHY	$	102.00
MLH-LBCH	SUGARS MULTIPLE QUAL	$	116.00
MLH-LBCH	GALACTOSE 1 PHOSPHATE RBC	$	118.00
MLH-LBCH	ASSAY OF URINE SULFATE	$	66.00
MLH-LBCH	TESTOSTERONE FREE	$	164.00
MLH-LBCH	TESTOSTERONE TOTAL	$	59.00
MLH-LBCH	THIAMINE VIT B1	$	295.00
MLH-LBCH	THIOCYANATE	$	162.00
MLH-LBCH	THYROGLOBULIN	$	162.00
MLH-LBCH	THYROXINE TOTAL T4	$	95.00
MLH-LBCH	THYROXINE FREE	$	63.00
MLH-LBCH	THROXINE BINDING GLOBULIN/TBG	$	162.00
MLH-LBCH	TSH	$	116.00
MLH-LBCH	THYROID STIMULATING IMMUNE GLOBULINS TSI	$	399.00
MLH-LBCH	VIT E/TOCOPHEROL ALPHA	$	20.00
MLH-LBCH	TRANSFERASE ASPARTATE AMINO	$	36.00
MLH-LBCH	TRANSFERASE ALANINE AMINO	$	37.00
MLH-LBCH	TRANSFERRIN	$	88.00
MLH-LBCH	TRIGLYCERIDES	$	80.00
MLH-LBCH	T3 UPTAKE PEDIATRIC	$	80.00
MLH-LBCH	TRIIODOTHYONINE T3	$	98.00
MLH-LBCH	TRIIODOTHYONINE T3/DEMENTIA PROFILE	$	235.00
MLH-LBCH	TRIIDOTHYRONINE T3 REVERSE	$	219.00
MLH-LBCH	TROPONIN QUANT	$	136.00
MLH-LBCH	ASSAY DUODENAL ASPIRATE FLUID TRYPSIN	$	78.00
MLH-LBCH	TRYPSIN FECES	$	101.00
MLH-LBCH	TYROSINE	$	145.00
MLH-LBCH	UREA NITROGEN QUANT	$	28.00
MLH-LBCH	UREA NITROGEN QUANT URINE/UUN RANDOM	$	59.00
MLH-LBCH	URIC ACID SERUM	$	32.00
MLH-LBCH	URIC ACID FLUID	$	66.00
MLH-LBCH	UROBILINOGN 24HR URINE	$	45.00
MLH-LBCH	VANILLYLMANDELIC ACID URINE	$	215.00
MLH-LBCH	VASOACTIVE INTESTINAL PEPTIDE/VIP	$	144.00
MLH-LBCH	VASOPRESSIN/ANTI DIURETIC HORMONE	$	470.00

MLH-LBCH	VITAMIN A RETINOL	$	20.00
MLH-LBCH	ASSAY OF VITAMIN NOT OTHERWISE SPECIFIED	$	162.00
MLH-LBCH	VITAMIN K ASSAY	$	190.00
MLH-LBCH	ASSAY OF VOLATILES	$	223.00
MLH-LBCH	XYLOSE ABSORPTION TEST BLOOD	$	165.00
MLH-LBCH	ZINC	$	156.00
MLH-LBCH	C PEPTIDE PLASMA	$	145.00
MLH-LBCH	BETA HCG SERUM QUANT	$	11.00
MLH-LBCH	GONADOTROPIN CHORIONIC QUAL SERUM/URINE	$	105.00
MLH-LBCH	UNLISTED CLINICAL CHEMISTRY TEST	$	246.00
MLH-LBCH	BLEEDING TIME	$	61.00
MLH-LBCH	BLOOD COUNT AUTO DIFF WBC	$	92.00
MLH-LBCH	BLOOD COUNT SMEAR MICRO W/MAN DIFF WBC	$	48.00
MLH-LBCH	EOS COUNT, CIRC	$	48.00
MLH-LBCH	BLOOD COUNT DIFF WBC COUNT BUFFY COAT	$	51.00
MLH-LBCH	BLOOD COUNT OTHER THAN SPUN HCT	$	16.00
MLH-LBCH	BLOOD COUNT HEMOGLOBIN ISTAT	$	16.00
MLH-LBCH	HEMO & PLATELET AUTO W COMP DIFF WBC AUT	$	54.00
MLH-LBCH	BLOOD COUNT COMPLETE AUTO W/O DIFF	$	46.00
MLH-LBCH	BLOOD COUNT RETIC COUNT FLOW CYTOMETRY	$	55.00
MLH-LBCH	BLOOD COUNT WBC ONLY	$	16.00
MLH-LBCH	PLATELET AUTO COUNT	$	16.00
MLH-LBCH	BONE MARROW SMEAR INTERP	$	286.00
MLH-LBCH	CLOT LYSIS TIME WHOLE BLOOD DILUTION	$	64.00
MLH-LBCH	CLOTTING FACTOR II PROTHROMBIN SPECIFIC	$	184.00
MLH-LBCH	CLOTTING FACTOR V LABILE	$	245.00
MLH-LBCH	CLOTTING FACTOR VII	$	249.00
MLH-LBCH	CLOTTING FACTOR VIII AHG ONE STAGE	$	249.00
MLH-LBCH	CLOTTING FACTOR VIII RELATED AG	$	283.00
MLH-LBCH	CLOTTING FACTOR VIII VW RISTOCETIN	$	318.00
MLH-LBCH	CLOTTING FACTOR VIII VW FACTOR ANTIGEN	$	318.00
MLH-LBCH	CLOTTING FACTOR VIII VW FACTOR MULTIMETR	$	318.00
MLH-LBCH	CLOTTING FACTOR IX PTC/CHRISTMAS	$	264.00
MLH-LBCH	CLOTTING FACTOR X STUART PROWER	$	249.00
MLH-LBCH	CLOTTING FACTOR XI PTA	$	249.00
MLH-LBCH	FACTOR XII ASSAY	$	268.00
MLH-LBCH	CLOTTING FACTOR XIII FIBRIN STABILIZING	$	167.00
MLH-LBCH	CLOTTING FACTOR XIII/UREA SOL	$	123.00
MLH-LBCH	CLOT HI MOLECULAR WEIGH KININOGEN PLASMA	$	262.00
MLH-LBCH	ANTITHROMBIN III ACTIVITY	$	165.00
MLH-LBCH	CLOTT INHIBITOR/ANTICOAGULANT ATIII ASSA	$	150.00
MLH-LBCH	CLOT INHIBIT/ANTICOAG PROTEIN C FUNCT	$	192.00
MLH-LBCH	CLOTTING INHIBITORS PROTEIN S	$	161.00
MLH-LBCH	CLOTTING INHIBITORS PROTEIN S FREE	$	198.00
MLH-LBCH	ACTIVATED PROTEIN C APC RESISTANCE	$	198.00
MLH-LBCH	FACTOR INHIBITOR TEST	$	179.00
MLH-LBCH	ACT HEPCON	$	59.00

MLH-LBCH	EUGLOBULIN LYSIS	$	116.00
MLH-LBCH	FIBRINOGEN DEGRADATION SPLIT FDP SDP	$	95.00
MLH-LBCH	FIBRIN DEGRADATION D DIMER SEMIQUANT	$	99.00
MLH-LBCH	FIBRIN DEGRADATION D DIMER QUANT/ELISA	$	141.00
MLH-LBCH	FIBRINOGEN ACTIVITY	$	119.00
MLH-LBCH	FIBRINOGEN AG	$	79.00
MLH-LBCH	FIBRINOLYSINS/COAGULOPATHY SCRN INTERP	$	71.00
MLH-LBCH	CLTING VWF PROTEASE ACTIVITY W REFLEX	$	318.00
MLH-LBCH	FBRNLYC FACT INHIBIT ALPHA2 ANTITPLASMIN	$	59.00
MLH-LBCH	FIBRINOLYTIC FACT INHIBIT PLASMINOG ACT	$	181.00
MLH-LBCH	FIBINOLYTIC FACTOR PLASMINOGEN	$	80.00
MLH-LBCH	HEMOGLOBIN FETAL KLEIHAHUER BETKE	$	107.00
MLH-LBCH	HEMOGLOBIN FETAL ROSETTE	$	93.00
MLH-LBCH	HEMOLYSIN/ACIDIFIED SERUM	$	105.00
MLH-LBCH	HEPARIN ASSAY ANTI XA	$	181.00
MLH-LBCH	LEUKOCYTE ALKALINE PHOSPHATASE W COUNT	$	120.00
MLH-LBCH	MURAMIDASE LYSOZYME	$	258.00
MLH-LBCH	OSMOTIC FRAGILITY RBC INCUBATED	$	184.00
MLH-LBCH	BLOOD PLTLT AGGREGATION P2Y12 INHIBIT	$	298.00
MLH-LBCH	PLTLT NEUTRALIZATION HEXAGON PHASE CONFM	$	249.00
MLH-LBCH	PROTHROMBIN TIME	$	27.00
MLH-LBCH	HYPER COAG PNL	$	133.00
MLH-LBCH	REPTILASE CLOTTING TIME	$	136.00
MLH-LBCH	SEDIMENTATION RATE ERYTHROCYTE NON AUTO	$	49.00
MLH-LBCH	SEDIMENTATION RATE ERYTHROCYTE AUTO	$	19.00
MLH-LBCH	SICKLING RBC REDUCTION SCREEN	$	77.00
MLH-LBCH	THROMBIN TIME PLASMA	$	80.00
MLH-LBCH	THROMBOPLASTIN INHIB TISS PT	$	133.00
MLH-LBCH	PTT PLASMA/WHOLE BLOOD	$	42.00
MLH-LBCH	THROMBOPLASTIN TIME PARTIAL SUBSTITUTION	$	91.00
MLH-LBCH	VISCOSITY SERUM	$	162.00
MLH-LBCH	EOSINOPHIL COUNT	$	246.00
MLH-LBCH	AGG FEBRILE EA AG/PROTEUS TITER	$	97.00
MLH-LBCH	ALLERGEN DERMATOPHAG PTERONYSSINUS IGG	$	72.00
MLH-LBCH	ALLERGEN SPEC IGE ALLERGY NON-FOOD	$	36.00
MLH-LBCH	ALLERGEN SPECIFIC IGE	$	255.00
MLH-LBCH	AB ID LEUKOCYTE AB NEUTROPHIL FLOW CYTO	$	84.00
MLH-LBCH	AB ID PLATELET	$	167.00
MLH-LBCH	AB ID PLATELET AB CELL BOUND	$	173.00
MLH-LBCH	ANTINUCLEAR AB	$	84.00
MLH-LBCH	ANA, TITER & PATTERN	$	182.00
MLH-LBCH	ANTISTREPTOLYSIN O TITER	$	32.00
MLH-LBCH	ANTISTREPTOLYSIN 0 SCRN STREPTO	$	79.00
MLH-LBCH	PHYS BLOOD BANK SERV XMATCH	$	201.00
MLH-LBCH	C REACTIVE PROTEIN	$	36.00
MLH-LBCH	C REACTIVE PROTEIN HIGH SENSITIVITY	$	21.00
MLH-LBCH	CARDIOLIPIN/PHOSPHOLIPID AB	$	207.00

MLH-LBCH	AB ANTI-PHOSPHATIDYLSERINE	$	207.00
MLH-LBCH	COLD AGGLUTININ SCREEN	$	64.00
MLH-LBCH	COLD AGGLUTININ TITER	$	111.00
MLH-LBCH	COMPLEMENT AG C3	$	84.00
MLH-LBCH	COMPLEMENT FUNC ACTIVITY EA COMPONENT	$	167.00
MLH-LBCH	COMPLEMENT TOTAL HEMOLYTIC	$	281.00
MLH-LBCH	COMPLIMENT FIX FUNGAL SEROLOGY CSF	$	139.00
MLH-LBCH	CYCLIC CITRULLINATED PEPTIDE ANTIBODY	$	150.00
MLH-LBCH	DEXYRIBONECLEASE AB/ANTIDNASE B FILTER	$	183.00
MLH-LBCH	DNA AB	$	96.00
MLH-LBCH	DNA AB SING STRAND EIA	$	167.00
MLH-LBCH	NUCLEAR ANTIGEN ANTIBODY	$	125.00
MLH-LBCH	FLOURESCENT AB SCREEN MITOCHRONDRIAL	$	167.00
MLH-LBCH	FLUOR NONINFEC AG AB TITER	$	167.00
MLH-LBCH	GROWTH HORMONE AB	$	219.00
MLH-LBCH	IA TUMOR AG QUANT CA 15 3	$	289.00
MLH-LBCH	IA TUMOR AG QUANT CA 19 9	$	289.00
MLH-LBCH	IA TUMOR AG QUANT CA 125	$	289.00
MLH-LBCH	HETEROPHILE AB SCREEN	$	72.00
MLH-LBCH	IA TUMOR AG QUANT CHROMOGRANIN A	$	290.00
MLH-LBCH	IMMUNOELECTROPHORESIS SERUM	$	311.00
MLH-LBCH	IMMUNOELECTROPHORESIS OTHER FLUIDS	$	317.00
MLH-LBCH	IMMUNODIFFUSION NOT ELSEWHERE SPECIFIED	$	175.00
MLH-LBCH	IMMUNODIFFUS GEL DIFUS QUAL OUCHTER HYPE	$	166.00
MLH-LBCH	IMMUNE COMPLEX ASSAY C1Q BINDING	$	338.00
MLH-LBCH	IMMUNOFIX ELECTROPHOR OTHER FLUID FUNGAL	$	362.00
MLH-LBCH	INHIBIN A	$	141.00
MLH-LBCH	INSULIN AB	$	298.00
MLH-LBCH	INTRINSIC FACTOR AB BLOCK	$	208.00
MLH-LBCH	ISLET CELL AB	$	138.00
MLH-LBCH	LYMPHOCYTE TRANSFORMATION BLAST	$	663.00
MLH-LBCH	B CELLS TOTAL COUNT	$	435.00
MLH-LBCH	NATURAL KILLER CELLS TOTAL COUNT	$	528.00
MLH-LBCH	T CELL TOTAL COUNT	$	522.00
MLH-LBCH	T CELLS ABSOLUTE CD4/CD8 COUNT	$	651.00
MLH-LBCH	STEM CELL FLOW CYTOMET PROGENITOR BLOOD	$	528.00
MLH-LBCH	MICROSOMAL AB ANTI THYROID PEROXIDOSE	$	35.00
MLH-LBCH	NEUTRALIZATION TEST VIRAL	$	109.00
MLH-LBCH	NITROBLUE TETRAZOLIUM DYE TEST	$	97.00
MLH-LBCH	PARTICLE AGG CRYPTOCOCCAL SERUM	$	141.00
MLH-LBCH	RHEUMATOID FACTOR QUAL	$	79.00
MLH-LBCH	RHEUMATOID FACTOR QUANT	$	32.00
MLH-LBCH	TB TEST QUANTIFERON LBT GOLD	$	716.00
MLH-LBCH	SYPHILIS TEST QUAL RPR VDRL	$	29.00
MLH-LBCH	SYPHILIS TEST QUANT RPR	$	60.00
MLH-LBCH	AB ADENOVIRUS SEROTYPING	$	179.00
MLH-LBCH	AB ASPERGILLUS	$	204.00

MLH-LBCH	AB BACTERIUM NOT ELSEWHERE SPECIFIED	$	179.00
MLH-LBCH	AB BARTONELLA CAT SCRATCH DISEASE PNL	$	165.00
MLH-LBCH	AB BLASTOMYCES CSF	$	179.00
MLH-LBCH	AB BORDETELLA PERTUSSIS	$	182.00
MLH-LBCH	AB LYME DISEASE WESTERN BLOT	$	164.00
MLH-LBCH	AB LYME DISEASE	$	207.00
MLH-LBCH	AB BRUCELLA IGG/IGM	$	124.00
MLH-LBCH	AB CAMPYLOBACTER	$	149.00
MLH-LBCH	AB CANDIDA	$	167.00
MLH-LBCH	AB CHLAMYDIA IFA	$	165.00
MLH-LBCH	AB CHLAMYDIA PNEUMONIAE IGM	$	176.00
MLH-LBCH	AB COCCIDIODES SERUM	$	160.00
MLH-LBCH	AB COXIELLA BURNETII Q FEVER	$	168.00
MLH-LBCH	AB CRYPTOCOCCUS FUNGAL	$	199.00
MLH-LBCH	AB CMV IGG/CYTOMEGALOVIRUS	$	200.00
MLH-LBCH	AB CMV IGM/CYTOMEGALOVIRUS	$	207.00
MLH-LBCH	AB DIPHTHERIA	$	207.00
MLH-LBCH	AB ENCEPHALITIS CALIFORNIA	$	182.00
MLH-LBCH	AB ENCEPHALITIS EASTERN EQUINE	$	182.00
MLH-LBCH	AB ENCEPHALITIS ARBOVIRUS TITER ACUTE	$	183.00
MLH-LBCH	AB ENCEPHALITIS WESTERN EQUINE	$	182.00
MLH-LBCH	ENTEROVIRUS ANTIBODY	$	180.00
MLH-LBCH	AB EB EARLY/EPSTEIN BARR VIRUS EARLY AG	$	181.00
MLH-LBCH	AB EPSTEIN BARR VIRUS NUCLEAR AG EBNA	$	207.00
MLH-LBCH	AB EBVCA/EPSTEIN BARR VIRAL CAPSID IGM	$	207.00
MLH-LBCH	AB EHRLICHIA	$	141.00
MLH-LBCH	AB FUNGUS SACCHAROMYCES CEREVISIAE AB	$	169.00
MLH-LBCH	AB GIARDIA LAMBLIA, IFA	$	204.00
MLH-LBCH	AB HELICOBACTER PYLORI	$	201.00
MLH-LBCH	HELMINTH ANTIBODY	$	180.00
MLH-LBCH	AB HAEMOPHILUS INFLUENZA TYPE B	$	77.00
MLH-LBCH	AB HTLV/HIV WESTERN BLOT	$	269.00
MLH-LBCH	AB HEPATITIS DELTA	$	207.00
MLH-LBCH	AB HERPES SIMPLEX TYPING I/II	$	199.00
MLH-LBCH	AB HERPES SIMP AB TYPE 1	$	182.00
MLH-LBCH	AB HERPES SIMP TYPE II	$	269.00
MLH-LBCH	AB HISTOPLASMA CAPSULATUM	$	63.00
MLH-LBCH	AB HIV 1	$	123.00
MLH-LBCH	AB HIV - II	$	43.00
MLH-LBCH	AB RAPID HIV I & HIV II SING RESULT	$	191.00
MLH-LBCH	HEPATITIS B CORE AB/HBCAB IGG	$	167.00
MLH-LBCH	HEPATITIS B CORE AB IGM	$	164.00
MLH-LBCH	HEPATITIS B SURFACE AB/HBSAB	$	150.00
MLH-LBCH	HEPATITIS BE AB	$	161.00
MLH-LBCH	HEPATITIS A AB IGG&IGM	$	162.00
MLH-LBCH	HEPATITIS A AB IGM	$	156.00
MLH-LBCH	AB INFLUENZA A&B	$	187.00

MLH-LBCH	AB LEGIONNAIRE IFA	$	208.00
MLH-LBCH	AB LEPTOSPIRA	$	122.00
MLH-LBCH	AB LYMPHOCYTIC CHORIOMENINGITIS	$	178.00
MLH-LBCH	AB MUMPS IFA	$	180.00
MLH-LBCH	AB MYCOPLASMA PNEUMONIAE IGG	$	183.00
MLH-LBCH	AB PARVOVIRUS B19, IGG, IGM	$	207.00
MLH-LBCH	PLASMODIUM MALARIA AB	$	182.00
MLH-LBCH	AB PROTOZOA E HISTOLYTICA	$	122.00
MLH-LBCH	AB RESPIRATORY SYNCYTIAL VIRUS PANEL	$	179.00
MLH-LBCH	AB RICKETTSIAL	$	269.00
MLH-LBCH	AB RUBELLA IGG	$	199.00
MLH-LBCH	AB RUBEOLA IGG	$	179.00
MLH-LBCH	SALMONELLA ABCDE	$	182.00
MLH-LBCH	AB SHIGELLA	$	182.00
MLH-LBCH	AB TETANUS	$	39.00
MLH-LBCH	AB TOXOPLASMA	$	200.00
MLH-LBCH	AB TOXOPLASMA IGM	$	200.00
MLH-LBCH	AB TREPONEMA PALLIDUM	$	183.00
MLH-LBCH	AB TRICHINELLA	$	175.00
MLH-LBCH	AB VARICELLA ZOSTER	$	179.00
MLH-LBCH	AB WEST NILE VIRUS IGM	$	159.00
MLH-LBCH	AB WEST NILE VIRUS	$	159.00
MLH-LBCH	AB ZIKA VIRUS IGM	$	146.00
MLH-LBCH	THYROGLOBULIN AB	$	145.00
MLH-LBCH	HEPATITIS C AB	$	200.00
MLH-LBCH	HEPATITIS C AB CONFIRM RIBA	$	165.00
MLH-LBCH	HLA C1&2 AB SCRN-FLOW CYT	$	549.00
MLH-LBCH	HLA TYPING B27 SING AG	$	179.00
MLH-LBCH	HLA TYPING A/B/C MULT AG BONE MARROW	$	802.00
MLH-LBCH	HLA TYPING DR/DQ	$	893.00
MLH-LBCH	HLA TYPING MIXED LYMPHOCYTE CX REACTION	$	782.00
MLH-LBCH	HLA CLASS I&II AB QUAL	$	400.00
MLH-LBCH	HLA CLASS I/II ANTIBODY QUAL	$	297.00
MLH-LBCH	HLA CLASS I PHENOTYPE QUAL	$	801.00
MLH-LBCH	HLA CLASS II PHENOTYPE QUAL	$	689.00
MLH-LBCH	HLA CLASS 1	$	1,212.00
MLH-LBCH	HLA CLASS 2	$	1,102.00
MLH-LBCH	RBC ANTIBODY SCREEN	$	139.00
MLH-LBCH	AB ELUTION RBC EA	$	139.00
MLH-LBCH	AB ID RBC AB EA INVEST ADDL HR	$	394.00
MLH-LBCH	ANTIHUMAN GLOBULIN TEST COOMBS DIRECT	$	74.00
MLH-LBCH	INDIRECT COOMBS	$	79.00
MLH-LBCH	ANTIHUMAN GLOB INDIR AB TITER ISOHEMAGGL	$	72.00
MLH-LBCH	AUTOLOG BLOOD PROCESS & STOR PREDEPOSIT	$	394.00
MLH-LBCH	PRETREAT SERUM RBC AB COLD ID EA ABSORP	$	139.00
MLH-LBCH	SPECIMEN CONCENTRATION INFECTIOUS AGENTS	$	94.00
MLH-LBCH	CX BACTERIAL DEFINITIVE BLOOD W ANAEOROB	$	72.00

