

Public Sector Practice

Virtual health for all: Closing the digital divide to expand access

Affordable broadband with wraparound support could expand access to cost-efficient virtual health for underserved communities. Seven actions could help state and local leaders unlock this opportunity.

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The use of telehealth soared during the pandemic, and digital technology is becoming more embedded in US healthcare delivery models.¹ Yet tens of millions of people in the United States face a significant barrier to telehealth—a form of virtual health²—because they either lack access to affordable broadband or face other hurdles to getting online.³ But with the US federal government making more than \$100 billion available to close the digital divide,⁴ the funding exists to help states make virtual health available to all.

The federal commitment to bring high-speed internet to communities without access opens new opportunities to advance health equity via virtual health. Minority and low-income households are more likely to lack access to the broadband infrastructure needed to engage in telehealth; for example, Black households in dense urban areas are twice as likely as their White counterparts to lack a high-speed internet subscription.⁵ This population could benefit significantly from virtual-health interventions because it has higher-than-average numbers of Medicaid and Medicaid–Medicare (dual) beneficiaries, higher rates of chronic disease, and less reliable access to transportation to reach care delivery locations. Indeed, broadband access is increasingly seen as a social determinant of health (SDoH).

States that build out broadband infrastructure and provide wraparound support such as access to devices and digital-literacy programs could increase resident access to virtual health. They could also boost ancillary services such as digital health data management and analytics as well as population healthcare management. These in turn could improve chronic-condition management and care quality and outcomes while lowering costs

and encouraging people to engage more actively in their healthcare.

This article examines the current disparities in access to broadband service—and, by extension, virtual-care access—as well as the opportunity for states to facilitate access to e-health for all Americans. We also explore seven actions designed to help state governments reimagine health and human services to capture the full value of their investments in virtual health.

Unequal access to virtual-health services

Within the US healthcare system, adoption and acceptance of telehealth grew rapidly during the COVID-19 pandemic.⁶ Patients give telehealth high marks for providing timely access to physicians for consultations, convenience, and improved healthcare experiences. Even as in-office visits ramped back up, telehealth usage still exceeded prepandemic levels.⁷ Thanks to increased patient acceptance and the value it can create for providers and payers, including federal and state insurance programs, telehealth is poised to become a permanent care delivery model.

But not all Americans can take advantage of telehealth or other virtual-health services. About 24 million American households lack access to high-speed internet.⁸ Even for households in areas with high-speed internet infrastructure, engaging with virtual-health services and tools may be difficult or impossible because the broadband available to them is too slow, too expensive, or both. Many people also lack the requisite digital literacy to use them.⁹

¹ Oleg Bestsenny, Greg Gilbert, Alex Harris, and Jennifer Rost, “Telehealth: A quarter-trillion-dollar post-COVID-19 reality?,” McKinsey, July 9, 2021; Mathangi Radha, Shubham Singhal, and Nithya Vinjamoori, “The next frontier of care delivery in healthcare,” McKinsey, March 24, 2022.

² We define virtual health as a range of solutions for healthcare provider–patient interactions to occur outside of in-person visits, including telehealth (video or phone), text-based care, e-triage, and remote monitoring.

³ “Are states ready to close the US digital divide?,” McKinsey, June 1, 2022.

⁴ Ibid.

⁵ “Closing the digital divide in Black America,” McKinsey, January 18, 2023.

⁶ “Advancing broadband connectivity as a social determinant of health,” Federal Communications Commission, February 7, 2022; “Telehealth: A quarter-trillion-dollar post-COVID-19 reality?,” July 9, 2021.

⁷ Oleg Bestsenny, Michelle Chmielewski, Anne Koffel, and Amit Shah, “From facility to home: How healthcare could shift by 2025,” McKinsey, February 1, 2022.

⁸ “Are states ready to close the digital divide?,” June 1, 2022.

⁹ Ibid.

