

**United States Senate
Committee on Finance
Chronic Care Working Group
Telehealth Comments
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The shortage of health care providers, poor health outcomes and the high cost of care throughout the United States have set the stage for the use of telehealth to deliver health care to patients where and when they need it. Not only do patients lack access to important primary and specialty care, many also suffer from one or more chronic diseases, requiring ongoing management and intervention. However, due to geographic and transportation barriers, workforce shortages and other considerations, patients cannot receive the health care they need.

Nowhere in the nation are health care challenges greater than in Mississippi. We lead the nation in prevalence of multiple chronic diseases and have the lowest number of doctors per capita of any state in the nation.

To provide a solution to Mississippi's health care needs, the University of Mississippi Medical Center (UMMC) began the telemedicine program in 2003 by connecting rural emergency departments (ED) with the UMMC ED. Today, the UMMC Center for Telehealth provides 35 medical specialties to endpoints in 175 locations across the state, including community hospitals and clinics, mental health facilities, Federally Qualified Health Centers (FQHCs), schools and colleges, mobile health vans, corporations, prisons and patients' homes.

Through telehealth and remote patient monitoring, patients with chronic diseases can receive increased access to care and greater coordination across the care continuum, which improves health outcomes, reduces health care costs and meets patients' needs. Mississippi is utilizing these technologies successfully to produce results in chronic care management that can be scaled and replicated for a national impact.

Telehealth for Chronic Disease Management: A National Approach

A review of data provided by the CDC reveals that approximately 117 million people – about half of all adults in the U.S. – have one or more chronic health conditions. More than 75 percent of health care costs are due to chronic conditions, nearly \$7,900 for every American with a chronic disease.ⁱ⁻ⁱⁱ Annually, the cost of heart disease and stroke is \$312.6 billion,ⁱⁱⁱ diabetes is

\$245 billion,^{iv} lung disease is \$81 billion^v and Alzheimer's disease is \$226 billion.^{vi} Approximately, one in five, or 2.6 million Medicare patients are readmitted to the hospital within 30 days of discharge due to chronic conditions, which generates costs of over \$26 billion each year.

The prevalence and cost of chronic disease has caused agencies and health systems to turn to innovative solutions for disease management, including telehealth and remote patient monitoring. The Veterans Health Administration's telehealth program offers a successful case study for consideration.

Veterans Health Administration

To address health outcomes within its patient population, the Veterans Health Administration (VHA) implemented a comprehensive telehealth program and established the Office of Telehealth Services (OTS) to coordinate this care. Within OTS, the VHA has focused on providing treatment for chronic diseases utilizing a home telehealth and remote patient monitoring program; enabled access to 45 medical specialties via video telehealth connections; and provided store-and-forward telehealth services for review of medical imaging. In Fiscal Year 2013, the VHA connected 608,900 of its patients to health care services via telehealth.^{vii} Additionally, 45 percent of these patients were located in rural areas^{viii} and would not have had access to these services or advanced care without the telehealth solution.

The improved outcomes and cost savings achieved by the VHA's telehealth program have been dramatic. In FY 2013, the home telehealth program reduced bed days of care by 59 percent and decreased hospital admissions by 35 percent. The VHA saved money by avoiding travel expenses for medical consultations – the clinical video telehealth program saved \$34.45 per consultation, and store and forward telehealth saved \$38.81 per consultation. The VHA's home telehealth program also saved \$1,999 per patient per year.^{ix}

VHA patients indicated significant levels of satisfaction with the telehealth program. This includes mean satisfaction rates of 84 percent for the home telehealth program, 95 percent for store-and-forward telehealth and 94 percent for clinical video telehealth.^x

Telehealth for Chronic Disease Management: Mississippi

Mississippi also understands the challenges and costs of a patient population with chronic diseases. In Mississippi, seven of the leading causes of death in 2011 were chronic disease-related.^{xi} Furthermore, chronic diseases cost Mississippi over \$4 billion in hospital discharge fees in 2010, with a projected increase in medical costs of upwards of 70 percent for multiple chronic disease states from 2010 to 2020.^{xii}

In 2012, diabetic medical expenses in Mississippi totaled \$2.74 billion, according to the American Diabetes Association. Per the CDC's Behavioral Risk Factor Surveillance System, in

2010, Mississippi had the highest percentage of adults diagnosed with diabetes – more than any other state in the nation.^{xiii}

The Diabetes Telehealth Network

Given these factors, the UMMC Center for Telehealth wanted to begin disease management where it is the worst. Ruleville, Mississippi, is ground zero for diabetes. Sunflower County, where Ruleville is located, has one of the highest percentages of diabetics per capita of any county in the country. This means repeated visits to the ER, amputations and early death for too many members of this community.

Last fall, the UMMC Center for Telehealth partnered with Governor Phil Bryant, Intel-GE Care Innovations, C Spire and the North Sunflower Medical Center to develop a research pilot with the ambitious goal of managing 200 uncontrolled diabetics through aggressive in home monitoring and intervention. The centerpiece of the partnership is a population based health care model that leverages telehealth technology delivered over state-of-the-art fixed and mobile broadband connections. Its goal is to improve the health of participants while reducing the total cost of care. Once a patient meets criteria to be admitted to the pilot, he or she is sent home with a tablet that monitors glucose readings daily, provides educational health information and transmits vital health data to specialists monitoring them in real time. For the first time, these patients have access to a team of professionals dedicated to their care – ophthalmologists, endocrinologists, pharmacists, nutritionists, diabetic educators and nurses. Many of our patients have never used a computer and some cannot read beyond a sixth grade level. Despite these challenges, our patients are thriving.