MLH-LBCH	CX BACTERIAL DEFINITIVE STOOL	$	132.00
MLH-LBCH	CX BACTERIAL STOOL AEROBIC ADD PATHOGENS	$	16.00
MLH-LBCH	CX WOUND BACTERIAL DEFINITIVE	$	60.00
MLH-LBCH	CULTURE WOUND QUANT	$	96.00
MLH-LBCH	CULTURE BACTERIA ANAEROBIC	$	91.00
MLH-LBCH	CX BACT ANAEROBIC	$	132.00
MLH-LBCH	CX BACTERIAL ANAEROBIC ISOLATE RAPID ID	$	111.00
MLH-LBCH	CX BACTERIAL AEROBIC ISOLATE ID EA ISO	$	56.00
MLH-LBCH	CX SCREEN ONLY	$	47.00
MLH-LBCH	CX BACTERIAL URINE QUANT COLONY COUNT	$	56.00
MLH-LBCH	CX FUNGI ISOLATION AUTOPSY	$	103.00
MLH-LBCH	CX FUNGI EXCEPT BLOOD	$	116.00
MLH-LBCH	CX MYCOPLASMA HOMINIS	$	201.00
MLH-LBCH	CX CHLAMYDIA VIRAL	$	272.00
MLH-LBCH	CX AFB BLOOD	$	30.00
MLH-LBCH	CX MYCOBACTERIAL DEFINITIVE ID EA ISO	$	151.00
MLH-LBCH	CX TYPING CHLAMYDIA & STAIN	$	77.00
MLH-LBCH	CULTURE TYPE IMMUNOLOGIC STAPH AGGLUMAT	$	72.00
MLH-LBCH	MACROSCOPIC EXAM INSECT	$	57.00
MLH-LBCH	MACROSCOPIC EXAM PARASITE	$	57.00
MLH-LBCH	PINWORM EXAM	$	57.00
MLH-LBCH	HOMOGENIZATION TISSUE CULTURE	$	61.00
MLH-LBCH	OVA & PARASITES DIRECT SMEARS	$	123.00
MLH-LBCH	SUSCEPTIBILITY STUDIES SPECT BETA LACTAM	$	48.00
MLH-LBCH	SUSCEPTIBIILTY STUDIES MICRODILUTION	$	61.00
MLH-LBCH	MICROBE SUSCEPTIBLE MLC	$	142.00
MLH-LBCH	MICROBE SUSCEPT MACROBROTH	$	67.00
MLH-LBCH	MICROBE SUSCEPT MYCOBACTERIUM	$	95.00
MLH-LBCH	SMEAR W INTERP GRAM STAIN	$	30.00
MLH-LBCH	SMEAR FLUORESCENT AFS	$	65.00
MLH-LBCH	SMEAR W INTERP SPECIAL STAIN VIROCYTES	$	83.00
MLH-LBCH	SMEAR PRIMARY W INTER COMPLEX SPEC STAIN	$	252.00
MLH-LBCH	SMEAR WET MOUNT	$	57.00
MLH-LBCH	TISSUE EXAM KOH SLIDE	$	57.00
MLH-LBCH	VIRUS ISO TISSUE CX INOC ID VIRAL RESPI	$	360.00
MLH-LBCH	VIRUS ISO TISSUE CX BONE MARROW	$	225.00
MLH-LBCH	VIRUS ISO BLOOD SHELL VIAL	$	69.00
MLH-LBCH	INFECT AG BORDETELLA PERTUSSIS AG DFA	$	158.00
MLH-LBCH	INFECT AG GIARDIA	$	165.00
MLH-LBCH	INFECT AG CHLAMYDIA TRACHOMATIS	$	158.00
MLH-LBCH	IAA IMMUNOFLUO CYTOMEGALOVIRUS DFA	$	158.00
MLH-LBCH	INFECT AG CRYPTOSPORIDIUM	$	158.00
MLH-LBCH	INFECT AGENT AG IMMUNO HERP SIMP II DFA	$	158.00
MLH-LBCH	HERPES SIMPLEX VR AG DFA	$	158.00
MLH-LBCH	INFECT AG RESP SYNCYTIAL VIRUS	$	158.00
MLH-LBCH	INFECT AG ANTIGEN TREPONEMA PALLIDUM	$	158.00
MLH-LBCH	INFECT AG VARICELLA ZOSTER VIRUS	$	158.00

MLH-LBCH	INFECT AG CLOS DIFFICLE TOXIN	$	158.00
MLH-LBCH	INFECT AG CRYPTOSPORIDIUM QUAL	$	158.00
MLH-LBCH	INFECT AG GIARDIA QUAL	$	165.00
MLH-LBCH	INFECT AGENT AG ENTAMOEBA HIST EIA	$	158.00
MLH-LBCH	HELICOBACTER PYLORI STOOL	$	17.00
MLH-LBCH	INFECT AG HEPATITIS B SURFACE AG/HBSAG	$	122.00
MLH-LBCH	INFECT AGENT AG HEPATITIS B E ANTIGEN	$	122.00
MLH-LBCH	INFECT AGENT EIA HISTOPLASMA ANTIGEN	$	161.00
MLH-LBCH	IAA ENZ IA INFLUENZA	$	24.00
MLH-LBCH	INFECT AGENT AG ROTAVIRUS EIA	$	158.00
MLH-LBCH	INFECT AG SHIGA-LIKE TOXIN STOOL	$	158.00
MLH-LBCH	INFECT AG RAPID STREP SCREEN AG	$	158.00
MLH-LBCH	INFECT AG ANTIGEN BINAX URINARY PNEUMO	$	158.00
MLH-LBCH	IA DNA BARTONELLA HENSELAE & QUINTANA	$	485.00
MLH-LBCH	LYME DISEASE DNA RT PCR AMPLIFIED PROBE	$	485.00
MLH-LBCH	MENINGITIS/ENCEPHALITIS PANEL BY PCR	$	4,002.00
MLH-LBCH	CHLAMYDIA PNEUMONIAE AMP PROBE TECH	$	485.00
MLH-LBCH	CHLAMYDIA TRACHOMATIS DNA PROBE/IAA	$	277.00
MLH-LBCH	CHLAMYDIA TRACHOMATIS AMP PROBE TECH	$	243.00
MLH-LBCH	INF AG CLOSTRIDIUM DIFFICILE TOXIN PCR	$	316.00
MLH-LBCH	INFECT AGENT CYTOMEGALOVIRUS QUANT PCR	$	594.00
MLH-LBCH	INFECT AG RNA ENTEROVIRUS AMP CSF PCR	$	331.00
MLH-LBCH	INFEC AG AVIAN INFLUENZA H5 GENE PCR QUL	$	456.00
MLH-LBCH	INFLUENZA A&B	$	146.00
MLH-LBCH	INFLUENZA DNA AMP PROB ADDL	$	146.00
MLH-LBCH	INFECT AG RNA/DNA HEPATITIS B QUAL PCR	$	485.00
MLH-LBCH	INFECT AG DNA HBV QUANT PCR	$	594.00
MLH-LBCH	INFECT AG RNA HEPATITIS C VIRUS PCR	$	485.00
MLH-LBCH	INFECT AG RNA HEPATITIS C QUANT PCR	$	594.00
MLH-LBCH	INFECT AG HERPES SIMPLEX VIRUS AMP PROBE	$	485.00
MLH-LBCH	INFECT AG DNA/RNA HERP SIM I&II QUANT RT	$	594.00
MLH-LBCH	INFECT AG DNA HERPES VIRUS-6 QUANT PCR	$	579.00
MLH-LBCH	INFECT AG DNA/RNA HIV I AMP PROBE	$	486.00
MLH-LBCH	INFECT AG RNA HIV 1 QUANT	$	1,181.00
MLH-LBCH	LEGIONELLA PNEUMOPHILA AMP PROBE TECH	$	485.00
MLH-LBCH	INFECT AG MYCOBACTERIA TB AMP DIR DETECT	$	485.00
MLH-LBCH	MYCOPLASMA PNEUMONIAE AMP PROBE TECH	$	485.00
MLH-LBCH	INFECT AG DNA NEISSERIA GONORRHOEAE PROB	$	277.00
MLH-LBCH	NEISSERIA GONORRHOEAE AMP PROBE TECH	$	243.00
MLH-LBCH	INFECT AG PARAINFLUENZA PNL 1-3 RT-PCR	$	1,296.00
MLH-LBCH	RESPIRTORY VIRUS PANEL PCR	$	2,137.00
MLH-LBCH	INFECT AG DNA/RNA MRSA PCR	$	331.00
MLH-LBCH	INFECT AG ZIKA VIRUS DNA/RNA AMP PROBE	$	443.00
MLH-LBCH	IAA DNA/RNA	$	277.00
MLH-LBCH	INFECT AG BORDETELLA PERTUSSIS PCR AMP	$	73.00
MLH-LBCH	INFECT AG DNA QUANT BK VIRUS PCR	$	594.00
MLH-LBCH	INFECT AG DNA BARTONELLA ROCHALIMAEA PCR	$	486.00

MLH-LBCH	INFECT AG CLOSTRIDIUM DIFFICILE TOXIN A	$	158.00
MLH-LBCH	INFECT AG RAPID RSV SCREEN	$	81.00
MLH-LBCH	INFECT DETECT STREPTOCOCCUS GROUP A	$	79.00
MLH-LBCH	AGENT NOS ASSAY W/OPTIC	$	158.00
MLH-LBCH	INFECTIOUS AGENT PHENOTYPE DRUG SUSCEPT	$	1,504.00
MLH-LBCH	GENOTYPE DNA/RNA HIV	$	1,112.00
MLH-LBCH	BOTULISM WORK UP	$	39.00
MLH-LBCH	CYTOPATH FLUIDS ENDO CYTO BRUSH	$	200.00
MLH-LBCH	CYTOPATHOLOGY CYTOSPIN CONCENTRATION TEC	$	200.00
MLH-LBCH	CYTOPATH CONCENTRATE THIN PREP NON GYN	$	200.00
MLH-LBCH	CYTOPATH CERV/VAGINAL W INTERP	$	80.00
MLH-LBCH	CYTOPATH CERV/VAG IN FLUID THIN PREP	$	281.00
MLH-LBCH	CYTOPATH C/V THIN LAYER REDO	$	281.00
MLH-LBCH	CYTOPATH CERV/VAG MANUAL SCRN	$	147.00
MLH-LBCH	CYTOPATH SLIDES CERV/VAG SCRN/RESCRN	$	147.00
MLH-LBCH	CYTOPATH OTHER SCRN & INTERP	$	147.00
MLH-LBCH	CYTOPATH SMEAR TOUCH PREP SCREEN & INTER	$	200.00
MLH-LBCH	CYTOPATH SMEARS 5+ SLIDES &/MULT STAINS	$	200.00
MLH-LBCH	CYTOPATH SLIDE CERV/VAGINAL 1 SLIDE	$	147.00
MLH-LBCH	CYTOPATH CERV/VAG W SCRN & RESCRN	$	147.00
MLH-LBCH	CYTOPATH FNA EVAL	$	200.00
MLH-LBCH	CYTOPATH EVAL FNA INTERP & REPORT	$	200.00
MLH-LBCH	CYTOPATHOLOGY EVAL FNA ADD'L SCREEN	$	200.00
MLH-LBCH	CELL MARKER STUDY	$	371.00
MLH-LBCH	FLOW CYTO CELL SURF LEUK TECH COM 1 MARK	$	119.00
MLH-LBCH	FLOW CYTOMETRY ADDITIONAL MARKER	$	41.00
MLH-LBCH	FLOW CYTOMETRY INTERPRETATION 2-8 MARKER	$	119.00
MLH-LBCH	FLOW CYTOMETRY INTERPRETATION 9-15 MARK	$	119.00
MLH-LBCH	FLOW CYTOMETRY INTERPRETATION 16+ MARKER	$	349.00
MLH-LBCH	FLOW CYTOMETRY CROSSMATCH	$	394.00
MLH-LBCH	TISSUE CX NON NEOPLASTIC LYMPHOCYTE	$	276.00
MLH-LBCH	TISSUE CULTURE SKIN/BIOPSY	$	1,952.00
MLH-LBCH	TISSUE CX NON NEOPLAS CHORIONIC/PLACENTA	$	1,373.00
MLH-LBCH	TISS CX NEOPLAS CX CELLS FISH PROCESS	$	1,752.00
MLH-LBCH	TISSUE CX NEOPLASTIC DISORDERS SOLID TUM	$	2,044.00
MLH-LBCH	CELL CRYOPRESERVE/STORAGE	$	658.00
MLH-LBCH	FROZEN CELL PREPARATION	$	569.00
MLH-LBCH	CHROMOSOME ANALYSIS 20-25 CELLS	$	1,808.00
MLH-LBCH	CHROMOSOME ANALYSIS 100 CELLS	$	1,808.00
MLH-LBCH	CHROM ANAL 5 CELLS + 1 KARYOTYPE	$	2,449.00
MLH-LBCH	CHROM ANAL INFANT	$	1,728.00
MLH-LBCH	CHROM ANAL 45 CELLS MOSAICISM BLOOD	$	2,083.00
MLH-LBCH	CHROM ANAL 20-25 CELL CYTO RTN/CHROM STD	$	771.00
MLH-LBCH	CHROM ANAL AMNIOTIC FLUID 15 CELLS	$	2,491.00
MLH-LBCH	MOLECULAR CYTOGENETICS DNA PROBE	$	514.00
MLH-LBCH	FISH 10-30 CELLS PERV PROBE	$	445.00
MLH-LBCH	MOLECULAR CYTOGENETICS ANALYZE 25/99CELL	$	483.00

MLH-LBCH	MOLE CYTO INTRPHSE INSITU 100-300 BCRA	$	557.00
MLH-LBCH	CHROM ANAL ADDITIONAL KARYOTYPE EA STUDY	$	771.00
MLH-LBCH	CHROMOSOME COUNT ADD CELLS EA STUDY	$	262.00
MLH-LBCH	CHROMOSOME ANAL ADDL HIGH STUDY EXT BAND	$	471.00
MLH-LBCH	CYTO/MOLECULAR I/R FISH RESULTS	$	43.00
MLH-LBCH	UNLISTED CYTOGENETIC STUDY	$	107.00
MLH-LBCH	LVL I SURGICAL PATH GROSS EXAM ONLY	$	107.00
MLH-LBCH	LVL 2 SURGICAL PATH GROSS EXAM	$	107.00
MLH-LBCH	LVL 3 SURGICAL PATH GROSS EXAM	$	200.00
MLH-LBCH	LVL 4 SURGICAL PATH GROSS EXAM	$	100.00
MLH-LBCH	LVL 5 SURGICAL PATH GROSS EXAM	$	286.00
MLH-LBCH	LVL 6 SURGICAL PATH GROSS EXAM	$	286.00
MLH-LBCH	DECALCIFICATION	$	107.00
MLH-LBCH	SPECIAL STAIN GROUP 1 MICRO W INTER/REP	$	107.00
MLH-LBCH	SPECIAL STAIN GRP 2 ALL OTH	$	108.00
MLH-LBCH	HISTOLOGY STAIN FROZEN	$	120.00
MLH-LBCH	HISTOCHEMISTRY ENZYME EA	$	107.00
MLH-LBCH	CONSULT REFERRED SLIDES	$	107.00
MLH-LBCH	CONSULT/MATERIAL PREP REG	$	200.00
MLH-LBCH	COMPREHENSIVE REVIEW OF DATA	$	200.00
MLH-LBCH	PATH CONSULT DURING OR	$	107.00
MLH-LBCH	PATH CONSULT OR 1ST FROZEN	$	200.00
MLH-LBCH	PATH CONSULT OR EA ADDL	$	107.00
MLH-LBCH	PATH CONSULT CYTOLOGIC EXAM INITIAL SITE	$	262.00
MLH-LBCH	PATH CONSULT CYTOLOGIC EXAM EA ADDL SITE	$	144.00
MLH-LBCH	IMMUNOHISTO/CYTO EA ADDL AB PER BLOCK	$	301.00
MLH-LBCH	IMHISTOCHEM/CYTCHM EA AB	$	143.00
MLH-LBCH	IMMUNOHISTO/CYTO EA MUTIPLEX AB PER BLK	$	506.00
MLH-LBCH	IMMUNOFLUORESCENT STUDY EA AB DIRECT MET	$	200.00
MLH-LBCH	ELECTRON MICROSCOPY DX II	$	286.00
MLH-LBCH	IMMUNOFLUOR AB ADDL STAIN	$	492.00
MLH-LBCH	MORPH ANALYSIS TUMOR IMMUNOHIST EA AB	$	349.00
MLH-LBCH	TUMOR IHC USING COMPUTER ASST TECH	$	344.00
MLH-LBCH	NERVE BX TEASING PREP	$	200.00
MLH-LBCH	IN SITU HYBRIDIZATION EA ADDL PROBE	$	462.00
MLH-LBCH	IN SITU HYBRID ISH HPV LOW/HI W/INTERP	$	286.00
MLH-LBCH	IN SITU HYBRID EA PROBE COMPUTER TECH	$	351.00
MLH-LBCH	IN SITU HYBRID EA PROBE MANUAL	$	348.00
MLH-LBCH	SECOND ISH PROBE	$	320.00
MLH-LBCH	PROTEIN ANALYSIS W/PROBE	$	197.00
MLH-LBCH	MORPHOMETRIC ALYS ISH QUANT/SEMIQ	$	670.00
MLH-LBCH	M/PHMTRC ALYS ISHQUANT/SEMIQ	$	670.00
MLH-LBCH	MICRODISSECTION MANUAL	$	786.00
MLH-LBCH	CELL COUNT MISC BODY FLUIDS	$	65.00
MLH-LBCH	CELL COUNT W DIFF COUNT BF	$	77.00
MLH-LBCH	CRYSTAL ID W/WO POLARIZING LENS ANALYSIS	$	99.00
MLH-LBCH	MEAT FIBERS FECES	$	51.00

MLH-LBCH	SMEAR, EOSINOPHIL NASAL	$	57.00
MLH-LBCH	IMMUNIZATION ADMIN 1 VACCINE	$	108.00
MLH-LBCH	IMMUNIZATION ADMIN EA ADDL VACCINE	$	75.00
MLH-LBCH	IMMUNE ADMIN ORAL/NASAL EA ADDL	$	119.00
MLH-LBCH	REPET TMS TX INITIAL W/MAP/MOTR DEL&MANG	$	569.00
MLH-LBCH	REPET TMS TX SUBSEQ DEL & MANG	$	569.00
MLH-LBCH	REPET TMS TX SUBSEQ MOTR THRSHLD DEL/MAN	$	569.00
MLH-LBCH	BIOFEEDBACK TRAINING ANY MODALITY	$	291.00
MLH-LBCH	HEMODIALYSIS CHRONIC IP SINGLE EVAL	$	2,919.00
MLH-LBCH	EMERGENT HEMODIALYSIS REPEATED EVAL	$	3,578.00
MLH-LBCH	HEMODIALYSIS ACCESS FLOW STUDY TRANSCUT	$	771.00
MLH-LBCH	CCPD IP (SINGLE EVAL)	$	2,815.00
MLH-LBCH	CRRT	$	6,171.00
MLH-LBCH	PERITONEAL DIALYSIS HOME RETRAINING OP	$	1,490.00
MLH-LBCH	PERITONEAL DIALYSIS HOME TRAINING IP	$	1,490.00
MLH-LBCH	ESOPHAG MOTILITY STUDY 2D W/I&R	$	928.00
MLH-LBCH	ESOPHAGUS ACID REFLUX PH TEST W NASAL CA	$	1,959.00
MLH-LBCH	ESOPH G-ESOP RFLX TLMTR ELTRD PLMT	$	1,463.00
MLH-LBCH	ESOPHAGEAL FUNCT TEST GASTRO REFLUX TEST	$	1,866.00
MLH-LBCH	HYDROGEN BREATH TEST	$	643.00
MLH-LBCH	GI TRACT CAPSULE ENDOSCOPY	$	5,733.00
MLH-LBCH	GASTROINTESTINAL TRACT IMAGING ESOPHAGUS	$	3,544.00
MLH-LBCH	RECTAL SENSATION,TONE,& COMPLIANCE TEST	$	1,152.00
MLH-LBCH	ANORECTAL MANOMETRY	$	1,158.00
MLH-LBCH	LIVER ELASTOGRAPHY W/O IMAG W/I&R	$	712.00
MLH-LBCH	OPH MEDICAL XM&EVAL INTRM NEW PT	$	299.00
MLH-LBCH	OPH MEDICAL XM&EVAL INTRM EST PT	$	285.00
MLH-LBCH	VISUAL FIELD SCRN	$	273.00
MLH-LBCH	VISUAL FIELD TEST GOLDMAN	$	462.00
MLH-LBCH	VISUAL FIELD EXAM UNIL/BIL EXT	$	462.00
MLH-LBCH	VISUAL EVOKED POTENTIAL	$	273.00
MLH-LBCH	COLOR VISION EXAM EXT	$	273.00
MLH-LBCH	EXAM DARK ADAPTATION W INTERP & REPORT	$	909.00
MLH-LBCH	NASOPHARYNGOSCOPY W ENDOSCOPE	$	489.00
MLH-LBCH	FACIAL NRV FUNCTION STUDY ELECTRONEUROGR	$	362.00
MLH-LBCH	POSITIONAL NYSTAGMUS TEST	$	167.00
MLH-LBCH	CALORIC VSTBLR TEST W/REC BI BITHERMAL	$	741.00
MLH-LBCH	CALORIC VSTBLR TEST W/REC BI MONOTHERMAL	$	741.00
MLH-LBCH	BASIC VESTIBULAR EVALUATION	$	2,298.00
MLH-LBCH	SPONTANEOUS NYSTAGMUS TEST W RECORD	$	534.00
MLH-LBCH	POSITIONAL NYSTAGMUS TEST 4+ W RECORD	$	492.00
MLH-LBCH	OPTOKINETIC NYSTAGMUS TEST W RECORD	$	462.00
MLH-LBCH	OSCILLATING TRACKING TEST W RECORD	$	447.00
MLH-LBCH	SINUSOIDAL VERT AXIS ROTATIONAL TEST	$	719.00
MLH-LBCH	VERTICAL ELECTRODE USE	$	355.00
MLH-LBCH	COMPUTER DYNAMIC POSTUROGRAPHY	$	770.00
MLH-LBCH	ACOUSTICS IMMITTANCE TESTING LIMITED	$	175.00

