U.S. Senate Committee on Finance

Subcommittee on Health Care

Subcommittee Hearing: Improving Health Care Access in Rural Communities: Obstacles and Opportunities

May 17, 2023
Written Testimony

Mark Holmes, PhD

Director, The Cecil G. Sheps Center for Health Services Research
Director, North Carolina Rural Health Research Center
Professor, Health Policy and Management, Gillings School of Global Public Health
The University of North Carolina at Chapel Hill

Chairman Cardin, Ranking Member Daines, and Members of the Committee:

My name is Mark Holmes. I am Director of The Cecil G. Sheps Center for Health Services Research and North Carolina Rural Health Research Center at the University of North Carolina at Chapel Hill. I am also a professor in the UNC Gillings School of Global Public Health. I have been a rural health researcher for 25 years; my expertise is in hospital finance and health policy, especially federal public insurance payment policy. Growing up in Caro in Michigan's rural Thumb, I witnessed firsthand some of the health challenges facing our rural communities.

The Cecil G. Sheps Center for Health Services Research is one of the nation's leading institutions for health services research. Our interdisciplinary researchers undertake innovative research and program evaluation to understand health care access, costs, delivery, outcomes, equity, and value. The Sheps Center has a long-standing reputation for conducting high-quality, objective research that informs science, practice, and policy. The Center's program on Rural Health Research is one of many Sheps Center programs which are very active in generating the evidence needed to inform pressing challenges facing state and federal policymakers as they seek to ensure access to health care services. I am delighted to speak on this important topic. I am unable to cover all the salient issues in rural health today, so I will focus my comments on three main points:

1. Rural health care infrastructure continues to erode, and this threatens the health and well-being of the 60 million Americans who live in rural areas
2. Congress can improve the health of rural communities by addressing some specific policy issues in rural health workforce
3. The common narrative of rural places as sicker, poorer, and older is mostly accurate, but is too fatalistic— rural communities have shown remarkable innovation and recent policy initiatives have been successful

Threats To A Robust Rural Health Care System

Since 2005, nearly 200 rural communities have lost their hospital.[1] Although roughly half of these hospitals have continued to provide some kind of health care to their community, the remainder do not – they become condominiums, a car wash, or more often completely abandoned. We also know how important hospitals are to rural economies; recent research has shown that closures can lead to decreases in the size of the labor force and the population living in the community.[2] Those hospitals that do survive have steadily gotten smaller. Rural hospitals have cut services like maternity care and home health services,[3] and inpatient care in rural hospitals has fallen by 13 to 20 percent in the last

[1] Rural Hospital Closures. The Cecil G. Sheps Center for Health Services Research, University of North Carolina at Chapel Hill. https://www.shepscenter.unc.edu/programs-projects/rural-health/rural-hospital-closures/

[2] Malone, TL, Planey, AM, Bozovich, LB, Thompson, KW, Holmes, GM. The economic effects of rural hospital closures. *Health Serv Res*. 2022; 57(3): 614- 623. doi:10.1111/1475-6773.13965

[3] Knocke K, Pink G, Thompson K, Randolph R, Holmes M. Changes in Provision of Selected Services by Rural and Urban Hospitals between 2009 and 2017. NC Rural Health Research Program, UNC Sheps Center. April 2021. FB 174.

decade,[4] with most of this decrease driven by rural residents being increasingly likely to receive inpatient care at urban hospitals.[5] Approximately 20 percent of Americans live more than 60 minutes from a medical oncologist[6], and the financial burden of increased travel time reduces the use of life-saving treatments and, paradoxically, *increases* the cost of care; geographic barriers to care actually lead to higher costs in the long run.[7] Rural residents who drive an hour a day – each way – for five weeks in a row to get their radiation treatment are facing fatigue of long car travel while fighting cancer.

