Health First Colorado Telemedicine Evaluation

An Analysis of Telemedicine During the COVID-19 Pandemic

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COLORADO
Department of Health Care Policy & Financing

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I. Executive Summary

The COVID-19 pandemic's impact on health care delivery in Colorado has been far-reaching. In response to these impacts, the Department of Health Care Policy & Financing (Department) made a series of changes to its telemedicine policies to ensure continued access to services for members enrolled in Health First Colorado (Colorado's Medicaid program). These changes, made through rule and federal disaster authority, expanded the permissible modes of telemedicine to include audio only and the providers eligible for reimbursement. Senate Bill 20-212, signed into law by Governor Polis in July 2020, codified these new telemedicine rules into law.

Similar to the health care industry as a whole, the Department is in the data collection and observation phase of telemedicine evaluation. This report evaluates the policy changes in telemedicine and what we know thus far about their impacts on access to care and utilization, health equity, quality and member outcomes, and payment and reimbursement.

Policy Changes in Telemedicine

In response to the public health emergency, the Department expanded its telemedicine policy through rule and federal disaster authority. Telephone-only services and live chat were opened for a subset of services. Federally Qualified Health Centers (FQHCs), Rural Health Clinics (RHCs), and Indian Health Services (IHS) could bill separately for telemedicine for the first time. The allowable provider type was opened to include physical therapy, occupational therapy, home health, hospice, and pediatric behavioral therapy providers. Similar to pre-COVID-19, the rule requires reimbursement for telemedicine services at the same rate as in-person services. These rule changes were adopted into legislation in Senate Bill 20-212 and signed into law by Governor Polis on July 6, 2020.

Access to Care and Utilization

The Department uses the data visualization software Tableau to monitor detailed information on the types of telemedicine services being delivered, the types of members receiving care via telemedicine, and the provider types who are delivering it. This evaluation covers trends for telemedicine-eligible fee-for-service utilization through Aug. 22, 2020. You can view updated data, refreshed every other month, in this dashboard.

Prior to the pandemic, most services delivered via telemedicine were behavioral health services reimbursed under the capitation. On the fee-for-service (FFS) side of the program, only 0.2% of services were being delivered via telemedicine prior to March 8, 2020. The following week – the beginning of the pandemic in Colorado – the percentage of visits being delivered via telemedicine began to rapidly climb. During the period of March 15 – August 23 an average of 20.3% of visits were conducted through telemedicine. Telemedicine visits leveled off over the summer and have stabilized at around 15% of visits.

Children utilized the greatest number of telemedicine services during the study period. Young children up to age 9 comprised three quarters of telemedicine visits by children. Children in this age group largely accessed telemedicine to receive therapeutic services with speech therapy the most common visit type.

While well-child visits via telemedicine were not billable at the start of the pandemic, the Department took feedback from providers into consideration to make a temporary change effective Nov. 12, 2020. This change allows primary care providers to bill for telemedicine and well-child checks for members 2 years of age and older during the public health emergency. Billing and payment details vary for FQHCs, RHCs, and IHS providers who perform well-child checks via telemedicine.

Adults accessed telemedicine for a much more diverse set of services than children. The most common service provided to adults who were not enrolled in a waiver that provides long-term services and supports for members with disabilities were primary care visits. Top diagnoses among telemedicine utilizers were opioid dependence, generalized anxiety, major depression, hypertension, diabetes and back pain. Of note, providers who serve members experiencing homelessness and staying in hotels report that they have been able to utilize telemedicine services in order to reach these members to provide medication-assisted treatment (MAT).

Overall, urban providers perform a higher proportion of services via telemedicine than rural providers. This may be due to barriers around broadband access in rural areas. RHCs and IHSs have adopted telemedicine at lower rates. These providers cite lack of broadband to support telemedicine and challenges with appropriate billing. The Department has provided training to these facilities to remedy the billing challenges. In contrast to these provider types, FQHCs have been high adopters of telemedicine with rates consistently twice as high as other provider types.

Though capitated behavioral health services are not a focus of this evaluation, the Department did briefly analyze telemedicine utilization. In the first two months of 2020, prior to the pandemic, the average telemedicine utilization rate for behavioral health was 1.3%. By April 2020, the average across the seven Regional Accountable Entity (RAE) regions had grown to 57.2%. Similar to FFS trends, children were the highest utilizers of telemedicine. The most common diagnoses associated with telemedicine visits for behavioral health were similar across RAEs. These included post-traumatic stress disorder, anxiety disorders, major depressive disorders, opioid dependence, and alcohol dependence.

Health Equity

Many of the same barriers that lead to in-person health care disparities are present in the virtual space. This evaluation also explores the differences in a member's ability to access a dependable internet connection through a device and comfort with technology – also known as the digital divide. Research on the digital divide among Health First Colorado members is ongoing. The Department's partners across the state have addressed the divide by making phones, tablets, and internet access more available to members.

This evaluation analyzes telemedicine access for populations that may encounter barriers due to language, age, and ability. Future evaluations will include race and ethnicity as well. Providers have reported a high reliance on audio telemedicine visits for members with limited English proficiency in order to utilize language line services. Adults 65 and older were less likely to have had a telemedicine visit than other groups, according to the Department's data analysis. However, providers report that they have seen a willingness among these patients to use this technology and additional changes may be needed to make the technology easier to access.

Members with disabilities have played an active role in the Department's stakeholder engagement. In a survey of the Department's Virtual Member Network, members with disabilities were more likely to say that it was either very or extremely important for them to have a telemedicine visit with a provider they already knew as compared to members without disabilities. Members with a disability were more likely to report that their telemedicine visit only met some of their needs and were also more likely to say that their telemedicine visit was worse than in-person care. The Department continues to engage with this community and their providers on ongoing needs.

Quality and Member Outcomes

Additional research is needed on the relative effectiveness of telemedicine delivery by service type as well as video versus audio only. The Department used its survey of Virtual Member Network members to gauge member experience with telemedicine thus far. The survey was sent to 1,181 unique email addresses and ultimately answered by 307 unique members – a response rate of 26%. Three quarters of respondents said they had accessed telemedicine since the beginning of the pandemic. On quality of care, 84.3% of respondents said that the telemedicine visit either completely or mostly met their needs in terms of helping them with the medical care, advice, or service they were seeking. The Department asked respondents about the ease of technology during their visit. Nearly all respondents (92.3%) said the technology was somewhat, very, or extremely easy. When asked what they would have done if they did not have the option of telemedicine, most respondents (69.1%) said they would have delayed care until an in-person appointment was available. Nearly 10% (9.6%) said they would have gone to the emergency department.

Connection to a medical home and medical neighborhood is a central organizing component of the Accountable Care Collaborative (ACC). The Department is committed to ensuring that changes to the delivery system, such as telemedicine, take this tenet into consideration. Telemedicine has become a common offering of Health First Colorado primary care medical providers and other providers associated with RAEs, but there is also is a growing market of virtual-only providers, who are not affiliated with a physical office, who do not practice within the ACC and are licensed but may not be based in Colorado. The Department is considering how to ensure that virtual-only providers are integrated into the ACC's medical home, including via data sharing and medical neighborhoods, and to apply the appropriate payment model and regulatory structure to incentivize those connections. Moving forward, the Department will continue analyzing the impact of virtual-only providers on telemedicine utilization and outcomes among its members.

Payment and Reimbursement

Telemedicine presents clear opportunities to improve access to care for members, but there are outstanding questions around cost. Health First Colorado's current payment methodology of fee-for-service at the same rate for in-person and virtual (referred to as payment parity) for physical health services may not be a sustainable model for paying for telemedicine services going forward. Some forms of telemedicine, such as email or phone-based applications, are better suited to managed care models and/or alternative payment models that pay on a per member, rather than per service, basis.

In order to understand the potential for cost efficiencies for providers, the Department contracted with the Colorado Health Institute (CHI) to conduct analyses of health care

providers' cost structures, current and projected future telemedicine service utilization, and the interaction between the two. CHI concluded that the potential savings of telemedicine adoption are reliant on several factors. First, more savings opportunities are available to providers who adopt certain staffing models, such as the use of a virtualist - a provider who is employed by a medical practice but only provides care via telemedicine. Productivity was also considered as a factor.

Savings associated with cost efficiencies do not accrue to the Department. To capture these efficiency savings, the Department could lower the telemedicine rate (currently precluded by parity provisions) or lower the combined telemedicine and in-person rate. Additional time is needed to analyze the data and learn from our providers in order to ensure that the most well-informed policy is put forth. The Department plans to continue assessing whether legislated payment parity between in-person and telemedicine visits is a fair and sustainable payment model that enables the Department to maintain other health benefits and services at appropriate levels.

Next Steps

This evaluation is the first in a series of analyses the Department will conduct to assess the telemedicine rollout in Health First Colorado. The Department will continue its ongoing evaluation of telemedicine through data analysis, stakeholder engagement, and national research with an update to this report expected at the end of the fiscal year. One focus of the next evaluation will be on bringing in race and ethnicity data to analyze health equity through an additional lens. In addition, the Department will continue seeking the flexibility to implement new models of care and technologies that hold promise to improve care access and outcomes for our members.