MLH-LBCH	HEARING SCRN TEST PURE TONE AIR ONLY	$	131.00
MLH-LBCH	AUDIOMETRY PURE TONE THRESHOLD AIR ONLY	$	125.00
MLH-LBCH	AUDIOMETRY PURE TONE THRESHOLD AIR&BONE	$	190.00
MLH-LBCH	SPEECH AUDITORY THRESHOLD RECEPTION	$	111.00
MLH-LBCH	SPEECH AUDIOMETRY THRESHOLD W SPEECH REC	$	167.00
MLH-LBCH	AUDIOMETRY THRESHOLD EVAL & SPEECH RECOG	$	348.00
MLH-LBCH	STENGER TEST PURE TONE	$	80.00
MLH-LBCH	TYPANOMETRY IMPEDANCE TEST	$	155.00
MLH-LBCH	ACOUSTIC REFLEX TEST	$	111.00
MLH-LBCH	ACOUSTICS IMMITTANCE TESTING EXTENDED	$	175.00
MLH-LBCH	SPEECH TEST FILTERED	$	112.00
MLH-LBCH	SYNTHETIC SENTENCE IDENTIFICATION TEST	$	130.00
MLH-LBCH	STENGER TEST SPEECH	$	208.00
MLH-LBCH	VISUAL REINFORCEMENT AUDIOMETRY	$	208.00
MLH-LBCH	CONDITIONING PLAY AUDIOMETRY	$	208.00
MLH-LBCH	SELECT PICTURE AUDIOMETRY	$	258.00
MLH-LBCH	ELECTROCOCHLEOGRAPHY	$	805.00
MLH-LBCH	AUDITORY EVOKED POTENTIALS COMPREHENSIVE	$	840.00
MLH-LBCH	AUDITORY EVOKED POTENTIAL LTD	$	840.00
MLH-LBCH	EVOKED OTOACOUSTIC EMSMS LTD 3-6 FREQ	$	437.00
MLH-LBCH	EVOKED OTOACOUSTIC EMSNS COMP/DX MIN 12	$	529.00
MLH-LBCH	HEARING AID EXAM & SELECTION MONAURAL	$	1,575.00
MLH-LBCH	HEARING AID EXAM & SELECTION BINAURAL	$	3,145.00
MLH-LBCH	HEARING AID CHECK MONAURAL	$	194.00
MLH-LBCH	HEARING AID CHECK BINAURAL	$	391.00
MLH-LBCH	ELECTROACOUSTIC EVAL HEARING AID MONAURA	$	38.00
MLH-LBCH	ELECTROACOUSTIC EVAL HEARING AID BINAURA	$	84.00
MLH-LBCH	DX ANALYSIS COCHLEAR < 7YR W PROGRAMMING	$	1,027.00
MLH-LBCH	DX ANALYSIS COCHLEAR < 7YR SUBSEQUENT PR	$	719.00
MLH-LBCH	DX ANALYSIS COCHLEAR > 7YR W PROGRAMMING	$	688.00
MLH-LBCH	DX ANALYSIS COCHLEAR > 7YR SUBSEQUENT PR	$	469.00
MLH-LBCH	EVAL CENTRAL AUDITORY FUNCT INIT 60MINS	$	355.00
MLH-LBCH	EVAL CENTRAL AUDITORY FUNC EA ADDL 15MIN	$	91.00
MLH-LBCH	EVAL AUDITORY STATUS 1ST HR	$	419.00
MLH-LBCH	EVAL AUDITORY STATUS EA ADDL 15MIN	$	194.00
MLH-LBCH	UNLISTED OTORHINOLARYNGOLOGICAL SERVICE	$	272.00
MLH-LBCH	CARDIOPULMONARY RESUSCITATION	$	2,493.00
MLH-LBCH	TEMP TRANSCUTANEOUS PACING	$	2,826.00
MLH-LBCH	CARDIOVERSION ARRHYTHMIA ELECT EXTERNAL	$	2,886.00
MLH-LBCH	ARRHYTHMIA CARDIOVERSION INTERNAL	$	2,886.00
MLH-LBCH	PERCUT TRANSLUMINAL CORONARY THROMB MECH	$	2,314.00
MLH-LBCH	TRANSCATH PLACE BRACHYTHER CORONARY INTR	$	20,830.00
MLH-LBCH	THROMBOLYSIS CORONARY INTRACORONARY INF	$	1,624.00
MLH-LBCH	ENDOLU CORONARY IVUS OCT I&R INIT VESSEL	$	1,101.00
MLH-LBCH	ENDOLU CORONARY IVUS OCT I&R ADDL VESSEL	$	1,101.00
MLH-LBCH	VALVULOPLASTY BALLOON PERCUT AORTIC VALV	$	13,780.00
MLH-LBCH	VALVULOPLASTY BALLOON PERCUT MITRAL VALV	$	22,129.00

MLH-LBCH	VALVULOPLASTY BALLOON PERCUT PULM VALVE	$	13,780.00
MLH-LBCH	ATRIAL SEPTECTOMY/SEPTOSTOMY TRANSVENOUS	$	19,006.00
MLH-LBCH	ATRIAL SEPTECTOMY/SEPTOSTOMY BLADE METHO	$	19,006.00
MLH-LBCH	PTA PULM ART BALLOON SING VESSEL	$	13,780.00
MLH-LBCH	PTA PULM ART BALLOON EA ADDL VESSEL	$	13,780.00
MLH-LBCH	EKG ROUTINE W 12+ LEADS W INTERP & RPT	$	272.00
MLH-LBCH	EKG ROUTINE W 12+ LEADS TRACING ONLY ED	$	285.00
MLH-LBCH	CV STRESS TEST TREADMILL TRACING ONLY	$	699.00
MLH-LBCH	ECG RHYTHM 1-3 LEADS TRACING ONLY	$	171.00
MLH-LBCH	RESEARCH EKG - SPECIAL RATE LEBONHEUR	$	172.00
MLH-LBCH	EKG MONITOR REPORT UP TO 48 HRS W R&I	$	699.00
MLH-LBCH	XRNL PT ACTIV ECG RECORD MONITOR 30 DAYS	$	401.00
MLH-LBCH	PROGRMG EVAL IMPLANTABLE DEV 1 LEAD PM	$	141.00
MLH-LBCH	PROGRM EVAL IMPLANTABLE DEV DUAL LEAD PM	$	141.00
MLH-LBCH	PROGRAM DEVICE EVAL MULTPLE LEAD PM	$	141.00
MLH-LBCH	PROGRMG EVAL IMPLANTABLE DEV 1 DEFIB	$	141.00
MLH-LBCH	PROGRMG EVAL IMPLANTABLE DEV 2 DEFIB	$	141.00
MLH-LBCH	PROGRAM EVAL TRANSVNS IMPT MULTPLE DEFIB	$	141.00
MLH-LBCH	PROGM DEV EVAL SUBQ CARDIAC RYTM MON SYS	$	141.00
MLH-LBCH	INTERROG EVAL/PERSON 1/DUAL/MLT LEAD PM	$	141.00
MLH-LBCH	INTERR EVAL/PER 1/DUAL/MLT DEFIB TRANSVN	$	141.00
MLH-LBCH	INTERROG EVAL/PERSON 1/DUAL/MLT DEFIB	$	141.00
MLH-LBCH	TRANSTELEPHONIC RHYTHM STRIP PM EVAL	$	141.00
MLH-LBCH	INTERROG EVAL REMOTE</90 1/2/MLT LEAD PM	$	204.00
MLH-LBCH	INTERROG EVAL REMOTE</90 1/2/MLT DEFIB	$	204.00
MLH-LBCH	TTE CONGENITAL CARDIAC ANOMALIES COMPLET	$	1,826.00
MLH-LBCH	TTE CONGEN CARDIAC ANOMALIES FOLLOW UP	$	983.00
MLH-LBCH	TTE 2D MODE W/DOP COMPLT SPEC&COLOR FLOW	$	5,843.00
MLH-LBCH	TTE 2D INCLUDE M MODE RECORDING LIMITED	$	983.00
MLH-LBCH	TEE 2D W/WO M MODE RECORD PROBE PLACEMT	$	2,520.00
MLH-LBCH	TEE IMAGE ACQUISITION INTERPT AND REPORT	$	2,520.00
MLH-LBCH	TEE CONGENITAL CARDIAC ANOMALIES PROBE	$	2,615.00
MLH-LBCH	TEE IMAGE CONGENITAL ACQIS INTERP&REPRT	$	2,615.00
MLH-LBCH	ECHO-TEE MONITORING PROBE/IMAGE/INTERP	$	1,888.00
MLH-LBCH	ECHOCARDIOGRAM DOPPLER WAVE SPECT COMP	$	2,432.00
MLH-LBCH	ECHO DOPPLER LIMITED/FOLLOW UP	$	983.00
MLH-LBCH	ECHOCARDIOGRAM DOPPLER COLOR FLOW VELO	$	983.00
MLH-LBCH	ECHOCARDIOGRAM STRESS	$	1,826.00
MLH-LBCH	TTE 2D-MODE REST & STRESS CONT ECG COMPL	$	1,826.00
MLH-LBCH	ECHO-TEE GDN TCAT ICAR/GRT VSL INTERVENT	$	1,798.00
MLH-LBCH	MYOCRD STRAIN IMAGING SPCKL TRCK	$	936.00
MLH-LBCH	HEART CATH RT	$	16,462.00
MLH-LBCH	Left Heart Cath W or W/O LV	$	22,027.00
MLH-LBCH	Right and Left Heart Cath W or W/O LV	$	22,027.00
MLH-LBCH	Coronary Angiography	$	24,985.00
MLH-LBCH	Coronary Angiography W SVBG and/or IM	$	28,453.00
MLH-LBCH	Coronary Angiography W Right Heart	$	41,447.00

MLH-LBCH	Coronary Angio W SVGB and/or IM W Rt Hrt	$	44,917.00
MLH-LBCH	LT HEART AND CORONARIES W LV	$	28,348.00
MLH-LBCH	LT HRT AND CORONARIES WLVW SVGB &/or IM	$	30,445.00
MLH-LBCH	Rt & Lt Hrt W Coronary Angiography W LV	$	28,348.00
MLH-LBCH	Rt & Lt Hrt W Coronary Angio WLVW SVGB &	$	31,819.00
MLH-LBCH	LT HEART CATH BY TRANSEPTAL PUNCTURE	$	16,462.00
MLH-LBCH	DRUG ADMIN & HEMODYNMIC MEAS	$	560.00
MLH-LBCH	INSERT&PLACE CATH FLOW DIRECTED MONITORI	$	7,562.00
MLH-LBCH	ENDOMYOCARDIAL BX	$	7,562.00
MLH-LBCH	HEART CATH RT CONGENITAL CARDIAC ANOMALI	$	16,462.00
MLH-LBCH	HEART CATH RT & LT RETROGRADE CONGENITAL	$	16,462.00
MLH-LBCH	HEART CATH RT & LT TRANS INTACT CONGENIT	$	16,462.00
MLH-LBCH	HEART CATH RT & LT TRANS EXIST CONGENITA	$	16,462.00
MLH-LBCH	INDICATOR DILUTION STUDY THERMAL W CARDI	$	321.00
MLH-LBCH	INDICATOR DILUTION CARDIAC OUTPUT SUBSEQ	$	321.00
MLH-LBCH	NJX SEL HRT ART CONGNTL HRT CATH W/S&I	$	6,322.00
MLH-LBCH	NJX SEL HRT ART/GRFT CONGNTL HRT CATH W/	$	3,469.00
MLH-LBCH	NJX SEL L VENT/ATRIAL ANGIO HRT CTH S&I	$	3,364.00
MLH-LBCH	NJX SEL R VENT/ATRIAL ANGIO HRT CTH S&I	$	2,441.00
MLH-LBCH	Supravalvular Aortography	$	1,712.00
MLH-LBCH	Pulmonary Angiography	$	6,322.00
MLH-LBCH	INTRAVASC DISTAL BLOOD VELOCITY INIT VES	$	1,611.00
MLH-LBCH	INTRAVASC DISTAL BLOOD VELOCITY ADDL VES	$	1,611.00
MLH-LBCH	PERCUT TRANSCATH CLOSURE SEPTAL DEFECT	$	20,830.00
MLH-LBCH	PERCUT TRANSCATH CLOSURE VENTRIC DEFECT	$	21,872.00
MLH-LBCH	PERQ TRANSCATH CLOSURE PDA	$	53,213.00
MLH-LBCH	PERQ TRANSCATH SEPTAL REDUXN	$	2,453.00
MLH-LBCH	PERQ TRANSCATH CLS MITRAL INIT DEVICE	$	52,116.00
MLH-LBCH	PERQ TRANSCATH CLS AORTIC INIT DEVICE	$	52,116.00
MLH-LBCH	PERQ TRANSCATH CLS EA ADD'L DEVICE	$	26,057.00
MLH-LBCH	BUNDLE OF HIS RECORDING	$	8,292.00
MLH-LBCH	INTRA ATRIAL RECORDING	$	8,292.00
MLH-LBCH	VENTRICULAR RT RECORDING	$	8,292.00
MLH-LBCH	INTRAVENTRICULAR/ATRIAL MAPPING TACHYCAR	$	24,870.00
MLH-LBCH	INTRAVENTRICULAR PACING	$	6,822.00
MLH-LBCH	INTRACARDIAC EP 3D MAPPING	$	24,870.00
MLH-LBCH	ESOPHAGEAL RECORDING ATRIAL ELECTROGRAM	$	24,782.00
MLH-LBCH	ESOPH RECORD ATRIAL ELECTROGRAM W/PACING	$	24,870.00
MLH-LBCH	ARRHYTHMIA INDUCTION BY ELECT PACING	$	24,870.00
MLH-LBCH	EP EVAL WO ARRHYTHMIA INDUCTION	$	27,464.00
MLH-LBCH	EP EVAL W ARRHYTHMIA INDUCTION RT ATRIAL	$	27,464.00
MLH-LBCH	EP EVAL W ARRHYTHMIA INDUCTION LT ATRIAL	$	27,464.00
MLH-LBCH	EP EVAL W ARRHYTHMIA W LT VENTRICULAR PA	$	27,464.00
MLH-LBCH	EP PRGM STIM & PACING AFTER IV DRUG INF	$	24,870.00
MLH-LBCH	EP FU W INDUCTION/ATTEMPTED OF ARRHYTHMI	$	24,870.00
MLH-LBCH	ICD IMPLANT	$	3,254.00
MLH-LBCH	EP EVAL W TESTING SING/DUAL PACING GENER	$	3,254.00

MLH-LBCH	EP EVAL SNG/DUAL PAC CARDIO DEFIB TRANVN	$	3,254.00
MLH-LBCH	EP EVAL SUBCUTANEOUS IMPLANT DEFIBRIL	$	3,254.00
MLH-LBCH	EP ABLATION OF AV NODE FUNCT/AV CONDUCT	$	34,469.00
MLH-LBCH	EPHYS EVAL W/ ABLAT SUPRAVENT ARRHYTHMIA	$	48,441.00
MLH-LBCH	EPHYS EVAL W/ ABLATION VENT TACHYCARDIA	$	48,658.00
MLH-LBCH	ICAR CATHETER ABLATION ARRHYTHMIA ADD ON	$	23,171.00
MLH-LBCH	EPHYS EVL TRNS TX ATR FIB ISOLA PULM VEI	$	48,658.00
MLH-LBCH	ABLATE L/R ATR FIB W/ ISOLATED PULM ADDL	$	24,330.00
MLH-LBCH	CV FUNCT EVAL W TILT TABLE/ECG/BP MONITO	$	1,772.00
MLH-LBCH	INTRACARDIAC ECHO THER/DX INTERVENTION	$	2,520.00
MLH-LBCH	ELECTRONIC ANAL ANTITACHYCARDIA PACE SYS	$	180.00
MLH-LBCH	UNLISTED CARDIOVASCULAR CARDIAC OUTPUT	$	811.00
MLH-LBCH	CAROTID DUPLEX SCAN EXTRACRANIAL ART BIL	$	1,101.00
MLH-LBCH	CAROTID DUPLEX SCAN EXTRACRAN ART UNI	$	1,101.00
MLH-LBCH	TRANSCRANIAL DOPPLER INTRA ART COMP	$	1,101.00
MLH-LBCH	TRANSCRANIAL DOPPLER INTRA ART LTD	$	1,101.00
MLH-LBCH	EXT ART PHYSIOLOGIC 1-2 LVLS	$	811.00
MLH-LBCH	EXT ART PHYSIOLOGIC 3>LVLS/1 PROVOCATIV	$	811.00
MLH-LBCH	EXT LOWER ART PHYSIOLOGIC REST & TREADMI	$	811.00
MLH-LBCH	EXT LOWER DUPLEX ART/ART BYPASS GRAFT BI	$	1,101.00
MLH-LBCH	EXT UPPER DUPLEX ART/ART BYPASS GRAFT BI	$	1,101.00
MLH-LBCH	EXT LOWER VENOUS DOPPLER W COMPRESS BIL	$	1,101.00
MLH-LBCH	EXT LOWER VENOUS DOPPLER W COMPRESS UNIL	$	1,101.00
MLH-LBCH	ABD/RETROPER DUPLEX ART IN/VEIN OUT COMP	$	1,101.00
MLH-LBCH	ABD/RETROPER DUPLEX ART IN/VEIN OUT LTD	$	1,101.00
MLH-LBCH	AORTA/IVC/ILIAC/BYPASS GRAFTS DUPLEX COM	$	1,101.00
MLH-LBCH	PENILE VESSELS DUPLEX ART IN/VEIN COMP	$	1,101.00
MLH-LBCH	PENILE VESSELS DUPLEX ART IN/VEIN LTD	$	1,101.00
MLH-LBCH	VENT ASSIST & MGMT INIT DAY	$	1,325.00
MLH-LBCH	VENT ASSIST & MGMT SUBSEQUENT DAY	$	1,325.00
MLH-LBCH	SPIROMETRY	$	658.00
MLH-LBCH	SPIROMETRY FORCD EXPIRATORY FLO UP TO 2Y	$	627.00
MLH-LBCH	SPIRO FORC EXP FLO PRE&POST BRONC INF-2Y	$	627.00
MLH-LBCH	MEAS LUNG VOL INFANT OR CHILD THRU 2YRS	$	627.00
MLH-LBCH	BRONCHODILA RESPONSE PRE/POST SPIROMETRY	$	1,394.00
MLH-LBCH	BRONCHOSPASM EVAL W PROVOCATION	$	1,394.00
MLH-LBCH	VITAL CAPACITY TOTAL	$	580.00
MLH-LBCH	MAX VOLUNTARY VENT/BREATHING CAPACITY	$	658.00
MLH-LBCH	HIGH ALTITUDE SIMULATION TEST W/REPORT	$	581.00
MLH-LBCH	HIGH ALTITUDE SIMULAT TEST W/O2 TITRATE	$	482.00
MLH-LBCH	INTRAPULM SURFACTANT ADMINISTJ PHYS/QHP	$	1,089.00
MLH-LBCH	PULMONARY STRESS TEST/6 MINUTE WALK	$	676.00
MLH-LBCH	PULM STRESS TEST COMPLEX	$	3,309.00
MLH-LBCH	1ST SHORT TX/SPUTUM INDUCT OF DATE	$	229.00
MLH-LBCH	AERSL INHL PENTAMIDINE	$	923.00
MLH-LBCH	1ST HR CONT/HR LONG TX OF DATE	$	856.00
MLH-LBCH	ADD'L HR CONT/HR LONG TX OF DATE	$	856.00

MLH-LBCH	CPAP INITIATION & MGMT	$	2,974.00
MLH-LBCH	DETAILED EDU INH DEVICE W/WO TX	$	316.00
MLH-LBCH	1ST MANUAL CPT OF DATE	$	329.00
MLH-LBCH	ADD'L MANUAL CPT OF DATE	$	329.00
MLH-LBCH	MECHANICAL CHEST WALL OSCILL FUNCTION	$	270.00
MLH-LBCH	PULM O2 UPTAKE EXP GAS ANAL REST & EXCER	$	1,394.00
MLH-LBCH	PULM O2 UPTK EXP GAS ANAL W/CO2 OUTPUT	$	1,394.00
MLH-LBCH	OXYGEN UPTAKE EXPIRED GAS REST INDIRECT	$	658.00
MLH-LBCH	PLETHYSMOGRAPHY VOL W/WO AIRWAY RESIST	$	484.00
MLH-LBCH	GAS DILUT/WASHOUT W/WO DISTRIB VENT&VOL	$	484.00
MLH-LBCH	AIRWAY RESISTANCE OSCILLOMETRY	$	484.00
MLH-LBCH	C02/MEMBANE DIFFUSING CAPACITY	$	582.00
MLH-LBCH	PULMONARY COMPLIANCE STUDY	$	1,394.00
MLH-LBCH	PULSE OX O2 SATURATION SING DETERMINATIO	$	90.00
MLH-LBCH	PULSE OXIM MULT DETERMINATIONS	$	234.00
MLH-LBCH	PULSE OX O2 SATURATION CONTINUOUS OVERNI	$	889.00
MLH-LBCH	CARBON DIOXIDE EXPIRED GAS DETERMINATION	$	658.00
MLH-LBCH	INHALATION BRONCHIAL CHALLENGE TEST	$	1,789.00
MLH-LBCH	EEG W/VIDEO 8 CHANNELS MINIMUM	$	699.00
MLH-LBCH	EEG W/O VIDEO 2-12 HRS UNMONITORED	$	699.00
MLH-LBCH	EEG W/O VIDEO 2-12 HRS INTMT MONITORING	$	699.00
MLH-LBCH	EEG W/O VIDEO 2-12 HRS REAL TIME MONITOR	$	699.00
MLH-LBCH	EEG W/O VIDEO 12-26 HRS UNMONITORED	$	1,340.00
MLH-LBCH	EEG W/O VIDEO 12-26 HRS INTERM MONITOR	$	1,340.80
MLH-LBCH	EEG W/O VIDEO 12-26HRS REAL TIME MONITOR	$	1,340.00
MLH-LBCH	VEEG 2-12 HRS UNMONITORED	$	699.00
MLH-LBCH	VEEG 2-12 HRS INTERMITTENT MONTORING	$	699.00
MLH-LBCH	VEEG 2-12 HRS REAL TIME MONTORING	$	1,340.00
MLH-LBCH	VEEG 12-26 HRS UNMONITORED	$	1,340.00
MLH-LBCH	VEEG 12-26 HRS INTERMITTENT MONTORING	$	1,340.00
MLH-LBCH	VEEG 12-26 HRS REAL TIME MONTORING	$	2,509.00
MLH-LBCH	POLYSOM <6 YRS +4 ADDL PARAM	$	4,424.00
MLH-LBCH	POLYSOM <6 YRS CPAP/BILVL VENT 4/> PARAM	$	4,424.00
MLH-LBCH	SLP STDY UNATT W/HRT RATE/O2SAT/RESP/SLP	$	1,230.00
MLH-LBCH	ACTIGRAPHY TEST RECORDING ANALYSIS I&R	$	299.00
MLH-LBCH	SLEEP LATENCY MULT TRIALS/MWT ASSESS SLE	$	3,319.00
MLH-LBCH	SLEEP STUDY VENT HRT RATE & O2 SAT UNATT	$	1,230.00
MLH-LBCH	SLP STDY ATTD W/HRT RATE/O2SAT/RESP/SLP	$	1,032.00
MLH-LBCH	POLYSOM 6/>YRS 4/> ADDL PARAM PED	$	4,424.00
MLH-LBCH	POLYSOM 6/>YRS CPAP 4/> PARM	$	4,424.00
MLH-LBCH	EEG EXTENDED MONITORING 41-60MIN	$	1,255.00
MLH-LBCH	EEG EXTENDED MONITORING 61-119 MIN	$	1,255.00
MLH-LBCH	EEG RECORDING WAKE & DROWSY	$	996.00
MLH-LBCH	EEG RECORDING WAKE & ASLEEP	$	996.00
MLH-LBCH	EEG RECORDING IN COMA/SLEEP ONLY	$	996.00
MLH-LBCH	EEG CEREBRAL DEATH EVAL ONLY	$	996.00
MLH-LBCH	ELECTROCORTICOGRAM AT SURGERY	$	996.00

