Insights From Patients in Colorado

SEPTEMBER 2020
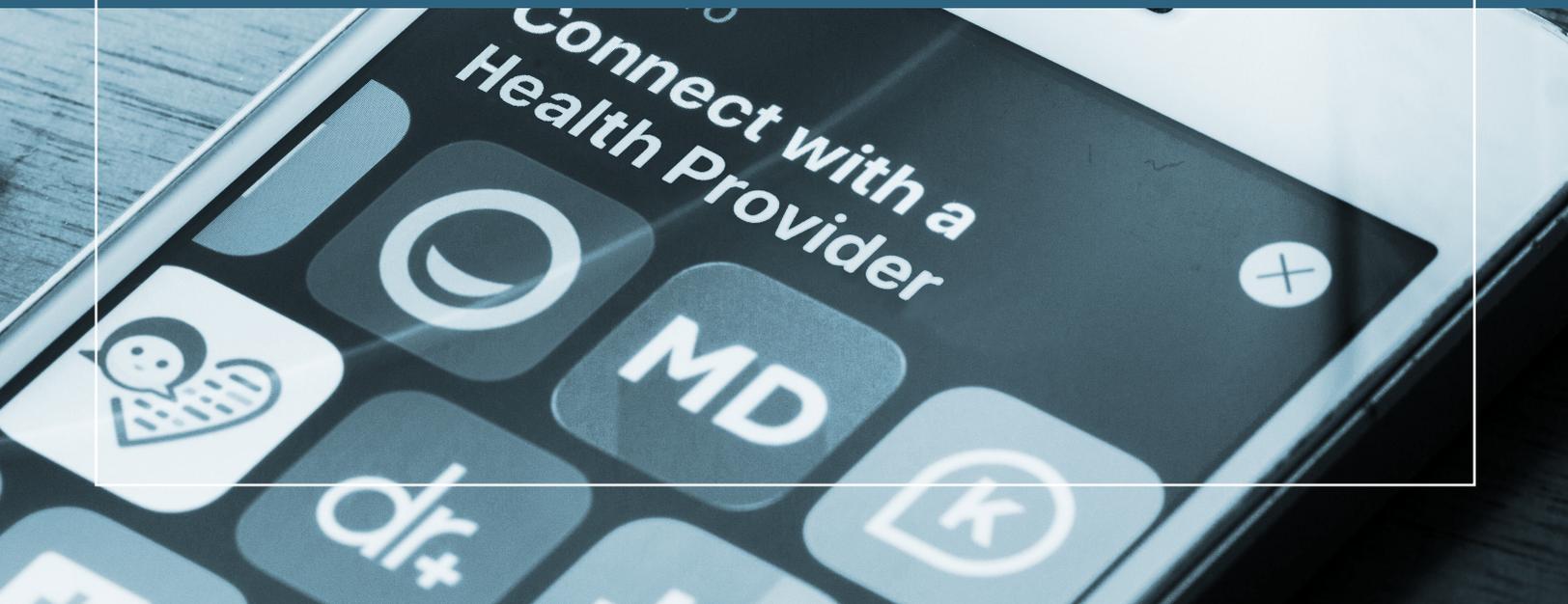
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The Value of Telemedicine During the COVID-19 Pandemic Response

Insights From Patients in Colorado

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Introduction

The COVID-19 pandemic led to a series of policy and practical changes that established telemedicine — the electronic delivery of clinical health care services — as a new norm of health care delivery. These changes transformed how patients received and experienced many health care services. For the first time, most patients were asked to access health care virtually.

Soon after he declared Colorado to be in a state of emergency as COVID-19 began to spread, Gov. Jared Polis signed an executive order that required all in-person voluntary and elective medical and dental procedures to be suspended from March 23 through mid-April.[1] This was intended to preserve important medical equipment, like personal protective equipment and ventilators, in case it was needed for patients with COVID-19.

One week later, on April 1, the governor issued another executive order suspending certain state laws in order to increase access to and the availability of telemedicine services.[2] This expansion aimed to allow patients and providers to minimize contact, reduce COVID-19 transmission, and follow public health mitigation policies while still providing and receiving needed care.

This brief examines patients' experience using telemedicine services during the COVID-19 pandemic. It considers their ability to access telemedicine; their perceptions of the quality of care received through telemedicine; barriers and equity considerations; and what the state, policymakers, and providers can learn from patient preferences to inform telemedicine policy and practice in the future.

While many patients were nervous about the initial transition from in-person care to a digital format, patients interviewed by the Colorado Health Institute (CHI) report a satisfactory and — in one patient's words — "pleasantly surprising" experience using telemedicine. In a series of interviews, CHI found that:

Telemedicine is an ideal solution for some. Patients reported feeling more confident in managing their care. Some said that the convenience

Three Key Findings

- Most patients with access to telemedicine consider it to be a great substitute for certain types of in-person care such as health monitoring, some behavioral health services, and non-critical needs, while only some found it useful for urgent care concerns.

- Some have trouble accessing or getting quality care through telemedicine due to their circumstances, including limited broadband access and phone reception or specific health conditions.

- Most patients say they will continue to use telemedicine, if available, even once in-person care feels safe because of the advantages of convenience, time savings, and quality of care received. More research is needed to understand patient preferences for telemedicine once care transitions back to in person.

of having an appointment from one's home saves time and money spent on traveling to in-person care, particularly for Coloradans living in rural counties.

However, telemedicine is not an ideal solution for all. Some patients reported that unreliable connectivity compromised the quality of care. Some health services, treatments, and emergent needs require in-person care. The COVID-19 pandemic has also highlighted and exacerbated inequities in access to care: Telemedicine is not accessible by all Coloradans, and patients' and providers' limited experience with technology affects access.

