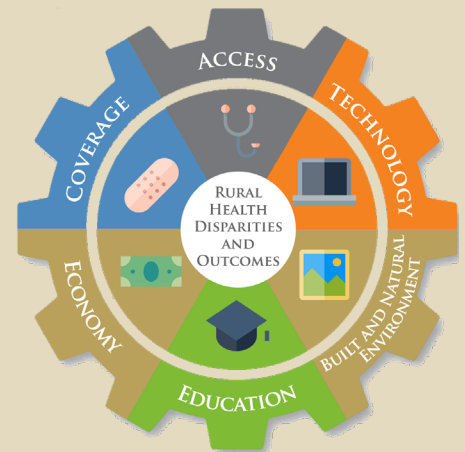


MAKING CONNECTIONS: RURAL HEALTH AND ACCESS TO CARE

There are a number of troubling population health trends that present challenges to rural health today. Persistent issues like higher rates of risky health behaviors, lower rates of health insurance coverage, and physician shortages are creating pressure on rural health systems to intervene in order to improve care, enhance quality of life, and decrease costs.

These trends weave together to tell a story based on the interplay of multiple factors and the resulting outcomes they produce. To better understand the big picture, it is important to recognize the relationships that exist between well-being and contributing factors both inside and outside of the traditional health care system.

The Georgia Health Policy Center (GHPC) has long-standing expertise in assisting rural communities to improve health and health care delivery in an effective and sustainable manner. GHPC created this series as a supplement to its *Understanding the Rural Landscape* learning module. This series explores the range of elements that influence rural health, with special emphasis on the unique challenges and innovative solutions emerging in rural communities. This installment of the series will specifically examine the relationship between rural health and access to care.



BACKGROUND

Access to health care in rural communities is a complex issue that is impacted by a number of different factors. Access to care is critically important to the well-being of rural residents, given that rural populations tend to be older and less healthy compared to their urban counterparts and the nation as a whole. Many rural residents face ongoing challenges in accessing care due to fewer primary and specialty care providers practicing in rural areas, distance to services, and insurance coverage.

Larger systems issues also directly impact the availability of quality health care in rural areas. These system-level factors are closely intertwined and include the local economy, workforce issues, hospital viability, and technology infrastructure. Given these challenges, local health care delivery systems in rural communities oftentimes struggle as they seek to deliver quality, effective, accessible care to high-need, high-cost populations.

Given the overall context within rural communities and the larger changes underway in the national health care landscape, there are both significant challenges and promising opportunities for rural communities to develop and strengthen local health care delivery systems to improve access and outcomes for rural populations. This brief examines rural access to care as it is impacted by the interactions between health care workforce, hospital closures, and broadband infrastructure. It will also highlight examples of rural relevant models and initiatives to address them.



ISSUES IMPACTING ACCESS TO CARE

Health Care Workforce

There is a national health care workforce shortage, which is even more pronounced in rural areas, creating significant access issues for residents of rural communities. According to a policy brief by the Robert Graham Center for Policy Studies, as of 2013, there were approximately 68 primary care physicians per 100,000 residents in rural areas versus an average of 84 primary care physicians per 100,000 in urban areas.¹ These kinds of disparities between the number of providers in urban and rural areas are also seen across other specialty providers and are particularly pronounced within the behavioral health workforce. For example, there are 17.5 psychiatrists per 100,000 people in metropolitan areas compared with 5.8 in nonmetro areas.² Similarly, there are 33.2 psychologists per 100,000 people in metropolitan areas versus 13.7 per 100,000 in nonmetro areas.²

Future supply of and demand for health care providers is impacted by factors like population growth, an aging health care provider population, workforce training programs, economic conditions, and reimbursement policies. According to the Health Resources and Services Administration Center for Health Workforce Analysis, it is projected that there will be a national shortage of primary care physicians of 23,640 by 2025.³ Other factors impacting rural health care provider availability include having to provide services for older, sicker, and higher-need populations; recruitment and retention challenges; and the existence of workforce programs that are insufficient to meet demand and, furthermore, may not be tailored to the rural setting.

