Mapping Colorado's Telehealth Future

This series previously outlined where Colorado currently stands in policy development and examined how our state compares to national telehealth trends. In this final installment, we look at the road ahead in policy development and address some of the questions surrounding barriers to implementing accessible, equitable telehealth services for all Coloradans.

Existing Barriers and What Comes Next

In the second brief looking at Colorado's place in the national framework, we established that Colorado stands out as progressive amongst other states in advancing telehealth policy. The policies Colorado has put in place to date – such as licensure flexibility, reimbursement regulations, and broadened definitions of what defines eligible telehealth services – have created the scaffolding upon which to expand the access and utilization of telehealth across the state.

However, some Coloradans still face unique barriers to accessing telehealth. Providers and legislators are still carving through several broad access challenges to allow these policy pathways created by the state to be more fully utilized.

The most significant barriers are outlined in the Colorado Telehealth Provider Survey, a report by the Office of e-Health Innovation (OeHI) and Prime Health surveying over 500 Colorado providers and health care professionals on their most significant challenges in telehealth implementation as well as overall patient and provider sentiments on telehealth.

The survey overwhelmingly shows three central challenges for telehealth providers:

    I.   Broadband Access and Connectivity
    II. Patient Education and Digital Literacy
    III. Information Sharing and Data Privacy/Security

To conclude this series, we will briefly look at each of these challenges, examine how Colorado is currently responding, and what the next steps may be.

Telehealth Toolkit:
Telehealth and Digital Inclusion Projects at OeHI

The Telehealth and Digital Inclusion Projects page on the OeHI website provides a comprehensive list of the multiple telehealth research projects undertaken by the state, including the complete 2021 and 2022 Telehealth Provider Surveys. The resources and projects listed on this page will be referred to throughout the rest of this brief.

Broadband Access

As a largely rural state, Colorado faces more significant challenges in disseminating broadband connectivity and digital technologies. According to the Colorado Rural Health Center, over 700,000 people – over 12% of the population – live in rural areas and 77% of Colorado's landmass is considered "rural." The 2023 Colorado Health Access Survey (CHAS) from the Colorado Health Institute (CHI) found that 4.7% of respondents, roughly 270,000 Coloradans, do not have any broadband connection.

The 2022 Telehealth Provider Survey also cited broadband access as a prominent challenge, with 40% percent of providers naming it the most significant barrier to accessing telehealth.

The Broadband Access Challenge

Barriers to broadband access especially affect Colorado's more vulnerable populations, as evidenced by the CHAS responses. Some of the findings among survey respondents without broadband access include:

- More than half (51%) without internet access cited the cost of subscription as a prohibitor
- A strong correlation between Coloradans without broadband access and those living at or below the poverty line (11%)
- More English-speaking households (96.1%) had access to broadband than households that speak another language at home (90.7%)
- Black (8.6%) and Latino (7.2%) Coloradans are twice as likely to lack of broadband access as white Coloradans (3.5%)

Rural Coloradans also face significant challenges in broadband access, leaving them lagging behind. The CHAS found that one in five households reporting no broadband access said there were no options in their area, which occurred primarily in rural areas. The parts of Colorado that lacked broadband access were represented by the most rural regions in the east and southwest portions of the state. Counties in the Central Eastern Plains – Lincoln, Elbert, Kit Carson and Cheyenne – have the highest percentage of households lacking access to broadband at 16.3%, followed by those in the Northeast – Morgan, Logan, Washington, Yuma, Phillips and Sedgewick – at 14.7%.

Access as a Key to Health Equity

While marginalized and rural populations experience the greatest disparities in access, providers agree the continued expansion of telehealth represents a critical opportunity to increase access to care for these under-resourced populations. Telehealth may be a valuable tool to help address these inequities and expand access and quality of care for these communities, who experience lower levels of care and less positive health outcomes, and better address social determinants of health among Colorado's most vulnerable groups.

Although data is limited, findings from some studies in Colorado indicate positive signs about the potential for telehealth to improve equitable access for these populations.

