

THE VALUE OF TELEMEDICINE DURING
THE COVID-19 PANDEMIC RESPONSE

The Financial Impact On Providers and Payers in Colorado

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OeHI

Office of eHealth Innovation



COLORADO HEALTH INSTITUTE

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The Value of Telemedicine During the COVID-19 Pandemic Response

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This research was conducted in collaboration with the Colorado Office of eHealth Innovation (OeHI) and the Colorado eHealth Commission, in support of the Colorado Health Information Technology (IT) Roadmap. OeHI is responsible for defining, maintaining, and evolving Colorado's Health IT strategy concerning care coordination, data access, health care integration, payment reform, and care delivery. To ensure that OeHI and the eHealth Commission create a strategy that reflects the wants and needs of Coloradans, they have created the Health IT Roadmap, which defines strategic initiatives to close the gaps in health care for patients and providers. This research was conducted in support of several Roadmap initiatives, including Initiative #16 to expand access to broadband and virtual care.

OeHI led the Governor's Innovation Response Team's telemedicine efforts during the initial COVID-19 pandemic response and continues to lead state telemedicine efforts in partnership with state agencies and community leaders.

On the Cover: Stephanie Allred, Senior Clinical Director with Axis Health System in southwest Colorado, displays some of her organization's telemedicine capabilities. PHOTO BY JERRY MCBRIDE/DURANGO HERALD



Introduction

The COVID-19 pandemic halted traditional in-person health care delivery for most Coloradans. Executive orders signed by Gov. Jared Polis effective March 23 temporarily barred many health care providers from performing voluntary or elective procedures through most of April, and strongly encouraged compliance from rural hospitals technically exempted from the order.^{1,2}

A statewide stay-at-home order effective March 27, combined with calls to severely limit in-person interactions to prevent a potential overrun of health system capacity, may have further discouraged people from seeking care.³ Hospitals predicted social distancing and a decline in tourism would reduce emergent, routine, and preventive care.⁴ Fewer patients meant less revenue for most providers, who faced significant budget shortfalls.

A boost came from the governor's April 1 Executive Order, which suspended some state laws to clear the way for more use of telemedicine.⁵ Additional relief came from federal emergency waivers and temporary exemptions made by private insurers. Providers responded by swiftly ramping up their remote care offerings. Across a set of Front Range providers, all encounters dropped 43% on average during the pandemic. If not for the quick adoption of telemedicine, that drop would have been higher — 61% compared to the preceding year.

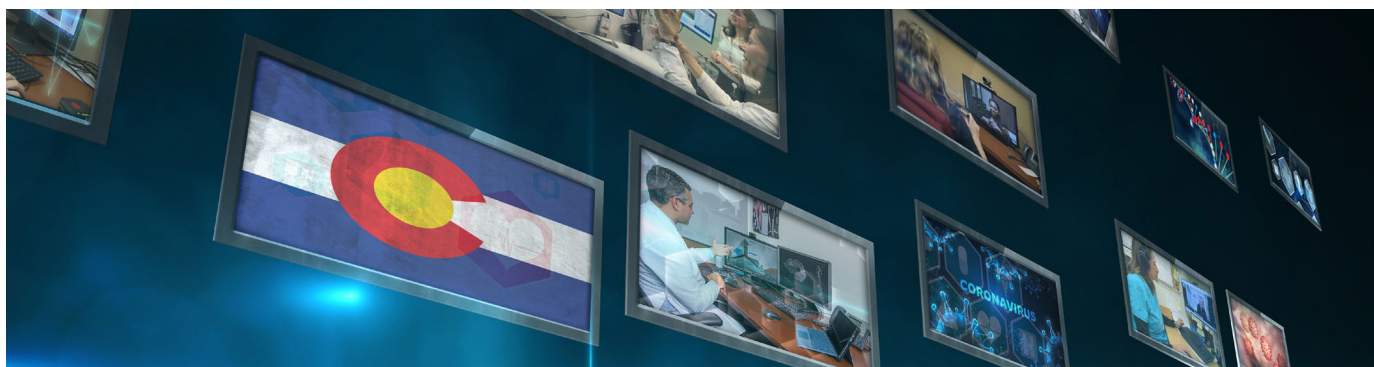
This brief examines the financial effect on Colorado's health care system of this unprecedented health and regulatory situation; how providers, payers, and policymakers used telemedicine in response; and what the longer-term potential is for telemedicine to change the way providers offer and are compensated for care.

It also asks the question: What is the business case for telemedicine — now and in the future?

Three Key Findings

- A rapid pivot to telemedicine was key to providers caring for their patients safely and keeping their doors open, particularly in the early days of the pandemic.
- The shift to telemedicine created new costs, such as investment in technology platforms, but also brought new rewards, such as allowing access by patients who lacked transportation or lived in an area with poor access to care.
- Clarity on future payment parity policies, and additional research into the costs and benefits of this shift to telemedicine, will help illuminate the potential for telemedicine to change the way providers offer and are compensated for care.

How much investment is required to stand up the technology; how does telemedicine affect care volume; how do reimbursement levels affect provider profitability and adoption; what is the impact on provider satisfaction; and what are the potential unintended consequences for providers, payers, policymakers, and the patients they serve?



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.

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.

Colorado's Swift Pivot to Telemedicine

Colorado's telemedicine access and payment policies were already considered progressive among states before the pandemic. For example, legislation in 2015 mandated that all telemedicine services be reimbursed at the same rate as in-person services.⁶ Although telemedicine use in Colorado and across the nation was growing quickly prior to the pandemic, it represented a fraction of the care delivered in the state and was largely limited to a subset of care types, services, patients, and providers.⁷

All that changed in March, when some providers were faced with the choice of seeing patients remotely or not seeing them at all. It came as no surprise that Colorado moved on April 1 to make telemedicine easier to deliver.

