

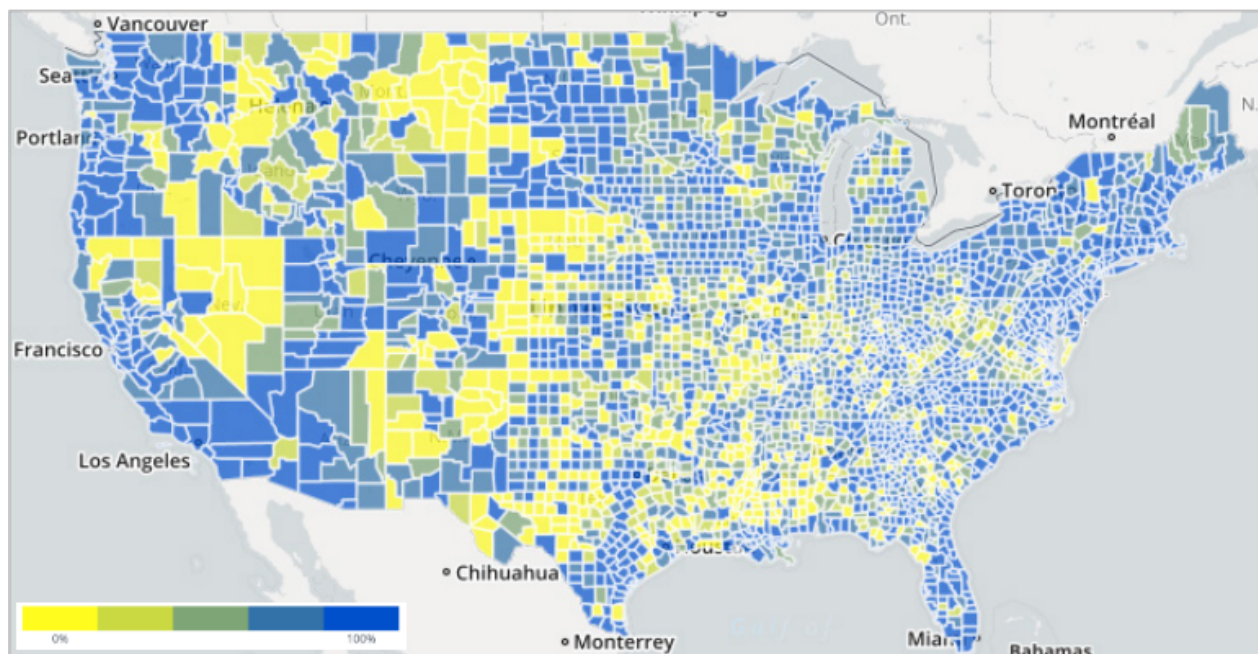


Digital Access: A Super Determinant of Health

Date: March 22, 2023 | Categories: [Minority Health](#), [Community](#), [Mental Health](#)

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Internet access is increasingly recognized as a “super determinant” of health. It plays a role in health care outcomes and influences more traditionally recognized social determinants of health, such as education, employment, and healthcare access.^{1,2} The Federal Communications Commission (FCC) estimates that 19 million people in the United States lack access to reliable broadband service, also known as reliable high-speed internet.³ This phenomenon is known as the digital divide and has focused on rural areas and “pockets of segregated urban areas [that] are also disconnected”.¹



This baseline map visualizes fixed broadband access at the county level and identifies connectivity gaps—the lighter the color, the lower the percentage of households with broadband access.

How the Digital Divide Intersects with Equity and Behavioral Health

The nation's digital divide reflects inequities in who can and cannot access high speed internet.⁴ The National Telecommunications and Information Administration (NTIA) reports that in 2021, [wired high-speed internet use rates](#) were lower in “households where the main renter or owner was 65 years or older, had a disability, or was a Hispanic, African American, American Indian, or Alaska Native individual”.⁴ Households in rural areas were less likely to use high-speed internet services and costs can make internet access unaffordable for individuals with lower household incomes.⁴ The American Health Information Management Association Foundation found that “while over 8 in 10 households with incomes above \$100,000 used [wired high-speed internet service](#) at home, only about 5 in 10 households with incomes below \$25,000 did in 2021”.⁴

Internet access has become an essential component of daily life and the digital divide has contributed to the time and distance gap between doctors and patients, also known as the broadband health gap.⁵ The Connect2Health FCC Task Force's (C2H Task Force) *Advancing Broadband Connectivity as a Social Determinant of Health Initiative* aims to deepen understanding of the relationship between broadband access and health outcomes.⁵ The C2H Task force created the [Mapping Broadband Health in America](#) platform which allows users to visualize, overlay, and analyze broadband and health data at the national, state, and county levels.⁵ Ongoing research from this platform shows that “internet adoption appears to have an even stronger correlation to health outcomes, even after controlling statistically for other potentially confounding factors, such as education, income, and rurality”.⁵ Studies have also shown strong associations between excessive internet use and increased risk of depression.⁶ The C2H Task Force currently is researching the relationship between broadband connectivity and diabetes, obesity, cancer, and drug mortality/opioid prescription rates.⁵