In a report on the impact of telehealth policy changes released in late 2020, Health First Colorado (Colorado's Medicaid program) reported that no-show rates among Black patients for telehealth services were lower than in-person appointments, and these patients were also more likely to access services through audio-only options over audio/video modalities, arguing the retention of audio-only services as "important to improve equitable access to services." (As discussed in the previous brief, Colorado has since implemented policy to retain these services.)

Additionally, a report on patient impacts of telehealth by CHI and OeHI found that adoption across race and ethnicity was most substantial among Native Americans at 47%, further indicating the potential of telehealth to lower access barriers.

While data in these reports show Black, Indigenous, people of color (BIPOC) and rural populations utilize telehealth less, through efforts to identify and address the barriers preventing access, there is excellent potential to significantly improve social determinants of

BREAKOUT: SOCIAL DETERMINANTS OF HEALTH
Social Determinants of Health (SDOH) – The non-medical factors that influence health outcomes including the conditions in which people are born, work, grow, live, and age.
Social determinants of health play a fundamental role in health outcomes and health equity for individuals and entire communities. In fact, studies have found that up to 80% of a person's health s related to social factors that are out of their control and systemic in nature.
A Data Dive from CIVHC examining Z Codes, or social needs codes, goes into further detail on the importance of the SDOH.

Telehealth Toolkit:
The Telehealth Equity Analysis

In 2024, the Center for Improving Value in Health Care (CIVHC) released the innovative Telehealth Equity Analysis investigating the relationship between the social determinants of health and telehealth usage to understand how social factors relate to telehealth and in-person visits.

health, advance health equity, and improve overall health outcomes for Colorado's marginalized populations.

Colorado's Broadband Expansion Efforts

Colorado state leaders understand the need to address broadband access and have made this a top legislative priority. Efforts to expand access are underway on multiple fronts.

Through House Bill 21-1289, Governor Jared Polis created the Colorado Broadband Office and established digital inclusion and broadband stimulus grant programs, expanding funding to improve broadband infrastructure in Colorado. Initiatives supported by the Broadband Office include the $113 million investment in broadband improvement through the Capital Projects Fund and infrastructure and program improvement through Broadband, Equity, Access and Deployment (BEAD) investments.

Additionally, the Colorado Department of Labor and Employment (CDLE) Office of the Future of Work spearheads the Digital Equity, Literacy, and Inclusion Initiative. Under this initiative, the State's Digital Equity Team generated the comprehensive Digital Access Plan, which was approved in 2024. The plan details Colorado's strategies to increase digital access and equity through 2029, including expanding broadband adoption.

Digital Literacy

While broadband access was the highest concern about telehealth access among providers in the 2022 Colorado Provider Survey, digital literacy follows closely behind and represents another major barrier to access.

Filling in the Digital Framework

The previous issue brief in this series discussed Colorado's significant policy steps to expand telehealth adoption, notably including expanding reimbursement, creating licensure flexibility, and broadening coverage definitions. As explained in the brief, these steps are essential among providers working primarily with Medicaid patients, often referred to as safety net providers.

The provider survey queried safety net providers on what they see as the most significant barriers to telehealth access among their patients, and the results demonstrate some of the impact of these efforts.

Only 8.5% of safety net providers identified anticipated licensure as a barrier to access, and 22.6% listed low/no reimbursement, neither representing a high percentage of the responses among this provider type.

These results demonstrate that certain limitations to reaching these vulnerable populations have been greatly reduced in Colorado's progressive telehealth policy advancement. That includes not only the policies discussed in the previous issue brief, but Colorado's work to follow national trends to support FQHCs and enable Remote Patient Monitoring.

However, nearly half of safety net providers (45%) cited technology challenges for patients as the biggest barrier, the top answer among this provider type. Meanwhile, among *all* providers, 39.8% – narrowly behind the leading 40% naming broadband access – cited lack of digital literacy in patients as the most significant perceived barrier.

Although Colorado has put in place the policy framework to promote patient access to telehealth services, these concerns show digital literacy to be a considerable challenge in accessing the patients that could most from the implementation of these policies.