But states can tap federal funding to facilitate e-health access for all Americans. Together, the American Rescue Plan Act¹⁰ and Bipartisan Infrastructure Law (BIL) have made an unprecedented \$400 billion in federal funds available for broadband (see sidebar, “Closing America’s digital divide”). This funding aims to help states provide high-speed internet infrastructure to all unserved locations, affordable low-cost plans, devices, technical support, and digital literacy and skills training.¹¹

As a result, states have an unprecedented opportunity to close the digital divide and leverage current momentum in virtual health to enable residents—particularly those in low-income and marginalized communities—to use wellness apps, telehealth, and remote monitoring.

The following initiatives could help build the foundational digital capabilities to achieve this:

- identifying and securing various federal funding opportunities to address digital enablement¹²

- using digital tools that enable collaboration among health and human services programs to improve customer experience and outcomes¹³
- building the tools and capabilities to gather and integrate large, diverse data sets to yield actionable insights that drive informed decision making
- investing in appropriate security frameworks to manage identities and access while ensuring proper consent and privacy

To capture even more healthcare value, states could also develop cross-cutting programs and a robust performance management framework to ensure processes and data tools harmonize initiatives across state agencies and programs.¹⁴

Finally, states could take steps to support physicians in their adoption of telehealth, including education programs and financial incentives such as tax credits. Although the number of entities providing virtual-first care has grown substantially, physicians are struggling to keep up and have invested in telehealth technologies at much lower rates. In a McKinsey survey of physicians, just 41 percent believed they had the technology to deliver telehealth seamlessly.¹⁵

Closing America’s digital divide

In 2021, the Bipartisan Infrastructure Law (BIL) appropriated \$65 billion for broadband funding to close the digital divide in underresourced communities, and the Coronavirus State and Local Fiscal Recovery Funds program, part of the American Rescue Plan Act, made \$350 billion available, which can be used for broadband. To access BIL funds, states are required to assess barriers, needs, and the existing asset base; conduct extensive engagement and local coordination with affected residents and other stakeholders; and, ultimately, develop and submit comprehensive, data-driven plans. Once plans are approved and funding is released, states will oversee and report progress on the build-out of high-speed broadband infrastructure and the impact of digital-equity programs.

Unlocking the full value of e-health investments

Seven actions could help states expand access to digital technology to historically marginalized, low-income, and rural communities and unlock the potential of virtual health for all.

1. Place resources where needed in communities

States can build on individual Medicare and Medicaid

¹⁰ Anna Read and Kelly Wert, “How states are using pandemic relief funds to boost broadband access,” Pew Charitable Trusts, December 6, 2021.

¹¹ Priya Bathija, “Digital is the next frontier of health equity,” American Hospital Association, April 7, 2021.

¹² For more, see McKinsey’s BIL Navigator.

¹³ Ashka Dave, Marcy Jacobs, Kunal Modi, and Sarah Tucker-Ray, “Governments can deliver exceptional customer experiences—here’s how,” McKinsey, November 16, 2022.

¹⁴ “Are states ready to close the digital divide?,” June 1, 2022.

¹⁵ Jenny Cordina, Jennifer Fowkes, Rupal Malani, and Laura Medford-Davis, “Patients love telehealth—physicians are not so sure,” McKinsey, February 20, 2022.

health benefits to support digitalization and extend virtual healthcare to unserved and underserved communities. Specifically, they can pursue initiatives that optimize benefits and plan offerings through contracts with payers for Medicaid managed-care plans or managed long-term services and supports, address SDoH, expand access to mental-health and primary care, and make it easier for residents to navigate health services and benefits.

States can invest in technology and service delivery infrastructure¹⁶ to increase access to clinically appropriate care in communities disproportionately affected by chronic diseases, as well as nonclinical services that help with disease management. Digital tools can also help address SDoH—transportation, geography, housing—that contribute to roughly 40 percent of the variation in health status among individuals.¹⁷ For example, digital tools could enable reliable transportation to healthcare facilities, making it easier for residents to access these services and improving customer experience.