Response by Payers – Expanding Care Options

Payers quickly loosened restrictions on telemedicine access and reimbursement at the start of the COVID-19 pandemic. Federal policy changes set the tone. In mid-March, the federal

Centers for Medicare and Medicaid Services (CMS) expanded the types of providers who could bill for telemedicine visits in the **Medicare** program, including physical therapists and speech language pathologists, as well as Federally Qualified Health Centers (FQHCs) and Rural Health Clinics (RHCs). It also expanded the types of patients who are eligible to receive telemedicine services and the modalities through which care can be delivered (e.g. in some circumstances audio-only telephone or chat function).^{8,9} About 14% of Coloradans are covered by Medicare.¹⁰

These changes also allowed providers to see patients in their own homes for full appointments, whereas previously only quick check-ins were allowed. This change was required by the pandemic but dramatically increased the convenience to patients of those services. Also critical to pandemic response, CMS allowed hospitals to bill for patients served while outside of the hospital, thus increasing capacity for patient care across additional facilities. This allowance paved the way for the rise in hospital-at-home programs, through which hospitals monitor and treat patients who need acute services but are stable enough to remain in their own homes.^{11,12}

Colorado's **Medicaid** and **Child Health Plan Plus** (CHP+) programs already reimbursed at parity for many services delivered via live video connection, and for remote monitoring for patients with some chronic conditions. Mirroring the federal response, the state expanded the types of services, types of providers, and modalities that are eligible for reimbursement. Specifically, the state expanded its definition of telemedicine to include telephone and live chat, and began allowing certain safety net providers (FQHCs, RHCs, and Indian Health Service) to bill for telemedicine visits.¹³ Around one in five Coloradans (20%) is enrolled in the Medicaid or CHP+ programs.¹⁴

Many of these changes were temporarily authorized via executive order from Gov. Polis, and some were made permanent in SB 20-212, signed into law in July.^{15,16} Notably, SB 20-212:

- Blocks payers regulated by the state from putting a lower cap on annual coverage for telemedicine compared to the cap on in-person care.

- Prevents payers from limiting technologies used for telemedicine as long as they are Health Insurance Portability and Accountability Act (HIPAA)-compliant.
- Bars payers from requiring patients to have a previously established relationship with a provider before seeing them via telemedicine for the first time.
- Prohibits payers from requiring providers to get additional training or certification in order to bill for telemedicine services.
- Does not require in-person contact under the state's Medicaid program for services delivered through telemedicine that are otherwise eligible for reimbursement. Services can be HIPAA-compliant audio, video, or live chat, but they must meet the same standard of care quality.
- Sets the Medicaid reimbursement rate for telemedicine services provided by an FQHC or RHC at a rate that is no less than the Medicaid rate for a comparable in-person visit.

Many of the same stipulations have been applied to plans on the **individual, small, and large group markets** regulated by the Colorado Division of Insurance (DOI). Plans in these markets cover more than a quarter (27%) of Coloradans.¹⁷ DOI aligned the commercial market with CMS guidance through emergency regulation. The regulation reinforced the types of services that insurers are required to cover, expanded the modes considered to be telemedicine to include telephone and chat, and imposed reimbursement parity between telemedicine and in-person services. These emergency regulations will apply either for 120 days, or as long as a state of emergency remains in effect at either the state or national level.¹⁸

Self-funded employers, which tend to be larger organizations, are regulated at the federal level. An estimated 30% of Coloradans are insured through a self-funded employer.¹⁹ They are not subject to the same requirements as state-regulated plans but tend to offer fairly robust coverage. DOI has strongly encouraged them to comply with state and federal provisions.²⁰ There are no comprehensive data available at this time on how many or which of these plans adopted changes in the wake of the pandemic.

Response by Providers – A Care Imperative

Colorado's providers pivoted quickly to remote care, typically in just a few days, to create a new virtual front door to minimize care disruptions. One provider interviewed by CHI shut down for a single workday to switch to remote-only care. Initially, visits were primarily by telephone, but providers moved to video technology as they invested time and money in new technology and got their patients hooked up to those platforms.

Provider organizations and individual clinicians with some experience treating patients remotely made the switch more easily. Two providers interviewed had some experience using telemedicine to provide care to a patient in one clinic from a provider located in another, but none of the providers interviewed had experience providing telemedicine to patients in their homes. Others needed more support from administrators and colleagues to get up and running on their platforms. Some providers working from home experienced the same barriers their patients face, including slow or intermittent internet access and lack of privacy.

For one organization, an access team acted as the first line of communication to schedule appointments and work with patients to get them set up on the video platform before their appointments. Platforms like Microsoft Teams needed to be downloaded on the patient's computer or phone, and their video and microphone needed to be working properly. The organization also dispatched health care workers to the houses of harder-to-reach patients to help them get set up on the platform.



“The first two weeks were hectic. Now it is really smooth sailing.”

Kelsey Shanholtz, Lead Front Office Manager at the Mental Health Center of Denver

To help alleviate access barriers their patients were experiencing, one provider accepted donations of used smart phones and tablets to give to patients and purchased mobile hotspots for some patients without internet access. For more information on the patient experience using telemedicine during the pandemic, see *Insights From Patients in Colorado*. The organization also built kiosks equipped with Zoom that patients could use for virtual appointments if they did not have internet access or a private space at home. One provider offered patients the opportunity to come into the clinic and receive care from a provider in another room to eliminate close contact. Another began offering “curbside” visits, where providers in full personal protective equipment (PPE) saw patients in their vehicles.