KEY DEFINITIONS: DIGITAL SHARING & TELEHEALTH
Safety Net Providers – Providers who serve patients regardless of ability to pay. Safety net provider types include Federally Qualified Health Centers (FQHCs), Accountable Care Organizations, and other providers working primarily with uninsured or low-income patients and patients covered by Medicaid.
Federally Qualified Health Centers – Federally funded non-profits or clinics that serve medically underserved populations.
Remote Patient Monitoring – Using digital technologies to collect data from patients in one location and electronically transmit that information to health care providers located elsewhere.
eConsult – Asynchronous dialogue initiated by a physician or other health care professional seeking a specialist's expert opinion.
Digital Literacy – The ability to access, manage, understand, integrate, communicate, evaluate, and create information safely and appropriately through digital technologies.
Definitions from CU's Peer Mentored Care Collaborative and healthcare.gov

Addressing Digital Literacy

As with broadband expansion, Colorado is taking a multi-pronged approach to addressing digital literacy, with efforts that are essentially hand-in-hand.

In 2021, OeHI published Colorado's Health IT Roadmap, spelling out the vision and objectives Governor Polis and Lieutenant Governor Primavera had for expanding health information technologies across Colorado communities.

Additionally, Colorado's Digital Access Plan from Colorado's Digital Equity Team focuses heavily on digital literacy in addition to the proposed efforts in broadband expansion. The team spearheads multiple state-led efforts to identify barriers to digital literacy in Colorado and develop programs addressing digital equity and inclusion.

> **Telehealth Toolkit:**
> *The Digital Equity, Literacy, and Inclusion Initiative*
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> The page for the Digital Equity, Literacy, and Inclusion Initiative outlines the multiple State-led digital inclusion efforts underway. In addition to the Digital Access Plan, this notably includes the Digital Navigator Network, which connects "digital navigators" directly with community members in historically marginalized communities to provide digital access training and assistance.

Information Sharing and Expanding Tech

As technology continues to improve, states are exploring different ways to utilize it to share information – both between provider and patient as well as provider-to-provider.

In fact, provider-to-provider communication was highlighted as an important resource in the 2022 Colorado Provider Survey, where 54% of direct-to-consumer providers said they utilized telehealth to provide advice to another provider, and 43% utilized telehealth to receive advice from another clinician.

The State has introduced several strategies to further open these lines of communication and improve access to care, outlined in the CU Peer Mentored Care Collaborative 2023 Telehealth Report. The strategies employed seek to broaden access to care and remove barriers that may be blocking rural and marginalized groups and providers from accessing the telehealth modalities that might benefit them most.

Some of the highlighted efforts to improve information sharing include eConsults, which allow providers to communicate directly with other experts for consultation, and Project ECHO to connect specialists with providers in underserved, rural areas for education and consultation. Colorado is also using Remote Patient Monitoring to allow providers to track some aspects of a patient's health from their home.

While each of these are trends also being explored across the country, rapidly developing and changing technology also introduces new questions for Colorado and all states engaging with these types of innovations. Colorado has enacted consent requirements and other legislation to address concerns over data sharing and privacy. However, the continued advancement of AI and digital information-sharing capacity brings concerns about patient data privacy that both

the federal government and states are beginning to address through legislation dealing explicitly with health data tracking and privacy.

As these technologies become further established, the question of ensuring privacy is likely to be the next frontier in telehealth legislation.

Telehealth Toolkit:
The State Funded Telehealth Dashboard

Developed by OeHI and the Colorado Department of Health Care Policy and Financing (HCPF), the State Funded Telehealth Dashboard allows users to see how the state is allocating telehealth funding across Colorado. The dashboard allows users to see which projects and organizations are receiving funding, as well as the distribution of funding across telehealth types (eConsults, provider education, telemedicine, etc.)

Conclusion

This series on telehealth policy in Colorado has explored the earlier stages of telehealth policy development, rapid changes in the wake of the COVID-19 pandemic, how the state's approach compares in the national sphere, and the road ahead in telehealth adoption.

While there are still complications and challenges to address, what this series has established is that through intentioned, strategic, focused initiatives, Colorado is serving as a forward-thinking leader and innovator in the telehealth space. Through investment at every level, from legislative to providers and community programs, this approach to telehealth is creating a path to a healthier, more equitable Colorado.

To view and download public data on telehealth service use in Colorado, visit our website at civhc.org.