MLH-LBCH	EMG NDL 1 EXT W/WO RELATED PARASPINAL	$	489.00
MLH-LBCH	EMG NDL 2 EXT W/WO RELATED PARASPINAL	$	489.00
MLH-LBCH	EMG NDL 3 EXT W/WO RELATED PARASPINAL	$	489.00
MLH-LBCH	EMG NDL 4 EXT W/WO RELATED PARASPINAL	$	489.00
MLH-LBCH	EMG NDL LARNYX BILATERAL	$	326.00
MLH-LBCH	EMG NDL HEMIDIAPHRAGM	$	591.00
MLH-LBCH	EMG CN SUPPLIED MUSCLES UNILAT	$	489.00
MLH-LBCH	EMG CN SUPPLIED MUSCLES BIL	$	476.00
MLH-LBCH	EMG THORACIC PARASPINAL EXCLUDING T1/T2`	$	591.00
MLH-LBCH	EMG NDL LTD MUSCLE NOT THORACIC/CRANIAL/	$	489.00
MLH-LBCH	EMG NDL SING ELECTRODE ALL SITES EA MUSC	$	314.00
MLH-LBCH	ELECTRICAL STIMULATION CHEMODENERVATION	$	272.00
MLH-LBCH	NDL EMG CHEMODENERVATION	$	272.00
MLH-LBCH	EMG NDL EA EXT W/PARASPINL AREA LIMITED	$	489.00
MLH-LBCH	EMG NDL EA EXT W/PARASPINL AREA COMPLETE	$	489.00
MLH-LBCH	EMG NDL NON MSCLES W/NERVE CONDUCTION	$	489.00
MLH-LBCH	NERVE CONDUCTION STUDIES 1-2 STUDIES	$	489.00
MLH-LBCH	NERVE CONDUCTION STUDIES 3-4 STUDIES	$	489.00
MLH-LBCH	NERVE CONDUCTION STUDIES 5-6 STUDIES	$	489.00
MLH-LBCH	NERVE CONDUCTION STUDIES 7-8 STUDIES	$	489.00
MLH-LBCH	NERVE CONDUCTION STUDIES 9-10 STUDIES	$	506.00
MLH-LBCH	NERVE CONDUCTION STUDIES 11-12 STUDIES	$	506.00
MLH-LBCH	NERVE CONDUCTION STUDIES 13 OR MORE	$	482.00
MLH-LBCH	CARDIOVAGAL INNERVATION	$	314.00
MLH-LBCH	VASOMOTOR ADRENERGIC INNERVATION	$	487.00
MLH-LBCH	EVALUATION OF SUDOMOTOR FUNCTION	$	349.00
MLH-LBCH	AUTONOMIC NERV SYS FUNCT 5MIN TILT TEST	$	349.00
MLH-LBCH	SOMATOSENSORY EVOKED POTENTIAL UPPER EXT	$	1,285.00
MLH-LBCH	SOMATOSENSORY EVOKED POTENTIAL LOWER EXT	$	1,285.00
MLH-LBCH	CENTRAL MOTOR MAPPING UPPER LIMB	$	483.00
MLH-LBCH	CENTRAL MOTOR MAPPING LOWER LIMB	$	483.00
MLH-LBCH	VISUAL EVOKED POTENTIAL TEST	$	1,240.00
MLH-LBCH	BLINK REFLEX BY ELECTRODX TEST	$	314.00
MLH-LBCH	NEUROMUSCULAR JUNCTION TEST EA NRV	$	489.00
MLH-LBCH	SOMATOSENSORY EVOKED UPPER & LOWER EXT	$	1,240.00
MLH-LBCH	CENTRAL MOTOR MAPPING UPPER & LOWER	$	818.00
MLH-LBCH	IONM IN OPERATNG ROOM 15 MIN	$	1,481.00
MLH-LBCH	IONM REMOTE/>1 PT OR PER HR	$	0.01
MLH-LBCH	PARASYMP& SYMP HRT RATE VARIABILITY TEST	$	184.00
MLH-LBCH	EEG DURING NONINTRACRANCIAL SURGERY	$	996.00
MLH-LBCH	DIGITAL ANALYSIS EEG HIGH DENSITY	$	996.00
MLH-LBCH	WADA ACTIVATION TEST WITH EEG	$	2,903.00
MLH-LBCH	FUNCT MAPPING ELECTRODE BRAIN INITIAL HR	$	1,240.00
MLH-LBCH	FUNCT MAPPING ELECTRODE BRAIN EA ADDL HR	$	1,240.00
MLH-LBCH	MEG RECORD/ANALYSIS SBMA	$	23,433.00
MLH-LBCH	MEG REC/ANAL EVOKED SINGLE MODALITY	$	5,109.00
MLH-LBCH	MEG REC/ANAL EVOKED EACH ADDL MODALITY	$	5,109.00

MLH-LBCH	CRANIAL NEUROSTIM SIMPLE	$	108.00
MLH-LBCH	CRANIAL NEUROSTIM COMPLEX	$	341.00
MLH-LBCH	UNLISTED CORTICAL MAPPING W/TMS	$	285.00
MLH-LBCH	FUNCTIONAL BRAIN MAPPING	$	583.00
MLH-LBCH	MEDICAL GENETICS COUNSELING EA 30 MIN	$	426.00
MLH-LBCH	IV INF HYDRATION INITIAL 31MIN TO 1HR	$	355.00
MLH-LBCH	IV INF HYDRATION EA ADDL HR	$	124.00
MLH-LBCH	INF THER/PROPHYLACTIC/DX IV INIT 1ST HR	$	608.00
MLH-LBCH	INF THER/PROPHYLAC/DX IV EA ADDL HR	$	124.00
MLH-LBCH	INF THER/PROPH/DX IV ADDL SEQ INF TO 1HR	$	175.00
MLH-LBCH	INF THER/PROPH/DX IV CONCURRENT	$	0.01
MLH-LBCH	SUBQ INFUSION THERAPY UP TO 1HR	$	632.00
MLH-LBCH	SUBQ INFUSION THERAPY EA ADD'L HR	$	175.00
MLH-LBCH	SUBQ INFUSION THERAPY RESET PUMP	$	124.00
MLH-LBCH	INJ THER/PROPHYLACTIC/DX SQ/IM	$	124.00
MLH-LBCH	INJ THER/PROPH/DX IV PUSH SING/INIT DRUG	$	175.00
MLH-LBCH	INJ THER/PROP/DX IV PUSH EA ADD NEW SEQ	$	175.00
MLH-LBCH	INJ THER/PRO/DX SAME DRUG EA ADD'L	$	302.00
MLH-LBCH	CHEMO ADMIN SQ/IM HORMONAL ANTI NEOPLAST	$	163.00
MLH-LBCH	CHEMOTHER ADMIN IV INF </=1HR INIT DRUG	$	892.00
MLH-LBCH	CHEMOTHER ADMIN IV INF EA ADDL HR 1-8 HR	$	160.00
MLH-LBCH	CHEMOTHER ADMIN INTRA INF TECH >8HR PUMP	$	892.00
MLH-LBCH	CHEMOTHE ADMIN INTRA INF ADDL SEQ </=1HR	$	344.00
MLH-LBCH	CHEMO TX ADMIN-INTRA ART PUSH	$	397.00
MLH-LBCH	INTRA ART CHEMO THERAPY INF </1HR	$	1,514.00
MLH-LBCH	SP CHEMOTHER ADMIN INTO CNS SPINAL PUNCT	$	941.00
MLH-LBCH	IRRIG DRUG DELIVERY DEVICE	$	199.00
MLH-LBCH	BUCKS TRACTION	$	1,746.00
MLH-LBCH	ELECT STIM 15MIN PED	$	124.00
MLH-LBCH	MANUAL THER MOBILIZATION/MANIPULAT 15MIN	$	181.00
MLH-LBCH	WC TRN 15MIN	$	144.00
MLH-LBCH	NEGATIVE PRESSURE WOUND THER</=50SQ CM	$	421.00
MLH-LBCH	MEDICAL NUTRITION THER INIT 15MIN	$	128.00
MLH-LBCH	MEDICAL NUTRITION THER SUBSEQ 15MIN	$	96.00
MLH-LBCH	MEDICAL NUTRITION THER GRP 30MIN	$	53.00
MLH-LBCH	SELF MGMT EDUC & TRAIN 1 PT 30MIN	$	151.00
MLH-LBCH	SELF MGMT EDUC & TRAIN 2 TO 4 PTS 30MIN	$	151.00
MLH-LBCH	SELF MGMT EDUC & TRAIN 5 TO 8 PTS 30MIN	$	151.00
MLH-LBCH	TELEPHONE CALL 5-10 MINUTES PEDS	$	51.00
MLH-LBCH	TELEPHONE CALL 11-20 MINUTES PEDS	$	92.00
MLH-LBCH	TELEPHONE CALL 21-30 MINUTES PEDS	$	142.00
MLH-LBCH	MOD CONSC SEDATE SAME PHY < 5YRS 15 MIN	$	634.00
MLH-LBCH	MOD CONSC SEDATE SAME PHY >= 5YRS 15 MIN	$	634.00
MLH-LBCH	MOD CONSC SEDATION SAME PHYS EA ADDL 15	$	634.00
MLH-LBCH	MOD CONSC SEDATE OTH PHY >/= 5YRS 15 MIN	$	634.00
MLH-LBCH	MOD CONSC SEDATE OTH PHY EA ADDL 15 MIN	$	634.00
MLH-LBCH	IPECAC/SIMILAR ADMIN FOR INDIV EMESIS	$	105.00

MLH-LBCH	PHLEBOTOMY THER	$	215.00
MLH-LBCH	VISIT NEW PT 10MIN	$	218.00
MLH-LBCH	VISIT NEW PT 20MIN	$	284.00
MLH-LBCH	VISIT NEW PT 30MIN	$	393.00
MLH-LBCH	CLINIC VISIT NEW PT 45MIN	$	566.00
MLH-LBCH	CLINIC VISIT NEW PT 60MIN	$	720.00
MLH-LBCH	CLINIC VISIT ESTABLISHED PT 5MIN	$	218.00
MLH-LBCH	CLINIC VISIT ESTABLISHED PT 10MIN	$	284.00
MLH-LBCH	CLINIC VISIT ESTABLISHED PT 15MIN	$	393.00
MLH-LBCH	CLINIC VISIT ESTABLISHED PT 25MIN	$	566.00
MLH-LBCH	CLINIC VISIT ESTABLISHED PT 40MIN	$	720.00
MLH-LBCH	ER LVL I VISIT MINIMAL	$	735.00
MLH-LBCH	ER LVL II VISIT ROUTINE	$	762.00
MLH-LBCH	ER LVL III VISIT INTERMED	$	1,248.00
MLH-LBCH	ER LVL IV VISIT INTENSIVE	$	2,316.00
MLH-LBCH	ER LVL V VISIT EXTENSIVE	$	2,796.00
MLH-LBCH	ER LVL VI VISIT CRITICAL CARE	$	4,206.00
MLH-LBCH	ER LVL VI CRITICAL CARE ADDL 30MIN	$	2,104.00
MLH-LBCH	PROLONGED SERVICE OFFICE 1ST HR	$	340.00
MLH-LBCH	PROLONGED SERVICE OFFICE EA ADDL 30MIN	$	340.00
MLH-LBCH	TEAM CONF W PAT BY HC PROF=>30MIN PEDS	$	235.00
MLH-LBCH	TEAM CONF W/O PAT BY HC PROF=>30MIN PEDS	$	235.00
MLH-LBCH	BX MUSCLE PERCUT NDL BIL	$	3,818.00
MLH-LBCH	BX BONE TROCAR/NDL SUPERFICIAL BIL	$	3,997.00
MLH-LBCH	BX BONE TROCAR/NDL DEEP BIL	$	3,997.00
MLH-LBCH	ASP/INJ ARTHROCENTESIS JT/BURSA MAJOR BI	$	2,122.00
MLH-LBCH	INJ ARTHROGRAM TMJ BIL	$	1,236.00
MLH-LBCH	BX SOFT TISSUE SHOULDER SUPERFICIAL BIL	$	11,208.00
MLH-LBCH	BX SOFT TISSUE SHOULDER DEEP BIL	$	13,182.00
MLH-LBCH	INJ ARTHROGRAM SHOULDER BIL	$	1,236.00
MLH-LBCH	INJ ARTHROGRAM ELBOW BIL	$	1,236.00
MLH-LBCH	INJ ARTHROGRAM WRIST BIL	$	1,236.00
MLH-LBCH	INJ ARTHROGRAM HIP WO ANESTH BIL	$	1,236.00
MLH-LBCH	INJ SI JT ARTHRGRPHY/ANES/STRD W/IMG BIL	$	1,170.00
MLH-LBCH	BX SOFT TISSUE LEG/ANKLE SUPERFICIAL BIL	$	3,976.00
MLH-LBCH	INJ ARTHROGRAM ANKLE BIL	$	1,236.00
MLH-LBCH	STRAPPING SHOULDER PED BIL	$	1,015.00
MLH-LBCH	STRAPPING ELBOW/WRIST PED BIL	$	1,015.00
MLH-LBCH	STRAPPING HAND/FINGER PED BIL	$	1,015.00
MLH-LBCH	STRAPPING HIP PED BIL	$	1,015.00
MLH-LBCH	STRAPPING KNEE PED BIL	$	1,015.00
MLH-LBCH	STRAPPING ANKLE AND/OR FOOT PED BIL	$	1,015.00
MLH-LBCH	APPLY MULTLAY COMPRS LWR LEG BIL	$	780.00
MLH-LBCH	BX PLEURA PERCUT NDL BIL	$	3,818.00
MLH-LBCH	BX LUNG/MEDIASTINUM PERCUT NDL BIL	$	8,685.00
MLH-LBCH	INJ EXT VENOGRAPHY BIL	$	1,236.00
MLH-LBCH	INTRO NDL/CATH CAROTID/VERTEBRAL ART BIL	$	1,233.00

MLH-LBCH	PLACE CATH 1ST ORD EXT INIT BIL	$	1,866.00
MLH-LBCH	PLACE CATH 2ND ORD EXT INIT BIL	$	1,866.00
MLH-LBCH	PLACE CATH ART EXT 3RD INIT BIL	$	1,866.00
MLH-LBCH	PLACE CATH ART EXT 3RD ADDL BIL	$	1,866.00
MLH-LBCH	CAROTID ARTERY CUT DOWN BIL	$	1,138.00
MLH-LBCH	PRIM PRQ TRLUML MCHNL THRMBC 1ST VSL BIL	$	28,418.00
MLH-LBCH	NM INJ RADTRAC FOR ID OF SNTNL NODE BIL	$	1,233.00
MLH-LBCH	BX SALIVARY GLAND NDL BIL	$	2,337.00
MLH-LBCH	INJ SIALOGRAM BIL	$	1,236.00
MLH-LBCH	BX RENAL PERCUT TROCAR/NDL BIL	$	8,685.00
MLH-LBCH	REM URETE STENT TRANSURETHRAL BIL	$	4,785.00
MLH-LBCH	REM NEPH TUBE W INDWEL URET STENT BIL	$	2,886.00
MLH-LBCH	ENDOVAS TEMP BALL ART OCCL HEAD/NECK BIL	$	30,091.00
MLH-LBCH	INTERCOSTAL NERVE BLOCK SINGLE BIL	$	2,646.00
MLH-LBCH	INJ ANESTH AGENT FEMORAL BIL	$	2,646.00
MLH-LBCH	INJ ANESTH AGNT OTH PERIPH NRV/BRNCH BIL	$	2,646.00
MLH-LBCH	INJ ANESTHETIC AGENT CERV/THOR 1LVL BIL	$	1,360.00
MLH-LBCH	INJ ANESTHETIC AGENT EACH ADDTL BIL	$	693.00
MLH-LBCH	INJ ANESTHETIC AGENT LUM/SAC 1LVL BIL	$	1,064.00
MLH-LBCH	INJ ANESTHETIC LUM/SAC EACH ADDTL BIL	$	551.00
MLH-LBCH	INJ DX AGENT PARAVERT FACET/NRV BIL	$	5,172.00
MLH-LBCH	INJ DX AGNT PARAVERT FCT/NRV 2ND LVL BIL	$	1,596.00
MLH-LBCH	INJ DX AGNT PARAVERT FCT/NRV 3RD LVL BIL	$	1,596.00
MLH-LBCH	INJ FACET JT/NRV LUMBAR/SACRAL INIT LVL	$	288.00
MLH-LBCH	INJ FACET JT/NRV LUMBAR/SACRAL ADDL BIL	$	5,088.00
MLH-LBCH	INJ FACET JT/NRV LUM/SAC 3RD & ADDT BIL	$	1,821.00
MLH-LBCH	SP DESTROY CERV/THOR FACET JNT BIL	$	10,875.00
MLH-LBCH	SP DESTROY CERV/THOR FACET JNT ADDL BIL	$	10,875.00
MLH-LBCH	SP DESTROY LUMB/SAC FACET JNT BIL	$	10,875.00
MLH-LBCH	SP DESTROY L/S FACET JNT ADDL BIL	$	10,875.00
MLH-LBCH	EYE F/B DETECTION BIL	$	419.00
MLH-LBCH	MANDIBLE PARTIAL < 4VW BIL	$	440.00
MLH-LBCH	MASTOIDS < 3VW BIL	$	440.00
MLH-LBCH	ARTHROGRAM TMJ BIL	$	3,282.00
MLH-LBCH	CLAVICLE COMP BIL	$	882.00
MLH-LBCH	SCAPULA COMP BIL	$	882.00
MLH-LBCH	SHOULDER 1VW BIL	$	882.00
MLH-LBCH	SHOULDER COMP 2+VW BIL	$	882.00
MLH-LBCH	ARTHROGRAM SHOULDER BIL	$	3,282.00
MLH-LBCH	HUMERUS 2+VW BIL	$	882.00
MLH-LBCH	ELBOW 2VW BIL	$	882.00
MLH-LBCH	ELBOW - 3 VIEWS	$	882.00
MLH-LBCH	ARTHROGRAM ELBOW BIL	$	3,282.00
MLH-LBCH	FOREARM 2VW BIL	$	882.00
MLH-LBCH	EXT UPPER INFANT 2+VW BIL	$	882.00
MLH-LBCH	WRIST 2VW BIL	$	882.00
MLH-LBCH	WRIST COMP 3+VW BIL	$	882.00

MLH-LBCH	ARTHROGRAM WRIST BIL	$	3,282.00
MLH-LBCH	HAND 2VW BIL	$	882.00
MLH-LBCH	HAND 3+VW BIL	$	882.00
MLH-LBCH	FINGERS 2+VW BIL	$	882.00
MLH-LBCH	CT EXT UPPER WO CONT BIL	$	5,121.00
MLH-LBCH	CT EXT UPPER W CONT BIL	$	7,083.00
MLH-LBCH	CT EXT UPPER W/WO CONT BIL	$	8,247.00
MLH-LBCH	CT ANGIO EXT UPPER W/WO CONT W IMAGE BIL	$	8,247.00
MLH-LBCH	MRI EXT UPPER NON JT WO CONT BIL	$	9,932.00
MLH-LBCH	MRI EXT UPPER NON JT W CONT BIL	$	11,281.00
MLH-LBCH	MRI EXT UPPER NON JT W/WO CONT BIL	$	13,512.00
MLH-LBCH	MRI EXT UPPER JT WO CONT BIL	$	9,932.00
MLH-LBCH	MRI EXT UPPER JT W CONT BIL	$	11,281.00
MLH-LBCH	MRI EXT UPPER JT W/WO CONT BIL	$	13,512.00
MLH-LBCH	ARTHROGRAM HIP BIL	$	3,282.00
MLH-LBCH	KNEE 1/2VW BIL	$	882.00
MLH-LBCH	KNEE 3VW BIL	$	882.00
MLH-LBCH	KNEE COMP 4+VW BIL	$	879.00
MLH-LBCH	ARTHROGRAM KNEE BIL	$	3,282.00
MLH-LBCH	TIBIA & FIBULA 2VW BIL	$	882.00
MLH-LBCH	EXT LOWER INFANT 2+VW BIL	$	1,530.00
MLH-LBCH	ANKLE 2VW	$	882.00
MLH-LBCH	ANKLE COMP 3+VW BIL	$	882.00
MLH-LBCH	ARTHROGRAM ANKLE BIL	$	3,282.00
MLH-LBCH	FOOT 2VW BIL	$	880.00
MLH-LBCH	FOOT 3VW MIN BIL	$	880.00
MLH-LBCH	CALCANEUS HEEL 2+VW BIL	$	882.00
MLH-LBCH	TOES 2+VW BIL	$	882.00
MLH-LBCH	CT EXT LOWER WO CONT BIL	$	5,121.00
MLH-LBCH	CT EXT LOWER W CONT BIL	$	7,083.00
MLH-LBCH	CT EXT LOWER W/WO CONT BIL	$	8,247.00
MLH-LBCH	CT ANGIO EXT LOWER W/WO CONT W IMAGE BIL	$	8,247.00
MLH-LBCH	MRI EXT LOWER NON JT WO CONT BIL	$	9,932.00
MLH-LBCH	MRI EXT LOWER NON JT W CONT BIL	$	11,281.00
MLH-LBCH	MRI EXT LOWER NON JT W/WO CONT BIL	$	13,512.00
MLH-LBCH	MRI EXT LOWER JT WO CONT BIL	$	9,932.00
MLH-LBCH	MRI EXT LOWER JT W CONT BIL	$	11,281.00
MLH-LBCH	MRI EXT LOWER JT W/WO CONT BIL	$	13,512.00
MLH-LBCH	UROGRAPHY ANTEGRADE BIL	$	2,969.00
MLH-LBCH	RENAL CYST STUDY TRANSLUMBAR CONT VI BIL	$	4,697.00
MLH-LBCH	FALLOPIAN TUBE TRANSCERV CATH BIL	$	1,989.00
MLH-LBCH	US EXTR NON-VASC REAL-TIME IMG COMPL BIL	$	1,948.00
MLH-LBCH	US AXILLA BIL	$	1,074.00
MLH-LBCH	EPHYS EVAL W/ABLATION VENT TACHYCARDIIA	$	46,341.00
MLH-LBCH	ADD'L SHORT TX/SPUTUM INDUCT/DATE	$	229.00
MLH-LBCH	EMG NDL LARNYX UNILATERAL	$	574.00
MLH-LBCH	EMG CN SUPPLIED MUSCLES BIL	$	489.00