INNOVATION: BUILDING THE RURAL PRIMARY CARE WORKFORCE

In light of these challenges, there are a number of examples of rural-relevant workforce initiatives that have emerged over the years to address these shortages and encourage and support rural health care practice. These strategies focus on rural community-based training and experiences, health professional “pipeline” programs, and expanded use of midlevel and other nonphysician providers for the delivery of primary care.

In New Mexico, health care providers, residency programs, public health officials, and legislators came together to change state policy, redirecting state Medicaid funds to open new primary residency slots via placement in Federally Qualified Health Centers. This successful partnership between the state and residency training programs has streamlined funding and support for primary care training and resulted in the rapid expansion of primary care residency slots in some of the most underserved, rural areas of the state.⁴

Rural Hospital Closures

Since January 2010, 83 rural hospitals have closed, creating significant barriers to care for residents in these communities.⁵ This is a trend that dates back a few decades to the late 1980s; however, in recent years, the number of hospital closures has increased, particularly in the South. Currently, the greatest concentration of hospitals at high risk of financial distress is in the South, with 16.6 percent of hospitals falling into this high-risk category, a rate that is more than double the rate seen across other parts of the country.⁶ The interaction of smaller, often more fragile economies; high-need, high-cost patients; shrinking populations; a limited supply of health professionals; and constrained financial resources collide to put hospitals in a precarious situation that all too often results in hospital distress and closure.

Before the Affordable Care Act (ACA) of 2010, the high rates of uninsured individuals living in rural areas resulted in uncompensated care for many rural hospital systems. As of early 2018, 32 states had moved forward with Medicaid expansion; however, many states that have not opted for expansion have significant rural populations, and the rural

INNOVATION: REIMAGINING RURAL HOSPITALS

Given this situation, many rural hospitals are evolving from higher-cost, inpatient models of care to new paradigms that are customized to the needs of the community. Some alternative models of care emerging in rural communities include freestanding emergency and urgent care facilities, outpatient centers, and “hub-and-spoke” models that integrate small and large providers into one connected system.

The Kansas Hospital Association (KHA) is leading efforts to move small, rural hospitals toward becoming “community health centers” that would focus more on outpatient and transitional care. KHA is facilitating conversations with stakeholders to explore this new model and the regulatory changes that would be required to implement it.⁸

¹ Petterson, S. M., Phillips, R. L., Jr., Bazemore, A. W., & Koinis, G. T. (2013, June 1). *Unequal distribution of the U.S. primary care workforce*. Washington, DC: Robert Graham Center for Policy Studies in Family Medicine and Primary Care. Retrieved from <https://www.graham-center.org/rgc/publications-reports/publications/one-pagers/unequal-distribution-2013.html>

² Larson, E. H., Patterson, D. G., Garberson, L. A., & Andrilla, C. H. A. (2016, September) *Supply and distribution of the behavioral health workforce in rural America*. (Data Brief No. 160). Seattle, WA: WWAMI Rural Health Research Center, University of Washington.

³ HRSA National Center for Health Workforce Analysis. (2016, November). *National and regional projections of supply and demand for primary care practitioners, 2013-2025*. Rockville, MD.

hospitals in these states continue to struggle financially, facing greater risk of closure.⁷ The states that participated in Medicaid expansion under the ACA did see their rates of uncompensated care decline, relieving some financial pressure, compared with those states that did not expand coverage. Despite this progress, national health care policy continues to change, casting further uncertainty on coverage rates and, in turn, on rural hospital viability.