II. Introduction

The COVID-19 pandemic has resulted in monumental shifts in the delivery of health care in Colorado. Among these shifts has been a rapid increase in services delivered via telemedicine within Health First Colorado (Colorado's Medicaid program). Prior to the COVID-19 emergency in March 2020, Health First Colorado allowed telemedicine delivery for a subset of provider types and services. For example, Federally Qualified Health Centers (FQHCs) and Rural Health Clinics (RHCs) could perform telemedicine services, but they could not report encounter claims for them. The COVID-19 public health emergency created an urgent need for telemedicine services and prompted the Colorado Department of Health Care Policy & Financing (the Department) to expand telemedicine through rulemaking and federal disaster authority. These rules and authority expanded the permissible modes of telemedicine to include audio only and the providers eligible for reimbursement. The rules and authority required payment parity between in-person and telemedicine services and also stated that telemedicine was not to be limited to existing patients. Senate Bill 20-212, signed into law by Governor Polis in July 2020, codified these new telemedicine rules into law.

This report evaluates the changes made to telemedicine policy in Health First Colorado in response to COVID-19. Given that these policies have gone into effect within the last few months, the report is limited in its ability to evaluate long-term effects of the changes. Evaluation will be ongoing over the coming months. However, this report is intended to serve

as a first checkpoint on what we have learned about telemedicine in Health First Colorado in the first 10 months of the pandemic.

An evaluation of Health First Colorado's telemedicine policy is presented in the following framework:

- Policy Changes in Telemedicine
- Access to Care and Utilization
- Health Equity
- Quality and Member Outcomes
- Payment and Reimbursement

This report focuses on telemedicine services reimbursed under fee-for-service (FFS). This is the reimbursement method used to pay for primarily physical health services as well as non-covered diagnoses ("carved-out") behavioral health services. When appropriate, the report will briefly summarize changes made to Health First Colorado's managed care payment methodologies. These include both the limited managed care capitation initiatives in the state – Rocky Mountain Health Plans Prime and Denver Health Medicaid Choice – as well as the capitated behavioral health managed care services provided by the Regional Accountable Entities (RAEs). Due to the focus on FFS telemedicine, the data in this report will not match Health First Colorado telemedicine data released by other organizations, such as the Center for Improving Value In Health Care (CIVHC)'s telehealth service analysis dashboard.

The analysis in this report has informed the Department's current thinking on telemedicine. Following a series of stakeholder engagements, analysis of available data, and a review of the evidence, the Department made changes to its well-child check policy to allow the anticipatory guidance portion of the visit to be conducted via telemedicine for the duration of the public health emergency. In addition, we have developed policy proposals for virtual-only providers who do not have a physical office location. Finally, this report comments on a variety of other telemedicine future research and policy considerations.

III. Policy Changes in Telemedicine

Pre-Pandemic

Prior to the COVID-19 pandemic, Health First Colorado allowed telemedicine for limited provider types and modalities. Audio visual modalities were allowed and billed using a member place of service code. The fee schedule payment was the same for telemedicine as it was for an in-person visit. In addition, an incentive payment was used for select procedure codes to encourage the use of telemedicine. There were, however, limitations on the provider types allowed to bill for telemedicine. Federally Qualified Health Centers (FQHCs), Rural Health Clinics (RHCs), and Indian Health Services (IHS) were paid for telemedicine through their Prospective Payment System (PPS) rate, not as a separate encounter. Among FFS providers, there were telemedicine limitations within benefits. For example, in outpatient therapies, outpatient speech therapy was an allowable telemedicine service but occupational and physical therapies were not.

Department Rule Changes SB20-212

On March 20, 2020, in response to the COVID-19 public health emergency, Health First Colorado expanded its telemedicine policy through rule and federal disaster authority. The Department allowed the use of telephone-only services and opened live chat for a set of services. FQHCs, IHSs, and RHCs were able to bill for telemedicine for the first time. The allowable provider type was opened to include Physical Therapy, Occupational Therapy, Home Health, Hospice, and Pediatric Behavioral Therapy providers. Similar to pre-COVID, the rule requires reimbursement for telemedicine services at the same rate as in-person services. This requirement is known as payment parity. A different federal disaster authority ("Amendment K') process was used to provide additional flexibilities in Colorado's Home and Community-Based Services for enrolled members with disabilities. Although not the focus of this report, for a list of those changes, please see the Long-Term Services and Supports page on the Department's website.

The changes laid out in rule were then adopted into legislation in Senate Bill 20-212, which Governor Polis signed into law on July 6, 2020.[1] The legislation clarifies the method of communication allowed: audio/visual, telephone (for a set of services), live chat, other electronic communication (HIPAA compliant) and affirms the new providers added in the Department's March 2020 emergency rule. The legislation also requires payment parity between telemedicine and in-person services. In addition, SB20-212 lists a number of responsibilities for the Department. First, the Department is required to publicly post data on telemedicine utilization every other month. That data dashboard is available here. The legislation also requires the Department to report out on telemedicine at a SMART Act hearing in January 2021.

Managed Care

In addition to FFS benefits for physical health services, the Department has benefits covered under managed care entities (MCEs). Most members receive their behavioral health services under the capitated behavioral health benefit administered by the Regional Accountable Entities (RAEs). There are also two managed care organization (MCO) contracts that offer physical health services to eligible members: Denver Health Medicaid Choice and Rocky Mountain Health Plans Prime.

MCEs must abide by the Department's telemedicine policies to the extent that the services covered in the FFS policies are also covered by the MCEs. MCEs maintain the ability to negotiate rates and to decide with whom they will contract. With guidance from the Department, all the MCEs have implemented telemedicine flexibilities in response to the COVID-19 emergency. The Department is continuing to work with the MCEs to formalize how telemedicine can be offered in expanded benefits under their contracts. Please see the Appendix for more details.

IV. Utilization and Access to Care

The Department's Data and Analytics Section built a Tableau dashboard to monitor the utilization of FFS telemedicine services. The dashboard provides detailed information on the types of services being delivered, the types of members receiving care via telemedicine, and

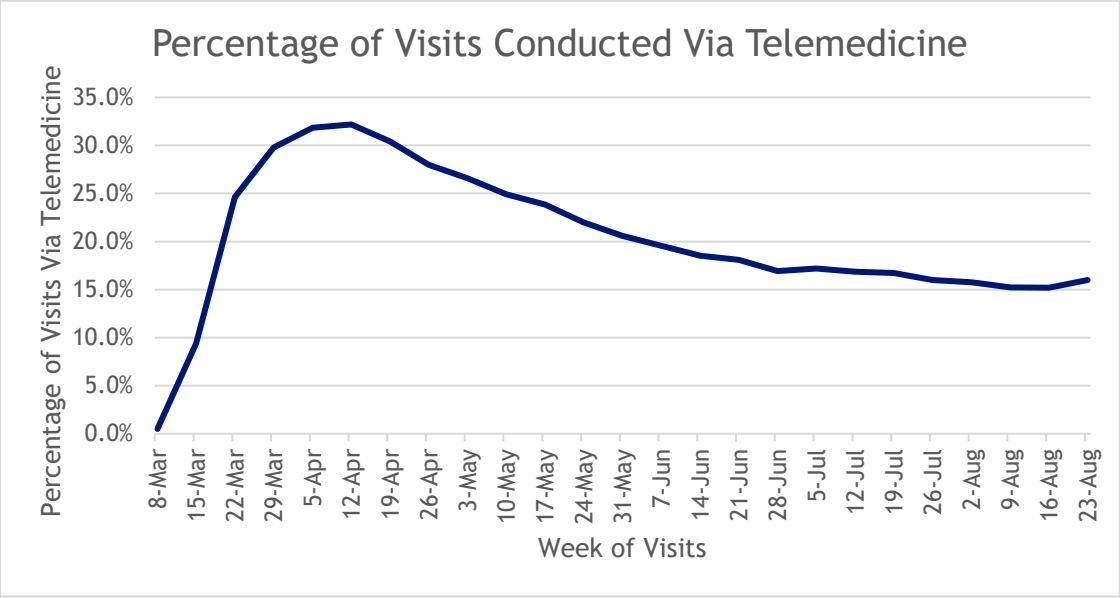
[1] Colorado General Assembly. Senate Bill 20-212.

the provider types who are delivering it. Race and ethnicity were not included in this initial dashboard due to ongoing data quality improvement efforts, but will be included in future updates. This section will summarize the trends in FFS telemedicine visits through Aug. 22, 2020. The cutoff date was chosen because it allows two months for providers to submit claims related to services rendered through August 22. The comparison group used in this analysis is the group of services eligible for telemedicine rather than the entire set of services covered by Health First Colorado. For example, private duty nursing – a hands on service delivered by registered nurses in a member's home – is not an allowable telemedicine service. Therefore, it is not counted in the denominator in the analysis.

Growth in Utilization

Prior to the pandemic, most services delivered via telemedicine were behavioral health services reimbursed under the capitation. On the FFS side of the program, very few physical health services were being delivered via telemedicine prior to March 2020. From July 2019 through the week of March 8, 2020, an average of 99.8% of visits were delivered in person. The following week – the beginning of the pandemic in Colorado – the percentage of visits being delivered via telemedicine began to climb. Figure 1 depicts the growth in visits delivered via telemedicine beginning the week of March 22.