MLH-LBCH	FOCUSED PHARMACOGENOMICS PNL MAYO CLINIC	$	500.00
MLH-LBCH	NEURO(PRION DISEASE)CEREBROSPINAL FLUID	$	594.00
MLH-LBCH	CT BRAIN CEREBRAL ANALYSIS FOR PERFUS	$	4,125.00
MLH-LBCH	TRANSCATH PLACE STENT EXTRACRAN INIT VES	$	35,861.00
MLH-LBCH	TRANSCATH PLACE STENT EXTRACRAN ADDL VES	$	35,861.00
MLH-LBCH	CAROTID INTIMA-MEDIA THICKNESS	$	235.00
MLH-LBCH	ATHERECTOMY OPEN/PERCUT AORTA S&I EA VSL	$	22,433.00
MLH-LBCH	ATHEREC OPEN/PERCUT BRCHIOCPH S&I EA VSL	$	22,433.00
MLH-LBCH	ATHEREC OPEN/PERCUT ILLIAC S&I EA VSL	$	22,433.00
MLH-LBCH	TMVI/REPLACE PERCUTANEOUS APPROACH	$	27,494.00
MLH-LBCH	TMVI/REPLACE TRANSTHORACIC EXPOSURE	$	27,494.00
MLH-LBCH	BX MUSCLE PERCUT NDL LT	$	1,911.00
MLH-LBCH	BX MUSCLE PERCUT NDL RT	$	1,911.00
MLH-LBCH	BX BONE TROCAR/NDL SUPERFICIAL LT	$	1,998.00
MLH-LBCH	ASP/INJ ARTHRO JT BURSA SM RT WO USG	$	1,064.00
MLH-LBCH	US ARTHROCENT ASP/INJ SMALL JNT W USG LT	$	719.00
MLH-LBCH	US ARTHROCENT ASP/INJ SMALL JNT W USG RT	$	719.00
MLH-LBCH	ASP/INJ ARTHRO JT BURSA INTER LT WO USG	$	1,064.00
MLH-LBCH	ASP/INJ ARTHRO JT BURSA INTER RT WO USG	$	1,064.00
MLH-LBCH	ASP/INJ ARTHRO JT BURSA MAJ LT WO USG LT	$	1,064.00
MLH-LBCH	ASP/INJ ARTHRO JT BURSA MAJ RT WO USG RT	$	1,064.00
MLH-LBCH	INJ ARTHROGRAM TMJ LT	$	616.00
MLH-LBCH	INJ ARTHROGRAM TMJ RT	$	616.00
MLH-LBCH	BX SOFT TISSUE SHOULDER SUPERFICIAL LT	$	5,606.00
MLH-LBCH	BX SOFT TISSUE SHOULDER SUPERFICIAL RT	$	5,606.00
MLH-LBCH	BX SOFT TISSUE SHOULDER DEEP LT	$	6,591.00
MLH-LBCH	BX SOFT TISSUE SHOULDER DEEP RT	$	6,591.00
MLH-LBCH	INJ ARTHROGRAM SHOULDER LT	$	616.00
MLH-LBCH	INJ ARTHROGRAM SHOULDER RT	$	616.00
MLH-LBCH	INJ ARTHROGRAM ELBOW LT	$	616.00
MLH-LBCH	INJ ARTHROGRAM ELBOW RT	$	616.00
MLH-LBCH	INJ ARTHROGRAM WRIST LT	$	616.00
MLH-LBCH	INJ ARTHROGRAM WRIST RT	$	616.00
MLH-LBCH	INJ ARTHROGRAM HIP WO ANESTH LT	$	616.00
MLH-LBCH	INJ ARTHROGRAM HIP WO ANESTH RT	$	616.00
MLH-LBCH	INJ ARTHROGRAM ANKLE LT	$	616.00
MLH-LBCH	INJ ARTHROGRAM ANKLE RT	$	616.00
MLH-LBCH	APPL CAST HAND/LOWER FOREARM PED OT	$	509.00
MLH-LBCH	APPL CAST FINGER PED OT	$	509.00
MLH-LBCH	APPL LONG ARM SPLINT PED OT	$	509.00
MLH-LBCH	SPLINT APPL LONG ARM SHOULDER TO HAND LT	$	509.00
MLH-LBCH	SPLINT APPL LONG ARM SHOULDER TO HAND RT	$	509.00
MLH-LBCH	APPL SHORT ARM SPLINT STATIC PED OT	$	509.00
MLH-LBCH	APPL SHORT ARM SPLINT STATIC PED	$	509.00
MLH-LBCH	SPLINT APPL SHORT ARM ATATIC FOREARM LT	$	509.00
MLH-LBCH	APPL SPLINT ARM SHORT STATIC FOREARM LT	$	509.00
MLH-LBCH	SPLINT APPL SHORT ARM STATIC FOREARM RT	$	509.00

MLH-LBCH	APPL SPLINT ARM SHORT STATIC FOREARM RT	$	509.00
MLH-LBCH	APPL SHORT ARM SPLINT DYNAMIC PED OT	$	509.00
MLH-LBCH	APPL SPLINT ARM SHORT DYNAMIC FOREARM LT	$	509.00
MLH-LBCH	APPL SPLINT ARM SHORT DYNAMIC FOREARM LT	$	509.00
MLH-LBCH	APPL SPLINT ARM SHORT DYNAMIC FOREARM RT	$	509.00
MLH-LBCH	APPL FINGER SPLINT STATIC PED OT	$	509.00
MLH-LBCH	SPLINT APPL FINGER STATIC LT	$	509.00
MLH-LBCH	SPLINT APPL FINGER STATIC RT	$	509.00
MLH-LBCH	APPL FINGER SPLINT DYNAMIC PED OT	$	509.00
MLH-LBCH	STRAPPING THORAX PED	$	509.00
MLH-LBCH	STRAPPING THORAX PED	$	509.00
MLH-LBCH	STRAPPING SHOULDER PED LT	$	509.00
MLH-LBCH	STRAPPING SHOULDER LT	$	509.00
MLH-LBCH	STRAPPING SHOULDER PED RT	$	509.00
MLH-LBCH	STRAPPING SHOULDER RT	$	509.00
MLH-LBCH	STRAPPING ELBOW/WRIST PED LT	$	509.00
MLH-LBCH	STRAPPING ELBOW/WRIST PED RT	$	509.00
MLH-LBCH	STRAPPING HAND/FINGER PED LT	$	509.00
MLH-LBCH	STRAPPING HAND/FINGER PED RT	$	509.00
MLH-LBCH	APPL LONG LEG CAST PED	$	887.00
MLH-LBCH	APPL CAST LEG LONG THIGH TO TOES LT	$	887.00
MLH-LBCH	APPL CAST LEG LONG THIGH TO TOES RT	$	887.00
MLH-LBCH	APPL CYLINDER CAST PED	$	887.00
MLH-LBCH	APPL SHORT LEG CAST PED	$	509.00
MLH-LBCH	APPL CAST LEG SHORT KNEES TO T LT	$	509.00
MLH-LBCH	APPL CAST LEG SHORT KNEES TO T RT	$	509.00
MLH-LBCH	APPL RIGID TOTAL CONTACT LEG CAST PED	$	887.00
MLH-LBCH	APPL CAST CLUBFOOT LEG LONG/SHORT LT	$	806.00
MLH-LBCH	APPL CAST CLUBFOOT LEG LONG/SHORT RT	$	806.00
MLH-LBCH	SPLINT APPL LONG LEG THIGH TO ANKLE LT	$	704.00
MLH-LBCH	APPL SPLINT LEG LONG THIGH TO ANKLE/T LT	$	704.00
MLH-LBCH	SPLINT APPL LONG LEG THIGH TO ANKLE RT	$	704.00
MLH-LBCH	APPL SPLINT LEG LONG THIGH TO ANKLE/T RT	$	806.00
MLH-LBCH	SPLINT APPL SHORT LEG CALF TO FOOT LT	$	704.00
MLH-LBCH	APPL SPLINT LEG SHORT CALF TO FOOT LT	$	704.00
MLH-LBCH	SPLINT APPL SHORT LEG CALF TO FOOT RT	$	704.00
MLH-LBCH	APPL SPLINT LEG SHORT CALF TO FOOT RT	$	806.00
MLH-LBCH	STRAPPING HIP PED LT	$	509.00
MLH-LBCH	STRAPPING HIP PED RT	$	509.00
MLH-LBCH	STRAPPING KNEE LT	$	509.00
MLH-LBCH	STRAPPING KNEE RT	$	509.00
MLH-LBCH	STRAPPING ANKLE LT	$	509.00
MLH-LBCH	STRAPPING ANKLE RT	$	509.00
MLH-LBCH	APPLY MULTLAY COMPRS LWR LEG LT	$	392.00
MLH-LBCH	APPLY MULTLAY COMPRS LWR LEG RT	$	392.00
MLH-LBCH	STRAPPING LOW BACK PED	$	887.00
MLH-LBCH	STRAPPING LOW BACK PED	$	887.00

MLH-LBCH	BX PLEURA PERCUT NDL LT	$	1,911.00
MLH-LBCH	BX PLEURA PERCUT NDL RT	$	1,911.00
MLH-LBCH	BX LUNG/MEDIASTINUM PERCUT NDL LT	$	4,338.00
MLH-LBCH	BX LUNG/MEDIASTINUM PERCUT NDL RT	$	4,338.00
MLH-LBCH	INJ EXT PSEUDOANEURYSM PERCUT TRMT LT	$	1,103.00
MLH-LBCH	INJ EXT PSEUDOANEURYSM PERCUT TRMT RT	$	1,103.00
MLH-LBCH	INJ EXT VENOGRAPHY LT	$	616.00
MLH-LBCH	INJ EXT VENOGRAPHY RT	$	616.00
MLH-LBCH	CATH PLACE SELECTIVE VENOUS 1ST ORDER LT	$	616.00
MLH-LBCH	CATH PLACE SELECTIVE VENOUS 1ST ORDER RT	$	616.00
MLH-LBCH	CATH PLACE SELECTIVE VENOUS 2ND ORDER LT	$	616.00
MLH-LBCH	CATH PLACE SELECTIVE VENOUS 2ND ORDER RT	$	616.00
MLH-LBCH	PLACE CATH SELECTIVE PULM ART LT	$	617.00
MLH-LBCH	PLACE CATH SELECTIVE PULM ART RT	$	616.00
MLH-LBCH	PLACE CATH SELECTIVE PULM ART SEGMENT LT	$	616.00
MLH-LBCH	PLACE CATH SELECTIVE PULM ART SEGMENT RT	$	616.00
MLH-LBCH	INTRO NDL/CATH CAROTID/VERTEBRAL ART LT	$	616.00
MLH-LBCH	INTRO NDL/CATH CAROTID/VERTEBRAL ART RT	$	616.00
MLH-LBCH	INTRO NDL/CATH UPPER/LOWER EXT ART LT	$	616.00
MLH-LBCH	INTRO NDL/CATH UPPER/LOWER EXT ART RT	$	616.00
MLH-LBCH	PLACE CATH 1ST ORD THORACIC/BRACH INIT L	$	928.00
MLH-LBCH	PLACE CATH 1ST ORD THORACIC/BRACH INIT R	$	928.00
MLH-LBCH	PLACE CATH 2ND ORD THORACIC/BRACH INIT L	$	928.00
MLH-LBCH	PLACE CATH 2ND ORD THORACIC/BRACH INIT R	$	928.00
MLH-LBCH	PLACE CATH 3RD ORD THORACIC/BRACH INIT L	$	928.00
MLH-LBCH	PLACE CATH 3RD ORD THORACIC/BRACH INIT R	$	928.00
MLH-LBCH	PLACE CATH 2ND/3RD/+ORD THORACIC/ ADDL L	$	928.00
MLH-LBCH	PLACE CATH 2ND/3RD/+ORD THORACIC/ ADDL R	$	928.00
MLH-LBCH	DISTINCT PROC CATH PLACE 1ST ORD EXT INI	$	928.00
MLH-LBCH	DISTINCT PROC CATH PLACE 1ST ORD EXT INI	$	928.00
MLH-LBCH	PLACE CATH 2ND ORD EXT INIT LT	$	928.00
MLH-LBCH	PLACE CATH 2ND ORD EXT INIT RT	$	928.00
MLH-LBCH	PLACE CATH 3RD+ ORD EXT INIT LT	$	928.00
MLH-LBCH	PLACE CATH 3RD+ ORD EXT INIT RT	$	928.00
MLH-LBCH	PLACE CATH 2ND/3RD/+ ORD EXT ADDL LT	$	928.00
MLH-LBCH	PLACE CATH 2ND/3RD/+ ORD EXT ADDL RT	$	928.00
MLH-LBCH	REPOSITION CENTRAL VENOUS CATH FLUORO LT	$	5,838.00
MLH-LBCH	CAROTID ARTERY CUT DOWN LT	$	566.00
MLH-LBCH	CAROTID ARTERY CUT DOWN RT	$	566.00
MLH-LBCH	PRIM PRQ TRLUML MCHNL THRMBC 1ST VSL LT	$	20,351.00
MLH-LBCH	PRIM PRQ TRLUML MCHNL THRMBC 1ST VSL RT	$	20,351.00
MLH-LBCH	NM INJ RADTRAC FOR ID OF SNTNL NODE LT	$	1,174.00
MLH-LBCH	NM INJ RADTRAC FOR ID OF SNTNL NODE LT	$	1,174.00
MLH-LBCH	BX SALIVARY GLAND NDL LT	$	1,171.00
MLH-LBCH	BX SALIVARY GLAND NDL RT	$	1,171.00
MLH-LBCH	INJ SIALOGRAM LT	$	616.00
MLH-LBCH	INJ SIALOGRAM RT	$	616.00

MLH-LBCH	BX RENAL PERCUT TROCAR/NDL LT	$	4,338.00
MLH-LBCH	BX RENAL PERCUT TROCAR/NDL RT	$	4,338.00
MLH-LBCH	REM/REP URET STENT TRANSURETHRAL LT	$	7,115.00
MLH-LBCH	REM/REP URET STENT TRANSURETHRAL RT	$	7,115.00
MLH-LBCH	REM URETE STENT TRANSURETHRAL LT	$	2,367.00
MLH-LBCH	REM URETE STENT TRANSURETHRAL RT	$	2,367.00
MLH-LBCH	REM NEPH TUBE W INDWEL URET STENT LT	$	1,440.00
MLH-LBCH	REM NEPH TUBE W INDWEL URET STENT RT	$	1,440.00
MLH-LBCH	MANOMETRIC STUDY CATH/TUBE WHITAKER LT	$	483.00
MLH-LBCH	MANOMETRIC STUDY CATH/TUBE WHITAKER RT	$	483.00
MLH-LBCH	ENDOVASC TEMP BALL ART OCCL HEAD/NECK LT	$	15,044.00
MLH-LBCH	ENDOVASC TEMP BALL ART OCCL HEAD/NECK RT	$	15,044.00
MLH-LBCH	INJ ANESTH GREATER OCCIPITAL NRV LT	$	1,062.00
MLH-LBCH	INTERCOSTAL NERVE BLOCK SINGLE LT	$	1,323.00
MLH-LBCH	INJ ANESTH AGENT FEMORAL LT	$	1,323.00
MLH-LBCH	INJ ANESTH AGENT FEMORAL RT	$	1,323.00
MLH-LBCH	INJ ANESTH AGNT OTH PERIPH NRV/BRNCH LT	$	1,323.00
MLH-LBCH	INJ ANESTH AGNT OTH PERIPH NRV/BRNCH RT	$	1,323.00
MLH-LBCH	INJ ANESTHETIC AGENT CERV/THOR 1LVL LT	$	679.00
MLH-LBCH	INJ ANESTHETIC AGENT CERV/THOR 1LVL RT	$	679.00
MLH-LBCH	INJ ANESTHETIC AGENT EACH ADDTL LT	$	348.00
MLH-LBCH	INJ ANESTHETIC AGENT EACH ADDTL RT	$	348.00
MLH-LBCH	INJ ANESTHETIC AGENT LUM/SAC 1LVL LT	$	531.00
MLH-LBCH	INJ ANESTHETIC AGENT LUM/SAC 1LVL RT	$	531.00
MLH-LBCH	INJ ANESTHETIC LUM/SAC EACH ADDTL LT	$	273.00
MLH-LBCH	INJ ANESTHETIC LUM/SAC EACH ADDTL RT	$	273.00
MLH-LBCH	INJ DX AGENT PARAVERT FACET/NRV LT	$	2,583.00
MLH-LBCH	INJ DX AGENT PARAVERT FACET/NRV RT	$	2,583.00
MLH-LBCH	INJ DX AGNT PARAVERT FCT/NRV 2ND LVL LT	$	797.00
MLH-LBCH	INJ DX AGNT PARAVERT FCT/NRV 2ND LVL RT	$	797.00
MLH-LBCH	INJ DX AGNT PARAVERT FCT/NRV 3RD LVL LT	$	797.00
MLH-LBCH	INJ DX AGNT PARAVERT FCT/NRV 3RD LVL RT	$	797.00
MLH-LBCH	INJ FACET JT/NRV LUMBAR/SACRAL INIT LVL	$	2,544.00
MLH-LBCH	INJ FACET JT/NRV LUMBAR/SACRAL INIT LVL	$	2,544.00
MLH-LBCH	INJ FACET JT/NRV LUMBAR/SACRAL ADDL LT	$	2,544.00
MLH-LBCH	INJ FACET JT/NRV LUMBAR/SACRAL ADDL RT	$	2,544.00
MLH-LBCH	INJ FACET JT/NRV LUM/SAC 3RD & ADDT LT	$	908.00
MLH-LBCH	INJ FACET JT/NRV LUM/SAC 3RD & ADDT RT	$	908.00
MLH-LBCH	SP DESTROY CERV/THOR FACET JNT LT	$	5,438.00
MLH-LBCH	SP DESTROY CERV/THOR FACET JNT RT	$	5,438.00
MLH-LBCH	SP DESTROY CERV/THOR FACET JNT ADDL LT	$	5,438.00
MLH-LBCH	SP DESTROY CERV/THOR FACET JNT ADDL RT	$	5,438.00
MLH-LBCH	SP DESTROY LUMB/SAC FACET JNT LT	$	5,438.00
MLH-LBCH	SP DESTROY LUMB/SAC FACET JNT RT	$	5,438.00
MLH-LBCH	SP DESTROY L/S FACET JNT ADDL LT	$	5,438.00
MLH-LBCH	SP DESTROY L/S FACET JNT ADDL RT	$	5,438.00
MLH-LBCH	FB REMOVAL EXTERNAL AUDITORY CANAL LT	$	396.00

MLH-LBCH	FOREIGN BODY REMOVAL EAR RT AUDITORY CAN	$	396.00
MLH-LBCH	EYE F/B DETECTION LT	$	419.00
MLH-LBCH	EYE F/B DETECTION RT	$	419.00
MLH-LBCH	MANDIBLE PARTIAL < 4VW RT	$	440.00
MLH-LBCH	MASTOIDS < 3VW LT	$	440.00
MLH-LBCH	MASTOIDS < 3VW RT	$	440.00
MLH-LBCH	OPTIC FORAMINA LT	$	440.00
MLH-LBCH	OPTIC FORAMINA RT	$	440.00
MLH-LBCH	TMJ OPEN & CLOSED MOUTH LT (UNIL)	$	440.00
MLH-LBCH	ARTHROGRAM TMJ LT	$	1,639.00
MLH-LBCH	ARTHROGRAM TMJ RT	$	1,639.00
MLH-LBCH	SALIVARY GLAND FOR CALCULUS RT	$	440.00
MLH-LBCH	RIBS 2 VW LT	$	440.00
MLH-LBCH	RIBS 2 VW RT	$	440.00
MLH-LBCH	RIBS 3+VW INCL PA CHEST LT	$	440.00
MLH-LBCH	RIBS 3 VW LT	$	440.00
MLH-LBCH	RIBS 3 VW RT	$	440.00
MLH-LBCH	CLAVICLE COMP LT	$	440.00
MLH-LBCH	CLAVICLE COMP RT	$	440.00
MLH-LBCH	SCAPULA COMP LT	$	440.00
MLH-LBCH	SCAPULA COMP RT	$	440.00
MLH-LBCH	SHOULDER 1VW LT	$	440.00
MLH-LBCH	SHOULDER 1VW RT	$	440.00
MLH-LBCH	SHOULDER COMP 2+VW LT	$	440.00
MLH-LBCH	SHOULDER COMP 2+VW RT	$	440.00
MLH-LBCH	ARTHROGRAM SHOULDER LT	$	1,639.00
MLH-LBCH	ARTHROGRAM SHOULDER RT	$	1,639.00
MLH-LBCH	HUMERUS 2+VW LT	$	440.00
MLH-LBCH	HUMERUS 2+VW RT	$	440.00
MLH-LBCH	ELBOW 2VW LT	$	440.00
MLH-LBCH	ELBOW 2VW RT	$	440.00
MLH-LBCH	ELBOW - 3 VIEWS	$	440.00
MLH-LBCH	ELBOW - 3 VIEWS	$	440.00
MLH-LBCH	ARTHROGRAM ELBOW LT	$	1,639.00
MLH-LBCH	ARTHROGRAM ELBOW RT	$	1,639.00
MLH-LBCH	FOREARM 2VW LT	$	440.00
MLH-LBCH	FOREARM 2VW RT	$	440.00
MLH-LBCH	EXT UPPER INFANT 2+VW LT	$	440.00
MLH-LBCH	EXT UPPER INFANT 2+VW RT	$	440.00
MLH-LBCH	WRIST 2VW LT	$	440.00
MLH-LBCH	WRIST 2VW RT	$	440.00
MLH-LBCH	WRIST COMP 3+VW LT	$	440.00
MLH-LBCH	WRIST COMP 3+VW RT	$	440.00
MLH-LBCH	ARTHROGRAM WRIST LT	$	1,639.00
MLH-LBCH	ARTHROGRAM WRIST RT	$	1,639.00
MLH-LBCH	HAND 2VW LT	$	440.00
MLH-LBCH	HAND 2VW RT	$	440.00

MLH-LBCH	HAND 3+VW LT	$	440.00
MLH-LBCH	HAND 3+VW RT	$	440.00
MLH-LBCH	FINGERS 2+VW LT	$	440.00
MLH-LBCH	FINGERS 2+VW RT	$	440.00
MLH-LBCH	CT EXT UPPER WO CONT LT	$	2,561.00
MLH-LBCH	CT EXT UPPER WO CONT RT	$	2,561.00
MLH-LBCH	CT EXT UPPER W CONT LT	$	3,544.00
MLH-LBCH	CT EXT UPPER W CONT RT	$	3,544.00
MLH-LBCH	CT EXT UPPER W/WO CONT LT	$	4,125.00
MLH-LBCH	CT EXT UPPER W/WO CONT RT	$	4,125.00
MLH-LBCH	CT ANGIO EXT UPPER W/WO CONT W IMAGE LT	$	4,125.00
MLH-LBCH	CT ANGIO EXT UPPER W/WO CONT W IMAGE RT	$	4,125.00
MLH-LBCH	MRI EXT UPPER NON JT WO CONT LT	$	4,959.00
MLH-LBCH	MRI EXT UPPER NON JT WO CONT RT	$	4,959.00
MLH-LBCH	MRI EXT UPPER NON JT W CONT LT	$	5,641.00
MLH-LBCH	MRI EXT UPPER NON JT W CONT RT	$	5,641.00
MLH-LBCH	MRI EXT UPPER NON JT W/WO CONT LT	$	6,756.00
MLH-LBCH	MRI EXT UPPER NON JT W/WO CONT RT	$	6,756.00
MLH-LBCH	MRI EXT UPPER JT WO CONT LT	$	4,959.00
MLH-LBCH	MRI EXT UPPER JT WO CONT RT	$	4,959.00
MLH-LBCH	MRI EXT UPPER JT W CONT LT	$	5,641.00
MLH-LBCH	MRI EXT UPPER JT W CONT RT	$	5,641.00
MLH-LBCH	MRI EXT UPPER JT W/WO CONT LT	$	6,756.00
MLH-LBCH	MRI EXT UPPER JT W/WO CONT RT	$	6,756.00
MLH-LBCH	XR HIP UNI W PELVIS 1 VW LT	$	357.00
MLH-LBCH	XR HIP UNI W PELVIS 1 VW RT	$	357.00
MLH-LBCH	XR HIP UNI W PELVIS 2-3VW LT	$	357.00
MLH-LBCH	XR HIP UNI W PELVIS 2-3VW RT	$	357.00
MLH-LBCH	XR HIP UNI W PELVIS 4 VW MIN LT	$	613.00
MLH-LBCH	XR HIP UNI W PELVIS 4 VW MIN RT	$	613.00
MLH-LBCH	ARTHROGRAM HIP LT	$	1,639.00
MLH-LBCH	ARTHROGRAM HIP RT	$	1,639.00
MLH-LBCH	XR FEMUR 1 VW LT	$	357.00
MLH-LBCH	XR FEMUR 1 VW RT	$	357.00
MLH-LBCH	FEMUR 2 VW MINIMUM LT	$	357.00
MLH-LBCH	FEMUR 2 VW MINIMUM RT	$	357.00
MLH-LBCH	KNEE 1/2VW LT	$	440.00
MLH-LBCH	KNEE 1/2VW RT	$	440.00
MLH-LBCH	KNEE 3VW LT	$	440.00
MLH-LBCH	KNEE 3VW RT	$	440.00
MLH-LBCH	KNEE COMP 4+VW LT	$	440.00
MLH-LBCH	KNEE COMP 4+VW RT	$	440.00
MLH-LBCH	ARTHROGRAM KNEE LT	$	1,639.00
MLH-LBCH	ARTHROGRAM KNEE RT	$	1,639.00
MLH-LBCH	TIBIA & FIBULA 2VW LT	$	440.00
MLH-LBCH	TIBIA & FIBULA 2VW RT	$	440.00
MLH-LBCH	EXT LOWER INFANT 2+VW LT	$	769.00