Figure 1. Defining the Patient Experience

Patients' experiences of health care encompass many factors. In this brief, CHI considers the use of services, access to care, barriers to care, equity concerns, literacy, patient satisfaction, and the patient-provider relationship as factors that influence the patient experience of using telemedicine. While this brief analyzes factors separately, they are interconnected, and trends and patterns overlap.
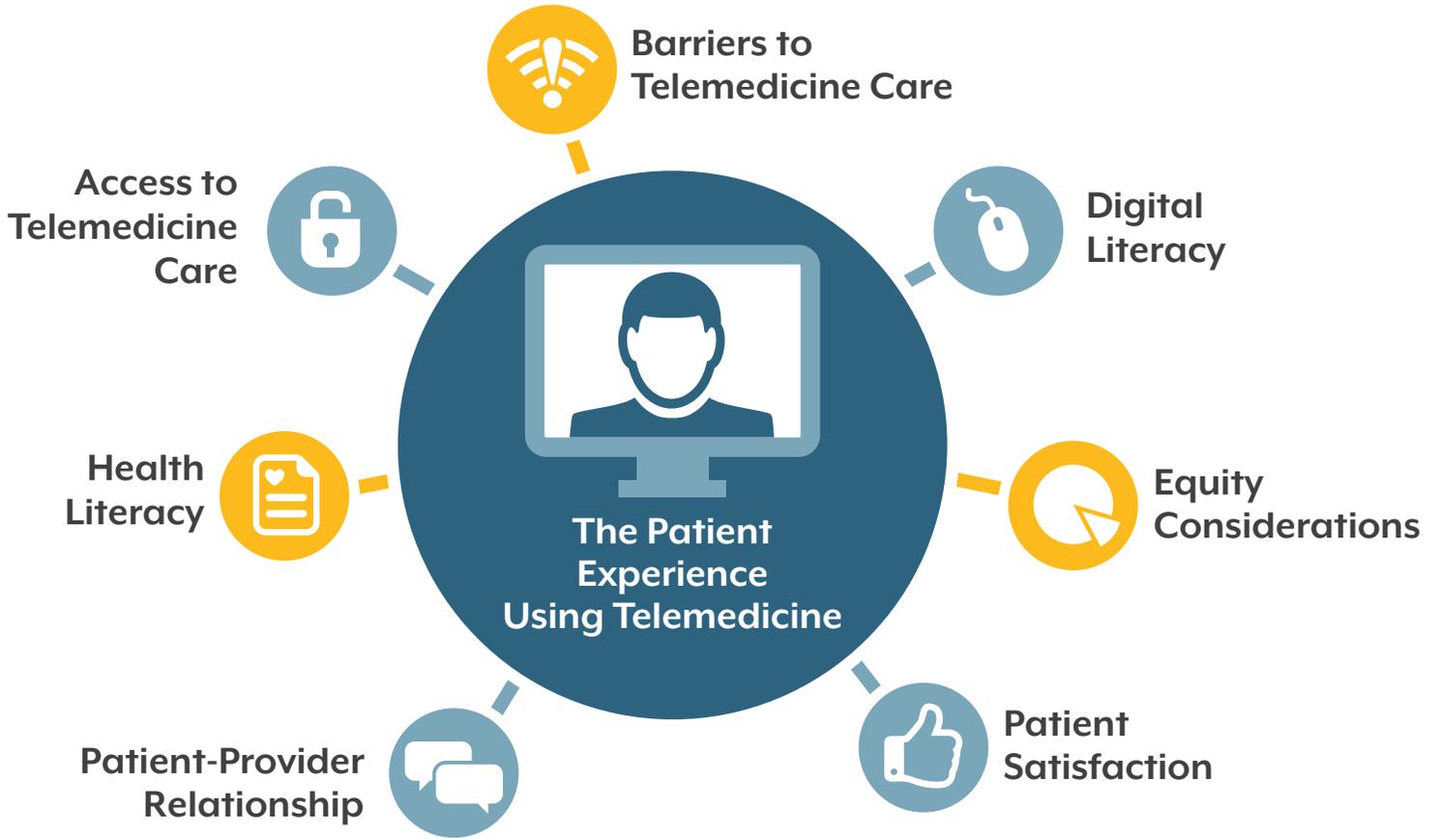
In this research, **telemedicine** refers to the delivery of care services between different locations via an electronic exchange of medical information. It includes a broad scope of remote health care including diagnosis, treatment, patient education, care management, and remote patient monitoring.

In some cases, providers interviewed used the term **telehealth**, which in this context can be assumed to be interchangeable with the term telemedicine.
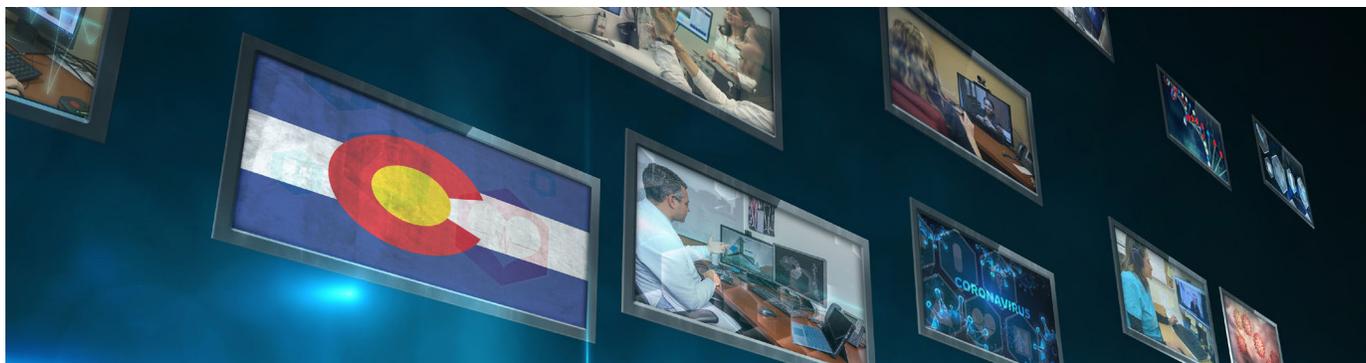
The Value of Telemedicine During the COVID-19 Pandemic Response

This is one of three briefs from the Colorado Health Institute (CHI) examining the immediate and long-term impacts of telemedicine adoption due to the COVID-19 pandemic on Colorado's patients, providers, payers, and policymakers.