Figure 1. Percentage of Visits Conducted Via Telemedicine as a Percentage of All Telemedicine-Eligible Visits, March – August 2020



Source: Department of Health Care Policy & Financing, Analysis of Fee-For-Service Claims

During the period of March 15 – August 23, an average of 20.3% of visits were conducted through telemedicine. The proportion of visits being conducted via telemedicine hit a high point of 32.2% during the week of April 12. Telemedicine visits leveled off over the summer and have stabilized at around 15% of visits.

Question 1: Who is accessing telemedicine services and what services are they utilizing? Trends in telemedicine utilization are very different for children and adults. There is further differentiation between adults who are – and are not -- enrolled in Home and Community-

Based Services (HCBS) waivers for people with disabilities. This section summarizes those differences.

Children

Children utilized the greatest number of telemedicine services during the study period. It is important to note that child well-visits were not an allowable telemedicine service during the timeframe analyzed here. The changes made to child well-visits are discussed later in this report. Young children up to age 9 who were not enrolled in an HCBS waiver comprised the majority of visits by children (75.8%). Children in this age group largely accessed telemedicine to receive therapeutic services with speech therapy comprising the majority of visits. See Figure 2 for the top three diagnoses associated with telemedicine visits for children. About 12% of the services delivered to children in this age group were for early intervention – a group of services for children up to age 3 with developmental delays or disabilities.

Figure 2. Top Three Diagnoses Associated with Telemedicine Visits for Children

	Top Telemedicine Diagnoses
1	Development disorder of speech and language
2	Mixed expressive-receptive language disorder
3	Autism Spectrum Disorder

Source: Colorado Department of Health Care Policy & Financing, Analysis of Fee-For-Service Claims

Apart from therapeutic services, children accessed telemedicine for a variety of traditional primary care needs. The most common diagnoses associated with non-therapy telemedicine visits were contact and exposure to viral communicable diseases, acute upper respiratory infection, fever and cough. As will be discussed later, there was a corresponding drop in emergency department use of these same diagnoses.

Children enrolled in HCBS waivers accessed telemedicine for a similar set of services as children not enrolled in waivers. The most common service type was home health therapy for physical, occupational, and speech needs. Children in foster care had a similar telemedicine utilization pattern with speech and occupational therapies being the most utilized services.

Adults

Adults accessed telemedicine for a much more diverse set of services than children. Primary care visits were the most common service provided to adults who were not enrolled in a waiver. Top diagnoses among telemedicine utilizers were opioid dependence, generalized anxiety, major depression, hypertension, diabetes and back pain. This suggests that these primary care telemedicine visits are being used to manage behavioral health and chronic conditions.

It is important to note that the behavioral health trend has multiple drivers related to billing practices. Most behavioral health services are covered under a capitated contract with the RAEs. Providers must bill the RAEs directly for these services. However, some procedure codes are billed to either the FFS or RAE delivery systems based on the type of provider rendering the service. If non-behavioral health specialty providers render evaluation and management codes (E&M) with a behavioral health diagnosis, such as opioid dependence, those claims will be paid by FFS and not the RAE. FQHCs and other physical health providers

are not able to bill these codes to the RAE, so they are billed instead to the Department and show up as FFS claims. Finally, a portion of these behavioral health visits are part of the six short-term behavioral health visits that the Department allows to be delivered in a primary care setting and billed under FFS.[2]

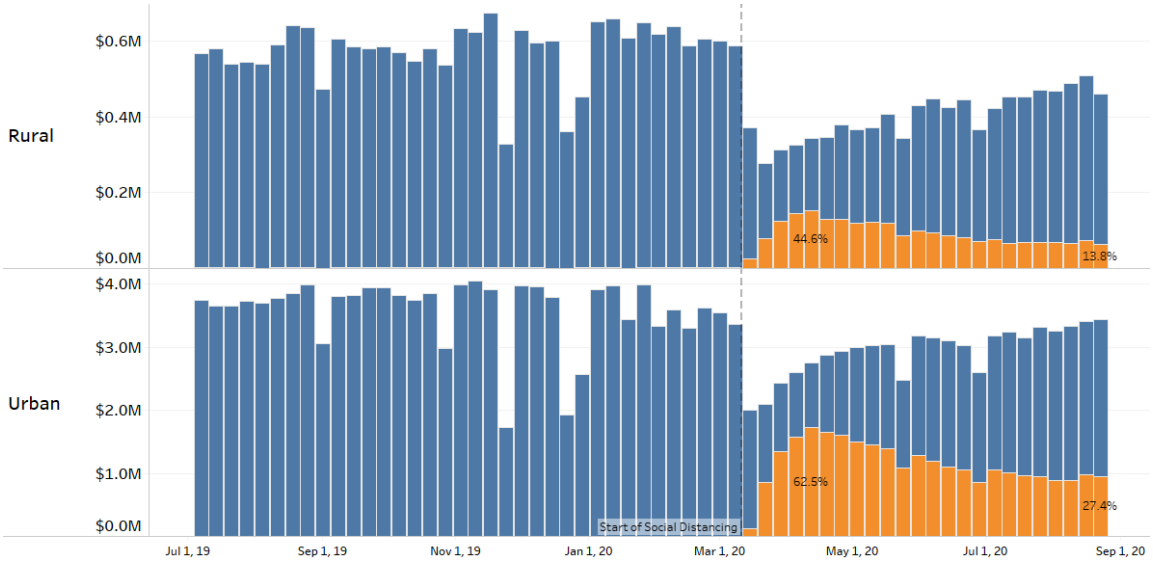
Adults Enrolled in Waivers

Compared to other groups, members enrolled in HCBS waivers are relatively low utilizers of telemedicine services. This may be due to the in-person requirement of many services received by these members, such as in-home care to assist with activities of daily living. Of those adult members enrolled in waivers who did receive services via telemedicine, two thirds were in the 60-69-year-old age group. Members in this age group utilized telemedicine for management of chronic conditions. The most common diagnoses among adults with disabilities in the 60-69-year-old age group were hypertension, diabetes, chronic obstructive pulmonary disease (COPD) and chronic pain.

Urban vs Rural Utilization

Prior to the pandemic, telemedicine was often viewed as a strategy to connect rural members with available providers. Limited broadband access has been a deterrent to widespread adoption of telemedicine in rural areas and is discussed later in this report. Access to telephone-only telemedicine services helped with access but did not fully close the digital divide. Data from the first six months of the pandemic period indicate higher utilization of telemedicine in urban areas than in rural areas. Figure 3 shows the percentage of visits delivered via telemedicine in urban versus rural FQHCs. The blue bars indicate services delivered in person and the orange bars indicate services delivered via telemedicine.

Figure 3. Urban vs Rural FQHC Telemedicine Utilization, July 2019 - August 2020



Source: Colorado Department of Health Care Policy & Financing, Claims Analysis

Urban FQHCs have consistently delivered a larger portion of their visits via telemedicine than rural FQHCs. By the end of August, when the amount of telemedicine being delivered had

[2] Colorado Department of Health Care Policy & Financing. "Fact Sheet: Short Term Behavioral Health Services in the Primary Care Setting."

stabilized, urban FQHCs had a telemedicine rate two times greater than rural FQHCs. This pattern of greater urban versus rural use is evident across provider types.

Question 2: What types of providers are delivering services via telemedicine?

The provider types billing for telemedicine visits are similar to the provider types billing for in-person visits. Figure 4 shows the top five billing provider types by total number of visits for telemedicine and in-person visits.

Figure 4. Most Common Billing Provider Types, Telemedicine Vs In Person, By Total Number of Visits, March 2020 – Aug. 22, 2020

	Telemedicine Visits	In-Person Visits
1	Clinic – Practitioner	Clinic – Practitioner
2	PT/ST/OT Home Health	CNA/RN Home Health
3	Federally Qualified Health Center	Federally Qualified Health Center
4	Non-Physician Practitioner – Group	PT/ST/OT Home Health
5	Rehabilitation Agency	Non-Physician Practitioner – Group

Source: Colorado Department of Health Care Policy & Financing, Claims Analysis

The top provider type for both types of visits is Clinic – Practitioner. This provider type is for physician groups. Home health providers are the second most common billing provider for each visit type, but the specific type of home health service being provided differs. Certified Nurse Assistants (CNAs) and Registered Nurses (RNs) are the dominant provider group for in-person visits. Given the requirement of physical touch to deliver these services, it is intuitive that these providers do not appear in the list of most common telemedicine providers.

In contrast to CNAs and RNs, physical, speech and occupational therapy home health providers have been high adopters of telemedicine. These providers have been able to take advantage of video technology to conduct therapies with home-based clients. It is important to note that the high telemedicine adoption of home health therapy is partially due to the largest provider of these services being a higher than average adopted of telemedicine. This provider delivered 65% of all home health therapies. Whereas other providers of this type delivered an average of 75% of visits via telemedicine during the period analyzed, the top provider was conducting nearly all visits via telemedicine at the height of the pandemic. This means that the high telemedicine adoption of home health therapy is partially due to the largest provider of these services being a higher than average adopter of telemedicine.