The pandemic prompted the increased use of telehealth for both behavioral health and physical health services⁷ which has led to conversations around digital exclusion and the equitable implementation of telehealth services.⁸ Flexibilities around payment and licensing of telehealth were essential in responding to the surging need for mental health and substance use services during the pandemic.⁷ Rural residents and non-elderly adults are more likely to use telehealth for mental health and substance use disorder visits, especially in areas with fewer providers.⁷ Additionally, clinicians also need reliable and affordable internet access to provide telehealth services. Telehealth has the potential to address gaps in mental health and substance use treatment, make treatment services more accessible and convenient, improve health outcomes, and reduce health disparities.⁹ But this is all dependent on broadband access.

Telehealth as a Tool to Bridge Racial/Ethnic Health Disparities


A systematic review of telehealth consultation among racial/ethnic populations found that telehealth-delivered care was effective for treating and managing health conditions including depression, diabetes, and hypertension and received an overall high patient satisfaction rating.¹⁰ Major benefits included financial- and time-savings; barriers were cost and limited health and digital literacy.¹⁰ Telehealth-delivered care can be an innovative tool to bridge racial/ethnic health disparities if delivered in the patient's preferred language and level of digital competency.

Efforts to Reduce the Digital Divide

A Community Level Example

To optimize the expansion of telehealth services, communities must have reliable and affordable internet access. Wimauma Connects is a free internet Wi-Fi network community initiative that brings internet services to low-income, high-density residential communities in Wimauma Village, Florida.¹¹ This initiative has partnered with local businesses to provide their customers with free Wi-Fi access while also promoting their services. Community-based initiatives like Wimauma Connects are essential to promoting digital equity and, ultimately, access to telehealth services.

A State Level Example

State broadband expansion programs are key to closing the digital gap because federal broadband funding is primarily awarded to states, localities, and tribal communities.¹² State expansion efforts are being tailored to their needs and proving to be effective. The Pew Charitable Trusts¹³ studied [state broadband programs](#)  nationwide and found that efforts reflect state political environments, resource levels, geography of areas that are unserved or underserved, and the entities that provide broadband service. For example, states like Colorado, Minnesota, Tennessee, Virginia, and Wisconsin “support broadband deployment in unserved and underserved areas through grant programs that fund a portion of the cost of deployment.”¹⁴ These states also promote “accountability by requiring that grantees demonstrate they are providing the service they were funded to deliver while also providing states with the data needed to evaluate the program and progress toward defined goals.”¹⁴ The report highlights promising broadband expansion practices such as collaborating with state broadband program representatives, internet service providers, local governments, and broadband coalitions.¹³ Other practices include stakeholder outreach and engagement, policy framework, planning and capacity building, funding and operations, and program evaluation and evolution.¹³ Policymakers

and service providers can examine practices in these states and adapt them to fit their needs and contexts to bridge the broadband gap.¹⁴

A Federal Level Example


On a national level, the FCC and NTIA have led the Biden-Harris Administration's national "[Internet for All](#)" initiative. The Bipartisan Infrastructure Law includes a \$65 billion investment to ensure all Americans can access affordable, reliable, and high-speed internet.¹⁵ The NTIA has been tasked to lead [three programs](#) funded by the Bipartisan Infrastructure Law, working alongside states, localities, the private sector, and nonprofits to build America's high-speed internet infrastructure.¹⁵ The FCC's [Affordable Connectivity Program](#) is a benefits program that provides a discount toward internet services for eligible households to ensure they can afford broadband. In addition to providing funds for internet services, the FCC updates their [National Broadband Map](#) to improve specific location-level data about broadband services across the nation. Public users can now view the maps, search for their address, and file a challenge directly with the FCC to correct or add information to the map.¹⁶ States and localities need accurate data and maps to target funding and resources and bring broadband to underserved communities.

A Call to Action


The strong relationship between broadband access and health outcomes has inextricably linked digital equity and health equity.⁵ Broadband access is increasingly viewed as a way to connect providers and patients and reduce the burdens of distance and time.⁵ Moreover, broadband connectivity can impact the social drivers of health.⁵ While there are pockets of the population that "are still falling through the broadband health gap", there are significant efforts to promote digital equity.⁵ Given federal, state, and local investments in broadband expansion, now is the time to bridge the digital divide and gain traction in reducing health disparities.

Resources

Below are a list of funding opportunities and resources that are actively working to promote broadband access.