- *Insights From Patients in Colorado* highlights how patients feel about using telemedicine during the pandemic, examines the barriers to use some patients experienced, and analyzes the potential of telemedicine in Colorado from perspectives of the patients who use it.

- *Insights From Patient Care Utilization in Colorado* studies the utilization of telemedicine during the early months of the pandemic using electronic health record data from a unique collaboration of Colorado providers.

- *The Financial Impact On Providers and Payers in Colorado* explores the financial effect of the pandemic and related policy decisions on Colorado's providers and payers and assesses the business case for expanded telemedicine in the future.

As part of this research, CHI interviewed patients and providers about their experiences using telemedicine during the COVID-19 pandemic and their thoughts about continuing to use it in a post-pandemic environment. This research also draws insights from a unique source of clinical data, the Colorado Health Observation Regional Data Service (CHORDS). CHORDS is a collaborative effort by health care, behavioral health, and public health partners on the Front Range to share aggregate medical record data for public health monitoring, evaluation, and research.

CHI interviewed 10 health care workers, providers, and administrators across three health care organizations about their experiences reacting to the pandemic, how their care processes adapted to an environment where remote care became a necessity, and how they see the future of telemedicine at their organizations.

CHI interviewed 23 patients, most of whom were first-time users of telemedicine since the start of the COVID-19 pandemic. Patients shared their perspectives through individual conversations on what worked, what didn't, access barriers they ran up against, their perception of the quality of care they received, their own engagement and confidence in managing their care, and situations in which they would consider continuing to use telemedicine in the future.

Methods

To understand how patients were affected by more broadly available telemedicine services during the COVID-19 pandemic, CHI interviewed a diverse group of Coloradans who provided a wide range of perspectives on telemedicine use.

Nearly 70 patients responded to a call for interviewees through clinical and community partner networks. CHI selected 23 patients with a diverse set of demographic and social characteristics, with a goal of understanding a range of perspectives about how Coloradans

experienced telemedicine. Interviews were conducted over the phone and through the Zoom video conferencing platform in August 2020. Interviews were conducted in English or Spanish depending on interviewee preference.

The table below provides a summary of the demographic and social characteristics of the patients interviewed for this brief. Patient responses are not generally reported in the brief by specific characteristics due to small sample size and to protect patient privacy.

Quotes from these interviews are interspersed throughout this brief and are highlighted in italics.

Figure 2. Demographic and Social Characteristics of Interviewees

23 Participants Interviewed

Telemedicine Use	Geography	Age Group	Primary Language	Race and Ethnicity	Health Coverage	Reported Social Factors
Have used telemedicine more than three times: **65%**	Denver-metro county resident: **74%**	Ages 18-40: **39%**	English: **78%**	White (non-Hispanic or Latinx): **57%**	Medicaid: **35%**	Affected by trauma: **48%**
Have used telemedicine once or twice: **26%**	Rural county resident: **13%**	Ages 41-64: **43%**	Spanish: **17%**	Hispanic or Latinx: **26%**	Employer-sponsored: **26%**	Unstable income: **35%**
Have never used telemedicine: **9%**	Urban counties beyond Denver-metro resident: **9%**	Ages 65+: **17%**	Tigrigna: **5%**	Black or African American (non-Hispanic or Latinx): **17%**	Medicare: **17%**	Food insecure: **22%**
	Frontier county resident: **4%**			American Indian or Alaskan: **4%**	Uninsured: **13%**	Unstable housing: **17%**
				Asian: **4%**	Individual: **9%**	

Access and Use

The expansion of telemedicine and stay-at-home policies allowed and required Coloradans to access health care services in a novel way. Many patients had never used telemedicine before the pandemic, and some of those who had were faced with using new platforms and systems.

This section highlights findings related to what types of services patients used through telemedicine and how and for whom telemedicine increased access to care. It focuses on the 21 patients who reported using telemedicine in their interviews with CHI.

Utilization of Telemedicine — A Quick Adoption by Patients

Telemedicine use by patients surged between March and August 2020 as care shifted from in-person to virtual visits. The majority of patients interviewed by CHI said their first time using telemedicine was during this period. Of telemedicine users interviewed, 90% reported their use of telemedicine services increased after the start of the pandemic, while 10% of telemedicine users reported no change.

As providers across the state quickly implemented technologies that made different forms of telemedicine possible, patients connected with health care services in various ways. Patients reported accessing telemedicine through the telephone, video platforms from their provider including Microsoft Teams and Zoom, and live chat — with most accessing care through a combination of telephone and video. For more details on telemedicine utilization and the factors that influence the medium used — including age, race and ethnicity, and health condition — see *Insights From Patient Care Utilization in Colorado.*

Patients reported using telemedicine for health monitoring, chronic care management, mental health services, substance use services, and emergency room (ER) or urgent care services.

For one patient accessing chronic care management through telemedicine, the doctor's office provided at-home clinical test kits that included a continuous glucose monitor, pulse oximeter and heart rate test, and a home spirometry kit. Another patient said, *"[Telemedicine is] great for asking any questions I have. My daughter has diabetes, and we've been able to learn a lot more about how to manage it at home."*

A majority (71%) of patients interviewed used telemedicine for mental health care services, including counseling for depression or anxiety, medication management, and therapy for post-traumatic stress disorder or abuse. Some patients shifted their mental health care from in person to telemedicine, while others reported using behavioral health services for the first time during the pandemic. According to the COVID-19 Behavioral Health Access Client Survey conducted by the Colorado Department of Human Services, Office of Behavioral Health (OBH), 85% of telemedicine users believed their virtual behavioral health care was "good" or "very good."[3]