FQHCs have also been high adopters of telemedicine. At the peak of the pandemic in April, telemedicine visits comprised 61.3% of all FQHC visits. The telemedicine visit rate has leveled off to be around 27%, compared to around 10% for all non-FQHC providers. As noted above, the telemedicine utilization of FQHCs is largely being driven by those in urban areas.

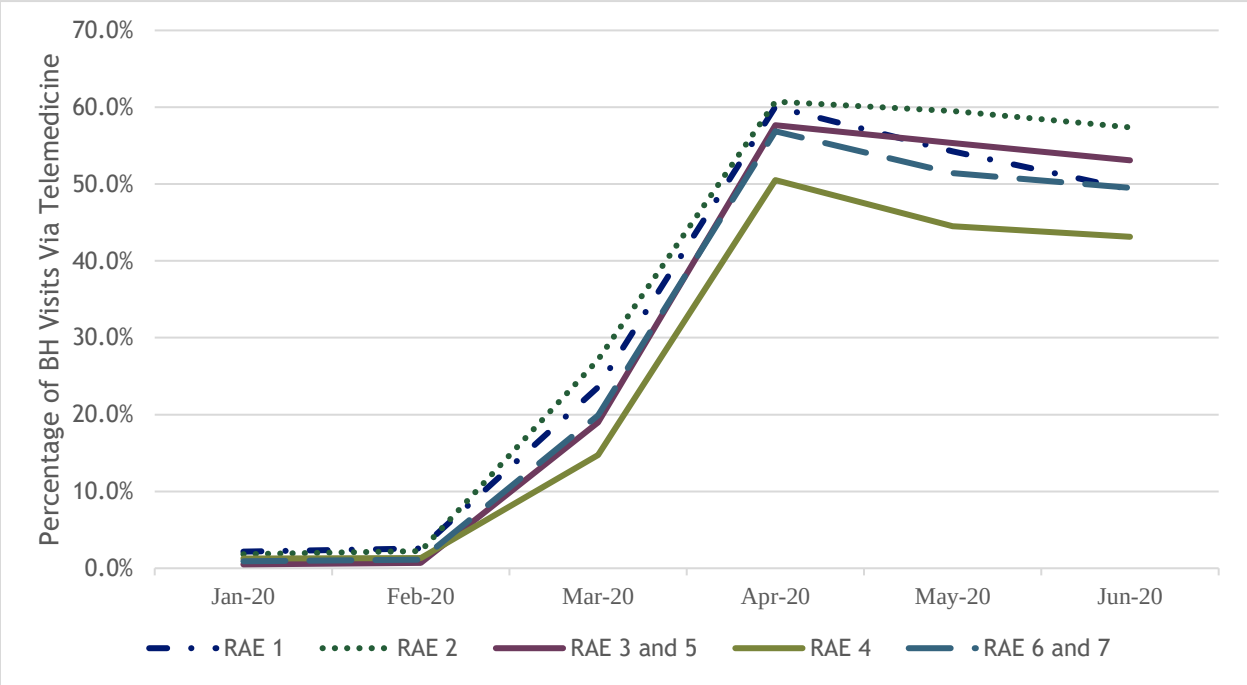
Low adopters of telemedicine include Rural Health Clinics and Indian Health Services. Both provider types report lack of broadband to support telemedicine and challenges with appropriate billing for telemedicine as barriers to implementation. The Department has provided training to these facilities to remedy the billing challenges.

Question 3: What utilization trends do we see for capitated behavioral health services?

The Department asked each of the RAEs to provide information on the utilization of capitated behavioral health services during the pandemic. This section summarizes those findings. Regions 3 and 5, operated by Colorado Access, are reported together. The data for RAEs 6 and 7, operated by Colorado Community Health Alliance, are also reported together.

In the first two months of 2020, prior to the pandemic, the average telemedicine utilization rate for behavioral health was 1.3%. By April, the average across RAE regions had grown to 57.2%. See Figure 5 for the percentage of behavioral health visits being conducted via telemedicine by region.

Figure 5. Percentage of Capitated Behavioral Health Visits Conducted Via Telemedicine, January - June 2020



Source: Data provided to Department by RAEs.

The utilization pattern is very similar across RAE regions with a sharp increase in telemedicine service delivery between March and April. RAE 2 – spanning the northeast portion of the state – reported the highest utilization of telemedicine for capitated behavioral health services. Within the RAE, utilization patterns mirrored FFS trends with urban providers reporting higher utilization of telemedicine than rural providers. RAE 4 reported the lowest utilization of telemedicine for capitated behavioral health services. This RAE region spans a large portion of Colorado's southern counties with Mineral and Saguache in the west to the Kansas border on the east. Following the overall trend, the region's urban providers utilized telemedicine at slightly higher rates than rural providers.

Children up to age 17 have the highest rates of telemedicine utilization for behavioral health services across all RAEs. In June 2020, an average of 68% of behavioral health services for children were being delivered via telemedicine. There is large variation among RAEs in

telemedicine utilization for other age groups. For example, 71% of behavioral health services were delivered via telemedicine for adults 65 and older in RAE 2, but this rate was only 34.8% in RAE 4. The approaches and take-up rates in different regions across the state will be analyzed over the coming months.

The most common diagnoses associated with telemedicine visits for behavioral health were similar across RAEs. These included post-traumatic stress disorder, anxiety disorders, major depressive disorders, opioid dependence, and alcohol dependence. Access to tele-behavioral health services is an ongoing priority of state partners and is noted as an opportunity for improvement in the Behavioral Health Task Force Blueprint for Reform.[3]

Question 4: Are telemedicine visits as effective as in-person visits? Which are effective and which aren't?

One of the biggest questions among researchers is whether services delivered via telemedicine are as effective as those delivered in person. It is also one of the more challenging questions to answer because some of the services now being delivered via telemedicine were not allowable prior to COVID-19. Therefore, research into this area is robust and ongoing. Two categories of services – therapies (both in home and outpatient) and well-child visits – are at the center of ongoing conversations around effectiveness of telemedicine delivery in Colorado. These services are covered in-depth in this section.

Effective Services

In a toolkit for their members, the American Academy of Family Physicians (AAFP) listed a number of ideal situations for use of telemedicine.[4] The AAFP notes that primary care physicians find the following conditions and patient encounter types work well virtually:

- Behavioral health follow-ups and medication adjustments;
- Conditions where treatment is heavily weighted toward a visual exam that easily can be conducted on camera (e.g., acne);
- Triage questions (e.g., assessing a laceration for suture need); and
- Chronic disease management that requires frequent check-ins (e.g., diabetes).

A recent paper from the Agency for Healthcare Research and Quality (AHRQ) finds the evidence base for telemedicine to be particularly strong for virtual management of chronic diseases.[5] The Centers for Disease Control and Prevention (CDC)'s Community Preventive Services Task Force found that telemedicine interventions can improve medication adherence, clinical outcomes, and dietary outcomes.[6]

Some groups of patients are better suited for telemedicine than others. The AAFP toolkit finds these groups include: generally healthy patients, patients with chronic conditions, children, pregnant women, geriatric patients, and patients in need of behavioral health

[3] Colorado Behavioral Health Task Force. "Behavioral Health in Colorado: Putting People First. A Blueprint for Reform."
[4] American Academy of Family Physicians. (September 2020). "A Toolkit for Building and Growing a Sustainable Telemedicine Program in Your Practice."
[5] Agency for Healthcare Research and Quality. (August 2020). "Telediagnosis for Acute Care: Implications for the Quality and Safety of Diagnosis."
[6] Centers for Disease Control and Prevention. "Telehealth Interventions to Improve Chronic Disease."

treatment. Individuals with transportation barriers, lack of child care, or social anxiety are also a good fit for virtual care.

Potentially Ineffective Services

Providers have also provided feedback on what types of services are not well-suited for telemedicine. Services that require lab work or a physical exam are not a good fit for telemedicine. Patients who have a new diagnosis or those where a new narcotic prescription is needed may also be better suited for in-person visits. In interviews with providers, the Colorado Health Institute received feedback that families with multiple young children, children whose parents have developmental disabilities, and young parents were not as successful with telemedicine due to issues around holding attention.[7]

The effectiveness of allowing the anticipatory guidance portion of the well-child visit to be conducted via telemedicine has been debated. Well-child checks were not included in the original list of allowable telemedicine services under the Department's expanded telemedicine policy following the COVID-19 pandemic. A full well-child check requires a head-to-toe in-person evaluation. In addition, these appointments often require an immunization and would therefore require the patient to come into a physical office. Given the data on decreasing immunization rates during the pandemic, there is a concern that allowing well-child visits to be conducted virtually will contribute to this decline in immunization rates.

The Department has engaged stakeholders on this topic and feedback was mixed. The Department has heard from primary care providers that telemedicine is not the preferred format for conducting a well-child check, but that it does offer several advantages over not having a well-child check. A telemedicine well-child check allows the provider to:

- Continue established relationships with pediatric members
- Assess development of pediatric members
- Provide anticipatory guidance and behavioral health screening
- Provide flexibility in the format and timing of the follow-up in-person visit

Providers, Department staff, and other stakeholders have expressed that during the pandemic, prohibiting well-child checks via telemedicine would impede the delivery of children's health care. There is also a risk of reducing compliance with developmental screenings and other essential preventive, screening and wellness services.