The learning curve was tough on everyone, but providers learned quickly out of necessity. “The first two weeks were hectic,” said Kelsey Shanholtz, Lead Front Office Manager at the Mental Health Center of Denver. “Now it is really smooth sailing. When something comes up, we have gotten really good at strategically transitioning.”

In some cases, the initial telemedicine platform — chosen for its familiarity, low cost, or ease of adoption — was eventually replaced with a system with more functionality, one that was better-configured for workflows, or one that integrated with existing clinical systems. Two of the three provider organizations interviewed eventually changed to a new platform because it offered better integration with their Electronic Medical Record (EMR) system. For another provider, the dollars saved by going with a cheaper telemedicine solution were invested in the development of a phone application to help patients schedule and initiate telemedicine visits.

Payer policy changes to temporarily equalize payment between audio-only and video visits allowed both providers and patients time to get comfortable with a new way of giving or receiving care. Some patients were eager for care but preferred to talk over the phone, especially early on. “We want to meet patients where they are,” said Linc Pehrson, Chief Integration Officer at

Axis Health System. This sentiment was reflected by all providers interviewed. Still, many providers pointed to the benefits of video compared with audio-only communication and worked to stand up their systems and convert video skeptics quickly to avoid care disruptions.

Certain providers found a more natural fit for their services in telemedicine than others. One provider estimated that about 80% of behavioral health visits were happening via telemedicine. Providers noted that telemedicine lent itself well to services like behavioral health, chronic care management, and medication counseling. Others found that some visits, especially those that required physical examinations or instances when a patient’s health was deteriorating, were less possible or impossible.

Some providers held off on billing for their telemedicine-delivered services until they felt confident they knew how to bill for them accurately to get reimbursed. For some, this created initial cash shortages. This, coupled with low visit volumes, led one organization interviewed to furlough staff for a time.

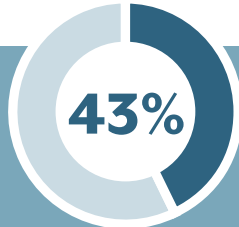
Telemedicine was Crucial in Keeping Providers Afloat

Impact on Providers

Impact on Providers - Revenue Drivers

Interviews with providers suggested patient volumes and revenues dropped substantially during the early months of the pandemic, consistent with all other reports and sources. The revenue drop, and impact to patients, would have been much more severe without the shift to telemedicine. One provider reported an 80% drop in volume in those first few weeks and asserted that the switch to telemedicine allowed the organization to keep its doors open. Providers also reported that their payer mix largely remained the same since the start of the pandemic. Providers in value-based arrangements were not hit as hard as those operating primarily under fee-for-service, where higher treatment volumes equal higher revenues.

Data from the CHORDS network comparing in-person and telemedicine encounter volume during the pandemic (the 16 weeks of March 15 through July 4, 2020) to the data baseline (the 16 weeks of March 17 through July 6, 2019) support the findings from provider interviews. Across all CHORDS providers included in the analysis, all encounters dropped 43% on average during the pandemic compared to the baseline. If not for the quick adoption of telemedicine, that drop would have been higher — 61% compared to the baseline. The data do not include reimbursement amounts, but looking at volume only, it is clear telemedicine was able to blunt but not eliminate the financial impacts of the drop in utilization. Although not modeled, the loss of revenue would have been even more substantial