This diminishing access has led to increasing rural-urban disparities in health outcomes. In 1999, the death rate in the most rural counties was six percent higher than it was in large urban counties; in 2019, it was 28 percent higher.[8] Meanwhile, research led by experts at the Centers for Disease Control and Prevention (CDC) found that communities served by closing rural hospitals experienced an increase in preventable admissions.[9] Death rates from COVID-19, while initially higher in urban areas, became higher in rural as early as September 2020.[10]

The rural health care system consists of a wide variety of health care providers, such as federally qualified health centers and rural health clinics (RHCs). There are several technical fixes that would allow RHCs to play a more expansive role in rural health care, such as correcting eligibility caused by a change in the definition of rural used by the Census Bureau, removing the historical requirement that RHCs cannot "be a facility that is primarily for mental health treatment," and expanding use of home health by RHCs.

Hospitals are typically one of the most important health care providers in a rural community, and they have had weak and declining finances for years. In 2018, roughly half of rural hospitals were unprofitable, and financial distress is one of the leading causes of rural hospital closure. As hospitals

---

[4] Malone, T.L., Pink, G.H. and Holmes, G.M. (2021), Decline in Inpatient Volume at Rural Hospitals. *The Journal of Rural Health,* 37: 347-352. https://doi.org/10.1111/jrh.12553

[5] Friedman HR, Holmes GM. Rural Medicare beneficiaries are increasingly likely to be admitted to urban hospitals. *Health Serv Res*. 2022 Oct;57(5):1029-1034. doi: 10.1111/1475-6773.14017. Epub 2022 Jul 13. PMID: 35773787.

[6] Levit LA, Byatt L, Lyss AP, Paskett ED, Levit K, Kirkwood K, Schenkel C, Schilsky RL. Closing the Rural Cancer Care Gap: Three Institutional Approaches. JCO Oncol Pract. 2020 Jul;16(7):422-430. doi: 10.1200/OP.20.00174. Epub 2020 Jun 23. PMID: 32574128.

[7] Rocque GB, Williams CP, Miller HD, Azuero A, Wheeler SB, Pisu M, Hull O, Rocconi RP, Kenzik KM. Impact of Travel Time on Health Care Costs and Resource Use by Phase of Care for Older Patients With Cancer. J Clin Oncol. 2019 Aug 1;37(22):1935-1945. doi: 10.1200/JCO.19.00175. Epub 2019 Jun 11. PMID: 31184952; PMCID: PMC6804875.

[8] Analysis of United States Department of Health and Human Services (US DHHS), Centers for Disease Control and Prevention (CDC), National Center for Health Statistics (NCHS), Multiple Cause of Death 1999-2020 on CDC WONDER Online Database, released 2021. Data are compiled from data provided by the 57 vital statistics jurisdictions through the Vital Statistics Cooperative Program.

[9] Khushalani JS, Holmes M, Song S, Arifkhanova A, Randolph R, Thomas S, Hall DM. Impact of rural hospital closures on hospitalizations and associated outcomes for ambulatory and emergency care sensitive conditions. *J Rural Health*. 2022 May 5. doi: 10.1111/jrh.12671. PMID: 35513356.

[10] United States Department of Agriculture, Economic Research Service. Rural death rates from COVID-19 surpassed urban death rates in early September 2020. https://www.ers.usda.gov/data-products/chart-gallery/gallery/chart-detail/?chartId=100740

close, residents face a decrease in access to health care. Facing this decline in access, Congress, the Medicare Payment Advisory Commission and others have long proposed new models of care that focus on a hospital's emergency department services. Senator Grassley's dedication to this issue manifested in the Rural Emergency Hospital (REH) provision in the Consolidated Appropriations Act of 2021. This model has some appealing elements, and at least five rural hospitals have officially converted to REHs, but interest has been muted due to some program design elements that can only be addressed legislatively. I applaud Congress for acting innovatively to address rural health needs. Continued monitoring of this provider type will be necessary to ensure it is meeting the needs Congress intended. Meanwhile, rural hospitals are becoming increasingly part of a larger health care systems, and this can lead to further service erosion – work by researchers out of the Agency for Healthcare Research and Quality has found that rural hospitals that merge are more likely to close their obstetric and surgical units.[11]