Many states are already moving in this direction. Some are submitting Section 1115 waivers to the Centers for Medicare & Medicaid Services (CMS) to help expand access to community health resources, such as nutritional counseling.¹⁸ Some, such as New York's Delivery System Reform Incentive Payment Program,¹⁹ are using their waiver authority to provide

incentives for managed-care organizations (MCOs) to screen for internet access and other SDoH. Others have used waiver authority to invest in technology infrastructure that enables care coordinators, payers, and providers to facilitate referral and reimbursement for in-home services, supportive housing, and care management. Massachusetts, for example, is building technology infrastructure to support data exchange and to apply data on beneficiary characteristics to better meet their needs and tailor care (for example, identifying and addressing unmet social needs via screening and referrals).²⁰

2. Digitalize health and human services programs

States could invest in digitalization to improve resident satisfaction with health and human services programs and unlock greater value from virtual health. As states look to modernize their technology capabilities to better support these programs, including Medicaid, they could take the time to survey beneficiaries and providers—for example, by conducting focus groups—to understand their journeys and experiences and identify pain points. States can review how people interact with health and human services programs and harness those insights to inform upgrades that improve customer experience, such as building an integrated platform that streamlines the channels residents use (online, telephone,

Digital tools can also help address SDoH that contribute to roughly 40 percent of the variation in health status among individuals.

¹⁶ "Closing the digital divide in Black America," January 18, 2023.

¹⁷ Marc Berg, Erica Coe, Danielle Feffer, and Seema Parmar, "Addressing the social determinants of health: Capturing improved health outcomes and ROI for state Medicaid programs," McKinsey, April 30, 2019.

¹⁸ "About Section 1115 demonstrations," Centers for Medicare & Medicaid Services.

¹⁹ Laurie Felland, Debra Lipson, and Jessica Heeringa, "Examining New York's Delivery System Reform Incentive Payment demonstration: Achievements at the demonstration's midpoint and lessons for other states," Medicaid 1115 Demonstrations, April 2018.

²⁰ *Demonstration approval for MassHealth*, Medicaid, November 7, 2022.

and email) to access services.²¹ States could even create a one-stop shop to ease the administrative burden on residents applying for and submitting documentation to multiple programs, such as Medicaid and the Supplement Nutrition Assistance Program, that have similar eligibility requirements and adjacent functions.

To generate even more value from virtual health, states could build on federal programs designed to boost internet access for low-income communities by integrating digital tools into healthcare delivery at the state and local level.²² For example, they could allow virtual primary care to satisfy payers' standards for network adequacy.²³ Regulatory changes are already creating new incentives for digitalization and virtual care.²⁴ An overhaul of current procedural terminology (CPT) codes for remote patient monitoring (RPM) in Medicare care management programs now allows for separate billing between RPM and chronic care management for a single patient within the same month. As a result of this change, states can now consider which CPT codes for RPM and remote therapeutic monitoring could be reimbursable if delivered using telehealth.

3. Refine technology strategy to support data flow and interoperability

Closing the digital divide could enable greater information and data flow among patients, providers, and payers. Health data could then support technologies, tools, and care delivery models designed to improve access and convenience for low-income communities and optimize disease self-management.

States are already required to help facilitate interoperability,²⁵ such as among electronic health records, third-party applications, and payer data, to ensure continuity of care across settings. As momentum

builds to establish a more comprehensive healthcare ecosystem, states could also consider integrating with other systems, such as their public-health data systems and state health information exchanges, to provide greater continuity of care across multiple providers that is tailored to individual patient needs.

4. Create a holistic data strategy to improve customer experience and healthcare outcomes

Many states are already in the process of upgrading their technology infrastructure. Complementing these efforts with a holistic data strategy, including a robust plan for tracking performance and minimizing bias, could help improve healthcare outcomes.

For example, data can yield actionable insights that reduce fragmented care and healthcare silos, boosting efficiencies and creating more personalized care options.²⁶ States could even build a health and human services ecosystem around the individual by instituting data use agreements with agency partners. And they could also minimize bias in healthcare by ensuring that providers, payers, and human services providers collect data on race, ethnicity, preferred language, sexual orientation, and gender identity, and use insights from the data to inform care decisions.