Operationalizing well-child checks via telemedicine presents its own set of challenges. From a reimbursement perspective, there is the budgetary concern of multiple encounters. For example, a well-child check done via telemedicine through an FQHC, RHC, or IHS clinic would generate one payment and the required follow-up conducted in the office would generate another. This is especially concerning in the current budget environment. Taking this feedback into consideration, the Department made the following temporary change effective November 12, 2020.

The Department will allow non-FQHC, FQHC, RHC, and IHS primary care providers to bill for telemedicine well-child checks for members 2 years of age and older during the public health emergency. The billing and payment details vary by provider (specific guidance for physician

[7] Colorado Health Institute. (August 2020) "Telemedicine Utilization, Expenses, and Efficiencies – Opportunities for Home Health and Outpatient Therapy Providers"

offices, FQHCs, RHCs, and IHS providers is in the January 2021 Provider Bulletin), but the Department's expectation is that the services that can take place via telemedicine will take place virtually and a follow-up exam will occur for portions that must be done in person. This will allow the state to address the substantial decrease in well-child checks resulting from COVID-19. FFS providers who perform a physical examination within four months of the telemedicine well-child check-up should void the previously paid claim with the Place of Service 02 and resubmit for payment of the well-child check-up using the date of service of the physical examination.

Therapies (Home Health and Outpatient)

Speech, occupational and physical therapies have been delivered via telemedicine at high rates during the pandemic. This high utilization prompted an additional evidence review. The peer-reviewed evidence on the clinical effectiveness of speech, occupational, and physical therapies is mixed. While several studies have concluded that services delivered via telemedicine are effective, they do not compare these results to the effectiveness of in-person visits.[8] Many of the physical therapy studies are completed by physical therapy associations, which should be taken into consideration when reviewing the results. However, the Department was unable to find studies where the effectiveness of virtual services was poor.

Results from interviews of home health and outpatient therapy providers conducted by the Colorado Health Institute (CHI) found that a provider's reaction to telemedicine effectiveness largely depended on whether a provider was a high, medium, or low user of telemedicine.[9] High frequency users cited few concerns about using telemedicine for delivering therapy and said that in some cases, therapies could be more effectively delivered virtually. Low frequency users of telemedicine reported they have concerns around the ability to make the same amount of progress without the ability to have a hands-on session. One provider commented that when the visit works well, the quality of care is excellent. On the other side of the coin, if therapies provided via telemedicine are not effective, quality declines substantially.

The Department has received stakeholder input regarding the potential efficiencies of delivering therapies via telemedicine. Providers who serve a pediatric population report potential gains in effectiveness due to the help and engagement a parent or caregiver needs to provide a child to connect them with their virtual telemedicine appointment. This was a theme also found by CHI in a report commissioned by the Department in which they interviewed eight therapy providers. One provider remarked "Some home health providers who serve children said that virtual therapy can be more efficient and lead to faster patient gains. That's because telemedicine encourages parents to participate and learn movements and activities to support their children, though this isn't always the case."[10]

[8] Grona, S., Bath, B., and Busch, A. (2018). "Use of videoconferencing for physical therapy in people with musculoskeletal conditions: A systematic review" Journal of Telemedicine and Telecare, 24(5): 341-355.
[9] Colorado Health Institute. (2020). "Telemedicine Utilization, Expenses, and Efficiencies – Opportunities for Home Health and Outpatient Therapy Providers."
[10] Colorado Health Institute. (2020). "Telemedicine Utilization, Expenses, and Efficiencies – Opportunities for Home Health and Outpatient Therapy Providers."

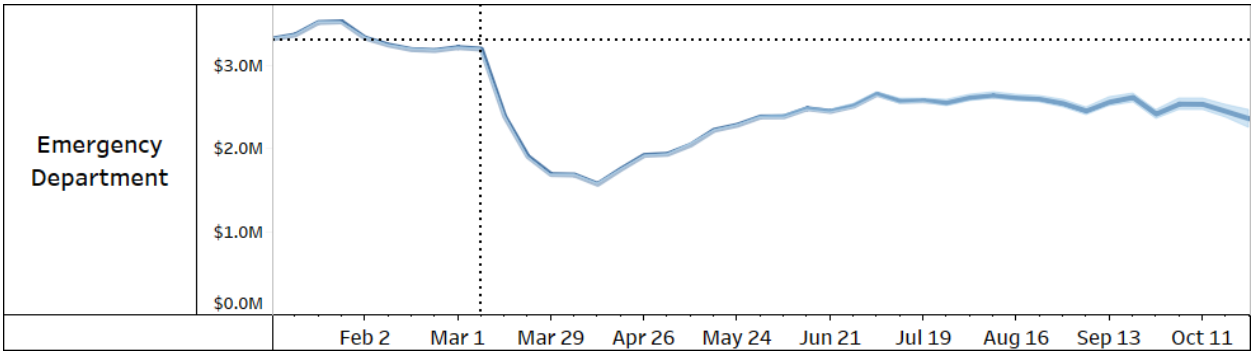
There is an expectation that research in this area will be ramping up over the next few years as services delivered via telemedicine become more common and there is a larger base of evidence to draw from. The Department plans to monitor and evaluate again in the future.

Question 5: What is the relationship between telemedicine and emergency department diversion?

The pandemic has presented a unique opportunity to study trends in emergency department utilization. Past research on reasons patients seek care in the emergency department commonly cites barriers to accessing primary care and convenience as top drivers.[11] Whereas in the past, a visit to the ED may have been viewed as more convenient than making an appointment with a provider, there is widespread speculation that fears around COVID-19 infection appear to have changed that perception. In a survey of Health First Colorado members, one in 10 members who reported using telemedicine said they would have visited the emergency department if telemedicine were not available.

From March 2020 onward, emergency department visits have experienced a sharp decline that has not reached the levels of utilization experienced pre-pandemic. The vertical dotted line on Figure 6 is the last week prior to social distancing and the horizontal line is the weekly average paid before social distancing. The figure shows that while the total paid amount for emergency department services has steadily increased since the dip at the end of March, it has not recovered to pre-pandemic levels.

Figure 6. Weekly Emergency Department Total Paid Amount January – October 2020



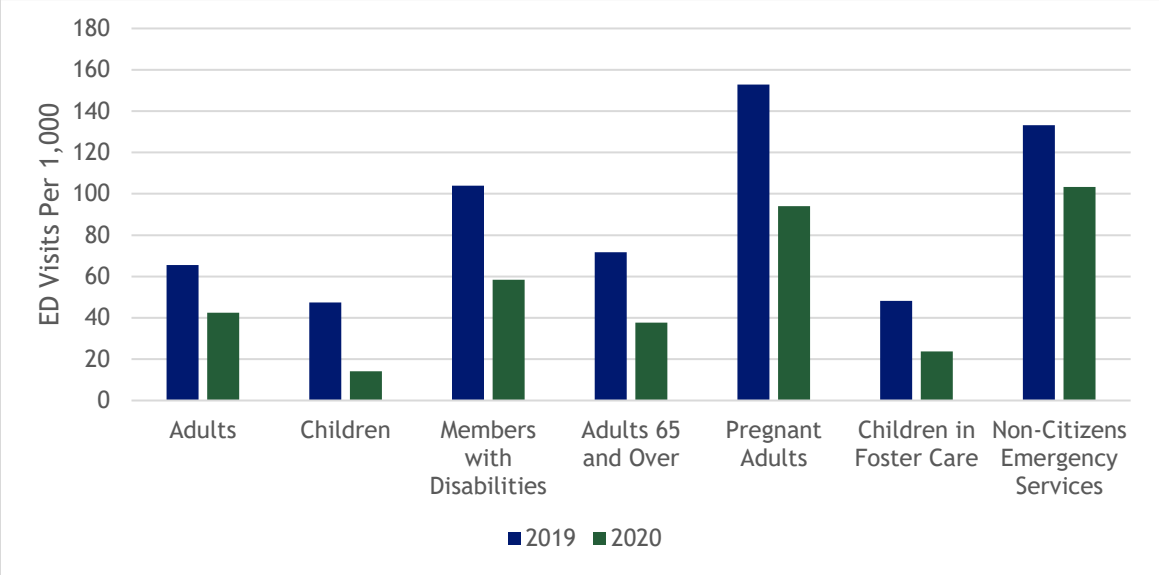
Source: Colorado Department of Health Care Policy & Financing

An analysis of FFS Health First Colorado data finds that telemedicine may have replaced some visits to the emergency department. The Department compared the monthly emergency department visits per 1,000 in 2020 to the visit count in 2019. Visits among adults without disabilities were down 35% in April 2020 compared to April 2019. See Figure 7 for trends in all eligibility groups. The decline in visits was the highest among children. Visits in April 2020 were down 70% compared to the April 2019 visit count. The June 2020 number, the most recent data available for this analysis, was a decrease of 42% from June of 2019. During these months, public health officials were urging Coloradans to avoid any unnecessary trips outside

[11] Vogel, J. A., Rising, K. L., Jones, J., Bowden, M. L., Ginde, A. A., & Havranek, E. P. (2019). Reasons Patients Choose the Emergency Department over Primary Care: a Qualitative Metasynthesis. Journal of General Internal Medicine, 34(11), 2610–2619.

of the home. Additionally, members may have viewed the ED as a place where those sick with COVID-19 would go and therefore, took extra precautions to avoid the ED if possible.