[Everyoneon.org](#)  - EveryoneOn works with a wide range of internet service providers (ISPs) and device providers to feature their low-cost internet service programs and computers on the platform. They help bring low-cost internet service and affordable computers to those who need it.

[FCC Affordable Connectivity Plan](#) - an FCC program that provides a \$30 subsidy on monthly broadband (internet service) bills for qualifying low-income households. It gives up to \$75 per month to households on qualifying tribal lands and can give one-time discounts to buy a laptop, desktop computer, or tablet.

[Lifeline](#)  - a federal program that gives people from eligible households a monthly discount for phone and internet services. Lifeline benefits can be used separately or together with Affordable Connectivity Program benefits.


[Internet for All](#) - a federal initiative to provide \$65 billion in funding to states, communities, and internet providers to improve planning, infrastructure, and adoption of high-speed internet.


[Capital Projects Fund](#) - a program that helps state governments fund capital projects and infrastructure. It works to expand high-speed Internet to deliver vital services.

[ReConnect Loan and Grant Program](#) - a program that helps expand high-speed Internet access in rural areas and funds support construction, facilities, and equipment.

[FCC National Broadband Map](#) - a map that display where Internet services are available across the United States, as reported by ISPs to the FCC. The map will be updated continuously to improve its accuracy through a combination of FCC verification efforts, new data from Internet providers, updates to the location data, and—importantly—information from the public.

[Mapping Broadband Health in America](#) - a platform that allows users to visualize, overlay and analyze broadband and health data at the national, state, and county levels. The [maps](#) are an interactive experience, enabling detailed study of the intersection between connectivity and health for every county in the United States. The resulting maps can be used by public and private sectors and local communities to identify opportunities and gaps in connectivity and care.

¹County Health Rankings and Roadmaps (2021). [Broadband: A Super Determinant of Health](#) .

²The Network for Public Health Law (2018). [Broadband Access as a “Super-Determinant” of Health](#) .

³Federal Communications Commission (n.d.). [Eighth Broadband Progress Report](#).

- ⁴American Health Information Management Association Foundation (2022). [Health Equity and Broadband Internet Access](#) .
- ⁵Federal Communications Commission (2022). [Advancing Broadband Connectivity as a Social Determinant of Health](#).
- ⁶Marciano, Schulz, P. J., & Camerini, A.-L. (2022). [How do depression, duration of internet use and social connection in adolescence influence each other over time? An extension of the RI-CLPM including contextual factors](#) .
- ⁷Lo, J., Rae, M., Amin, K., Cox, C., Panchal, N., & Miller, B. (2022). [Telehealth Has Played an Outsized Role Meeting Mental Health Needs During the COVID-19 Pandemic](#) .
- ⁸Hardy, A., Ward, T., Emsley, R., Greenwood, K., Freeman, D., Fowler, D., Kuipers, E., Bebbington, P., & Garety, P. (2022). [Bridging the Digital Divide in Psychological Therapies: Observational Study of Engagement with the SlowMo Mobile App for Paranoia in Psychosis](#) . *JMIR Human Factors*, 9(3), e29725.
- ⁹Substance Abuse and Mental Health Services Administration. [Telehealth for the Treatment of Serious Mental Illness and Substance Use Disorders \(PDF | 3.6 MB\)](#). SAMHSA Publication No. PEP21-06-02-001 Rockville, MD: National Mental Health and Substance Use Policy Laboratory. Substance Abuse and Mental Health Services Administration, 2021.
- ¹⁰Truong, M., Yeganeh, L., Cook, O., Crawford, K., Wong, P., & Allen, J. (2022). [Using telehealth consultations for healthcare provision to patients from non-Indigenous racial/ethnic minorities: a systematic review](#) . *Journal of the American Medical Informatics Association: JAMIA*, 29(5), 970–982.
- ¹¹Wimauma Connects (2020). [Wimauma’s Wi-Fi Network](#) .
- ¹²Turner Lee, N., Seddon, J., Tanner, B., & Lai, S. (2022). [Why the Federal Government Needs to Step up Efforts to Close the Rural Broadband Divide](#) .
- ¹³The Pew Charitable Trusts (2020). [How States Are Expanding Broadband Access](#) .
- ¹⁴De Wit, K. & Read, A. (2020). [How States Are Expanding Broadband Access](#) .
- ¹⁵National Telecommunications and Information Administration (2022). [Fact Sheet: Biden-Harris Administration’s “Internet for All” Initiative: Bringing Affordable, Reliable High-Speed Internet to Everyone in America](#).

¹⁶BBC Wires (2022) [FCC Releases New Draft of National Broadband Map](#) 

Source: <https://www.samhsa.gov/blog/digital-access-super-determinant-health>