MLH-LBCH	EXT LOWER INFANT 2+VW RT	$	769.00
MLH-LBCH	ANKLE 2VW	$	440.00
MLH-LBCH	ANKLE 2VW	$	440.00
MLH-LBCH	ANKLE COMP 3+VW LT	$	440.00
MLH-LBCH	ANKLE COMP 3+VW RT	$	440.00
MLH-LBCH	ARTHROGRAM ANKLE LT	$	1,639.00
MLH-LBCH	ARTHROGRAM ANKLE RT	$	1,639.00
MLH-LBCH	FOOT 2VW LT	$	440.00
MLH-LBCH	FOOT 2VW RT	$	440.00
MLH-LBCH	FOOT COMP 3+VW LT	$	440.00
MLH-LBCH	FOOT COMP 3+VW RT	$	440.00
MLH-LBCH	CALCANEUS HEEL 2+VW LT	$	440.00
MLH-LBCH	CALCANEUS HEEL 2+VW RT	$	440.00
MLH-LBCH	TOES 2+VW LT	$	440.00
MLH-LBCH	TOES 2+VW RT	$	440.00
MLH-LBCH	CT EXT LOWER WO CONT LT	$	2,561.00
MLH-LBCH	CT EXT LOWER WO CONT RT	$	2,561.00
MLH-LBCH	CT EXT LOWER W CONT LT	$	3,544.00
MLH-LBCH	CT EXT LOWER W CONT RT	$	3,544.00
MLH-LBCH	CT EXT LOWER W/WO CONT LT	$	4,125.00
MLH-LBCH	CT EXT LOWER W/WO CONT RT	$	4,125.00
MLH-LBCH	CT ANGIO EXT LOWER W/WO CONT W IMAGE LT	$	4,125.00
MLH-LBCH	CT ANGIO EXT LOWER W/WO CONT W IMAGE RT	$	4,125.00
MLH-LBCH	MRI EXT LOWER NON JT WO CONT LT	$	4,959.00
MLH-LBCH	MRI EXT LOWER NON JT WO CONT RT	$	4,959.00
MLH-LBCH	MRI EXT LOWER NON JT W CONT LT	$	5,641.00
MLH-LBCH	MRI EXT LOWER NON JT W CONT RT	$	5,641.00
MLH-LBCH	MRI EXT LOWER NON JT W/WO CONT LT	$	6,756.00
MLH-LBCH	MRI EXT LOWER NON JT W/WO CONT RT	$	6,756.00
MLH-LBCH	MRI EXT LOWER JT WO CONT LT	$	4,960.00
MLH-LBCH	MRI EXT LOWER JT WO CONT RT	$	4,960.00
MLH-LBCH	MRI EXT LOWER JT W CONT LT	$	5,641.00
MLH-LBCH	MRI EXT LOWER JT W CONT RT	$	5,641.00
MLH-LBCH	MRI EXT LOWER JT W/WO CONT LT	$	6,756.00
MLH-LBCH	MRI EXT LOWER JT W/WO CONT RT	$	6,756.00
MLH-LBCH	PYELOGRAM RETROGRADE W/WO KUB RT IN OR	$	1,484.00
MLH-LBCH	UROGRAPHY ANTEGRADE LT	$	1,484.00
MLH-LBCH	UROGRAPHY ANTEGRADE RT	$	1,484.00
MLH-LBCH	RENAL CYST STUDY TRANSLUMBAR CONT VI LT	$	2,354.00
MLH-LBCH	RENAL CYST STUDY TRANSLUMBAR CONT VI RT	$	2,354.00
MLH-LBCH	FALLOPIAN TUBE TRANSCERV CATH LT	$	1,989.00
MLH-LBCH	FALLOPIAN TUBE TRANSCERV CATH RT	$	1,989.00
MLH-LBCH	LYMPHANGIOGRAM PELVIC/ABD LT	$	2,332.00
MLH-LBCH	LYMPHANGIOGRAM PELVIC/ABD RT	$	2,332.00
MLH-LBCH	TOMOGRAPHY 1-5 CUTS LINEAR MOTION LT	$	769.00
MLH-LBCH	TOMOGRAPHY 11-15 CUTS LINEAR MOTION RT	$	769.00
MLH-LBCH	US BREAST COMP 4 QUAD/AX/RETRO UNI/LT	$	566.00

MLH-LBCH	US BREAST COMP 4 QUAD/AX/RETRO UNI/RT	$	566.00
MLH-LBCH	US BREAST LIMITED AXILLA/1AREA UNI/LT	$	566.00
MLH-LBCH	US BREAST LIMITED AXILLA/1AREA UNI/RT	$	566.00
MLH-LBCH	US EXTR NON-VASC REAL-TIME IMG COMPL LT	$	973.00
MLH-LBCH	US EXTR NON-VASC REAL-TIME IMG COMPL RT	$	973.00
MLH-LBCH	US AXILLA LT	$	537.00
MLH-LBCH	US AXILLA RT	$	537.00
MLH-LBCH	BIOFEEDBACK TRAINING ANY MODALITY PED	$	291.00
MLH-LBCH	ST TRMT INDIVIDUAL	$	538.00
MLH-LBCH	ST TRMT GRP	$	526.00
MLH-LBCH	EVALUATION OF SPEECH FLUENCY	$	343.00
MLH-LBCH	EVALUATE SPEECH PRODUCTION	$	280.00
MLH-LBCH	SPEECH SOUND LANG COMPREHEN	$	581.00
MLH-LBCH	SPEECH SOUND LANGUAGE COMPREHENSION	$	581.00
MLH-LBCH	BEHAVRAL QUALIT ANALYS VOICE	$	291.00
MLH-LBCH	DYSPHAGIA TRMT	$	551.00
MLH-LBCH	EVAL VOICE PROSTHETIC DEVICE PED	$	918.00
MLH-LBCH	EVAL NON SPEECH GEN DEVICE IST HR	$	918.00
MLH-LBCH	THER SERVICE NON SPEECH AAC DEVICE	$	918.00
MLH-LBCH	EVAL SPEECH GENERATING DEV INIT HR PED	$	918.00
MLH-LBCH	EVAL SPEECH GENERATING DEV ADDL 30MI PED	$	569.00
MLH-LBCH	THER SERVICE SPEECH GENERATIN DEVICE PED	$	685.00
MLH-LBCH	ORAL/PHARYNGEAL SWALLOWING FUNCT EVAL	$	922.00
MLH-LBCH	MOTION FLUORO EVAL SWALLOW BY VIDEO PED	$	922.00
MLH-LBCH	FEES BY CINE/VIDEO RECORD PED	$	313.00
MLH-LBCH	FEE LARYNGEAL SENSORY TEST BY CINE/V PED	$	957.00
MLH-LBCH	EVAL NON SPEECH GEN DEVICE EA ADDI 30MIN	$	459.00
MLH-LBCH	EVAL AUDITORY REHAB STATUS EA ADDL 15MIN	$	194.00
MLH-LBCH	PRQ TRLUML CORONARY ANGIO ONE ART/BRANCH	$	17,561.00
MLH-LBCH	PRQ TRLUML CORONARY ANGIO ONE ART/BRANCH	$	17,561.00
MLH-LBCH	PRQ TRLUML CORONARY ANGIO ONE ART/BRANCH	$	17,561.00
MLH-LBCH	PRQ TRLUML CORONARY ANGIO ONE ART/BRANCH	$	17,561.00
MLH-LBCH	PRQ TRLUML CORONARY ANGIO ONE ART/BRANCH	$	17,561.00
MLH-LBCH	PRQ TRLUML CORONARY ANGIOPLA ADDL BRANCH	$	17,561.00
MLH-LBCH	PRQ TRLUML CORONARY ANGIOPLA ADDL BRANCH	$	16,725.00
MLH-LBCH	PRQ TRLUML CORONARY ANGIOPLA ADDL BRANCH	$	17,561.00
MLH-LBCH	PRQ TRLUML CORONARY ANGIOPLA ADDL BRANCH	$	17,561.00
MLH-LBCH	PRQ TRLUML CORONARY ANGIOPLA ADDL BRANCH	$	17,561.00
MLH-LBCH	PRQ TRLUML CORON ANGIO/ATHER ONE ART/BRN	$	33,491.00
MLH-LBCH	PRQ TRLUML CORON ANGIO/ATHER ONE ART/BRN	$	33,491.00
MLH-LBCH	PRQ TRLUML CORON ANGIO/ATHER ONE ART/BRN	$	33,491.00
MLH-LBCH	PRQ TRLUML CORON ANGIO/ATHER ONE ART/BRN	$	33,491.00
MLH-LBCH	PRQ TRLUML CORON ANGIO/ATHER ONE ART/BRN	$	33,491.00
MLH-LBCH	PRQ TRLUML CORO ANGIO/ATHER ADDL ART/BRN	$	33,491.00
MLH-LBCH	PRQ TRLUML CORO ANGIO/ATHER ADDL ART/BRN	$	33,491.00
MLH-LBCH	PRQ TRLUML CORO ANGIO/ATHER ADDL ART/BRN	$	33,491.00
MLH-LBCH	PRQ TRLUML CORO ANGIO/ATHER ADDL ART/BRN	$	33,491.00

MLH-LBCH	PRQ TRLUML CORO ANGIO/ATHER ADDL ART/BRN	$	33,491.00
MLH-LBCH	PRQ TRLUM CORO STENT W/ANGIO ONE ART/BRN	$	26,675.00
MLH-LBCH	PRQ TRLUM CORO STENT W/ANGIO ONE ART/BRN	$	26,675.00
MLH-LBCH	PRQ TRLUM CORO STENT W/ANGIO ONE ART/BRN	$	26,675.00
MLH-LBCH	PRQ TRLUM CORO STENT W/ANGIO ONE ART/BRN	$	26,675.00
MLH-LBCH	PRQ TRLUM CORO STENT W/ANGIO ONE ART/BRN	$	26,675.00
MLH-LBCH	PRQ TRLUM CORO STENT W/ANGIO ADDL ART/BR	$	26,675.00
MLH-LBCH	PRQ TRLUM CORO STENT W/ANGIO ADDL ART/BR	$	26,675.00
MLH-LBCH	PRQ TRLUM CORO STENT W/ANGIO ADDL ART/BR	$	26,675.00
MLH-LBCH	PRQ TRLUM CORO STENT W/ANGIO ADDL ART/BR	$	26,675.00
MLH-LBCH	PRQ TRLUM CORO STENT W/ANGIO ADDL ART/BR	$	26,675.00
MLH-LBCH	PRQ TRLUM CORO STENT/ATH/ANGI ONE ART/BR	$	26,675.00
MLH-LBCH	PRQ TRLUM CORO STENT/ATH/ANGI ONE ART/B	$	26,675.00
MLH-LBCH	PRQ TRLUM CORO STENT/ATH/ANGI ONE ART/BR	$	26,675.00
MLH-LBCH	PRQ TRLUM CORO STENT/ATH/ANGI ONE ART/BR	$	26,675.00
MLH-LBCH	PRQ TRLUM CORO STENT/ATH/ANGI ONE ART/BR	$	26,675.00
MLH-LBCH	PRQ TRLUML CORO STENT/ATH/ANGIO ADDL BRN	$	26,675.00
MLH-LBCH	PRQ TRLUML CORO STENT/ATH/ANGIO ADDL BRN	$	26,675.00
MLH-LBCH	PRQ TRLUML CORO STENT/ATH/ANGIO ADDL BRN	$	26,675.00
MLH-LBCH	PRQ TRLUML CORO STENT/ATH/ANGIO ADDL BRN	$	26,675.00
MLH-LBCH	PRQ TRLUML CORO STENT/ATH/ANGIO ADDL BRN	$	26,675.00
MLH-LBCH	PRQ TRLUM CORO BYP GRFT REVASC ONE VESSL	$	26,675.00
MLH-LBCH	PRQ TRLUM CORO BYP GRFT REVASC ONE VESSL	$	26,675.00
MLH-LBCH	PRQ TRLUM CORO BYP GRFT REVASC ONE VESSL	$	26,675.00
MLH-LBCH	PRQ TRLUM CORO BYP GRFT REVASC ONE VESSL	$	26,675.00
MLH-LBCH	PRQ TRLUM CORO BYP GRFT REVASC ONE VESSL	$	26,675.00
MLH-LBCH	PRQ TRLUM CORO BYP GRFT REVASC ADDL VESS	$	26,675.00
MLH-LBCH	PRQ TRLUM CORO BYP GRFT REVASC ADDL VESS	$	26,675.00
MLH-LBCH	PRQ TRLUM CORO BYP GRFT REVASC ADDL VESS	$	26,675.00
MLH-LBCH	PRQ TRLUM CORO BYP GRFT REVASC ADDL VESS	$	26,675.00
MLH-LBCH	PRQ TRLUM CORO BYP GRFT REVASC ADDL VESS	$	26,675.00
MLH-LBCH	PRQ TRLUM CORO TOT OCCLU REVASC MI 1 VSL	$	26,675.00
MLH-LBCH	PRQ TRLUM CORO TOT OCCLU REVASC MI 1 VSL	$	26,675.00
MLH-LBCH	PRQ TRLUM CORO TOT OCCLU REVASC MI 1 VSL	$	26,675.00
MLH-LBCH	PRQ TRLUM CORO TOT OCCLU REVASC MI 1 VSL	$	26,675.00
MLH-LBCH	PRQ TRLUM CORO CHRON OCCLUS REVASC 1 VS	$	26,675.00
MLH-LBCH	PRQ TRLUM CORO CHRON OCCLUS REVASC 1 VS	$	26,675.00
MLH-LBCH	PRQ TRLUM CORO CHRON OCCLUS REVASC 1 VS	$	26,675.00
MLH-LBCH	PRQ TRLUM CORO CHRON OCCLUS REVASC 1 VSL	$	26,675.00
MLH-LBCH	PRQ TRLUM CORO CHRON OCCLUS REVASC 1 VS	$	26,675.00
MLH-LBCH	PRQ TRLU CORO CHRN OCCLUS REVAS ADDL VSL	$	26,675.00
MLH-LBCH	PRQ TRLU CORO CHRN OCCLUS REVAS ADDL VSL	$	26,675.00
MLH-LBCH	PRQ TRLU CORO CHRN OCCLUS REVAS ADDL VSL	$	26,675.00
MLH-LBCH	PRQ TRLU CORO CHRN OCCLUS REVAS ADDL VSL	$	26,675.00
MLH-LBCH	PRQ TRLU CORO CHRN OCCLUS REVAS ADDL VSL	$	26,675.00
MLH-LBCH	CAROTID DUPLEX SCAN EXTRACRANIAL ART RT	$	1,101.00
MLH-LBCH	EXT LOWER DUPLEX ART/ART BYPASS GRAFT LT	$	1,101.00

MLH-LBCH	EXT LOWER DUPLEX ART/ART BYPASS GRAFT RT	$	1,101.00
MLH-LBCH	EXT UPPER DUPLEX ART/ART BYPASS GRAFT LT	$	1,101.00
MLH-LBCH	EXT UPPER DUPLEX ART/ART BYPASS GRAFT RT	$	1,101.00
MLH-LBCH	EXT UPPER VENOUS DOPPLER W COMPRESS LT	$	1,101.00
MLH-LBCH	EXT LOWER VENOUS DOPPLER W COMPRESS RT	$	1,101.00
MLH-LBCH	HEMODIALYSIS ACCESS DUPLEX SCAN LT	$	1,101.00
MLH-LBCH	HEMODIALYSIS ACCESS DUPLEX SCAN RT	$	1,101.00
MLH-LBCH	CHEST WALL MANIPUL DEMO/EVAL SUBSEQ PED	$	176.00
MLH-LBCH	RANGE OF MOTION EXT/TRUNK SECTION EA	$	169.00
MLH-LBCH	RANGE OF MOTION EXT/TRUNK SECTION EA	$	169.00
MLH-LBCH	RANGE OF MOTION HAND W/WO COMPARISON	$	144.00
MLH-LBCH	RANGE OF MOTION HAND W/WO COMPARISON	$	144.00
MLH-LBCH	APHASIA ASSESSMENT EA HR PED	$	401.00
MLH-LBCH	DEV SCREENING LTD W/INTERP & REPORT	$	365.00
MLH-LBCH	DEV SCREENING LTD W/INTERP & REPORT	$	365.00
MLH-LBCH	DEV SCREENING LTD W/INTERP & REPORT	$	365.00
MLH-LBCH	DEV TESTING W/INTERP & REPORT 1ST HR	$	395.00
MLH-LBCH	DEV TESTING W/INTERP & REPORT 1ST HR	$	395.00
MLH-LBCH	DEV TESTING W/INTERP & REPORT 1ST HR	$	395.00
MLH-LBCH	DEV TEST W/INTERP & REPORT EA ADDL 30MIN	$	395.00
MLH-LBCH	DEV TEST W/INTERP & REPORT EA ADDL 30MIN	$	395.00
MLH-LBCH	DEV TEST W/INTERP & REPORT EA ADDL 30MIN	$	395.00
MLH-LBCH	COLD PACK APPL PED	$	148.00
MLH-LBCH	COLD PACK APPL PED	$	148.00
MLH-LBCH	PARAFIN BATH APPL 1+AREAS PED	$	51.00
MLH-LBCH	PARAFFIN BATH APPL 1+AREAS PED	$	51.00
MLH-LBCH	WHIRLPOOL APPL 1+AREAS FLUIDOTHER PED	$	117.00
MLH-LBCH	ELECT STIM 15MIN PED	$	124.00
MLH-LBCH	ELECT STIM 15MIN	$	124.00
MLH-LBCH	ELECT STIM 15MIN	$	124.00
MLH-LBCH	CONT BATH 15MIN PED	$	88.00
MLH-LBCH	HUBBARD TANK 15MIN HYDROTHER PED	$	167.00
MLH-LBCH	UNLISTED PROC MODALITY SONULATOR	$	66.00
MLH-LBCH	THER EXERCISE 1+AREAS 15MIN	$	194.00
MLH-LBCH	THER EXERCISE 1+AREAS 15MIN	$	194.00
MLH-LBCH	THER EXERCISE 1+AREAS 15MIN	$	194.00
MLH-LBCH	NEUROMUSCULAR REEDUCATION 1+AREAS 15MIN	$	184.00
MLH-LBCH	NEUROMUSCULAR REEDUCATION 1+AREAS 15MIN	$	184.00
MLH-LBCH	NEUROMUSCULAR REEDUCATION 1+AREAS 15MIN	$	184.00
MLH-LBCH	NEUROMUSCULAR REEDUCATION 1+AR 15MIN	$	226.00
MLH-LBCH	AQUATIC THER W THER EXERC 15MIN 1+AREAS	$	208.00
MLH-LBCH	AQUATIC THER W THER EXERC 15MIN 1+AREAS	$	208.00
MLH-LBCH	GAIT TRN 1+AREAS 15 MIN	$	167.00
MLH-LBCH	GAIT TRN 1+AREAS 15MIN	$	167.00
MLH-LBCH	MASSAGE 1+AREAS 15MIN PED	$	152.00
MLH-LBCH	MASSAGE 1+AREAS 15MIN	$	152.00
MLH-LBCH	THER COGNITIVE FUNCT DIRECT INT 15MIN	$	69.00