Figure 7. Emergency Department Visits Per 1,000: April 2019 vs April 2020



Source: Colorado Department of Health Care Policy & Financing

The Department's analysis of emergency department services during the pandemic period also shows changes in the top reasons for members visiting the ED compared with last year. The top five diagnoses (ranked by their percentage of total ED visits) during the period of March 15 - June 30 is compared for 2019 and 2020 in Figure 8. The shift in chest pain diagnoses – assumed to potentially signal an urgent health need –aligns with anecdotes that members are avoiding the ED for symptoms of illnesses that can be treated in other settings, such as telemedicine or the Nurse Advice Line.

Figure 8. Top Reason for ED Visits, Health First Colorado, 2019 and 2020

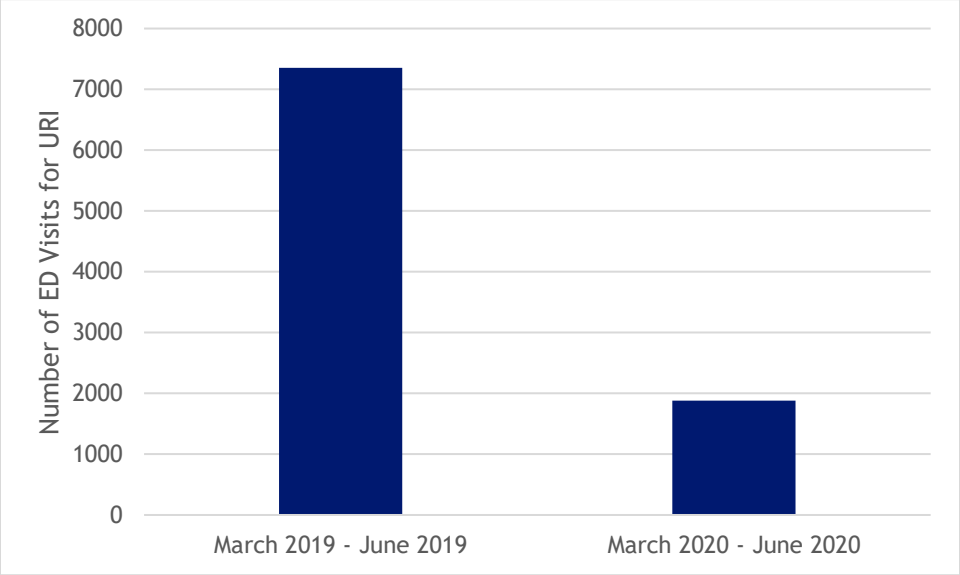
Rank	March 15 - June 30 2019	March 15- June 30 2020
1	Abdominal pain	Abdominal pain
2	Other upper respiratory infections	Nonspecific chest pain
3	Other lower respiratory infections	Other lower respiratory infections
4	Superficial injury; contusion	Superficial injury; contusion
5	Nonspecific chest pain	Alcohol-related disorders

Source: Colorado Department of Health Care Policy & Financing, Analysis of ED Claims

An analysis comparing the changes in the reasons for visiting the ED and the diagnoses treated during a telemedicine visit suggests a potential shift to telemedicine. For example, upper respiratory infections drove 10.8% of visits to the ED for children in the 2019 time period. In 2020, the number of visits for upper respiratory visits dropped by about 5,000 visits and fell to

6.4% of all child visits (see Figure 9). There have been 1,917 telemedicine visits for upper respiratory infection by children during the pandemic period. Though the data does not allow for a 1-to-1 comparison, it appears as though some of the visits that would have gone to the ED were picked up by telemedicine.

Figure 9. Number of ED Visits for Pediatric Upper Respiratory Infection, March – June 2019 vs 2020



Source: Colorado Department of Health Care Policy & Financing

McKinsey & Company estimates that up to 20% of ED visits could be potentially avoided via virtual urgent care offerings.[12] The Department will continue monitoring the relationship between ED visits and telemedicine to understand opportunities where virtual care may play a role in ensuring all members receive care in the appropriate setting.

V. Health Equity

Many of the same barriers that lead to in-person care health disparities are present in the virtual space. Language, age, cultural competency, and ability are all factors that can contribute to uneven access to telemedicine services. As a result, researchers from the American Institutes for Research and IMPAQ Health recommend that policymakers plan for digital literacy and broadband access as social determinants of health.[13] The Department is committed to ensuring that all Health First Colorado members have access to telemedicine if they and their provider decide it is an appropriate option for their care.

Achieving health equity in telemedicine access is dependent on ensuring that Coloradans can connect to their provider via a dependable and secure connection on a device. Health equity also means that all members – regardless of their age, spoken language, or ability level – understand how to utilize the technology and communicate with their provider. Together, the differences in a member's ability to access a dependable connection through a device and

[12] McKinsey & Company. (2020). "Telehealth: A Quarter Trillion Dollar Post COVID Reality?"
[13] IMPAQ Health and the American Institutes for Research. (2020). "Issue Brief: The Expansion of Telehealth. Equity Considerations for Policymakers, Providers, and Payers."

hold knowledge of technology is referred to as the digital divide. Efforts to bridge this divide will be critical to ensuring that all Coloradans who choose to do so can connect to virtual care when necessary.

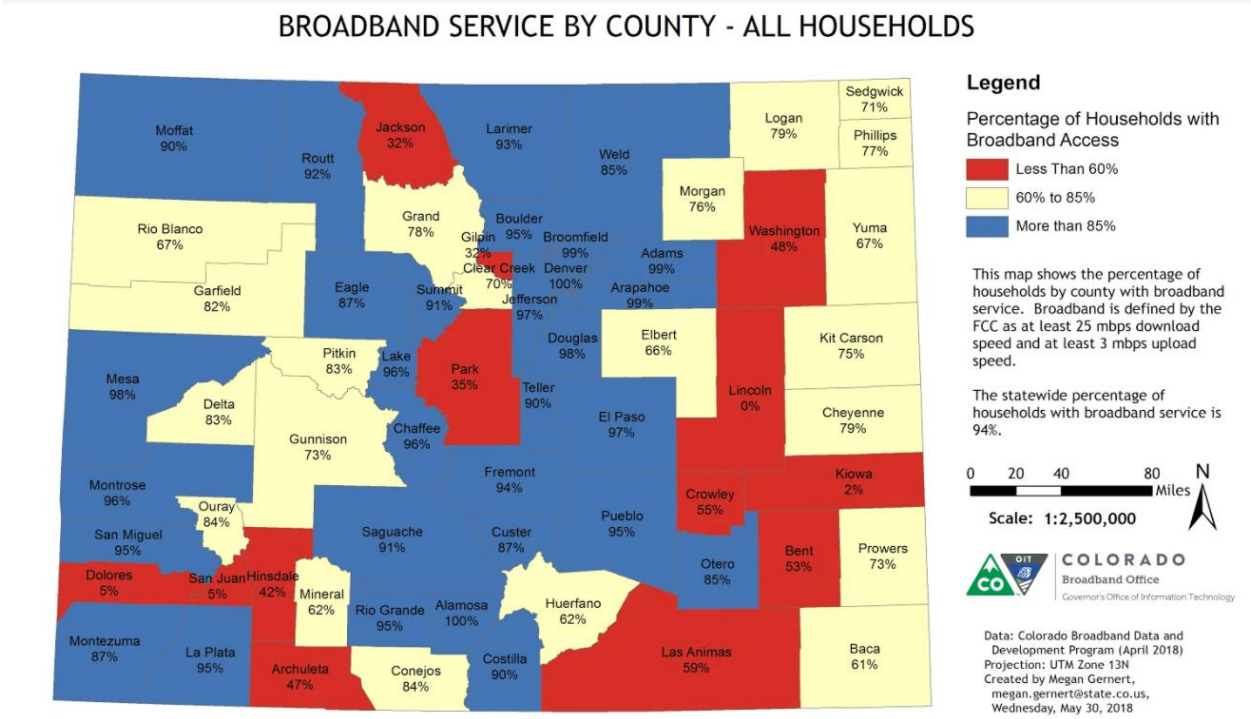
Question 1: How does the digital divide impact telemedicine utilization?

Broadband Access

Broadband is defined by the Federal Communications Commission (FCC) as at least 25 MBPS download speed and at least 3 MBPS upload speed. Broadband stakeholders suggest that this is not sufficient for consistent video conferencing and that 100 MBPS download speed and at least 10 MBPS upload speed is needed for a patient to have an uninterrupted video stream with their provider.[14][15]

Broadband access varies greatly across the state. Map 1 shows the availability of broadband in each of Colorado's 64 counties. Along the Front Range, nearly 100% of households have access to broadband coverage. However, in our state's more rural areas, 13% of households lack access to broadband.[16] Data from the Colorado Broadband Office shows that broadband is the least accessible on the eastern plains, parts of the western slope, and in the southwest counties of Dolores, San Juan, Hinsdale, and Archuleta.