43%

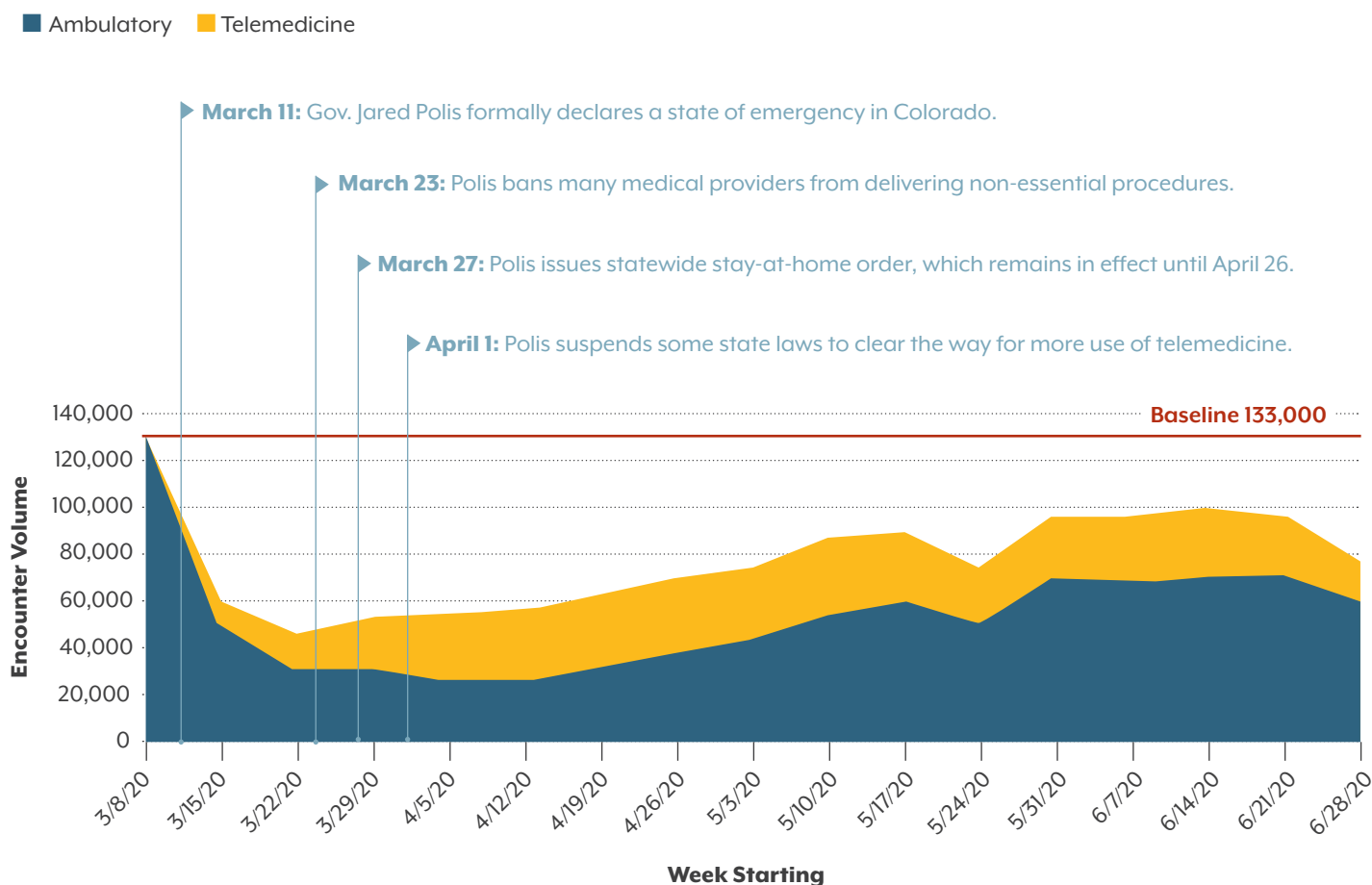
Average drop in all encounters during the pandemic compared to the baseline.* If not for the quick adoption of telemedicine, that drop would have been higher — 61% compared to the baseline.

* Across all CHORDS providers included in the analysis.

if not for the decision by most payers to implement payment parity for telemedicine services.

The reduction in volume was most pronounced right at the start of the pandemic (week of March 8), when ambulatory care stopped suddenly and

Figure 1. Ambulatory and Telemedicine Encounter Volume Over Time, March 8 Through July 4, 2020



Note: Dips in overall encounter volumes in week 11 and week 16 are likely due to holiday-related office closures (Memorial Day on May 25 and Independence Day on July 4, respectively).

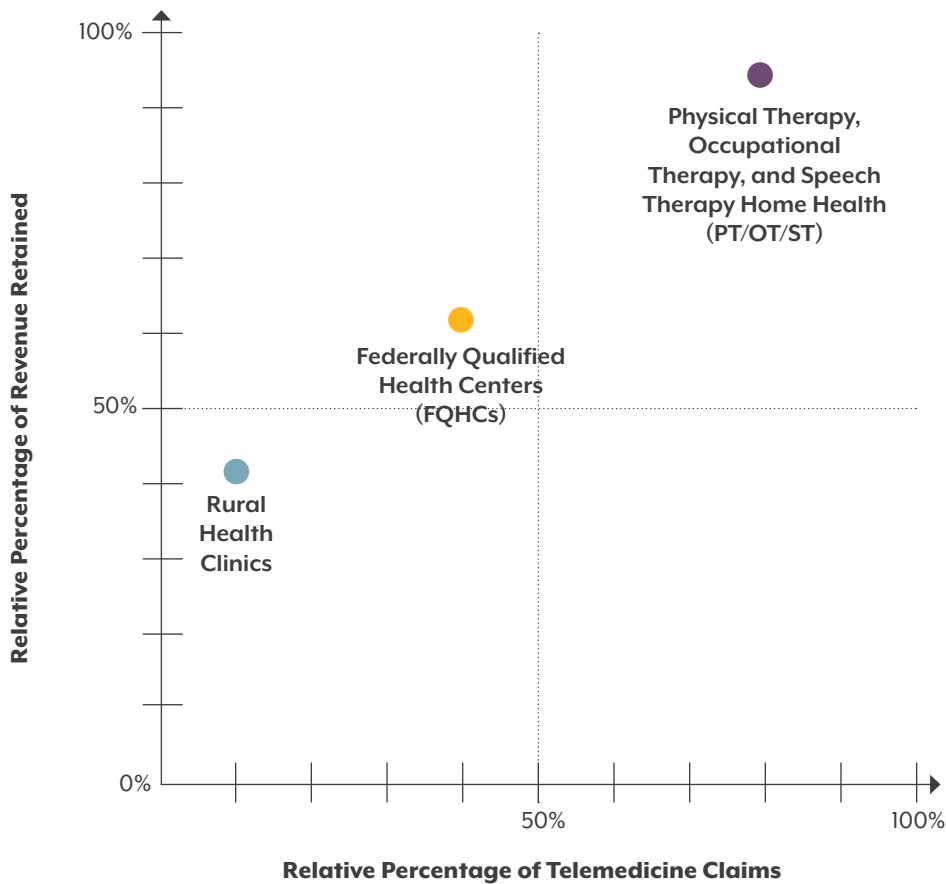
before providers got their telemedicine services online (see Figure 1). Telemedicine volume grew quickly after the sharp drop in ambulatory volume, replacing some but not all of the lost services. After the initial weeks of the pandemic, providers saw a slow rebound in ambulatory services. However, even after a slight rebound in ambulatory care, all encounters were still down by 24% in week 15 (ending June 27).