MLH-LBCH	THER COGNITIVE FUNCT DIRECT INT 15MIN	$	69.00
MLH-LBCH	THER COGNITIVE FUNCT DIRECT INT 15MIN	$	69.00
MLH-LBCH	THER COGNITIVE FUNCT DIRECT ADDL 15MIN	$	67.00
MLH-LBCH	THER COGNITIVE FUNCT DIRECT ADDL 15MIN	$	67.00
MLH-LBCH	THER COGNITIVE FUNCT DIRECT ADDL 15MIN	$	67.00
MLH-LBCH	UNLISTED PROC THER	$	105.00
MLH-LBCH	UNLISTED PROC THER	$	105.00
MLH-LBCH	UNLISTED PROC THER	$	105.00
MLH-LBCH	MANUAL THER MOBILIZATION/MANIP 15MIN PED	$	181.00
MLH-LBCH	MANUAL THER MOBILIZATION/MANIPULAT 15MIN	$	181.00
MLH-LBCH	THER PROC GRP	$	128.00
MLH-LBCH	THER PROC GRP PED	$	128.00
MLH-LBCH	PT EVAL LOW COMPLEX 20 MIN PED	$	279.00
MLH-LBCH	PT EVAL MOD COMPLEX 30 MIN PED	$	279.00
MLH-LBCH	PT EVAL HIGH COMPLEX 45 MIN PED	$	279.00
MLH-LBCH	PT RE-EVAL EST PLAN CARE 20 MINS	$	189.00
MLH-LBCH	OT EVAL LOW COMPLEX 30 MIN PED	$	271.00
MLH-LBCH	OT EVAL MOD COMPLEX 45 MIN	$	271.00
MLH-LBCH	OT EVAL HIGH COMPLEX 60 MIN PED	$	271.00
MLH-LBCH	OT RE-EVAL EST PLAN CARE 30 MIN	$	179.00
MLH-LBCH	THER ACTIVITY FUNCT PERFORM 15MIN PED	$	237.00
MLH-LBCH	THER ACTIVITY FUNCT PERFORM 15MIN	$	237.00
MLH-LBCH	THER ACTIVITY FUNCT PERFORM 15MIN	$	237.00
MLH-LBCH	SENSORY INTEGRATIVE TECHNIQUES 15MIN	$	176.00
MLH-LBCH	SENSORY INTEGRATIVE TECHNIQUES 15MIN PED	$	176.00
MLH-LBCH	SENSORY INTEGRATIVE TECHNIQUES 15MIN	$	176.00
MLH-LBCH	ADL 15MIN	$	217.00
MLH-LBCH	ADL 15MIN PED	$	217.00
MLH-LBCH	ADL 15MIN	$	217.00
MLH-LBCH	ADL 15MIN	$	217.00
MLH-LBCH	COMMUNITY/WORK REINTEGRATION TRN 15MIN	$	176.00
MLH-LBCH	COMMUNITY/WORK REINTEGRATION TRN 15MIN	$	176.00
MLH-LBCH	COMMUNITY/WORK REINTEGRATION TRN 15MIN	$	176.00
MLH-LBCH	WHEELCHAIR MGMT ASS/FIT/TRN 15MIN PED	$	181.00
MLH-LBCH	WHEELCHAIR MGMT/PROPULSION TRN 15MIN	$	181.00
MLH-LBCH	WHEELCHAIR MGMT/PROPULSION TRN 15MIN	$	181.00
MLH-LBCH	REMOVAL TISS WOUND AREA </= 20 SQ CM PED	$	355.00
MLH-LBCH	REMOVAL TISSUE WOUND AREA > 20 SQ CM PED	$	455.00
MLH-LBCH	TISSUE REMOV DEBRIDE NONSELECT WO AN PED	$	447.00
MLH-LBCH	PHYSICAL PERFORM TEST/MEASURE 15MIN PED	$	189.00
MLH-LBCH	PHYSICAL PERFORM TEST/MEASURE 15MIN PED	$	189.00
MLH-LBCH	ASSISTIVE TECH ASSESS 15MIN PED	$	239.00
MLH-LBCH	ASSISTIVE TECH ASSESS 15MIN PED	$	239.00
MLH-LBCH	ORTHOTIC MGMT&TRN EXT/TRUNK 15MIN	$	175.00
MLH-LBCH	ORTHO MGMT&TRAIN EXT UPPER/LOWER 15MIN	$	175.00
MLH-LBCH	ORTHOTIC MGMT&TRN EXT/TRUNK 15MIN	$	175.00
MLH-LBCH	PROSTHET MGMT&TRN EXT/TRUNK EA 15MIN PED	$	164.00

MLH-LBCH	PROSTHETIC MGMT&TRN EXT 15MIN	$	164.00
MLH-LBCH	ORTHOTICS/PROSTC MGMT SUBSQ VISIT 15 MIN	$	175.00
MLH-LBCH	ORTHOTICS/PROSTC MGMT SUBSQ VISIT 15 MIN	$	175.00
MLH-LBCH	UNLISTED PROC REHAB STANDARDIZED TESTING	$	685.00
MLH-LBCH	UNLIST PROC REHAB PRESSURE GARMENT M PED	$	685.00
MLH-LBCH	UNLIST PROC REHAB PRESSURE GARMENT M PED	$	685.00
MLH-LBCH	TEAM CONF W PAT BY HC PROF=>30MIN	$	224.00
MLH-LBCH	TRANSPORT GROUND OXYGEN CYLINDER	$	207.00
MLH-LBCH	TRANSPORT GROUND MONITOR/DEBRILLATOR	$	543.00
MLH-LBCH	TRANSPORT GROUND VENTILATOR	$	583.00
MLH-LBCH	TRANSPORT GROUND MED ATTENDANT	$	100.00
MLH-LBCH	TRANSPORT GROUND AMB	$	100.00
MLH-LBCH	AMB CONVENTIONAL AIR TRANSPORT FIXED WIN	$	100.00
MLH-LBCH	NPI 123 MIBG	$	8,433.00
MLH-LBCH	TECH TC99M SESTAMIBI EA DOSE UP TO 40MCI	$	84.00
MLH-LBCH	TECH TC99M TETROFOSM EA DOSE UP TO 40MCI	$	95.00
MLH-LBCH	TECHNETIUM TC 99M MEDRONATE UP TO 30MCI	$	105.00
MLH-LBCH	THALLIUS CHLORIDE TL 201 EA MCI	$	42.00
MLH-LBCH	IN 111 CAPROMAB PENDETID EA DOSE <=10MCI	$	7,994.00
MLH-LBCH	TECH TC 99M PERTECHNETATE PER MCI	$	62.00
MLH-LBCH	I-123 CAP PER 100 MICROCURIES UPTO 999	$	169.00
MLH-LBCH	TECH TC 99M EXAMETAZIME BRAIN PER MCI	$	4,217.00
MLH-LBCH	TECHNETIUM TC 99M MEBROFENIN UPTO 15MCI	$	89.00
MLH-LBCH	TC 99M PYROPHOSPHATE EA MCI	$	189.00
MLH-LBCH	TC 99M PENTETATE UP TO 25MCI	$	386.00
MLH-LBCH	TC 99M MAA UP TO 10MCI	$	386.00
MLH-LBCH	TC 99M SULFUR COLLOID	$	532.00
MLH-LBCH	INDIUM IN 111 OXYQUINOLINE WBC 500UCI	$	6,064.00
MLH-LBCH	INDIUM IN 111 PENTETATE DISODIUM	$	5,307.00
MLH-LBCH	GALLIUM GA 67 EA MCI	$	132.00
MLH-LBCH	TC-99M BICISATE DX UP 25 MCI	$	2,718.00
MLH-LBCH	XENON XE 133 PER 10MCI	$	303.00
MLH-LBCH	TC 99M LABELED RBC PER DOSE UP TO 30MCI	$	101.00
MLH-LBCH	TC 99M MERTIATIDE UP TO 15MCI	$	882.00
MLH-LBCH	TECHNETIUM TC 99M EXAMETAZIME WBC EA DOS	$	4,342.00
MLH-LBCH	INDIUM IN 111 PENTETREOTIDE UPTO 6MCI	$	11,591.00
MLH-LBCH	IOFLUPANE I 123 INJ(DATSCAN)<=5MCI	$	4,012.00
MLH-LBCH	RADIUM RA 223 DICHLORIDE INJ PER UCI	$	351.00
MLH-LBCH	MRA ABD W CONT	$	5,639.00
MLH-LBCH	MRA ABD WO CONT	$	4,960.00
MLH-LBCH	MRA ABD W/WO CONT	$	6,756.00
MLH-LBCH	MRA CHEST W CONT	$	5,639.00
MLH-LBCH	MRA CHEST WO CONT	$	4,960.00
MLH-LBCH	MRA CHEST W/WO CONT	$	6,756.00
MLH-LBCH	MRA EXT LOWER W CONT	$	5,639.00
MLH-LBCH	MRA EXT LOWER W CONT BIL	$	11,281.00
MLH-LBCH	MRA EXT LOWER W CONT LT	$	5,639.00

MLH-LBCH	MRA EXT LOWER W CONT RT	$	5,639.00
MLH-LBCH	MRA EXT LOWER WO CONT BIL	$	9,931.00
MLH-LBCH	MRA EXT LOWER WO CONT LT	$	4,960.00
MLH-LBCH	MRA EXT LOWER WO CONT RT	$	4,960.00
MLH-LBCH	MRA EXT LOWER W/WO CONT BIL	$	13,512.00
MLH-LBCH	MRA EXT LOWER W/WO CONT LT	$	6,756.00
MLH-LBCH	MRA EXT LOWER W/WO CONT RT	$	6,756.00
MLH-LBCH	MRA PELVIS W CONT	$	5,639.00
MLH-LBCH	MRA PELVIS WO CONT	$	4,960.00
MLH-LBCH	MRA PELVIS W/WO CONT	$	6,756.00
MLH-LBCH	TTE CONGEN CARDIAC ANOMALY COM W/CONTRST	$	2,471.00
MLH-LBCH	TTE CONGEN CARDIAC ANOMALY F/U W/CONTRST	$	2,471.00
MLH-LBCH	TTE 2D M MODE RECORDING COMP W/CONTRST	$	2,471.00
MLH-LBCH	TTE 2D M MODE RECORDING LMTD W/CONTRAST	$	2,471.00
MLH-LBCH	TTE 2D M MODE W/DOP COLOR FLW W/CONTRST	$	2,471.00
MLH-LBCH	MRA SPINE W OR WO CONT	$	4,255.00
MLH-LBCH	MRA EXT UPPER W OR WO CONT	$	4,255.00
MLH-LBCH	PERC DRUG-ELUTE COR STENT SING	$	33,890.00
MLH-LBCH	PERC DRUG-ELUTE COR STENT SING	$	33,890.00
MLH-LBCH	PERC DRUG-ELUTE CPR STENT SING	$	33,890.00
MLH-LBCH	PERC DRUG-ELUTE COR STENT SING	$	33,890.00
MLH-LBCH	PERC DRUG-ELUTE COR STENT SING	$	33,890.00
MLH-LBCH	PERC DRUG-ELUTE COR STENT ADDL BRANCH	$	33,890.00
MLH-LBCH	PERC DRUG-ELUTE COR STENT ADDL BRANCH	$	33,890.00
MLH-LBCH	PERC DRUG-ELUTE COR STENT ADDL BRANCH	$	33,890.00
MLH-LBCH	PERC DRUG-ELUTE COR STENT ADDL BRANCH	$	33,890.00
MLH-LBCH	PERC DRUG-ELUTE COR STENT ADDL BRANCH	$	33,890.00
MLH-LBCH	PERC DRUG-ELUTE COR STENT ATHER SING	$	33,890.00
MLH-LBCH	PERC DRUG-ELUTE COR STENT ATHER SING	$	33,890.00
MLH-LBCH	PERC DRUG-ELUTE COR STENT ATHER SING	$	33,890.00
MLH-LBCH	PERC DRUG-ELUTE COR STENT ATHER SING	$	33,890.00
MLH-LBCH	PERC DRUG-ELUTE COR STENT ATHER SING	$	33,890.00
MLH-LBCH	PERC DRUG-ELUTE COR STENT ATHER ADD BRAN	$	33,890.00
MLH-LBCH	PERC DRUG-ELUTE COR STENT ATHER ADD BRAN	$	33,890.00
MLH-LBCH	PERC DRUG-ELUTE COR STENT ATHER ADD BRAN	$	33,890.00
MLH-LBCH	PERC DRUG-ELUTE COR STENT ATHER ADD BRAN	$	33,890.00
MLH-LBCH	PERC DRUG-ELUTE COR STENT ATHER ADD BRAN	$	33,890.00
MLH-LBCH	PERC DRUG-ELUTE COR REVASC CABG SING	$	33,890.00
MLH-LBCH	PERC DRUG-ELUTE COR REVASC CABG SING	$	33,890.00
MLH-LBCH	PERC DRUG-ELUTE COR REVASC CABG SING	$	33,890.00
MLH-LBCH	PERC DRUG-ELUTE COR REVASC CABG SING	$	33,890.00
MLH-LBCH	PERC DRUG-ELUTE COR REVASC CABG SING	$	33,890.00
MLH-LBCH	PERC DRUG-ELUTE COR REVASC CABG ADD BRAN	$	33,890.00
MLH-LBCH	PERC DRUG-ELUTE COR REVASC CABG ADD BRAN	$	33,890.00
MLH-LBCH	PERC DRUG-ELUTE COR REVASC CABG ADD BRAN	$	33,890.00
MLH-LBCH	PERC DRUG-ELUTE COR REVASC CABG ADD BRAN	$	33,890.00
MLH-LBCH	PERC DRUG-ELUTE COR REVASC CABG ADD BRAN	$	33,890.00

MLH-LBCH	PERC DRUG-ELUTE COR REVASC W/AMI SING	$	33,890.00
MLH-LBCH	PERC DRUG-ELUTE COR REVASC W/AMI SING	$	33,890.00
MLH-LBCH	PERC DRUG-ELUTE COR REVASC W/AMI SING	$	33,890.00
MLH-LBCH	PERC DRUG-ELUTE COR REVASC W/AMI SING	$	33,890.00
MLH-LBCH	PERC DRUG-ELUTE COR REVASC W/AMI SING	$	33,890.00
MLH-LBCH	PERC DRUG-ELUTE COR REVASC CHRONIC SING	$	33,890.00
MLH-LBCH	PERC DRUG-ELUTE COR REVASC CHRONIC SING	$	33,890.00
MLH-LBCH	PERC DRUG-ELUTE COR REVASC CHRONIC SING	$	33,890.00
MLH-LBCH	PERC DRUG-ELUTE COR REVASC CHRONIC SING	$	33,890.00
MLH-LBCH	PERC DRUG-ELUTE COR REVASC CHRONIC SING	$	33,890.00
MLH-LBCH	PERC DRUG-ELUTE COR REVASC CHRONIC ADDL	$	33,890.00
MLH-LBCH	PERC DRUG-ELUTE COR REVASC CHRONIC ADDL	$	33,890.00
MLH-LBCH	PERC DRUG-ELUTE COR REVASC CHRONIC ADDL	$	33,890.00
MLH-LBCH	PERC DRUG-ELUTE COR REVASC CHRONIC ADDL	$	33,890.00
MLH-LBCH	PERC DRUG-ELUTE COR REVASC CHRONIC ADDL	$	33,890.00
MLH-LBCH	LIVING DONOR KIDNEY ACQUISITION-LE BON	$	2.00
MLH-LBCH	TREATMENT OF FRACTURE THIGH LT	$	1,199.00
MLH-LBCH	CLSD TRMT POST MALLEOUS FRAC W MANIPULAT	$	699.00
MLH-LBCH	DIABETES OP SELF MGMT TRN INDIVIDUAL 30M	$	151.00
MLH-LBCH	DIABETES OP SELF MGMT GROUP 30MIN	$	90.00
MLH-LBCH	WOUND CLOSURE UTILIZING TISSUE ADHESIVE	$	232.00
MLH-LBCH	OCCLUSIVE DEVICE PLACE VENOUS/ART SITE	$	2,204.00
MLH-LBCH	ANGIO ILIAC ART W CARDIAC CATH	$	928.00
MLH-LBCH	LDCT FOR LUNG CA SCREEN	$	662.00
MLH-LBCH	PREPARE FECAL MICROBIOTA	$	322.00
MLH-LBCH	CRYOPRECIPITATE EA UNIT	$	260.00
MLH-LBCH	WBC POOR BLOOD EA UNIT	$	1,351.00
MLH-LBCH	PLASMA FRESH FROZ SING DONOR EA UNI ALIQ	$	295.00
MLH-LBCH	RBC EA UNIT	$	1,121.00
MLH-LBCH	WASHED RBC UNIT ALIQ	$	2,440.00
MLH-LBCH	PLATELET CONC LEUKOREDUCED EA UNIT	$	402.00
MLH-LBCH	PLATELET CONC LEUKORED IRRADIAT EA ALIQ	$	657.00
MLH-LBCH	PLATELET LEUKOREDUCED APHERESIS/PHRESIS	$	3,414.00
MLH-LBCH	PLATELET LEUKORED IRRADIATED APHERE ALIQ	$	3,543.00
MLH-LBCH	BLOOD LEUKORED IRRADIATED EA UNIT ALIQ	$	1,671.00
MLH-LBCH	PLASMA CRYOPRECIPITATE REDUCED EA UNIT	$	757.00
MLH-LBCH	PLATELET HLA MATCHED LEUKOREDUCED APHERE	$	4,150.00
MLH-LBCH	BLOOD LEUKOREDUCED FROZEN/DEGLYCEROL EA	$	2,137.00
MLH-LBCH	PLASMA FRESH FROZEN SINGLE DONOR 24HRS	$	755.00
MLH-LBCH	PLATELETS PHERESIS PATH-REDUCED EA UNIT	$	2,231.00
MLH-LBCH	PATHOGEN TEST FOR PLATELETS	$	165.00
MLH-LBCH	INF THER NON CHEMO EA VISIT	$	1,391.00
MLH-LBCH	CHEMO ADMIN SQ/IM/PUSH TECHNIQUE	$	427.00
MLH-LBCH	CHEMO ADMIN INF TECHNIQUE ONLY	$	1,515.00
MLH-LBCH	CHEMO ADMIN INF & SQ/IM/PUSH TECHNIQUE	$	1,533.00
MLH-LBCH	FORANE/MIN	$	3.00
MLH-LBCH	ANESTHESIA AGENT LOCAL EA MIN	$	6.00

MLH-LBCH	ANESTHESIA AGENT SPINAL/EPIDURAL EA MIN	$	6.00
MLH-LBCH	ANESTH AGENT GENERAL EA MIN	$	20.00
MLH-LBCH	ANESTH AGENT GENERAL EA MIN	$	21.00
MLH-LBCH	END TIDAL CO2 MONITOR, RE	$	24.00
MLH-LBCH	SOCIAL GROUP - REHAB	$	26.00
MLH-LBCH	GROUP SESSION	$	51.00
MLH-LBCH	HEARING AID OFFICE VISIT LEVEL 1	$	62.00
MLH-LBCH	HEARING AID OFFICE VISIT LEVEL 1	$	62.00
MLH-LBCH	INDIVIDUAL SESSION	$	92.00
MLH-LBCH	HEARING AID OFFICE VISIT LEVEL 2	$	122.00
MLH-LBCH	HEARING AID SELECTION/FITTING	$	122.00
MLH-LBCH	HEARING AID OFFICE VISIT LEVEL 2	$	122.00
MLH-LBCH	HEARING AID SELECTION/FITTING	$	122.00
MLH-LBCH	HEARING AID OFFICE VISIT LEVEL 3	$	183.00
MLH-LBCH	HEARING AID OFFICE VISIT LEVEL 3	$	183.00
MLH-LBCH	HEARING AID OFFICE VISIT LEVEL 4	$	244.00
MLH-LBCH	HEARING AID OFFICE VISIT LEVEL 4	$	244.00
MLH-LBCH	ER TRIAGE	$	324.00
MLH-LBCH	KIDNEY GROUND TRANSPORTATION	$	1,902.00
MLH-LBCH	LIVER GROUND TRANSPORTATION	$	1,902.00
MLH-LBCH	STEM CELL PROFILE	$	3,215.00

*Policies should be reviewed online and are valid ONLY on the date it is printed.Do not print policies for future reference.Print Date: 7/12/2018 9:34:17 AM

Methodist Le Bonheur Healthcare

Screening, Stabilization, Treatment and Transfer of Individuals in Need of **Emergency Medical Services – EMTALA**

Policy: **It is the policy of each Methodist Le Bonheur Healthcare Hospital ("MLH" or "Hospital") to comply with the Emergency Medical Treatment and Labor Act ("EMTALA"), the Tennessee and Mississippi Departments of Health hospital licensure requirements.**

Definitions:

a. **"Capability"** of a medical facility means that there is physical space, equipment, supplies and specialized services that Hospital provides (e.g., surgery, psychiatry, intensive care, trauma). Capability of the staff means the level of care that the personnel of Hospital can provide within the training and scope of their professional licenses, including on-call coverage.

b. **"Capacity"** means the ability of Hospital to accommodate an individual who has been referred for transfer from another facility, and encompasses such things as numbers and availability of qualified staff, beds and equipment, as well as, Hospital's past practices of accommodating additional patients in excess of its occupancy limits to meet its anticipated emergency needs.

c. **"Diversionary status"** generally means that Hospital does not have the staff (capability) and/or facilities (capacity) to accept additional emergency patients at all or of a certain type of condition.

d. **"Emergency medical condition" or "EMC"** means a medical condition manifesting itself by acute symptoms of sufficient severity (including severe pain, psychiatric disturbances and/or symptoms of substance abuse) such that the absence of immediate medical attention could reasonably be expected to result in either:

- Placing the health of the individual (or, with respect to a pregnant woman, the health of the woman or her unborn child) in serious jeopardy, or
- Serious impairment to bodily functions, or
- Serious dysfunction of any bodily organ or part.
- With respect to a pregnant woman who is having contractions:
    - That there is inadequate time to effect a safe transfer to another Hospital before delivery, or
    - That the transfer may pose a threat to the health or safety of the woman or her unborn child.

e. **"Hospital Property"** means the entire main Hospital campus (including the

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physical area owned by Hospital that is immediately adjacent to Hospital's main buildings, other areas and structures owned by Hospital that are not attached to Hospital's main buildings but are located within 250 yards of Hospital's main buildings, including parking lots, sidewalks, driveways, and hospital departments (if any).

f. **"Medical** screening **examination" ("MSE")** means the process required to reach, with reasonable clinical confidence, the point at which it can be determined whether the individual has an EMC or not. A MSE is not an isolated event. It is an ongoing process that begins but does not end with triage.

g. **"To stabilize" or "stabilized"** generally means that the patient is provided such medical treatment of the condition as is necessary to assure, within reasonable medical probability, that no material deterioration of the condition is likely to result from or occur during the transfer of the patient or with respect to the EMC, that the laboring pregnant woman has delivered the child and the placenta.

h. **"Transfer"** means the movement (including the discharge) of an individual outside Hospital's facilities at the direction of any person employed by or associated, directly or indirectly, with Hospital, but does not include such a movement of an individual who: (1) has been declared dead; or (2) leaves Hospital without permission or against medical advice.

i. **"Qualified Medical Personnel" ("QMP")** shall mean individuals qualified for EMTALA purposes to perform a MSE to determine whether an EMC exists (e.g., physician, nurse practitioner or physician's assistant as designated in Hospital Bylaws, Medical Staff Rules and Regulations, Medical Staff Policies, or other documents that have been approved by the governing body of Hospital. Trained labor and delivery nurses may assess and evaluate a patient presenting in labor as a part of the MSE in conjunction with an authorized provider.

I. **General EMTALA Requirement:** If an individual who is not already a patient presents to the Hospital with an apparent emergency medical condition (EMC) and a request is made for (or prudent layperson would believe patient is in apparent need of) treatment, then EMTALA procedures below should be initiated to the extent required by the EMTALA law.

A. **Procedures for Individuals Directly Presenting to the Hospital Emergency Department or Labor and Delivery Department:**

- Hospital QMP or trained Labor and Delivery registered nurses should provide a MSE appropriate to the individual's presenting symptoms that is within the capacity and capability of Hospital, to determine whether or not an EMC exists;

- If the Individual is experiencing an EMC, then Hospital should provide to an individual such further medical examination and treatment as required to stabilize the EMC, within the capability of the Hospital, and/or to arrange for transfer of the individual to another medical facility in accordance with the procedures set forth below; and

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- Hospital should not delay the provision of a MSE, further stabilizing treatment, or appropriate transfer in order to inquire about the individual's method of payment or insurance status or to obtain prior insurance authorization for services.

  Hospital may, however, follow reasonable registration processes for an individual, including asking whether an individual is insured and, if so, what that insurance is, as long as that inquiry does not delay the provision of medical screening and/or treatment.

B. **Procedures for Individuals Presenting Elsewhere on Hospital Property:**

If an individual who is not already an inpatient presents on Hospital property (other than in the ED or L&D departments) and requests examination or treatment for an EMC, or if a prudent layperson would believe that the individual is suffering from an EMC, Hospital personnel who are made aware of the situation should assist the individual, if able.

- If the individual is in apparent need of the Code Team (Harvey Team or Emory House Team), a Code can be initiated by calling Hospital operator, and providing the location of the individual.

