National Rural Health Association Policy Brief



Health care's role in rural economic development: How broadband can improve health outcomes

Author: Jeremy Cannon, RN

Introduction

The lack of broadband infrastructure and adaptation in rural areas creates fewer economic opportunities for rural residents and limits access to health care. The Federal Communication Commission (FCC) defines broadband as connections with download speeds of 25 megabits per second and an upload speed of 3 megabits per second. Approximately seven in 10 rural Americans have broadband internet at home, a nine-percentage point increase since 2016. Despite recent advancements, rural residents are still less likely to report having access to broadband compared to their urban and suburban counterparts. The FCC estimates that 30 percent of rural residents lack access to broadband services. This statistic likely undercounts the true number of individuals who lack access because people without broadband are less likely to submit responses to the US Census. Proadband is considered a superdeterminant of health due to its significant impact on education and employment opportunities. The growing digital divide traps disconnected rural individuals in poverty and limits access to health services and information.

Analysis

Broadband deserts are areas without available and affordable access to broadband, causing individuals to experience a lack of internet access. Although broadband may be available to a community that does not mean it is affordable. Individuals living in rural areas tend to have lower digital literacy rates and often lack the means to afford broadband subscriptions compared to their urban counterparts. Evidence also suggests rural residents are more likely to be unemployed and low-income, and lack of broadband makes it difficult for them to find new jobs and increase wage earnings. Major investments are needed in rural broadband infrastructure to increase economic prospects and maintain access to health care. Studies show that countries that improve broadband speeds and access have significant improvements in gross domestic product. Moreover, countries with lower incomes that increase broadband speeds and access have the largest economic growth. Based on global research trends, it can be inferred that rural economic development may continue to fall behind urban areas without reliable access to broadband.

Areas lacking broadband tend to have slower population growth rates compared to those where quality broadband is accessible. In many cases, individuals inquire about high-quality broadband prior to settling in rural areas, with the expectation that it is readily available like any other utility. If rural hospitals serve areas lacking adequate broadband coverage, individuals may move from those areas as reliance on technology increases. The lack of broadband could also deter people from moving to the rural hospital's service area, choosing instead to relocate somewhere with broadband access. The shrinking population puts some rural hospitals at financial risk. Since 2010, more than 140 rural hospitals have closed and many more are operating on negative or vulnerable margins.* Most rural hospitals are considered the economic lifeline of their community, but their financial viability is dependent on the volume of patients. Additional hospital closures will have a deleterious effect on health care availability and stability of rural populations. Individuals that remain in broadband deserts will be forced to travel farther to receive care, increasing the likelihood of an unfavorable outcome during a medical emergency.* As the world becomes

1 February 2023

National Rural Health Association Policy Brief



increasingly digitized, broadband access will make or break health care systems and shape health outcomes.

Policy recommendations

- Representatives from rural areas must continue to be included in program development and policy implementation regarding broadband infrastructure.^{xiii} Leaders should also consider expanding infrastructure into areas where future development could be a realistic option, preventing the suppression of economic growth.
- Community leaders should work together to develop a long-term strategy to improve broadband
 availability for rural residents. Local rural leaders need to continue advocacy efforts and ensure
 broadband access is available to the most vulnerable populations. Access to reliable broadband
 allows services traditionally found in brick-and-mortar institutions, such as schools and hospitals,
 to be readily available regardless of physical distance.
- Institutions receiving government funding or grants should receive multipliers when they combine
 funds to improve the digital inclusion, equity, and dignity of the individuals they serve. Another
 option could be to convert loans into grants when collaborative efforts are demonstrated, similar
 to the Paycheck Protection Program loans distributed during the COVID-19 pandemic.
- Hospitals and health care settings that are high utilizers of telehealth can be incentivized and used as a source to collect data regarding opportunities to improve broadband access.
- National Telecommunications and Information Administration (NTIA) should allocate funds for telehealth projects that close the digital divide to ensure rural communities have the same access to telehealth as their urban counterparts.

Recommended actions

- NTIA regulations should require broadband projects to meet the standard of 25 megabits per second and an upload speed of 3 megabits per second at a minimum, providing additional funding to projects that produce even faster speeds. Supporting this language ensures a minimum performance expectation is met.
- Rural health clinics, federally qualified health centers, and hospitals should capture data regarding reliable broadband access in a similar manner as was used to increase patient portal participation, as outlined by the 21st Century Cures Act.
- Stakeholders should continue to support H.R. 1783 and S. 745, the Accessible, Affordable Internet for All Act, while advocating for a higher percentage of FCC and NTIA funds dedicated to rural areas where a large percentage of households lack broadband access.
- Stakeholders should continue to support telehealth programs implemented during the COVID-19 pandemic, such as S. 368, the Telehealth Modernization Act.