Insights gleaned from an expanding array of virtual-health tools could reveal correlations between demographics and socioeconomic needs. For example, states could identify communities with limited grocery store options and transportation access and then craft programs—supported by virtual health—to help residents manage healthy lifestyles and improve engagement with healthcare providers. States can also use data to consider the types of funding available to existing programs, or

²¹ Fadesola Adetosoye, Jessica Kahn, Sarah Miller, and Ajit Sawant, "As more Americans ask for public aid, could integrated benefits help?," McKinsey, June 16, 2022.

²² Programs such as the Federal Communications Commission's Lifeline and Affordable Connectivity Programs aim to improve digital access by providing monthly credits on phone and internet service for qualifying low-income households. For more, see "Lifeline program—consumer advocate toolkit," Universal Service Administration.

²³ According to the Center for Insurance Policy and Research, "network adequacy" refers to a health plan's ability to deliver the benefits promised by providing reasonable access to enough in-network primary care and specialty physicians as well as all healthcare services included under the terms of the contract.

²⁴ "CMS physician payment rule promotes greater access to telehealth services, diabetes prevention programs," CMS, November 2, 2021.

²⁵ "Policies and technology for interoperability and burden reduction," CMS.

²⁶ Prashanth Reddy, "How can healthcare unlock the power of data connectivity?," McKinsey, December 9, 2021.

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determine how much funding is required to establish new programs to improve consumer and member experiences, as well as outcomes.

5. Scale up tools that enable chronic-condition management

As states continue to adopt managed-care models for their Medicaid populations, digitalization could support targeted case management for chronic conditions. For example, increased deployment and use of virtual-health tools, such as remote patient monitoring devices, could enable providers to deliver more timely, tailored care, including supporting patients to actively participate in managing their own care.

States could engage with their healthcare partners, such as MCOs and physician groups, to support their investments in digital platforms and tools for innovative care management solutions. For example, in one state's Medicaid contract, MCOs are required to tier members based on risk profiles gleaned from clinical, demographic, and social data to help close care gaps.

MCOs could use tools designed for digital and asynchronous coaching, as well as tech-enabled alerts and notifications, to inform decision making and improve care management. Such initiatives could create a more frictionless member experience and improve Consumer Assessment of Healthcare Providers and Systems (CAHPS) scores.

6. Manage risks to ensure compliance with healthcare privacy and security laws

Interoperability among disparate data systems can present privacy and security risks, but these can be mitigated. For example, states can ensure that their citizens are educated about sharing data via third-party applications and other virtual-health tools that their health insurance company or provider may introduce them to. They can ensure that their operational workflows for business processes integrate consent management requirements for using an individual's data for various purposes, including sharing that data across disparate systems and platforms.

States could also explore innovative tools designed to ensure that they—and those operating on their behalf—are compliant with the Health Insurance Portability and Accountability Act of 1996 (HIPAA) and other consumer protection laws focused on privacy and security. Under HIPAA, the only way to use data for the advancement of care is to remove personally identifiable information using tokenization or an equivalent technology.²⁷

7. Maintain momentum and sustainability through investment and partnerships

Achieving universal access to virtual health and getting the most value out of those investments is an ongoing endeavor. To maintain momentum and sustainability over the long run, states could consider creating an office or appointing a team

²⁷ Ibid.

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whose sole focus is promoting digital equity and ensuring that initiatives have sufficient support.

States could also partner with local organizations—such as libraries and local workforce-development corporations—to create digital-literacy programs. These programs could provide basic information and educate residents about digital tools, including those designed for virtual health. For example, programs could teach residents how to connect virtually with doctors and other providers, share their health data with them, and use online resources to manage their healthcare.

Investments in digital access and equity could improve health outcomes for low-income

populations and drive value for stakeholders across the healthcare continuum. But until digital tools are linked to healthcare delivery at the state and local levels, states and healthcare leaders are not fully positioning residents and states to realize that value.

Virtual-health solutions could help address physical and socioeconomic barriers to healthcare, improving access and continuity of care for patients. Using digital tools to improve data connectivity can enable doctors to provide holistic, individualized care across multiple settings and could enable the advancement of care to improve quality and reduce costs. These steps can help drive value for states, payers, and providers by supporting innovative care models, including value-based care.

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