Some providers were able to shift more care to telemedicine and likely had more success in retaining revenue. Further analysis of CHORDS data found Community Mental Health Centers experienced an 81% decrease in ambulatory volume during the pandemic period. But due to a huge ramp up in telemedicine encounters, total encounters actually increased 18% compared to the baseline. It's not clear whether revenue increased as well, since the data do not say whether a particular encounter was billed.

These data indicate behavioral health providers were successful in shifting their care to telemedicine and may also reflect a greater community need for those services (such as care for anxiety, depression, substance use disorder, etc.). Anecdotal data suggest the higher volume is more likely due to existing patients using more services, rather than new patients. For more CHORDS data on telemedicine utilization during the pandemic, see *Insights From Patient Care Utilization in Colorado*.

Initial Medicaid claims data released by the Department of Health Care Policy and Financing (HCPF) sheds further light on how telemedicine affected providers' finances during early stages of the pandemic, though the time period is not as current (through June 20). Generally, providers with higher telemedicine adoption saw a smaller revenue decrease due to a drop in in-person care (see Figure 2).

Figure 2: Relative Telemedicine Adoption and Medicaid Revenue Retention by Service and Provider Type, March 15 Through June 20, 2020²¹



Note: Data displayed are approximate values included for illustrative purposes. Indian Health Services claims data were excluded due to not showing any telemedicine adoption and one week showing a significant outlier in claims amounts, indicating a potential underlying data irregularity.

Generally, the provider types included in HCPF’s publicly available data were not able to totally offset their loss of in-person revenue via telemedicine. A few service types, including certain types of home health services, appear to have mostly or nearly completely offset their lost in-person revenues with telemedicine adoption, typically after a few weeks of transition.

Telemedicine adoption, however, was not a panacea for all providers. A HCPF presentation from May reported data from a survey showing 91% percent of clinicians rated the COVID-19-related stress on their practice as severe (61%) or close to severe (30%).²²

Despite significantly relaxed rules around telemedicine reimbursement, providers called out pain points that remain. One provider noted that reimbursement for telemedicine appointments is often based on the duration of the appointment rather than the complexity of the case (which was the case for those appointments when they were delivered in-person), which can result in lower payments than providers would receive for a visit with the same patient in person. Without a change to that policy or large volumes of visits, providers are not going to hit the same financial targets as previous years. Another noted that some services, like family therapy and psychosocial rehabilitation, are not included in the current reimbursement structure.

Capitated payment arrangements, wherein a provider receives a flat per-patient amount based on expected costs for the population, allowed at least one provider flexibility to repurpose some staff (e.g. school-based clinicians, community program staff) to different duties during the pandemic, such as training patients to use telemedicine platforms and delivering medications to patients’ homes. However, these creative approaches to supporting patients’ needs required payers to offer some flexibility in what satisfied the requirements of the capitated model. Whether that same flexibility will be available beyond the pandemic is unclear.

Impact on Providers - Cost Drivers

Providers noted that some costs remained the same despite the transition to telemedicine. One

said, “Telehealth takes face-to-face costs and adds the cost of technology.” The cost of physical clinic space remained constant despite being unused or underused for some providers during the state’s stay-at-home order. Providers are anticipating bringing patients back onsite for care in the future, and some have already begun doing so, but physical office space remains a fixed cost for now. A longer-term shift toward telemedicine might reduce the need for physical office space and the associated cost, but that theoretical benefit has not yet manifested for any of the providers interviewed for this brief.

In addition to new investments in telemedicine platforms, some providers accelerated technology investments, such as new computers for their clinicians, given the greater importance of the technology. Some providers noted their telemedicine platform was either provided to them for free on a trial basis or initially funded by a grant, and noted their costs would increase in the future. Providers are also considering investments in connected devices, which would improve their ability to remotely monitor and manage some patients’ chronic conditions.

Others have technology costs that cannot currently be met. One provider described the need for dual monitors and additional equipment to improve providers’ ability to chart during a video visit or bring a translator into the session. Another recommended the use of remote patient monitoring devices for managing certain chronic conditions, which come at an added cost.

Some costs, such as PPE, janitorial services, and office management, may decrease. However, some costs may simply shift — for example, from

“Telehealth takes face-to-face costs and adds the cost of technology.”

A CHORDS provider interviewed for this analysis

front desk scheduling and reception staff to digital patient coordination.

Providers need to be prepared to continue or return to treating most patients remotely, but they also need to be set up to receive patients in person depending on their patients' preference, condition, and type of care needed. Accurately projecting these costs into the future is difficult for providers given their lack of experience with telemedicine and the uncertainty of the pandemic.

Impact on Payers

Despite generally loosening rules around telemedicine reimbursement and waiving some costs around testing for COVID-19, payers have generally experienced a lower-than-expected volume of claims due to the pandemic.