Map 1. Broadband Service by County, All Households, Colorado 2018



Source: Colorado Broadband Office

[14] Correspondence with the Office of eHealth Innovation. February 26, 2021.
[15] Broadbandnow Research. "Widespread Telehealth Adoption in Rural Communities Requires Widespread Broadband Adoption."
[16] 5280 Magazine. (2020). "How Poor Broadband Access is Hurting Colorado's Rural Communities During Covid-19."

Uneven access to broadband coverage in rural areas may be why Rural Health Clinics were slower to adopt telemedicine at the beginning of the pandemic. These clinics had little pre-existing infrastructure and mostly had to start from scratch.

Outside of the logistical constraints of broadband availability, there is also a cost barrier to accessing broadband. A home may have the technological capabilities to connect to the internet, but the resident may be unable to afford a data plan. The cost-prohibitive nature of internet plans has been highlighted by the shift to at-home learning for many of the state's school-age children. The Colorado Futures Center reports that of the 30,000 households with school-age children lacking internet in Colorado, the majority are households earning less than $50,000 per year.[17]

The uneven access to broadband is one argument for the push towards coverage of an audio only modality. The Department is currently unable to separate audio only from audio-visual in the data and is therefore unable to provide quantitative data on what proportion of members have utilized phone-only services. In a survey of 300 Health First Colorado members, 28% of the members who said they had a telemedicine visit reported that their visit was conducted by phone. Qualitative feedback from stakeholders indicates many visits start on video but need to be transferred to a phone call due to technology challenges. Members have reported similar experiences.

Access to Devices

Access to broadband is not useful unless a member has a device to access the internet. Smart phones, tablets, and laptops – and the data plans that go along with them – are other barriers to accessing telemedicine services. Smartphone usage is very common among Health First Colorado members. According to a 2018 survey from Deloitte, adult Health First Colorado members own smartphones and tablets at similar rates to the general U.S. adult population, though significantly lower than those with employer-sponsored insurance.[18] Increasingly, many Americans rely on their smartphone as their only method of accessing the internet. This is most common among people with lower than average incomes. In 2019, 17% of all Americans did not use broadband at home, but owned smartphones. This figure was 26% for those with incomes less than $30,000 per year.[19] A reliance on a smart-phone for connection to the internet means paying for a data plan or accessing Wi-Fi. Free Wi-Fi is available in many public places, but these may not be comfortable spaces to have a private conversation about health care. A similar challenge exists for those who do not have a connection at home and use public libraries to access the internet. Many spaces offering free public Wi-Fi were closed during the pandemic.

In response to COVID-19, the RAEs expanded the utilization of telemedicine services in their regions by training providers, offering software platforms and other resources to providers, and making phones, tablets, and internet access more readily available to members. For example, Rocky Mountain Health Plans collaborated with the Colorado Health Foundation to support approximately 20 community agencies with the purchase of tablets, laptops, phones and/or data plans for members to access telemedicine services. In RAE 4, safety-net providers

[17] Colorado Futures Center. (2020). "Who Are Colorado's School-Age Children Without Access to Internet?"
[18] Deloitte. (September 2018). "Medicaid and Digital Health: Findings from the Deloitte 2018 Survey of US Health Care Consumers."
[19] Pew Research. (June 2019). "Mobile Fact Sheet."

have used funds distributed by Health Colorado, Inc. to assist members with broadband, phones, tablets, and other resources in order to increase member access to telemedicine services. The Colorado Coalition for the Homeless provided 500 cell phones for people experiencing homelessness in order to connect to telemedicine services.[20]

Digital Literacy

A third piece to the digital divide is knowledge of and comfort with using technology. Discomfort with navigating the technology used to conduct a telemedicine visit has been voiced as a concern of both providers and members. Though digital literacy is often associated with older adults, research finds that age is not the only factor to consider. Those who lack digital literacy tend to be older, less educated, and Black or Hispanic.[21] Providers have reported challenges with their patients not understanding how to access telemedicine platforms via phone applications, which can lead to visits running over the expected time. A new website from the Governor's Office aims to educate all Coloradans on accessing virtual care. HealthAtHome features a series of videos about COVID-19 in Colorado, including videos on preparing for a virtual visit.

Question 2: How has expansion of telemedicine changed access for vulnerable populations?

In addition to the concern around inequities created by broadband access, the Department has been tracking how telemedicine expansion has impacted access and quality of care for different populations within Health First Colorado.

Language

Providers who receive federal funds are required under Federal Rule to provide language access and assistance to members with Limited English Proficiency (LEP).[22] This requirement is extended to telemedicine. The Department spoke with providers serving a large population of members who speak a language other than English to check in on their telemedicine experiences thus far. These providers have reported a heavy reliance on phone only telemedicine due to its ability to easily connect with language line services. Language line services are already used during in-person visits to bring a translator into the visit, so this transition has not had a huge impact. One downside of phone only visits with translation services is that the provider is unable to view the facial expressions or reactions of the member to what the translator is saying. Video visits remain logistically complicated and largely unavailable for members who do not speak English due to both the translator challenge as well as the tendency for telemedicine platform phone applications to only be available in English. In cases where there is difficulty in connecting to the application, providers report that younger family members are often brought in for needed assistance. This is not best practice. The Department will continue outreach to providers in order to understand the specific challenges associated with delivering telemedicine services to members who do not speak English.

[20] KUNC. (August 2020). "Telehealth in Colorado Goes from Emergency Fix to More Permanent Solution."
[21] Health Affairs. (2020). "Blog: Ensuring the Growth Of Telehealth During COVID-19 Does Not Exacerbate Disparities In Care."
[22] United States Office of Civil Rights. (June 2020). "Fact Sheet: HHS Finalizes ACA Section 1557 Rule."

Older Adults

Providers have reported that though there were initial concerns about the reluctance from older adults about embracing telemedicine, many have reported that there is a willingness to use this technology.

National research finds that while older adults may be willing and able to utilize telemedicine, accommodations to improve access are needed. In a May 2020 Journal of American Medical Association (JAMA) study, researchers were interested in the levels of unreadiness to use telemedicine among older adults.[23] Unreadiness was defined as meeting any of the following criteria for disabilities or inexperience with technology: (1) difficulty hearing well enough to use a telephone (even with hearing aids), (2) problems speaking or making oneself understood, (3) possible or probable dementia, (4) difficulty seeing well enough to watch television or read a newspaper (even with glasses), (5) owning no internet-enabled devices or being unaware of how to use them, or (6) no use of email, texting, or internet in the past month. Researchers found that 38% of respondents were deemed unready with higher percentages for those who are low-income, Black or Hispanic, less educated, rural, and in poorer health. The recommendation from the study's researchers was to utilize phone-only visits when possible to reduce these barriers.

The Department's data finds that adults ages 60 and older were less likely to have had a telemedicine visit during the period of April – August 2020 than other age groups. At the highest point, 18% of visits for members in this age group were conducted via telemedicine. That is about half of the state average for all ages. As of August 2020, telemedicine visits were down to 7% of total visits for this age group. The most common types of visits were for hypertension, diabetes, COPD, and chronic pain syndrome. The Department's member survey was answered by a very small number of individuals 65 and older. This may be due to the makeup of the group who volunteered to be part of the Virtual Member Network but may also speak to the barriers in accessing technology among this group as the survey was conducted using an online survey tool.

Among older adults, small font size, poor color contrast, small screens, and multiple screen transitions have been cited as frustrations.[24] Researchers have been evaluating how comfort with these technologies has shifted during the expansion of telemedicine. A University of Michigan study compared survey results from 2019 to results collected during the pandemic period in 2020. The researchers found that older adults were more likely to report feeling very or somewhat comfortable with video conferencing (64%) than in 2019 (53%). One quarter of respondents reported that they were concerned they would have difficulty seeing or hearing the provider during a video visit.[25] These insights will be important to inform future telemedicine offerings for older adults.

[23] JAMA Network. (August 2020). "Research Letter: Assessing Telemedicine Unreadiness Among Older Adults in the United States During the COVID-19 Pandemic."
[24] IMPAQ Health and the American Institutes for Research. (2020). "Issue Brief: The Expansion of Telehealth. Equity Considerations for Policymakers, Providers, and Payers."
[25] University of Michigan. (August 2010). "National Poll on Healthy Aging: Telehealth Use Among Older Adults Before and During COVID-19."

Members Experiencing Homelessness

Health First Colorado serves members who are experiencing homelessness or unstable housing.[26] The Department spoke with the Colorado Coalition for the Homeless – the largest provider of services for those experiencing homelessness – to understand how telemedicine is being utilized to serve this population. Service providers at the Coalition have been using telemedicine to safely serve members in the clinic setting. For services where physical touch is not required, the member sits in one room of the clinic while the provider sits in another. Telemedicine has also allowed providers who serve these members to deliver medication-assisted treatment (MAT) to those with opioid use disorder (OUD). As previously mentioned, OUD was one of the most common diagnoses associated with telemedicine visits among adults. The Coalition's MAT providers have used telemedicine to conduct phone and video visits with members to ensure they receive the Suboxone and counseling needed to maintain their recovery. Telemedicine has made it possible to serve members experiencing homelessness in the metro area who are staying in hotels due to increased risk of COVID-19 complications such as age or other medical issues. Coalition providers conduct phone visits with these members by contacting the hotel's reception desk and connecting to the member's hotel room.