Rural Areas are Facing Acute Health Workforce Shortages

Rural places have faced persistent workforce shortages and over the past twenty years, it has become even more difficult to recruit, retain and sustain rural health care workers ranging from doctors to nurses to EMS personnel in rural areas.[12] Without an adequate health workforce, it is becoming more difficult for individuals in rural areas to access health care.[13] Many proposed policy solutions to address these workforce challenges focus on one profession, for example nurses, or one stage of the career, such as graduate medical education. To shore up and grow the rural health workforce, it is critical that we look to solutions that aren't siloed in this fashion and support health care workers across their entire career trajectory.[14]

Evidence-based investments that increase the number of health professionals training in rural areas, increase the number of preceptors and faculty, provide support to early career health care workers, address workplace violence, and focus on retaining mid to late career health care professionals can be further scaled. Health professionals that train in rural areas are five times as likely to remain in practice in rural areas.[15] By growing the number of rural training opportunities and then ensuring that resources

---

[11] Henke RM, Fingar KR, Jiang J, Liang L. and Gibson TB. Access To Obstetric, Behavioral Health, And Surgical Inpatient Services After Hospital Mergers In Rural Areas. *Health Affairs* 2021 40:10, 1627-1636

[12] Rural Health Research Gateway. Trends in Health Workforce Supply in the Rural. U.S. https://www.ruralhealthresearch.org/projects/926

[13] Strengthening the Rural Health Workforce to Improve Health Outcomes in Rural Communities Council on Graduate Medical Education 24th Report. 2022. https://www.hrsa.gov/sites/default/files/hrsa/advisory-committees/graduate-medical-edu/reports/cogme-april-2022-report.pdf

[14] Fraher E, Brandt B. Toward a system where workforce planning and interprofessional practice and education are designed around patients and populations not professions. J Interprof Care. 2019 Jul-Aug;33(4):389-397. doi: 10.1080/13561820.2018.1564252. Epub 2019 Jan 23. PMID: 30669922.

[15] Russell DJ, Wilkinson E, Petterson S, Chen C, Bazemore A. Family Medicine Residencies: How Rural Training Exposure in GME Is Associated With Subsequent Rural Practice. J Grad Med Educ 1 August 2022; 14 (4): 441–450. doi: https://doi.org/10.4300/JGME-D-21-01143.1

are available to retain that workforce across their careers we can ensure that the workforce needed to meet the needs of rural areas is there for decades to come.[16]

Decades of research have taught us that one of the most effective ways to boost health workforce in rural and underserved areas is to *train* them in rural and underserved areas.[17] Efforts to expand physician training have paid great dividends; for example, during the four years of the Rural Residency Planning and Development program, there have been more new rural residency slots (463) than were established during the prior decade (418).

Congress has enacted legislation to address rural physician shortages via training. The Consolidated Appropriations Act of 2021 included a number of provisions that expand rural resident training opportunities. Section 126, for example, increased the number of physician residency slots, to be phased in over a number of years. To qualify, training programs must meet one of four criteria, including being located – or being *treated* as being located -- in a rural area. Legal decisions have led to a rapid increase in the number of urban hospitals who reclassify as rural; this means that, under current legislation, they are treated as rural hospitals in all respects, including eligibility for residency slots. Despite a ten percent floor on the number of expanded residency slots allocated to rural hospitals, only six percent of slots were allocated to hospitals located in rural areas; another 42 percent were allocated to urban hospitals that have been reclassified as rural.[18] This may not have been Congress's intention.

Rural Can Innovate And Lead When Policies Are Rural-Appropriate And Supportive

We commonly hear about rural America being sicker, poorer, and older. It is also relatively well-known rural residents are less likely to have health insurance,[19] travel farther for health care,[20] and have more chronic diseases. The CDC has found that rural residents are more likely to die of the five leading preventable causes of death.[21] These are accurate descriptions of a population that provides much of America's food, fun, and fuel. As much as it describes the health challenges in parts of the country that have fewer physicians, nurses, and hospitals, I often worry that it suggests government is powerless to improve rural health. When Congress and policymakers have developed policy to address rural needs,

---

[16] Kumar S, Clancy B. Retention of physicians and surgeons in rural areas—what works?, *Journal of Public Health*, Volume 43, Issue 4, December 2021, Pages e689–e700, https://doi.org/10.1093/pubmed/fdaa031

[17] E.g. Holmes G.M. Increasing physician supply in medically underserved areas. *Labour Economics.* Volume 12, Issue 5, 2005, Pages 697-725, ISSN 0927-5371, https://doi.org/10.1016/j.labeco.2004.02.003.