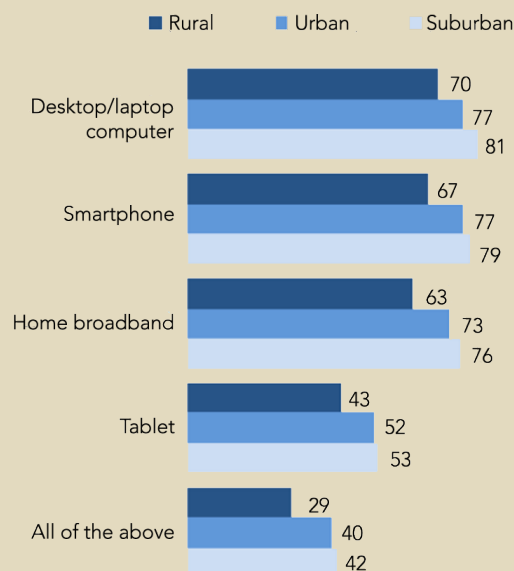
Broadband Infrastructure

Due to geography, distance, and often limited availability of providers in rural communities, use of technology in the delivery of care is critical. This includes use of telehealth and other related technologies; electronic health records and other forms of health information technology to store, share, and analyze health information across providers; and continually evolving mobile technologies (e.g., phones, tablets). Clinical applications for telehealth continue to expand, including examples in tele-pharmacy, tele-radiology, tele-pathology, and tele-home health. While these telehealth applications are effective means for delivering care and improving access, most require reliable, high-speed Internet.

Broadband access continues to improve, but there is still a significant gap between availability in rural and urban areas, with 39% of rural residents lacking access to standard broadband Internet speeds compared with only 4% of urban residents. This lack of connectivity impacts the effectiveness of certain health technologies in rural settings.⁹ Based on a 2015 Federal Communications Commission (FCC) report, it is estimated that over 60% of the urban population has access to at least three wireline Internet providers, compared with less than 20% for rural residents.¹⁰ A significant challenge to establishing rural wireline broadband is the cost of developing the infrastructure, especially given rural geography and the distances between households and terrain. Wired internet connections provide the high speeds necessary for telehealth technology, and this disparity in wireline availability all but ensures that there is less competition and potentially higher prices for high-speed, wired connections for rural residents. This impacts technology adoption rates in rural communities, which tend to be lower than in urban settings.¹¹

Majority of rural Americans have home broadband, but digital divide remains

% of U.S. adults who say they have . . .



Source: Pew Research Center. (2016). Digital gap between rural and nonrural America persists.

INNOVATION: INITIATIVES TO ENHANCE RURAL BROADBAND

County Broadband Board to raise capital and develop partnerships with local service providers to establish wireless broadband, which is more cost-effective than wired connections.¹² There are also a number of policy efforts taking place at both the national and state levels. Nationally, the FCC has been at the lead for a number of these national initiatives, including efforts established through the Connect America Fund, Rural Broadband Experiments, and the work of the Connect2Health Task Force.

States are focused on a wide range of efforts to strengthen rural broadband. In 2017, at least 22 states introduced more than 31 bills or resolutions related to rural broadband. Bills included a focus on expanding tax credits and benefits, establishing formal state commissions or councils to lead efforts, developing an annual state broadband strategy, and authorizing additional public resources for expanded access.¹³

To address these disparities in broadband access and improve the use of health care-related technology, there are a number of efforts taking place at the community, state, and national levels. A community in Appalachian Kentucky established a local

⁴ Kaufman, A., & Alfero, C. (2015, July 31). A state-based strategy for expanding primary care residency. *Health Affairs Blog*. <http://healthaffairs.org/blog/2015/07/31/a-state-based-strategy-forexpanding-primary-care-residency/>

⁵ Cecil G. Sheps Center for Health Services Research. (2018). *83 rural hospital closures: January 2010-present*. Chapel Hill, NC. Retrieved from <http://www.shepscenter.unc.edu/programs-projects/rural-health/rural-hospital-closures/>

⁶ Kaufman, B. G., Randolph, R., Pink, G. H., & Holmes, G. M. (2016, October). *Trends in risk of financial distress among rural hospitals*. (Policy Brief Chapel Hill, NC: North Carolina Rural Health Research Program, University of North Carolina at Chapel Hill. Retrieved at <http://www.shepscenter.unc.edu/download/13777/>

⁷ Lindrooth, R. C., Perrillon, M. C., Hardy, R. Y., & Tung, G. J. (2018, January). Understanding the relationship between Medicaid expansions and hospital closures. *Health Affairs*, 37(1), 111-120.