Some patients were more likely to use mental health services through telemedicine than when services had only been offered in person. One patient said the convenience of telemedicine allowed them to increase the number of their counseling appointments: *"To me, it was really easy! I was not a frequent attender of appointments with my therapist. I would go six months to a year to two years without attending when I felt fine. [Telehealth] was easier for me to reengage because I didn't have to think about how to get down there. It was easier to fit into a schedule, and I could just do a video visit in my home."*

About 19% of patients interviewed accessed substance use programs and services through telemedicine, including a parent recovery group, Narcotics Anonymous step program, and services for alcohol use disorder. For one patient, video-based substance use services provided an opportunity to connect with others that they otherwise would not have met. *"Every week we have a parent recovery group via Zoom. It's nice because you're able to have multiple people from all walks of life come to one place and talk. I feel like I've been getting a more well-rounded exposure to different people and their feelings. A lot of those people are from completely different areas of town."*

Telemedicine allows patients to access care at all times of the day, which can reduce after-hours visits to the ER or urgent care. Of the patients interviewed, four have used telemedicine instead of going to the ER or urgent care. A virtual program offered by a hospital allowed one patient who was discharged from the ER to get oxygen delivered to their home after they developed a problem at home that would have led them back to the ER. This patient said, *"This was more than a telehealth visit; it was almost like home care. In a typical time and space, I would have gone back to the emergency room." Another patient said telemedicine allowed them to reach their doctor at night and have a phone visit. The patient said: "I probably would've gone to urgent care ... A late-night phone call with my doctor is a form of telehealth that I have never really thought of."*

In many cases, patients reported that there was a greater availability of appointments and services through telemedicine, which can increase utilization. Many patients said they were able to speak with their primary care and mental health care providers "much faster" than before the pandemic, when services would have been provided in person. And as one patient noted, *"Not only are appointments available quickly, they're often available later in the day than a typical in-person appointment, which is more convenient."*

Impact of Patient Preferences on Utilization

CHI's interviews suggest use of telemedicine services is affected by three factors: modality, existing provider relationships, and level of care needs.

Generally, telemedicine through video was accepted and preferred more than telephone, and for some, even more than in-person appointments. Three-fourths of patients interviewed (76%) preferred video platforms, one in five (18%) preferred the telephone, and one (6%) preferred e-chat.

The majority of patients preferred video because they thought it was more personal and allowed space for facial expressions and other nonverbal communication. For one patient, *"[video] feels the most like a real visit."* Patients said digital face-to-face contact was important, especially when Coloradans were being asked to socially distance: *"You need the visual to replace physical interaction, especially now during isolation."*

Being able to see provider cues and have the provider see their expressions allowed patients to feel more engaged. Even initial skeptics were surprised, with one saying that they had *"a surprisingly good counseling session via Zoom."* Another patient said, *"I've been surprised at the level of interest and care this process has afforded me."*

While fewer patients preferred the phone, those who did shared strong reasons for this preference. Two patients who use hearing aids preferred the phone because it improved their ability to hear.

Preexisting patient-provider relationships affected use. Many patients reported they were more likely to use telemedicine, especially through phone, with a provider they had already seen before. This may be due to trust, privacy concerns, and the comfort an existing provider can instill in accessing care virtually.

Many patients said that they were more likely to use telemedicine for less critical health needs. For one patient with a chronic heart concern, an in-person visit was mandatory. There are times when patients' chronic and acute critical needs are not best addressed through a virtual visit. If the level of care needed is non-critical, however — particularly a follow-up or quick question for a provider — many patients said they preferred to use telemedicine over going in person.

Telemedicine Increases Access to Care for Many

Having access to telemedicine addressed barriers for many populations, including people who are more susceptible to certain infections, residents of rural areas, people for whom transportation was a barrier, and people with privacy concerns.

During the period of time when clinics were required to suspend most in-person services,

telemedicine was the only way some patients could access needed care. One patient said, *"Because of my health, I couldn't go in to get essential medical appointments, so it allowed me to get access during the stay-at-home order,"* while another said, *"I am at a higher risk of COVID-19, so it is reassuring to use telemedicine so that I can be safe."*

As clinics reopened and started offering more in-person services, telemedicine continued to increase access for patients who are at high risk of contracting COVID-19 and other infections. For one patient whose husband has a chronic condition,

"It is not just COVID-19, it's also the flu and other conditions that can impact chronic illnesses."

Telemedicine connects patients to services that otherwise may not be available in their community, particularly for those living in rural Colorado. In some rural counties, such as Saguache County, the ratio of residents to primary care providers is 6,630 to 1, compared to Denver County, where the ratio is 760 to 1 (see Map 1).[4] There is a similar trend for access to mental health care. In Conejos County in southern Colorado, the ratio of residents to mental health care providers is 4,100 to 1, compared to Denver County, where the ratio is 180 to 1.[5]