UnitedHealth Group, the largest private payer operating in Colorado by market share of DOI-regulated plan premiums, posted its largest-ever quarterly profit in the second quarter (April through June) of 2020.^{23,24} The other three major publicly traded players in the Colorado market (Cigna, Aetna, and Humana) were also more profitable than expected due to lower utilization of health care services across the country. However, by the end of June private payers reported that volumes had bounced back to slightly below pre-pandemic expectations, due to increases in telemedicine and to a partial return to in-person care.^{25,26,27}

The picture for Colorado's Medicaid program is slightly more complicated due to a significant state budget shortfall and a projected increase in enrollment, though additional federal funding provided a buffer. Still, as of May the state was targeting a reversion of \$180 million to the state General Fund driven by savings due to federal funding and a utilization decrease, despite additional emergency payments and other requirements due to the pandemic.²⁸

Because of the pandemic-caused reduction in care utilization, payers largely have been able to relax their telemedicine policies without negative effects on their profits. But what might utilization look like over the next year, five years, and 10

years if telemedicine-friendly policies remain in place? Some argue that the convenience of telemedicine, combined with the removal of many of the guardrails that have historically been in place to ensure medically appropriate use, might enable overuse of care or even fraud. For example, a quick follow-up visit over telemedicine may be extremely convenient for the patient and provider, but does its medical value outweigh the cost to the patient and payer?²⁹ Further, federal officials point to previous instances of fraud in the Medicare program involving unnecessary testing or unwanted services that may be easier to carry out in a more loosely regulated telemedicine environment.³⁰

Other Potential Benefits Shared by Providers

In addition to the direct financial benefits of providing care remotely during the pandemic, providers noted additional benefits that are worth further research. Potential benefits included a reduction in wasted clinic time due to no-shows, being able to expand geographically or offer a more flexible service area, and additional efficiencies available to a more tech-enabled practice.

One potential advantage of telemedicine appointments over traditional in-person care is that patients might be less likely to miss the appointment if they do not need to attend a visit in person. Data from provider interviews was mixed on whether this proved to be the case in practice.

Some interviewed suggested no-show rates were lower for telemedicine visits compared to in-person care, perhaps because of the lower barriers for the patient getting to their appointment. Telemedicine can save patients time and reduce transportation and child care barriers that may impede their ability to keep a scheduled appointment. In the pre-pandemic world, a no-show would have been wasted clinic time.

Multiple providers noted that being able to use telephone-only visits as a backup helped keep technology snafus from becoming missed appointments and missed revenues. For instance,

providers noted that some patients will not show up for their video appointment despite the provider's best efforts to set them up on the technology. Having another avenue to reach them and still get reimbursed has been a big help. Providers can still conduct the visit and give the patient another push to use the telemedicine platform the next time.

However, other providers suggested their no-show rates may actually be up. In a telemedicine environment, the question about those no-shows is now: Did the patient run into a technology issue or did something else come up?

Some providers suggested that no-show rates have dropped for certain types of appointments, such as one-time intakes and assessments for behavioral health, while no-show rates for established patient visits have not changed. Modality also matters. One provider indicated rates of completed visits via telephone have been strong, and no-show rates for video calls were higher but have dropped over time.

More data will help answer the question. Because of changes to overall care volume and the newness of telemedicine systems to patients and providers, it can be tough for providers to pinpoint the exact impact of those systems on no-show rates.

Multiple providers referenced potentially being able to offer an expanded service area via telemedicine, allowing them to reach patients in new areas, particularly rural areas with provider shortages that may have existing access issues. Telemedicine also allows patients who move to a different part of the state to continue receiving care from the provider they know. This is particularly helpful if the area they are moving to does not have that type of provider.

Investing in digital platforms may bring additional efficiencies. One provider was optimistic the telemedicine platform would make managing cancellations and filling open slots more efficient for its administrative team. A behavioral health provider discussed the benefits of seeing patients in their home environments, especially children.

Finally, providers were universally appreciative of telemedicine giving them an option to continue to

provide care in a way that was safe for them, their coworkers, and their patients during the pandemic. This experience and the infrastructure and skills developed will help prepare providers to continue to care for their patients during future worst-case scenarios, whether a pandemic, dislocation or evacuation due to natural disaster, or even simply reducing travel during ozone alert days.

How Satisfied Are the Digital Doctors?

Providers shared that while the early days of using telemedicine were difficult and fast-paced, they were eventually pleasantly surprised with the quality of care they were able to provide — particularly via video visit. The learning curve was steep for some, but now most providers are up-to-speed on new platforms and processes. The jury is out on whether feelings will change over time, especially after in-person care becomes a more viable option.

One provider organization surveyed its behavioral health providers and found that about three-quarters were satisfied with the telemedicine care environment, with the rest either neutral or dissatisfied. Other providers mentioned difficulties like exhaustion after a full day of video visits (colloquially referred to as “Zoom fatigue”); working different hours to accommodate new time slots, such as later hours in the day; and angst around process changes in the EMR to accommodate telemedicine delivery.

Providers generally felt that video offered the closest approximation of an in-person visit. Although not perfect, many were surprised at how effective



Providers shared that while the early days of using telemedicine were difficult and fast-paced, they were eventually pleasantly surprised with the quality of care they were able to provide.

they were able to be over video. While they were generally most satisfied treating patients via video rather than telephone, providers also noted that video was the modality associated with the most technical glitches. Video calls are more work to set up and are more likely to fail, particularly for patients living in rural counties with unstable internet connections. One provider noted, “It’s frustrating for providers — you get everything set up for the patient and halfway through the visit they’re frozen. It makes it challenging to have a productive visit.”

All of this is subject to change. Many providers, while pleasantly surprised by their telemedicine experience, may be grading on a curve. Compared to the alternatives of seeing no patients at all, or potentially exposing themselves to COVID-19, telemedicine was a strong option. And providers have already put in the time and effort to learn new technologies and workflows. These opinions might also change if reimbursement were to decrease for services delivered via telemedicine.

One rural provider summed up the prevailing sentiment. “I preferred hands-on, face-to-face care. But I’d rather see them through telehealth than go six months without a visit,” said Jessica Skomp, FNP, who works at Family Practice of Holyoke .