[18] Centers for Medicare & Medicaid Services. Section 126 Round 1 Awards. https://www.cms.gov/files/zip/section-126-cap-increases-round-1.zip

[19] Turrini G, Branham DK, Chen L, Conmy AB, Chappel AR, and De Lew N. Access to Affordable Care in Rural America: Current Trends and Key Challenges (Research Report No. HP-2021-16). Office of the Assistant Secretary for Planning and Evaluation, U.S. Department of Health and Human Services. July 2021.

[20] Ostmo P Rosencrans J. Travel Burden to Receive Health Care. Rural Health Research Gateway. 2022. https://www.ruralhealthresearch.org/assets/4993-22421/travel-burden-recap.pdf.

[21] National Center for Chronic Disease Prevention and Health Promotion. Rural Health: Preventing Chronic Diseases and Promoting Health in Rural Communities. https://www.cdc.gov/chronicdisease/resources/publications/factsheets/rural-health.htm

it has led to dramatic improvements in conditions for typically relatively small expenditures. In the early 1990s, rural hospitals were closing at a dramatic pace, and Congress introduced the Critical Access Hospital program in 1996. That program has helped stabilize the rural health care system for over 1300 rural communities. Although roughly one quarter of acute care hospitals are CAHs, the program only accounts for five percent of total hospital outlays by Medicare.[22]

Perhaps because of the more limited resources in rural communities, there are many examples where rural health care innovation has led the way. Telehealth, community health workers, expanded scope of practice and task shifting, drones, new payment models, and leveraging strong trust in community leaders (faith leaders, agriculture, other community organizations) are all examples where lessons from rural innovation has helped fuel transformation throughout the health care system. Community paramedicine is a promising model that leverages existing rural resources to meet uniquely rural needs.[23] By tailoring the design to its specific environment and resources, a Critical Access Hospital in North Carolina found a path to expanding maternity services in the rural community it serves.[24] Others in the rural Southeast have designed programs ensuring access to maternity care, addressing substance use using peers, high risk pregnancies using telehealth networks, and providing family planning counseling using rural-specific messaging. During the pandemic we saw rural hospitals adapt, often working with urban hospitals to absorb excess demand when there was more rural capacity. This kind of innovation that adapts and is responsive to the needs and assets of the community should be encouraged.

Conclusion and Future Directions

Although rural residents – and those who visit rural communities – face real barriers to achieving their full health opportunities, there are policy strategies that Congress can consider in order to mitigate some of the barriers. History has shown that thoughtful legislation designed to address rural-specific challenges and leverage the assets of rural America has been successful in improving the lives of the sixty million who live in our rural communities. It is important to continue to recognize that rural health care systems are different, and not simply "small versions of urban" and can yield similar outcomes, when given the opportunity.[25] The pandemic exposed the fragility of our rural health care system. Fortunately, Congress has a number of policy opportunities to make real improvements for rural America.

---

[22] Medicare Payment Advisory Commission. Critical Access Hospitals Payment System. https://www.medpac.gov/wp-content/uploads/2021/11/medpac_payment_basics_21_cah_final_sec.pdf

[23] Bennett, K.J., Yuen, M.W. and Merrell, M.A. (2018), Community Paramedicine Applied in a Rural Community. *The Journal of Rural Health*, 34: s39-s47. https://doi.org/10.1111/jrh.12233

[24] Page CP, Chetwynd E, Zolotor AJ, Holmes GM, Hawes EM. Building the Clinical and Business Case for Opening Maternity Care Units in Critical Access Hospitals. *NEJM Catal Innov Care Deliv* 2021;2(5). DOI: 10.1056/CAT.21.0027

[25] Centers for Medicare & Medicaid Services. Rural-Urban Disparities in Health Care in Medicare. November 2020. https://www.cms.gov/files/document/omh-rural-urban-report-2020.pdf