Conclusion

NRHA would like to see the federal government accelerate efforts to close the digital divide and increase funds allocated to related projects. Broadband is an expensive yet essential investment in America's future. As the health care industry continues to transition to outpatient services and away from the traditional brick-and-mortar hospital for preventative care, it will be critical that the most rural areas have access to high-quality broadband. Until this issue is adequately addressed, rural America will continue to fall short in terms of expected health outcomes, and the overall economic stability of rural regions will remain at risk.

2 February 2023

National Rural Health Association Policy Brief



References

ⁱ Bauerly, McCord, R. F., Hulkower, R., & Pepin, D. (2019). Broadband Access as a Public Health Issue: The Role of Law in Expanding Broadband Access and Connecting Underserved Communities for Better Health Outcomes. The Journal of Law, Medicine & Ethics, 47(2_suppl), 39–42. https://doi.org/10.1177/1073110519857314

- Bauerly, McCord, R. F., Hulkower, R., & Pepin, D. (2019). Broadband Access as a Public Health Issue: The Role of Law in Expanding Broadband Access and Connecting Underserved Communities for Better Health Outcomes. The Journal of Law, Medicine & Ethics, 47(2_suppl), 39–42. https://doi.org/10.1177/1073110519857314
- ^{iv} Bauerly, McCord, R. F., Hulkower, R., & Pepin, D. (2019). Broadband Access as a Public Health Issue: The Role of Law in Expanding Broadband Access and Connecting Underserved Communities for Better Health Outcomes. The Journal of Law, Medicine & Ethics, 47(2_suppl), 39–42. https://doi.org/10.1177/1073110519857314
- ^v Bauerly, McCord, R. F., Hulkower, R., & Pepin, D. (2019). Broadband Access as a Public Health Issue: The Role of Law in Expanding Broadband Access and Connecting Underserved Communities for Better Health Outcomes. The Journal of Law, Medicine & Ethics, 47(2_suppl), 39–42. https://doi.org/10.1177/1073110519857314
- vi Mathews, & Ali, C. (2022). Desert Work: Life and Labor in a News and Broadband Desert. Mass Communication & Society, ahead-of-print(ahead-of-print), 1–21. https://doi.org/10.1080/15205436.2022.2093749
- vii Isley, & Low, S. A. (2022). Broadband adoption and availability: Impacts on rural employment during COVID-19. Telecommunications Policy, 46(7), 102310–102310. https://doi.org/10.1016/j.telpol.2022.102310
- wiii Many Rural Americans Are Still 'Left behind', (2020). Institute for Research on Poverty. https://www.irp.wisc.edu/resource/many-rural-americans-are-still-left-behind/.
- ix Edquist, H. (2022). The economic impact of mobile broadband speed. *Telecommunications Policy*, 46(5), 102351. https://doi.org/10.1016/j.telpol.2022.102351
- * Edquist, H. (2022). The economic impact of mobile broadband speed. *Telecommunications Policy*, 46(5), 102351. https://doi.org/10.1016/j.telpol.2022.102351
- xi McCarthy, Moore, D., Smedley, W. A., Crowley, B. M., Stephens, S. W., Griffin, R. L., Tanner, L. C., & Jansen, J. O. (2021). Impact of Rural Hospital Closures on Health-Care Access. The Journal of Surgical Research, 258, 170–178. https://doi.org/10.1016/j.jss.2020.08.055Struminger, & Arora, S. (2019). Leveraging telehealth to improve health care access in rural america: It takes more than bandwidth. Annals of Internal Medicine, 171(5), 376–377. https://doi.org/10.7326/M19-1200
- xii McCarthy, Moore, D., Smedley, W. A., Crowley, B. M., Stephens, S. W., Griffin, R. L., Tanner, L. C., & Jansen, J. O. (2021). Impact of Rural Hospital Closures on Health-Care Access. The Journal of Surgical Research, 258, 170–178. https://doi.org/10.1016/j.jss.2020.08.055Struminger, & Arora, S. (2019). Leveraging telehealth to improve health care access in rural america: It takes more than bandwidth. Annals of Internal Medicine, 171(5), 376–377. https://doi.org/10.7326/M19-1200
- Kozhimannil, & Henning-Smith, C. (2021). Improving Health Among Rural Residents in the US. JAMA: the Journal of the American Medical Association, 325(11), 1033–1034. https://doi.org/10.1001/jama.2020.26372

3 February 2023

[&]quot;Vogels, E. (2021). Some Digital Divides Persist between Rural, Urban and Suburban America, Pew Research Center, https://www.pewresearch.org/fact-tank/2021/08/19/some-digital-divides-persist-between-rural-urban-and-suburban-america/.