Barriers to Increased Adoption

Providers cited uncertainty around longer-term reimbursement rates, access for certain populations, and quality of care as they continue to bolster their telemedicine capabilities.

Providers repeatedly referenced having to invest time and money into developing virtual means of care. Many said future reimbursement was largely not a factor in the decisions they had to make to accelerate access to telemedicine during the pandemic. However, they are concerned about telemedicine being less financially viable in the future. One provider was left scrambling after a private payer decided to no longer reimburse for phone encounters without much notice. Many providers think video is a safer bet than audio-only when it comes to reimbursement. For patients who prefer telephone, providers are communicating



“It’s frustrating for providers — you get everything set up for the patient and halfway through the visit they’re frozen. It makes it challenging to have a productive visit.”

CHORDS provider interviewed for this analysis

that audio-only may not be an option in the future and are pushing to convert those patients to video.

Providers said access to telemedicine is fairly widespread, with key exceptions. They reported having to find workarounds to connect their translation services to their telemedicine platforms. Some reported it was logistically more challenging to provide services to their Spanish-speaking patients. They also noted that although many of their patients have an iPhone or tablet, not all of those patients have a data plan that can accommodate regular video calls or have access to a stable signal. Some patients cannot afford either the technology or the data plans. Around 11% of Colorado households lack broadband of any type according to U.S. Census Bureau data from 2018.³¹

One provider suggested their rural patients were having greater access challenges when trying to use telemedicine due to lack of strong internet services. This is supported by mapping from the Governor’s Office of Information Technology showing large portions of the Eastern Plains and Western Slope lack access to broadband coverage.³²

Finally, even for services that were cited as prime candidates for telemedicine, such as behavioral health and chronic care management, providers noted some concerns around quality, particularly for those using audio-only. Providers noted that nonverbal cues can be missed when they are unable to see their patient.

Good Enough for Now? Or Best Practice in the Future?

A key question this initial research poses is to what extent telemedicine offers the potential to reimagine how care is delivered and paid for.

A lot will depend on future payer and policymaker decisions around reimbursement. As one provider noted, “what we do is driven by what we can get paid to do.” The limited opportunity for reimbursement is a major reason why telemedicine adoption had never taken off in Colorado before the pandemic forced a relaxing of regulations. Providers are expecting some continued payer flexibility beyond October, when some temporary exemptions are scheduled to lapse. Proposed changes to Medicare reimbursement for 2021 announced in August would increase opportunities for providers to bill for telemedicine services, and an executive order released around the same time signaled continued support for telemedicine from the executive branch.³³ But providers feel there are still many questions unanswered about the future of telemedicine reimbursement.

Providers interviewed shared the opinion that they should be delivering telemedicine care as “something we have to do” during the pandemic to ensure that patients get the care they need, beyond reimbursement and technical challenges. At a minimum, that could mean that telemedicine is a necessity until a vaccine or rapid testing and contact tracing are available. Beyond the pandemic, providers appreciate the options that telemedicine offers to meet the needs and preferences of their patients, and they want to continue to have flexibility to determine the mode of care they think is best for their patients.

Certain types of services are more obvious candidates for telemedicine than others. Telemedicine may also support new models of care for chronic disease management. Behavioral health that includes talk therapy is also a strong candidate. Some patients who use behavioral health services through telemedicine will continue to need more attention, such as those with complex trauma, schizophrenia, and those whose condition makes them mistrust video

technology. And some specific treatments, such as Eye Movement Desensitization and Reprocessing (EMDR) therapy, may continue to be office-based.

To understand the scope of whom telemedicine can reach, it will be critical to understand who has access to the technology. Telemedicine has the potential to make care easier, more efficient, and more accessible for a large swath of Coloradans who lack access to traditional care. And as technology continues to become more accessible, along with the reopening of critical resource hubs such as libraries, that group of people will only continue to grow. For many Coloradans, access to a phone is easier and more convenient than physically getting to a clinic. As one provider said, “I think this will open up more doors to access to care than it will close.”

In short, access to telemedicine, while critically important, is not a key barrier in terms of many providers’ business models and their abilities to maintain visit volumes. However, even patients who do have the necessary technology may run into access or use barriers — investments in digital health literacy and plain language resources available in multiple languages, like the Health at Home program, are essential to equipping patients with the skills to access care.

Providers, patients, payers, and other stakeholders were forced by the pandemic to turn to telemedicine. That experience has shown the value of telemedicine to open up access to care and enable new treatment practices, but more time and research is needed to isolate how telemedicine can be incorporated into best practices in the future.



Opportunities to Increase the Value of Telemedicine

Overall, telemedicine has been invaluable in helping providers to keep their doors open during the pandemic and will continue to be a key tool for serving their patients as long as the pandemic continues to depress ambulatory care volumes. There is also significant value for telemedicine beyond the pandemic, but that value proposition is less defined: providers, payers, and policymakers must come together to determine when telemedicine should be used, how it should be paid for, and what investments should be made to increase access and quality.

This unprecedented push to telemedicine presents an opportunity to rethink how care is delivered in Colorado even after the pandemic has passed. But there are considerable barriers to be addressed before Colorado can reach that stage.

Finding: *Providers pivoted quickly to create a new virtual front door for their patients. But many reported seeing few new patients during this period.*

Opportunity: Telemedicine's virtual front door needs to be open to new patients. Telemedicine has the potential to be a new avenue for patients to find practices, and for providers to build their relationships with those potential patients and to build their business as well. Providers may need support in identifying best practices for "onboarding" new patients thoroughly via telemedicine. Payers can begin or continue to reimburse new patient visits via telemedicine similar to in-person visits.