Map 1: Access to Mental Health Care Providers Varies Across the State

Ratio of Population to Mental Health Providers

Population: Mental Health Providers

<1,000:1   2,000:1   3,000:1   4,000:1

Note: Data not available for counties in grey.
Source: Robert Wood Johnson Foundation County Health Rankings, 2020
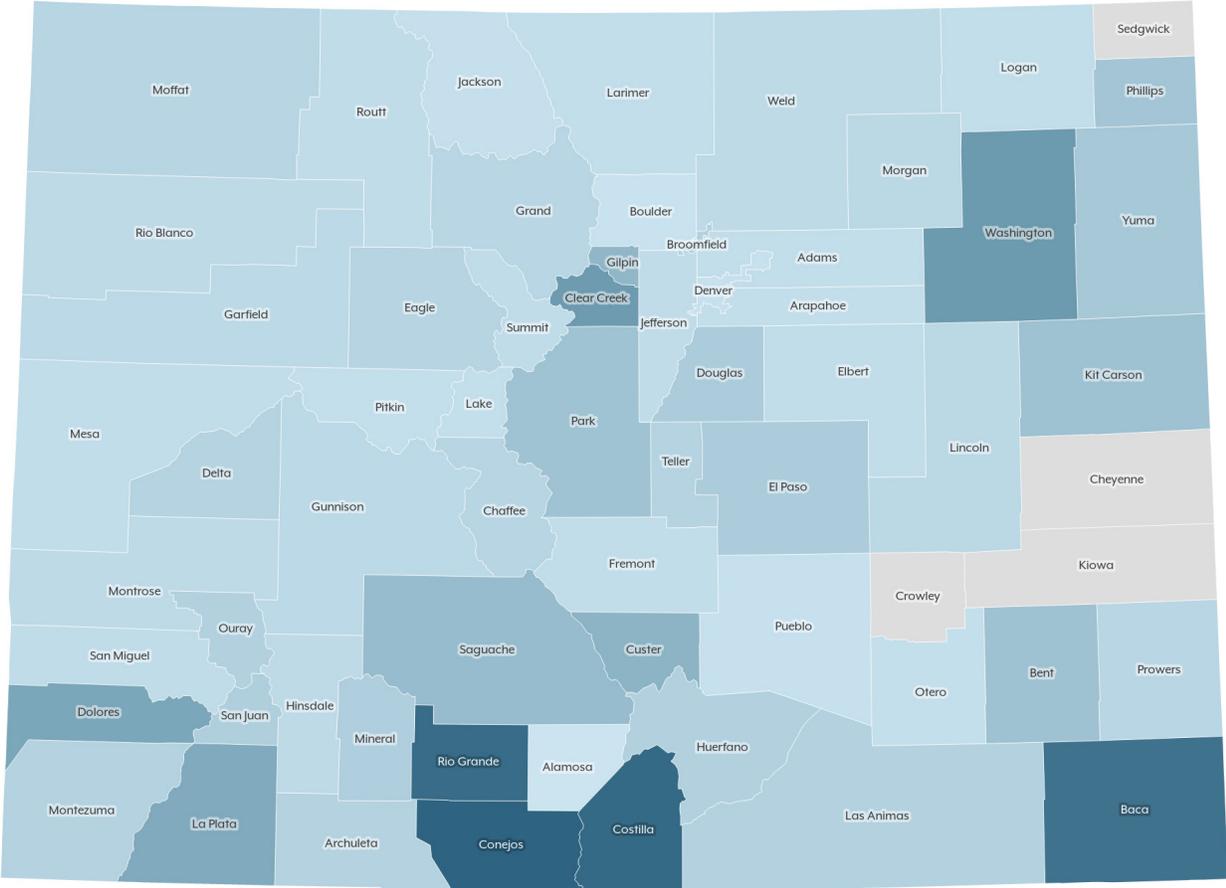
One patient said that telemedicine allowed their family to find a better fit for mental health care services for their son. There was only one mental health care provider their family could visit in person, but telemedicine allowed them to connect with other providers.

Many Coloradans also had trouble getting to health care appointments because they lack access to efficient transportation, whether because they do not have a vehicle, cannot afford gasoline, do not have access to ride shares or bus tickets, or because public transportation or other services are unreliable. According to the 2019 Colorado Health Access Survey, almost 174,000 Coloradans (3%) did not get the care they needed because they did not have a way to get to a doctor's office or clinic.[6]

Prior to the loosening of telemedicine regulations, one patient would take public transportation with his pregnant wife and two kids to attend their appointments. Since telemedicine, the family has had to travel only for essential appointments.

According to the COVID-19 Behavioral Health Access Client Survey, the top benefit of telemedicine was reduced travel (36%).[7] Many patients living in both urban and rural counties reported they are saving time and gas money.

Over 715,000 Coloradans (12%) live in rural communities, where many are used to driving long distances to get to care on the Front Range. One patient living in a rural county noted that in the summer months, driving long distances may be manageable, while traveling these same distances in the winter is a real challenge. One patient said, *"[It] used to take me three hours to get to appointments, but now I can see my provider quicker, more often, and there is a closer monitoring of my health."*

Particularly in rural areas, telemedicine can help address concerns about privacy. One patient explained that *"in a small town, it's hard going in person because I am nervous that people can hear you in the waiting room or in small rooms. Telehealth allows me to be more open."* Another shared that *"[telemedicine] helps with some anxiety of going into an office. Being in a small town, everyone knows each other, and you don't want others to see your car in the parking lot."*

While the removal of privacy concerns increased access and quality of care for some patients, others reported that telemedicine introduces new privacy challenges (see page 12 for more detail).

Barriers and Equity Considerations

The quick implementation of a new method of delivering care as regulations were loosened came along with some difficulties for providers and patients. For more details on the provider perspective, see *The Financial Impact On Providers and Payers in Colorado.* Patients shared that some experiences using telemedicine were challenging and impacted the quality of care they received.

One patient said that telemedicine has allowed their family to find a better fit for mental health care services for their son.

Patients reported challenges to using telemedicine that included unreliable internet connectivity, problems related to initial adoption of telemedicine by providers, lack of privacy, and lack of access to needed services.

Telemedicine introduced some new barriers and challenges. Patients reported limited experience with the new technology that telemedicine introduced. Patients also reported that unclear expectations for communication and difficulty connecting with providers sometimes led to frustration or concerns about whether their health issues would be addressed.

Other barriers and challenges were familiar issues. Telemedicine and the COVID-19 pandemic highlighted and magnified inequities that Coloradans have been living with a long time, including disparities in access to internet and phone reception and access to translation services, that reduced access to care.

Technology-Related Barriers Were the Most Common Challenge to Using Telemedicine

Coloradans' access to reliable internet and phone reception, access to devices, and level of technological literacy vary widely. Geography, income, and age are three factors that influence these variables.