Of the 116 patients currently enrolled in the pilot, all report that their disease is under control for the first time and that they have lost weight and are feeling better. Patients are being empowered to improve their health and indicate that they are being educated on how to manage their diabetes unlike ever before. While our goal was for 75 percent of patients to reduce their hemoglobin A1C levels by 1 percent in the first year, study results show that after only six months, the average reduction in A1C levels among participants is almost 2 percent. In addition, with the exception of one patient who needed to be hospitalized at the time of enrollment, none of our participants have gone to the ER or been admitted to the hospital for their diabetes.

Furthermore, projections indicate significant cost savings in chronic care medical expenses because of this technology. It is estimated that the state will save approximately \$125 million each year with the use of remote patient monitoring. Because of the success demonstrated in the Diabetes Telehealth Network, UMMC currently is ramping up this program to include monitoring for patients across multiple chronic disease states throughout Mississippi.

Recommendations: The Future of Telehealth

As indicated by the successes of the VHA's home telehealth program and Mississippi's Diabetes Telehealth Network, telehealth and remote patient monitoring offer important methods for providing effective, and potentially life-changing, chronic disease management. Assessing how to increase access to telehealth and utilization of remote patient monitoring technologies, we continue to seek opportunities to encourage and incentivize telehealth for patient populations that need these services. Consequently, the following recommendations provide ideas for consideration:

1. The need for CMS to reimburse for remote patient monitoring.

Programs like the VHA's home telehealth program and Mississippi's Diabetes Telehealth Network highlight the value of daily, in-home monitoring for improving health outcomes, reducing costs and meeting patients' health care needs, particularly for patients with chronic diseases. We appreciate CMS's recent work to open new code sections for chronic care management. Opening Current Procedural Terminology (CPT) service code 99091 for Medicare reimbursement of remote patient monitoring would provide this valuable, daily monitoring of chronic diseases to Medicare patients – one of the patient populations that would benefit from it most.

2. The need to remove geographic restrictions on telehealth reimbursement.

CMS currently restricts reimbursement for telehealth to patients who receive treatment in a Rural Health Professional Shortage Area or in a county that is not considered part of a Metropolitan Statistical Area. As many urban areas, like rural areas, often lack access to health care, the use of telehealth could prove to be an effective way to cover gaps in care for urban patients. Furthermore, the benefits of remote patient monitoring would cross both rural and urban patient populations. Therefore, we request that CMS remove geographic barriers that restrict reimbursement of telehealth to rural areas only.

3. The need to include patients' homes as Authorized Originating Sites.

Receiving telemedicine services or utilizing remote monitoring technologies does not require a patient to be located at a health care facility. However, current CMS policy specifies where the patient must be located at the time of a telemedicine encounter to be eligible as a reimbursable visit. These Authorized Originating Sites include physician or practitioner's offices, hospitals and other health clinics and facilities. Not limiting patients to a specific menu of originating sites but, rather, opening the originating site to include patients' homes – or wherever the patient is located – would increase the utilization of telehealth and remote monitoring applications.

Thank you for the opportunity to share our experiences and opportunities for further expansion of telehealth to improve chronic disease management throughout the nation. The UMMC Center for Telehealth is eliminating barriers to quality health care for Mississippians, demonstrating improved health outcomes and reduced costs. We are meeting patients' health care needs where and when they need it through telehealth and remote patient monitoring services, and the opportunity exists for these same successes nationally.

ⁱ Centers for Disease Control and Prevention. 2009. Retried on March 27, 2014, from <http://www.cdc.gov/chronicdisease/resources/publications/aag/chronic.htm>

ⁱⁱ Center for Disease Control and Prevention. Chronic disease overview: Costs of chronic disease. 2012. Available at <http://www.cdc.gov/nccdphp/overview.htm>

ⁱⁱⁱ Million Hearts. About Heart Disease & Stroke. 2011. Available at <http://millionhearts.hhs.gov/abouths/cost-consequences.html#cost>

^{iv} American Diabetes Association. The Cost of Diabetes. 2012. Available at <http://www.diabetes.org/advocacy/news-events/cost-of-diabetes.html>

^v National Heart, Lung, and Blood Institute. NHLBI Fact Book, Fiscal Year 2012. National Institutes of Health, 2012. Available at <http://www.nhlbi.nih.gov/about/documents/factbook/2012/chapter4>

^{vi} Alzheimer's Association. 2015 Alzheimer's Disease Facts and Figures. 2015. Available at <http://www.alz.org/facts/overview.asp>

^{vii} Darkins, A. (2013). Telehealth Services in the United States Department of Veterans Affairs. Retrieved May 2, 2015, from <http://c.ymcdn.com/sites/www.hisa.org.au/resource/resmgr/telehealth2014/Adam-Darkins.pdf>

^{viii} Ibid.

^{ix} Ibid.

^x Ibid.

^{xi} Mississippi State Department of Health. Report on the Burden of Chronic Diseases in Mississippi, 2014. 2014. Available at http://msdh.ms.gov/msdhsite/_static/resources/4775.pdf

^{xii} Ibid.

^{xiii} Center for Disease Control and Prevention. Diabetes Report Card. 2012. Available at <http://www.cdc.gov/diabetes/pubs/pdf/diabetesreportcard.pdf>