Finding: *Telemedicine has transformed behavioral health care delivery for Community Mental Health Centers (CMHCs), and has the potential to dramatically change how behavioral health is delivered by increasing access and convenience. But telemedicine is not a perfect substitute for an in-person visit, especially for certain patients, meaning CMHCs should not anticipate being fully remote in the future.*

Opportunity: CMHCs, and other behavioral health providers, can create new treatment protocols for when patients should be seen in-person, and when they can be seen remotely. Other providers with less telemedicine experience could consider adopting or modifying these "best practice" protocols. Payers and policymakers should establish appropriate guardrails to make sure treatment quality is not impacted by a shift toward telemedicine. This may include exploring the applicability of existing quality measures for care that is delivered remotely.

Finding: *Providers invested quickly in new telemedicine systems and continue to work to integrate their new telemedicine offerings with their clinical and operational systems.*

Opportunity: Policymakers should take steps to make sure this new telemedicine data is interoperable, with particular attention to how it may interact with Health Information Exchanges, to make sure these new investments in telemedicine do not develop in silos. Clinical data, whether delivered through in-person or remote care, needs to be accessible and available for both patients and all providers in a patient's care neighborhood.

Finding: *Providers pivoted quickly to telemedicine because they had to, and because payers started paying them for it. Decisions around reimbursement, particularly by Medicare and Medicaid, drive provider behavior.*

Opportunity: Decisions made by payers and policymakers on reimbursement such as what telemedicine services are reimbursed, how much they are reimbursed for (payment parity), and in what circumstances services are eligible for reimbursement can drive new patterns of care to improve quality and patient outcomes. Conversely, value- and risk-based approaches such as shared savings and capitation can be coupled with telemedicine to give providers flexibility to determine the right time and place for telemedicine vs. more traditional forms of care.

Finding: *The rising importance of telemedicine has raised the stakes in the ongoing push for equity in broadband access for rural and low-income Coloradans, while creating new incentives for providers and payers to support improved technology access for their patients.*

Opportunity: Providers, payers, and policymakers have an opportunity to bolster existing technology access platforms, programs, and initiatives, such as the [Broadband Development Program](#) within the Governor's Office of Information Technology and the federal [Lifeline](#) program, which provides funding toward phone or internet services for Coloradans below a certain income standard. Widespread broadband coverage across the state, and greater access to telemedicine compatible technology among patients, would increase the market for telemedicine services for providers and create new opportunities for remote patient monitoring and care management programs, which could reduce overall costs to the system.

What We Don't Know Yet: Next Steps for Research

Although many Coloradans have access to telemedicine, it is critically important to understand the populations that either cannot access or cannot benefit as easily from telemedicine and the barriers they face, in order to design outreach and care approaches that ensure they are not left behind. Telemedicine has the potential to promote health equity, but it may also create new barriers and equity issues that need to be understood and addressed.

This research focuses on the early stages of telemedicine adoption in response to the COVID-19 pandemic and subsequent state policy changes. Because of those unique circumstances, many of the relevant factors for study, such as service volumes and payment rates, are in a state of flux.

Future research will offer further insight into the months after the initial crisis of the pandemic, where in-person visits have rebounded but telemedicine remains above pre-pandemic levels. This period will be critical to understanding how much care can be delivered via telemedicine and in what circumstances and for which patients the care value of seeing a patient in-person outweighs the potential risk of disease spread. It also will be critical to study which services for which patients will continue to be the best use cases for telemedicine, even in a post-pandemic environment.

More comprehensive data on patient access to and preferences for telemedicine will help to quantify the size of the market for telemedicine service volumes and will help providers understand what the patient demand for telemedicine and in-person care might be.

For providers, it will be essential to understand how much care they anticipate delivering remotely in the next year and beyond. To what extent is telemedicine an add-on touchpoint to better manage their patients care, and to what extent does it substitute for the need to physically bring patients to the practice? The projected mix of in-person and remote care volumes will determine

which investments to make, such as in a more robust technology platform, and which to shelve, such as leasing additional clinic space, or vice versa.

These analyses will influence and be influenced by payer and policymaker decisions around continued reimbursement for telemedicine. The pandemic forced a relaxation of the restrictions around telemedicine reimbursement, some of which will be difficult to reimpose even in the long term. However, payers argue many of those restrictions were there to prevent fraud, waste, and abuse.

As a result of the financial uncertainty caused by the pandemic, some providers have expressed new interest in capitated payment models, where a provider receives a set monthly payment for enrolled members that covers a comprehensive set of specified services. How might this type of model avoid some of the most obvious concerns payers and policymakers have around telemedicine's potential for overuse of care or fraud, while allowing providers flexibility to treat patients how they think is best?

Federal and state policymakers are facing a difficult financial situation due to the economic effects of the pandemic, and their decisions around what Medicare and Medicaid pay for often set a standard that private payers follow. Additional data from during the pandemic or a post-pandemic period will allow deeper analyses of various payment scenarios.

Conclusion

Rapid telemedicine adoption by Colorado's providers, along with relaxation of regulations around payment by payers and policymakers, was crucial to avoiding severe consequences for the health of Coloradans and the financial health of Colorado's providers. There is no doubt telemedicine has the potential to continue changing how care is delivered and paid for, but the extent of that potential is not certain at this time. Future analyses will continue to assess the role of telemedicine in Colorado.

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