When asked if there has been anything challenging about using telemedicine, technology was the most frequently cited issue. Some patients reported challenges on both their end and the provider's. For one patient, *"[the] provider was very attentive but was clearly learning the technology. On a different appointment the reception was bad."*

Some regions of Colorado have struggled for years to gain consistent access to the internet.[8] More than one-fourth (26%) of patients reported that lack of access to reliable internet and phone reception made their telemedicine experience challenging. One patient said that *"the [phone] reception was not good. It made things really hard to understand."*

Connectivity influences the quality of telemedicine care. External disruptions, having to start a conversation over, or having to repeat information can be extremely challenging. Connectivity issues can cut into essential time needed to discuss care. Because of this, patients who reported connectivity issues were more likely to report a decline in their quality of care. A patient said: *"The video service is not the best and sometimes has connectivity issues which is frustrating when you have to stop and start over. This ruins the flow of good care."*

For some, limited experience with technology has impaired their telemedicine experience. One patient said, *"It's always really stressful to get logged in or make a mistake."*

It's easy to assume that lack of technological literacy — the ability to use, understand, and access technology — is a challenge that mostly affects older adults. But Coloradans across age groups experience challenges related to technological literacy. One patient in the 40-64 age group shared their frustration accessing care through Microsoft

> *"[The] provider was very attentive but was clearly learning the technology. On a different appointment the reception was bad."*

Teams, the platform their provider used: *"It's hard to get connected on Teams. I like how Zoom has the invite on the email and wish my Team meetings were set up this way. I have to re-download Teams every time."*

As telemedicine evolves, the cost of using one modality over another should be considered. For one patient, *"It would be great if there was a reduced fee if it was on the phone! Like a reduced co-pay. If you're just doing a prescription refill and it's 20 minutes on the phone, it should be a lower co-pay than if you're going in for a specialty visit."*

Implementation and Adoption of Telemedicine Impacted Patient-Provider Relationships

The COVID-19 pandemic prompted providers across the state to shift health care to telemedicine around the same time. But the experience varied significantly from practice to practice, depending on the provider's existing technology and budget, the patients they serve, and the type of care delivered. *The Financial Impact On Providers and Payers in Colorado* goes into further detail on this transition from the provider perspective.

Inconsistent adoption of telemedicine affected access to care. Many providers implemented telemedicine quickly, but others did not. While most patients could empathize with their providers' challenges as they transitioned to telemedicine, many said it was difficult to use systems that were still under development. The abrupt transition of delivery of care to telemedicine affected the patient-provider relationship for some, and patients reported feeling uncertainty as to what to expect from their provider and concern about not being able to connect with their provider.

The variety of telemedicine approaches across providers means patients often didn't know what to expect from providers. One patient said, *"Some offices have called too much to remind me of my appointment, while for others, I wait and wait for the provider to call. Not knowing when that is going to happen is rough."*

For some patients, virtual communication did not feel as concrete or dependable as an in-person visit. One patient said they were unable to reach their provider and played "cat and mouse over the telephone" for longer than the patient would have liked.

About seven in 10 (69%) patients interviewed believe that location and lack of access to the internet or technology affect access to telemedicine services. However, patients also cite other factors, such as limited knowledge and awareness of telemedicine services in rural communities. Many patients report that their friends and family members do not know what telemedicine is, especially older adults and those living in rural communities.

Notably, non-telemedicine users report they have not used telemedicine yet simply because they do not know what is available or covered by their insurance, which presents an opportunity to increase insurance literacy. When asked what they would need to use telemedicine, one person said, *"To know if my insurance covers telemedicine services."*

Lack of Privacy

The transition to telemedicine for all types of health care has created a new barrier for some patients: lack of privacy. For many people, an in-person visit provides the safety to discuss confidential details about their health and life.

Some patients have significantly less privacy in their homes. Three patients said they missed a distraction-free and safe space to express their thoughts and feelings with their provider.

At-home privacy is critical for telemedicine to be effective. Many factors can influence at-home privacy, including living in a crowded home or building. One patient who lives in an apartment building said, *"I'm nervous my neighbors can hear the conversations I am having with my provider."*

Lacking privacy can negatively affect the quality of care patients experience. Two patients who use mental health care services reported concerns about not being as open as they would like to be through telemedicine. One said, *"I find myself going around the issue more if I am at home for fear of my kids and boyfriend hearing. I am unable to speak as freely as I would want."*

Access to Needed Health Services

Telemedicine is not the answer for all health conditions and treatments. The services patients reported being least likely to use through telemedicine included:

- Appointments where physical tests and physical exams are needed: bloodwork, adjusting eyeglasses, dental care, physical therapy, immunizations, and services related to pregnancy

- Some types of care, including sexual health, and some specialty care services, particularly oncology and cardiology

- Eye Movement Desensitization and Reprocessing therapy (EMDR)

- Serious and emergent needs

Additionally, patients said that accessing behavioral and physical health services for specific conditions was particularly challenging, including:

- Attention Deficit/Hyperactivity Disorder (ADHD): *"My son with ADHD has a difficult time paying attention using a phone compared to in-person visits."*

- Post-Traumatic Stress Disorder (PTSD): A veteran said, *"I am a very healthy person with PTSD but still sometimes need face-to-face help, whether it is 10 minutes or an hour."*

- Alcohol use disorder: *"It worked out well when I found services, but it was hard to get services with someone I knew."*

- Medication management: *"The downside of telehealth is that you cannot understand where the patient is today versus where they were yesterday; I've been on the same medication for six months, and I don't think it's working."*

- Pain management resources: *"It has been difficult to get resources to help with pain management or nutrition."*

Coloradans Are Getting Left Behind as Care Shifts to a Digital Front

Some Coloradans face greater barriers to using telemedicine. And these are not always the same Coloradans who faced barriers to accessing in-person care.