- For other medical situations, personnel should request assistance from the available health care providers or call 911 for transport to Hospital ED, as needed. EMS should be directed to take patient to Hospital ED, unless patient directs otherwise or refuses care.

If possible and appropriate, personnel should remain with the individual until a physician, paramedics, the Code Team or other health care professionals arrive to assist.

C. Community Ambulances Previously Diverted that Present on Hospital Property

An individual in a community ambulance that arrives on Hospital Property is considered to have come to the Hospital's emergency department, even if Hospital personnel attempted to divert the ambulance prior to arrival or if the Hospital is on diversion or critical advisory status, the individual should be provided an MSE and any EMC stabilized and/or the individual should be appropriately transferred as applicable under EMTALA, unless the patient refuses.

II. Additional Requirements and Further Explanation of Concepts Above

- **Minor Children:** A minor (less than 18 years old) can request an examination or treatment for an EMC. Hospital should conduct the examination if requested by a minor or on the minor's behalf to determine if an EMC exists. Hospital personnel should not delay the MSE waiting for parental consent. If after screening the minor, it is determined than no EMC is present, then the staff can wait for parental consent before proceeding with further examination and treatment, if medically appropriate. For additional information regarding treatment of minors, consult your direct supervisor, Risk Management, or the Legal Department.

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- **Law Enforcement Requests:** If a law enforcement official requests that Hospital provide clearance for incarceration (including a request for emergency medical screening or blood alcohol test), Hospital should provide an MSE to determine if an EMC exists, if the patient is in apparent need, unless the patient refuses care.

III. Stabilization: Once the Hospital provides the MSE and determines that the individual has an EMC, then the Hospital should provide to that individual treatment to stabilize the EMC within the Hospital's capability and capacity.

IV. Transfer of Stable vs. Unstable ED Patients

1. Transfer of an ED or Inpatient Individual Who Does Not Have an EMC

When, as a result of a MSE, it has been determined that an ED patient does not have an EMC, the patient may be transferred to another health care facility (if in need of a higher level of care) or may be discharged, if appropriate.

2. Transfer of an ED Patient Who Has an Emergency Medical Condition (i.e., the Patient is not stable) and Needs Transfer to Another Facility

An unstable ED patient who has an EMC that cannot be stabilized because Hospital does not have the capability or capacity to stabilize the patient should be transferred only if the transfer meets the conditions below -

(a) **Sending Hospital within its capability provides medical treatment which minimizes the risks to the patient's health**

(b) **Receiving facility agrees to accept transfer of the patient.**

(c) **Sending Hospital sends the receiving facility copies of pertinent medical records** (and the name and address of any on-call physician who refused/failed to appear); and a copy of the completed Interfacility Transfer Form.

(d) **The transfer is effected through appropriately trained professionals and transportation equipment**

(e) Patient is Informed of Risks and Requests Transfer (Individual may be transferred if the individual or the person acting on the individual's behalf is first informed of the risks and benefits of the transfer, the alternatives (if any) to the transfer, and of the Hospital's obligations to provide further examination and treatment sufficient to stabilize the individual's emergency medical condition, and to provide for an appropriate transfer. The transfer may then occur if the individual or person acting on the individual's behalf: (i) makes a request for transfer to another medical facility; (ii) indicates the reasons for the request; and (iii) acknowledges the request and understanding of the risks and benefits of the transfer, by signing the appropriate section of the Interfacility Transfer Form.)

(f) Physician or QMP certifies benefits of transfer outweigh the risks (The physician or if a physician not physically present at the time of the transfer, a QMP in consultation with a physician) has to document on the

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"Physician Certification" section of the Interfacility Transfer Form that the medical benefits expected from transfer outweigh the risks. If QMP signs the certification, it must be countersigned by the consulting physician as soon as possible thereafter.)

- **Individuals Who Have an Emergency Medical Condition But Do Not Consent To Treatment or To Transfer**

If Hospital offers transfer and informs of the risks and benefits, but the patient or person acting on the patient's behalf does not consent to transfer, Hospital should take reasonable steps to have the individual or the person acting on the individual's behalf, sign the appropriate section of the Interfacility Transfer Form (if applicable) and/or should thoroughly document the refusal to transfer or refusal to sign the Form in the medical record.

- **Unstable Individuals Who Are Not Able to Consent to Transfer**

If a patient is unable to consent to transfer and no legal representative is present, the patient may be transferred without the patient's consent, if the Form is otherwise completed and the physician or QMP certifies in writing that the benefits of transfer outweigh the risks on the Interfacility Transfer Form.

- **Unstable Patient Requests Transfer Against Medical Advice**

If a physician refuses to certify an unstable transfer but patient insists on transfer after being informed of the risks, then the physician or other designee should document the risks in the medical record and/or on the Interfacility Transfer Form and should state that the patient is "leaving against medical advice."

- **On-Call Physicians**

Hospital administration should determine which specialties (if any) are required to be on-call based on the reasonable needs of the Hospital. The determination shall be documented and records of this determination should be maintained on file in the Medical Staff Office. Lists of on call physicians shall be maintained in the Medical Staff Office and posted on MOLLI.

The Hospital should maintain a schedule in the Hospital Emergency Department (ED) of individual physicians who are on-call for duty after the initial examination to provide further evaluation and/or treatment necessary to stabilize an individual with an EMC, in accordance with the procedures below:

- If, after an initial MSE, a physician (or other QMP) determines that the individual requires the services of an on-call physician, then the on-call physician should be contacted. Alternatively, if the on-call physician has been made aware of a transfer by the transferring physician, the on-call physician should contact the Hospital emergency department to notify the ED of the transfer.

- On-call physicians should respond to Hospital calls/requests for emergency on-site coverage within a reasonable time. If a scheduled on-call physician fails to respond, the emergency department physician or designee should attempt to

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- obtain the services of another appropriate physician from the Hospital's medical staff.

Elective Surgery / Simultaneous Call. Unless otherwise contractually agreed, it is the general policy of the Hospital that physicians who are considered to be on-call are allowed to schedule elective surgeries and take call at other facilities. Such physicians are required to be medical staff members in good standing of Hospital, and if taking call at two facilities simultaneously, the physician must make the Hospital aware of the physician's on-call schedule so that these back up call lists or specific procedures can be developed.

Any changes to call availability shall be communicated to the Medical Staff Office for corrected call coverage posting. If an unavoidable change occurs after hours or during the course of the call requirement, the physician should notify the facility ED and/or transfer/call center directly, and also notify the Medical Staff Office the next business day.

- **Procedures for Responding to Situations in Which a Particular Specialty is not available or the On-call Physician Does Not Respond**

If a physician on-call is not available or does not respond, Department Chair or designee or the Chief of Staff should be contacted by the ED physician or designee. Patients should not be referred to the on-call physician's private practice office for MSE or stabilizing treatment. If available call coverage and capability exists at another MLH Hospital, the patient may be transferred to that other Hospital for further care.

This procedure also applies to situations when the on-call physician is unavailable due to elective surgeries or being on call for another hospital.

- **Obligation to Accept Certain Transfers – Specialized Capabilities**

If Hospital has specialized capabilities or facilities that are not available at a facility that has requested Hospital to accept the transfer of an unstable ED patient needing those capabilities or facilities, Hospital should accept appropriate transfers of such individual if Hospital has the capacity to treat the individual. Hospital may not condition the acceptance of an appropriate transfer on the use by the sending hospital of a particular transport service instead of the transport arrangements made by the attending physician at the sending hospital.

- ED physicians are authorized to accept and manage ED transfers from requesting hospitals. Only ED physicians, NICU physicians, and Le Bonheur PICU/NICU/CVICU attending physicians should deny transfers.

- A request for transfer should be documented along with the response to the request, and the basis for any denial of such a request.

V. Reporting of Potential EMTALA Violations

- **Report Inappropriate Refusal of Transfers**

Hospital medical staff and employees, in particular those who work in the ED or Labor & Delivery Departments, who have "reason to believe" that Hospital may have

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inappropriately refused to accept the transfer of an individual from another hospital ED should report the incident directly to the Compliance Officer or to the Compliance Hotline at 1-888- 220 -2163 promptly for investigation. If, after investigation, it is determined that there is "reason to believe" a transfer was inappropriately refused, Compliance Officer should consult Hospital's Risk/Legal Officer regarding Hospital's obligations and potential staff or employee sanctions (if appropriate) regarding next steps.

- **Report Receipt of Inappropriate Transfers**

Hospital medical staff members and employees, in particular those who work in ED or Labor & Delivery Departments, who have "reason to believe," that Hospital received an inappropriate ED transfer in violation of EMTALA, should report the incident promptly to Hospital Compliance Officer at 901-516-0567 or through the Compliance Hotline at 1-888-220-2163. Compliance Officer should promptly investigate reports of apparent inappropriate transfers. At the conclusion of the investigation, Compliance Officer or designee should determine whether there is "reason to believe" that an apparent inappropriate transfer occurred. If inappropriate transfer has occurred, the Chief Executive Officer and Compliance Officer should consult with Hospital's Risk/Legal Officer regarding Hospital's obligations. Hospital's Risk/Legal Officer should report the incident to the appropriate agencies/parties within 72 hours of its occurrence if, in his/her judgment, an inappropriate transfer was made to Hospital from other medical facilities in violation of EMTALA and if reporting is required by 42 C.F.R. § 489.20(m).

VI. Posting EMTALA Signage

Hospital should post conspicuously, in the ED or Labor & Delivery Departments and in a place(s) likely to be noticed by all individuals entering ED or Labor & Delivery Departments, as well as those individuals waiting for examination and treatment in areas other than ED or Labor & Delivery Departments, a sign(s) (in the form and content specified by the U.S. Secretary of HHS) specifying the rights of individuals under EMTALA.

VII. Central Log

Hospital should maintain a Central Log on each individual who is not already a patient who presents to ED or Labor & Delivery Departments or otherwise on Hospital Property seeking emergency treatment and whether the individual refused treatment, was refused treatment, or whether the individual was transferred, admitted and treated, stabilized and transferred, or discharged. Hospital may keep the Log(s) in e-format and has the discretion to maintain the Log(s) in a form that best meets the needs of Hospital.

VIII. Patient Leaving Hospital against Medical Advice or Without Being Seen (AMA or LWBS)

If an individual attempts to leave the Hospital AMA or LWBS, personnel should reasonably attempt to obtain the individual's signature on the appropriate form and should attempt to inform the individual of the risk of not waiting to be examined by a provider. Hospital personnel should appropriately document in the medical record or on the Patients Leaving Before Completing Treatment Form that the patient was advised of the risks but left AMA/LWBS.

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IX. Record-Keeping

The Hospital, whether transferring or receiving individuals, should maintain for a minimum period of six (6) years from the date of transfer (or longer, if required by the Hospital's Record Retention Policy) the following records:

- Medical and other records related to individuals examined, treated or transferred to or from the Hospital;
- Documentation of Patients Leaving Before Completing Treatment form;
- Records of complaints and reports made;
- On-call schedules that list the individual on-call physicians who are/were on-call for duty after the initial examination to provide further evaluation or treatment necessary to stabilize an individual with an emergency medical condition; and
- The Central Log.

Medical records of individuals transferred to or from Hospital should be retained in their original or legally reproduced form in hard copy, microfilm, microfiche, optical disks, computer disks, or computer memory.

X. This Policy Does Not Apply. This Policy shall not apply to the following situations/entities:

- In certain limited circumstances and for certain limited periods of time, pursuant to national/state emergencies or crisis (e.g., bioterrorism), upon implementation of the Hospital's Disaster Protocol or Emergency Management Plan, and upon request to CMS of a waiver. (See Emergency Management Plan and Pandemic Plan for additional information.);
- After the individual is stabilized or admitted in good faith as an MLH inpatient;
- Where an individual presents to the ED is not requesting treatment for a medical condition not of an emergency nature (e.g., non-emergent outpatient test, regular blood pressure check, etc.); and
- Any other situations or entities not covered by, exempt from or subject to waiver from EMTALA, the Tennessee Hospital Licensure Regulations or Mississippi Department of Health requirements for Emergency Services.

The procedures outlined in this EMTALA Policy are meant to explain the EMTALA law. Nothing in this Policy should be interpreted as creating a duty higher than that required by the EMTALA law.

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Methodist Le Bonheur Healthcare

October 23, 2020

The Honorable Charles E. Grassley
Chairman, Senate Committee on Finance
United States Senate
Washington, DC 20510

RE: September 25, 2020 follow up email to Methodist Le Bonheur Healthcare

Dear Chairman Grassley:

Thank you for your communication of September 25, 2020, inquiring into the effect that COVID-19 has had on patient financial assistance; our overall finances, in light of the pandemic; and the changes we have made to our processes since our response to your 2019 letter.

To add context to our responses, we will first provide some background information to frame our response. We hope that all of the information we provide is useful and appreciate the opportunity to share our experience.

I. COVID-19: Local Disease Progression

Tennessee was not among the first states to suffer from a COVID-19 surge, but it was among the "hot spots" identified by early summer. Tennessee reached a peak in new COVID-19 cases identified by the end of July and started to trend downward, but the trend has started to rise again. As of October 22, Tennessee has confirmed more than 237,000 COVID-19 cases and more than 3,000 deaths. COVID-19 testing peaked this summer with more than 894,000 labs completed in the month of July. Most recently, 327,856 labs have been completed during the period of October 1 - 16. The number of in-patient, Intensive Care Unit ("ICU") and Ventilated patients also peaked at the end of July through the beginning of August, but we are seeing an increase in inpatient hospitalizations since the beginning of October.

Shelby County has suffered the most COVID-19 cases of any county in Tennessee with approximately 35,000 cases confirmed as of October 22. After approximately two months (August – September) of a downward trend, County officials announced in October that Shelby County is now reporting a second "fall wave" of COVID-19 cases.

Neighboring DeSoto County, Mississippi (where Methodist Olive Branch Hospital is located) also saw a steady rise in the number of new COVID-19 cases identified throughout early summer, reaching a peak around mid to late July. As in Shelby County, after a downward trend, cases in DeSoto County have started to rise again since the beginning of October.

II. Responses to Specific Questions

1. How has COVID-19 affected Methodist Le Bonheur's overall operations, including medical care unrelated to COVID-19?

COVID-19 has required us to implement alternative care delivery options in order to continue providing care for our community and COVID-19 patients. We have worked diligently to create physical space to separate patients, Associates and others to the extent possible; provide accurate information while implementing new processes and policies in light of COVID-19; and plan, to the extent possible, for additional contingencies as we navigate this unprecedented global pandemic.

<u>Creating Physical Space While Providing Necessary Care</u>

- **We invested in our Telehealth program to provide the necessary infrastructure, licensing and training to safely manage chronic care patients and established a virtual COVID-19 Clinic in addition to our live COVID-19 Clinic.**
    - **Investments in telehealth allow us to effectively manage staffing, conserve necessary personal protective equipment ("PPE") and provide continued access to care.**
    - **To date we have managed more than 34,000 telehealth visits.**
- **Screening/Testing**
    - **Methodist Le Bonheur Healthcare launched rapid drive-through testing sites throughout the city and in our Minor Medical facilities. This endeavor required numerous staffing adjustments and physical alterations to accomplish our goal of providing testing access to all in our community.**
    - **We screen all employees and visitors, daily, requiring additional staff and the development of supportive processes for all of the system's entry points.**

<u>Providing Information/Policy Changes</u>

- **We established a contact center for employee questions and guidance, and reporting of COVID-19 test results. The contact center, which is part of our Integrated Operations Center, required additional staffing resources.**
- **We provide regular updates on our website and through daily emails to our employees to alert them to the number of COVID-19 patients, our PPE supplies and other crucial information on how to best protect themselves. We established a COVID Resource Center as an informational and educational resource to employees and the public.**
- **From mid-March to early-May, Methodist Le Bonheur Healthcare stopped performing all non-emergent surgical procedures. This step was necessary to help contain the spread of COVID-19, preserve PPE and give the system time to develop appropriate policies and processes for safely reopening our system.**
    - **We have gone through a gradual reopening process since early-May, not to exceed 75% of our normal capacity.**
- **Unfortunately, to protect everyone's safety, we also had to implement a "no visitor's policy," which was difficult for our patients. We enhanced our staff communications to patients and their families.**
    - **We have recently started allowing one visitor per day system-wide and two visitors per day at our Le Bonheur Children's Hospital.**

Contingency Planning

We continue to adjust our plans and strategies on the best way to move our system forward through the pandemic every day. With so many unknowns and new information emerging daily, contingency planning is a necessity for our new business normal:

- **Surge planning is a regular focus for the system and there is a regular series of incident command meetings to manage and plan all of the operational challenges and changes.**
- **We stay in regular contact with government officials to understand the patterns of COVID-19 spread in our community.**
- **We implemented "Hot, Warm, and Cold" zones throughout the hospital facilities to manage known and suspected COVID-19 patients and those with negative test results in order to protect patients, our staff, and conserve PPE. Bed management is an around-the-clock process and at times, we have had to delay scheduled procedures to ensure we maintain the appropriate bed capacity.**
- **Finally, staffing in these unique times has been a significant challenge as we work to balance lower than average volumes in medical/surgical cases with the fluctuating volume of COVID-19 patients requiring admission. This situation creates staff availability and pay issues that require constant management and review.**
    - **We have temporarily furloughed employees and required the use of paid time off for financial reasons.**
    - **We have implemented incentive pay to ensure adequate staffing and we have seen an increase in our contract labor needs as well.**
    - **Some of our clinical staffing needs are directly related to the impact of COVID-19, as our community has had an 11.5% positivity rate and of those who test positive, approximately 30% require admission to our facilities for care. Further:**
        - **The length of stay for COVID-19 positive patients tends to be longer.**
        - **Of patients requiring admission, approximately 35% require ICU care and of those in ICU, approximately 30% require ventilation support.**
        - **Finally, we are saddened to report that approximately 1.5% of our COVID-19 patients will not survive the illness.**

2. How has COVID-19 affected Methodist Le Bonheur's overall finances?

COVID-19 has significantly impacted our overall finances and continues to affect us daily. On March 23, 2020, we curtailed all "non-emergent" procedures and saw our total volumes fall by as much as 43% before we began to reopen facilities in early-May. Today, our volumes remain down by approximately 10% system wide with a larger negative variation at Methodist Le Bonheur Children's Hospital, where the volume remains down by 20-25%. The physician practices were particularly hard hit, but have rebounded to near normal historic levels with the expansion of our Telehealth program.

In addition to lower volumes, added equipment and site renovations, extremely high volume and costs for PPE, overtime costs, contract labor costs, and staff testing and screening sites have all contributed to a significant impact on our financials. We have attempted to offset these financial stressors, to the extent possible, with furloughs and drawing down paid time off, but through August 2020, financial performance has been negatively impacted by more than$90M. Methodist Le Bonheur Healthcare has received CARES Act funding of approximately $61.5M from the Federal government,

approximately $600K from the State of Mississippi, and approximately $300K from the State of Tennessee. We estimate that the net negative impact, after stimulus funding, will be approximately $30M.

3. How has COVID-19 affected Methodist Le Bonheur's overall debt-collection efforts?

Methodist Le Bonheur Healthcare has suspended all debt-collection efforts since March 2020. In addition, we decided to suspend our process of reporting negative activity to the credit bureaus. We have not filed any new suits or attempted to garnish anyone's wages since mid-2019 and those practices remain suspended as well. We continue to collaborate with every patient who needs help and focus on individualized solutions that provide the appropriate latitude to those who are struggling financially. We now provide interest free payment plans without the need to complete an application or collect additional patient financial information, in addition to all of our other financial aid assistance programs.

4. How has COVID-19 affected Methodist Le Bonheur's overall charitable-care efforts?

Methodist Le Bonheur Healthcare remains committed to caring for the entire community, regardless of a patient's ability to pay. We also remain committed to providing financial assistance, in accordance with our policies. We understand, as a virus like COVID-19 highlights, that illness knows no financial litmus test and we were among the first to advocate for free COVID-19 testing for all patients. We intentionally opened testing sites in all parts of our community to ensure testing access for everyone, recognizing the social and financial disparities that exist in our community.

While we have not experienced a significant increase in uninsured patients at this point, we are certainly preparing for an increase in the coming months, related to the increasing unemployment rate in our community. The City of Memphis has hovered at approximately 16% unemployment (July – August 2020, an increase of nearly 10% from 2019). We will continue our processes and programs to help those patients apply for and seek enrollment in government sponsored health coverage. Additionally, we will continue to screen and process patients against our financial assistance policy to ensure that all available discounts (up to 100%) are accurately applied.

5. How much does it cost Methodist Le Bonheur to treat a patient suffering from COVID-19, and what are the range of bills an uninsured or underinsured patient suffering from COVID-19 might expect to pay for such treatment?

The potential impact of COVID-19 varies greatly from patient to patient and includes a number of factors. The impact ranges from patients who are asymptomatic to those who have severe underlying comorbidities and thus, it is virtually impossible to put a cost on "a patient suffering from COVID-19." For example, a patient who has tested positive, but is sent home from the testing site as asymptomatic will generate a cost of approximately $60 for the test itself and minimal costs for a staff person to administer the test (a nose swab in the drive through takes approximately 10 minutes to complete). In this scenario, testing is covered by insurance and/or the Health Resources and Services Administration ("HRSA"), thus, there is no cost to the patient.

In the range, for medium costs, are patients who are treated in the emergency department for mild symptoms after a positive test, and it is common for those patients to be in the hospital for 4 – 5 days. Patients who are admitted will generate higher costs due to the need to staff the medical screening

exam with a physician and/or other potential tests such as a chest x-ray or other respiratory procedures. The range of possibilities continues to escalate based on the acuity of the patient and all of the factors that influence the complexity and length of their care. On the high end of the range are patients who suffer from multiple comorbidities and may require care in the Intensive Care Unit for a significant length of time (Some COVID-19 patients have been in the ICU for more than 50 days).

The range of charges and the ultimate amounts for which patients are responsible are dependent on the amount of care received and various other factors. For many insured patients, their respective copays and deductibles apply and are typically $500 - $1000, but these deductible can be higher for some insurance plans. For the uninsured, the HRSA is currently assisting with payments and therefore, patients have no financial responsibility. In the event that a patient does not qualify for HRSA assistance, our financial assistance policy applies and discounts would be applied based on that specific patient's ability to pay, as indicated by their income relative to the Federal Poverty Guidelines ("FPG"). All uninsured patients receive at least a 70% discount, but that discount may go up to and include a 100% discount, if their income level is at or below 200% of the FPG.

6. Since your response of January 21, 2020, have any policies or practices, as discussed in that letter, changed? If so, how?

Methodist Le Bonheur Healthcare has suspended all debt-collection efforts since March 2020. In addition, we decided to suspend our process of reporting negative activity to the credit bureaus. Finally, as mentioned earlier in response to Question #3, we have not filed any new suits or attempted to garnish anyone's wages since mid-2019 and those practices remain suspended.

Thank you for providing us the opportunity to address these questions. We are available to address any other questions you may have. Methodist Le Bonheur Healthcare is and remains committed to meeting the needs of the community as a non-profit hospital, even during these trying times.

Sincerely,



Michael Ugwueke
Chief Executive Officer
Methodist Le Bonheur Healthcare