⁸ Wishner, J., Solleveld, P., Rudowitz, R., Paradise, J., & Antonisse, L. (2016, July 7). *A look at rural hospital closures and implications for access to care: Three case studies*. San Francisco: Kaiser Family Foundation.

IMPLICATIONS



This brief explored rural health care access through its connections with health care workforce, hospital closures, and broadband infrastructure. These three specific issues are part of the broader rural context, which collectively holds great implications for rural health and health care.

For example, one study looked at economic growth in rural U.S. communities between 2001 and 2010 and found that increases in broadband availability, adoption, and speed correlated strongly with income growth in those communities, while those with lower rates of broadband availability saw decreases in the number of businesses and total employment.¹⁴ Furthermore, a separate FCC report mapped primary care physician shortages with Internet access and found that counties with the least access to primary care physicians were often

those least connected, showing an association between provider availability and community connectivity.¹⁵

From these examples, one can envision a scenario where robust economic growth leads to greater investment in broadband connectivity, which in turn draws more interest for local business development, further supporting the growth of the local workforce, including health care providers.

Hospitals, in many cases, are the primary employers in many rural communities, and, as a result, a hospital closure impact is felt on many levels within that rural area. Previous studies have shown that rural hospital closures have a negative impact on local economies, especially in the short term, with decreases in per capita income and increased unemployment.^{16, 17} Rural hospital closures have an additional impact on the local health care workforce and individuals' ability to access care following the outmigration of providers that typically occurs.

Given the interconnectedness between these different factors and their direct impact on access to care, it is important to consider these relationships in the design of any rural-relevant research, policies, and programs. As illustrated in the previous examples, a community's success in addressing access to care through tackling any one of the issues described in this brief will likely be limited without some recognition of and focus on a more holistic approach to community economic development. This requires a strategy that recognizes the complexity of these issues and brings together stakeholders from across sectors to address these issues. Otherwise, it is possible that attempts to tackle access to care issues in rural communities will either not be entirely effective or may produce unintended consequences given the interplay of these different factors.

⁹ Federal Communications Commission. (2016, January 29). *2016 broadband progress report*. Washington, DC.

¹⁰ Federal Communications Commission. (2015). *National broadband map*. Washington, DC. Retrieved at <https://www.broadbandmap.gov/download/Broadband%20Availability%20in%20Rural%20vs%20Urban%20Areas.pdf>

¹¹ Perrin, A. (2017, May 19). *Digital gap between rural and nonrural America persists*. Washington, DC: Pew Research Center. Retrieved at <http://www.pewresearch.org/fact-tank/2017/05/19/digital-gap-between-rural-and-nonrural-america-persists/>

¹² Becker, B. (2018, March 3). *Rural communities take broadband into their own hands*. Washington, DC: National Public Radio. Retrieved from <https://www.npr.org/2018/03/03/590546371/rural-communities-take-broadband-into-their-own-hands>

¹³ National Conference of State Legislatures. (2017, September 29). Rural Broadband website. Denver, CO. Retrieved at <http://www.ncsl.org/research/telecommunications-and-information-technology/rural-broadband.aspx>

¹⁴ Whitacre, B., Gallardo, R., & Strover, S. (2014, December). Broadband's contribution to economic growth in rural areas: Moving towards a causal relationship. *Telecommunications Policy*, 38(11), 1011-1023.

¹⁵ Federal Communications Commission. (2017). *Mapping broadband health in America 2017 key findings*. Washington, DC. Retrieved at https://www.fcc.gov/sites/default/files/connect2health.key_findings.pdf

¹⁶ Holmes, G. M., Slifkin, R. T., Randolph, R. K., & Poley, S. (2006, April). The effect of rural hospital closures on community economic health. *Health Services Research*, 41(2), 467-485.

¹⁷ Manlove, J., & Whitacre, B. (2017, February 4-7). *Short-term economic impact of rural hospital closures*. Southern Agricultural Economics Association 2017 Annual Meeting, Mobile, AL.