The cost of health care services and coverage is a barrier to accessing care for many Coloradans. During COVID-19, the cost of accessing technology is also a factor. Economic disparities are, in many cases, increasing due to the pandemic. The recession has increased unemployment, leaving many Coloradans without a job and steady income. Some 7.4% of Coloradans reported being unemployed as of July 2020, up from 2.5% before the pandemic in February 2020.[9]

More than three in four patients (77%) interviewed think that cost influences access to telemedicine services. The cost of internet, data plans, and phone minutes can affect access to telemedicine.[10] One patient shared how cost can impact access to care: *"For people that can't pay a phone bill or are unemployed, they may not be able to pay bills for basic needs."*

Many Coloradans use the library to access the internet. One patient said that in their community, *"You see people using the computers at the library and realize how many people don't have them [at home]. Naturally, you wouldn't want to do something as personal and private as medical care at the library."*

During the COVID-19 pandemic, many libraries and other spaces where people accessed the internet were ordered to close down, leaving some people, including people experiencing homelessness, disconnected from care.[11] This is especially

concerning as there is a profound connection between homelessness and health, including reduced life expectancy and higher rates of alcohol and drug use.[12] One patient in rural Colorado noted that *"in our smaller community, our library closed down for two months, and a lot of people relied on them to do research, have internet, and have technology."*

Patients seeking translation services also face difficulties depending on their provider's capabilities.[13] One patient whose primary language is Tigrigna said, *"It is easier for people to understand me when I am sitting there face to face."*

Some Coloradans have foregone needed and routine care due to these reported barriers. When asked if their care or services had changed since the start of the pandemic in a way that made it difficult to manage their health, one patient said their cardiac issues have gotten worse, they have more problems with joint pain and have skipped eye and dental care. CHORDS data show dramatic reductions in care for chronic conditions including diabetes and specialty care visits including breast cancer and lung cancer treatment. For more details on foregone care, see *Insights From Patient Care Utilization in Colorado*.

And not all telemedicine modalities are accessible. When asked to think of how comfortable their friends and family members would be using telemedicine, many patients reported their loved ones would not know how to log onto telemedicine platforms or have not learned yet.

In order to address these concerns, providers and payers can consider increasing outreach to

> *"You see people using the computers at the library and realize how many people don't have them [at home]. Naturally, you wouldn't want to do something as personal and private as medical care at the library."*

When asked who they know who may be less comfortable using telemedicine services, patients interviewed reported:

> " *I am an introvert. Introverts like myself strive for authenticity. I don't feel that telehealth is authentic.* "

> " *People who don't work in professional settings where they have easy access to computers and wi-fi.* "

> " *Teenagers are less comfortable using it. I can see my daughter losing focus because of all the distractions on her phone, so they are more prone to not listening to their provider.* "

> " *People with schizophrenia have trust issues because they do not feel video calls are private.* "

> " *Older folks who do not want to ask for help for fear of judgment.* "

> " *This is also cultural — people who are involved in immigration, undocumented, people who are at risk, people who are older who don't have the background on telehealth.* "

> " *People who are marginalized — jail, homeless, using IV drugs, lacking supports, unscheduled lifestyle — have access problems and mistrust of providers. Getting care via a mode that is really easy to record might bring out another layer of resistance or mistrust.* "

groups with less access, incorporating translation services into telemedicine, and providing trainings to patients to increase their technology literacy. Some patients report they would not have used telemedicine if it were not for the targeted outreach by their provider, which illustrates the value of this critical step.

Overall Patient Satisfaction and Engagement

Many patients reported being satisfied by and engaged with telemedicine services despite some of the challenges patients face while using it.

The Pros Outweigh the Cons

Most patients interviewed were satisfied with their experience accessing care through telemedicine. This was notable as these patients accessed care while many providers were adopting new telemedicine programs and many experienced some hiccups.

When asked about their experience using telemedicine, about 70% of patients reported a positive feeling, including being satisfied, relieved, or appreciative. One patient said, *"I've had generally good experiences and almost always can find a way to speak with someone and get care when I need it."*

While some initial experiences were rocky, they improved as time went on. For one patient, *"[Telemedicine has] been good. I like it, and it has made life more simple and streamlined for me."*

Around 57% of patients reported feeling more confident when using telemedicine than when using in-person services. When asked why, one patient said, *"I think [telemedicine] forces you to manage your own health, make your own appointments, and think about how you really feel so you become more confident."*

While barriers or challenges cannot be underestimated, many patients noted how much their provider did to minimize and reduce certain challenges to make their overall experience positive and satisfactory. Many patients appreciated providers' targeted outreach and patience while teaching the technology.

Not all reported positive experiences, however. About 30% of patients interviewed reported feelings of dissatisfaction or frustration, saying that connectivity issues stopped them from using telemedicine services or they were not able to get the care needed. One patient reported, *"I did not like the interaction with a doctor over the phone. The advice and support were too generic, and it was difficult to resolve issues over the phone."*

Mixed Results on Engagement With Providers

The modality used affected patients' engagement. Patients who used video were more likely to report feeling more engaged with their provider. Some patients reported they felt no difference in engagement with their provider through telemedicine. One patient expressed that *"on video, [the primary care provider] can see my cues, and I can see theirs. I feel like the in-person interaction is important for engagement, but I haven't noticed a difference so far."*

However, other patients reported they feel **more** engaged with their provider through telemedicine. When asked what factors led to more engagement, patients living in rural communities said telemedicine allowed them to have more privacy compared to in-person visits

> *"On video, [the primary care provider] can see my cues, and I can see theirs. I feel like the in-person interaction is important for engagement, but I haven't noticed a difference so far."*

and feel comfortable in their own homes, and that the provider spent more undivided time and attention during the visit. One patient said, *"[The] provider spent more time with me. She explained it a lot better to me than if I was in her office, and I felt like it was more one-on-one. She wasn't in a hurry, and she really took her time to explain to me a lot more."*

But other patients reported they felt **less** engaged with their provider through telemedicine. One patient felt less in control of their own health when using telemedicine through the phone: *"It is difficult to push back on my provider via phone."*

The ease and availability of telemedicine appointments led to less urgency for one patient. *"I think you come more prepared and really think what you need to ask your doctor before you see them. Now that it's so easy to get an appointment [through telemedicine] or reschedule, you don't prepare as much. The sense of urgency is lower."*

And for some, it was difficult to discuss complete details of their health through telemedicine, which led to less engagement with their provider. For one patient, *"discussing intimate details of sexual health is also difficult over phone or Zoom."*

It's not surprising that patients reported mixed results. Patient preference, provider engagement, and overall comfort with a new way of delivering care — all during a pandemic — can result in different experiences, which highlights the need for continued evaluation in the future.

Opportunities to Increase the Value of Telemedicine

While many patients have responded positively to Colorado's rapid adoption of telemedicine, providers, payers, and state agencies can continue to adapt their practices and policies with patients' experiences in mind. CHI's research uncovered policy barriers and opportunities that could further expand the value proposition of telemedicine for Colorado's consumers.

Finding: Telemedicine increased access for many across the state during the pandemic, yet not all residents have equal access to reliable broadband or phone reception.

Opportunity: State agencies can continue to increase and improve broadband access and phone reception in underserved areas. This research reinforces much of the work being done within the Governor's Office of Information Technology such as the Broadband Development Program, which maps broadband availability across the state to identify unserved areas. This work addresses the need to increase access and capacity of broadband throughout Colorado, a challenge that many patients experience. Payers can consider these access challenges when determining which modalities are reimbursable through telemedicine in the future. For areas with unreliable internet access, phone may be the best — or only — option for some patients to access telemedicine.

Finding: Telemedicine was not accessible for those who are unaware of telemedicine services, those who do not know what is covered by their insurance, and those with limited technological literacy.

Opportunity: Providers, payers, and state agencies can expand consumer literacy efforts, particularly health insurance literacy, technological literacy, and clear communication about privacy. Payers can expand health insurance literacy by connecting patients with information on what is covered. Providers and state agencies can improve technological literacy by informing patients how to access telemedicine services online. State agencies and providers can expand privacy efforts by making information readily available to patients regarding the relative security of telemedicine methods and how data captured through telemedicine is recorded, stored, and shared. To provide Coloradans information on telemedicine and connect to resources, OeHI launched a new website, <u>Health at Home</u>, which is available in English and Spanish. This is one avenue for connecting with Coloradans who have internet access. Additional outreach may be needed through other mechanisms for those without. Some providers are already addressing patients' lack of privacy and access to technology challenges by building telemedicine kiosks at their clinics. Implementation of kiosks can go beyond clinics to reach more people where they are, including designated private spaces in libraries, grocery stores, post offices, and government offices.

Finding: Telemedicine puts access to care in reach for many Coloradans. Patients living in both rural and urban counties reported reduced travel as an advantage of telemedicine, and patients living in rural counties reported telemedicine increased their privacy, but inequities exist with access to reliable technology or challenges with lack of privacy.

Opportunity: Providers can implement new practices that build off their current telemedicine framework to continue to improve the patient experience. As providers have spent the early stages of the pandemic quickly learning and implementing the technology, they can now begin to focus on other important tasks, including integrating existing translation services and having information in patients' native languages to strengthen the patient-provider relationship through telemedicine. Payers can identify translation support resources for their members and extend them to providers who may lack these supports. Continuing to identify best practices for accessible, culturally relevant and appropriate telemedicine should be a priority for all stakeholders.

Looking Forward

Generally, patients have adopted and used telemedicine services following their rapid expansion in April 2020. Their experiences highlight advantages that telemedicine has on their day-to-day health care. Many of these advantages, benefits, and preferences will be relevant after the COVID-19 pandemic has passed. The barriers removed by telemedicine, including transportation, privacy, and scheduling, highlight the fact that many telemedicine services are additive, allowing people to access care they otherwise might have skipped. Telemedicine appears to be particularly helpful for follow-up visits and non-critical health needs.

Nearly 85% of patients who have used telemedicine reported they would continue to use it once the pandemic is over. When asked if their preferences for telemedicine would change once the pandemic is over, one patient said, *"If it was a visit that could be done over telehealth, and I had the choice, I would choose telehealth."* Another shared, *"I am more inclined to do telehealth going forward if it's an option based on my experience during the pandemic."*

Patients' Wants for the Future of Their Care

As of September 2020, many providers are once again offering in-person appointments. When asked if they had gone in for a face-to-face visit since the start of the pandemic, more than half (14 of 23) of patients interviewed said they had. For many, their health condition required in-person attention.

Patients who went in for a face-to-face visit reported receiving the following services in person:

- A vision appointment for eye glasses adjustment
- Lab work
- Urgent care for a broken wrist
- Sizing of hearing aids
- Physical therapy
- Well-child exams

This is a reminder that telemedicine will not eliminate in-person care completely. But patients said that they would prefer to have the option of telemedicine, especially for some services. When asked what types of services they are most likely to use through telemedicine, patients reported services related to medication management, prescription refills, follow-up appointments, check-ins with their provider, disease maintenance, and mental health services.

The urgency of the needed services also affects patients' preference for telemedicine or in-person care. Telemedicine was generally preferred for circumstances where there was not a severe need or problem.

Conclusion

Telemedicine is a powerful tool. It can increase access and equity of care delivery across the state by offering new scheduling flexibility and allowing people who had trouble coming to a provider to access care remotely. But it also introduces new barriers to care, including privacy concerns and access to technology and data.

In order to ensure telemedicine does not widen these gaps, it's important to address access to telemedicine and equity concerns that patients experience.

This analysis examines patients' experiences during the months after telemedicine regulations were changed due to the COVID-19 pandemic — a period of early adoption and many changes. This brief highlights findings from 21 telemedicine and two non-telemedicine users. CHI is still trying to understand some trends in telemedicine. For example, while the patients interviewed preferred using telemedicine through video, interviews with some providers suggested telemedicine visits through the phone were more successful for some patients. For more information on provider preferences, see *The Financial Impact On Providers and Payers in Colorado*. This presents an opportunity for continued communication among providers.

As providers and payers establish more consistent telemedicine practices, patients may experience fewer barriers related to the newness of the system. Continued analysis will demonstrate whether these preferences are representative, if they are relevant as telemedicine policy and practices become more stable, and how access and utilization evolve over time.

Endnotes

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