Members with Disabilities

The Department has been monitoring the telemedicine experience of members with disabilities in several ways. Members with disabilities have been active participants in providing feedback to the Department – nearly half of the respondents to the voluntary member survey were individuals who self-identified as living with a disability. Overall, these members reported similar utilization of telemedicine as members who did not report a disability. One area where these members differed related to continuity of provider. Members with a disability were more likely than other members to report that it was either very important or extremely important to meet with a provider they already know. Members with a disability were more likely to report that their telemedicine visit only met some of their needs and were also more likely to say that their telemedicine visit was worse than in-person care. The ease of technology access was similar across groups. Eighty percent of members with disabilities said they were either somewhat, very, or extremely likely to use telemedicine for a future visit, slightly higher than the likelihood of members who do not have disabilities.

The Department has also held numerous stakeholder engagement events for members with disabilities and providers of Home and Community-Based Services to provide feedback regarding telemedicine. Feedback has mainly been positive with a particular hope that expanded telemedicine will allow for more access to services in rural communities. Providers have given the feedback that the integrity of the telemedicine-eligible HCBS services being provided has been maintained through telemedicine use. They have also responded that the cost to provide telemedicine does not change from their cost to provide in-person services; therefore, providers are requesting rate parity. The choice of a member to have a telemedicine visit has been a theme during the stakeholder conversations. Members, providers and Case Management Agencies have stated that the choice to use, and any limitation to the use of telemedicine, should be up to the individual, caregivers or

[26] Colorado Department of Health Care Policy & Financing. Analysis of Medicaid Claims.

interdisciplinary team involved. Finally, advocates have provided feedback that they would like the Department to ensure rigorous research is done to ensure telemedicine follows best practices and policy aligns with this research. This feedback on HCBS may have lessons for FFS benefits as well.

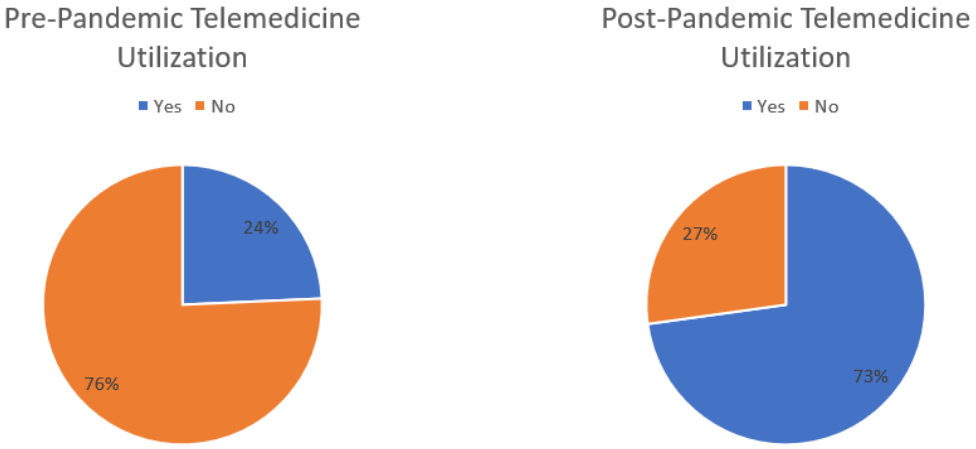
VI. Quality and Member Outcomes

Question 1: How have members responded to the expansion of telemedicine?

Quality of care is a critical focus of the Department's evaluation efforts as the same standard of care must be met regardless of care delivery method. In October 2020, the Department invited members of the Virtual Member Network to answer a survey on their experiences with telemedicine during the COVID-19 pandemic. The survey was sent to 1,181 unique email addresses and ultimately answered by 307 unique members – a response rate of 26%. The survey included questions on the use of telemedicine before and during the pandemic, the service type utilized, challenges they faced with accessing telemedicine, and how they would rate their experience. Participation in the Virtual Member Network and in the survey were both voluntary. This means that respondents tend to be more engaged and, because email was used to complete the survey, means that they have some access to the internet. The survey was only conducted in English. As previously mentioned, members with disabilities represented nearly 50% of members and the majority self-identified as white or Caucasian. These caveats should be taken into consideration when interpreting results.

Prior to the COVID-19 pandemic, nearly three-quarters of respondents said they did not utilize telemedicine. Figure 10 shows that during the pandemic, this proportion flipped to three-quarters of members reporting they did access telemedicine. The majority of telemedicine services were for primary care (66.7%) followed by behavioral health at 44.6%. Of the 27.2% of respondents who did not have a telemedicine visit since the beginning of the pandemic, around half said it was because they did not need to get medical care. The next most common response was a preference for in-person care.

Figure 10. Telemedicine Utilization Pre and Post Pandemic



Source: Virtual Member Network Survey, October 2020

Those who had a visit were asked how they accessed their appointment. Audio/video access made up two-thirds (73.8%) of visits. Half of the audio/visual visits were through a public

application such as Zoom or Facetime and the other half were conducted through a specific provider portal. The remainder of telemedicine visits (25.7%) were conducted through the phone. It should be noted that while HIPAA enforcement was relaxed by the Office of Civil Rights during the public health emergency, there is no guarantee that applications such as Zoom and Facetime will be allowable at the conclusion of the Public Health Emergency.[27]

On member experience, 84.3% of respondents said that the telemedicine visit either completely or mostly met their needs in terms of helping them with the medical care, advice, or service they were seeking. Only 2.8% of respondents said that the telemedicine visit did not meet their needs at all. Respondents were also asked how they would rate the quality of their telemedicine visit in comparison to an in-person visit. Most respondents (57.0%) rated the care as about the same as in-person care. Nearly a quarter (23.7%) said their telemedicine visit was either better or much better than in-person care. The remaining respondents said the care they received during their telemedicine visit was either worse or much worse than in-person care.

The Department asked respondents about the ease of technology during their visit. Nearly all respondents (92.3%) said the technology was somewhat, very, or extremely easy. Of the 15 respondents who said that it was not easy, the majority (60.0%) said it was because the internet connection was bad. The second most common response was that the provider interface or platform was not accessible. Again, it is important to remember that this survey was administered via an online survey that was sent via email. This means that those who answered the survey may have a higher than average comfort with technology.

Finally, survey respondents were asked what they would have done if they did not have the option of using telemedicine. Most respondents (69.1%) said they would have delayed getting care until they could get an in-person appointment. Twelve percent said they would have called the Health First Colorado Nurse Advice Line. Nearly 10% (9.6%) said they would have gone to the emergency department.

Question 2: How does quality differ between phone only vs audio/visual delivery?

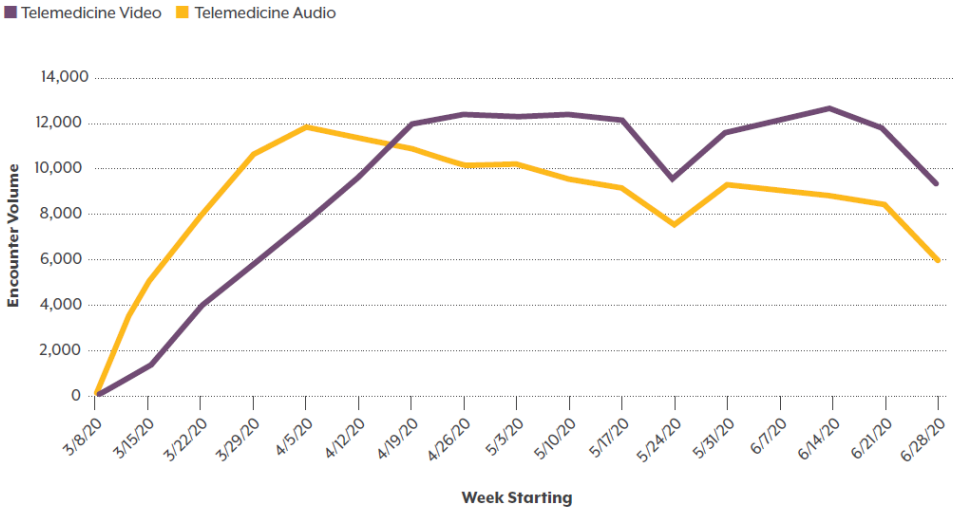
One of the biggest changes made during the pandemic period was the allowance of reimbursement for phone-only visits. The quality and effectiveness of telephone only visits are being closely studied. While research is underway, the Department has collected data from various sources – both quantitative and qualitative – to analyze the differences in these visits.

Utilization

The Colorado Health Observation Regional Data Service (CHORDS) aggregates medical and behavioral health electronic medical record (EMR) data from 14 contributing providers across the Front Range. An analysis by the Colorado Health Institute, sponsored by the Office of eHealth Innovation, used CHORDS data to parse out mode of delivery and analyze changes over the course of the pandemic. Figure 11 shows that among CHORDS participating practices, use of video visits increased over time.

[27] Office of Civil Rights. "Notification of Enforcement Discretion."

Chart 11. Telemedicine Encounter Volumes by Modality, Colorado Health Observation Regional Data Service, March 8 - 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).

Source: Colorado Health Institute, Insights from Patient Care Utilization in Colorado

Video visits may have taken longer to get off the ground due to the front-end work of setting up the technology. The setup of video technology has been identified as a large barrier by providers. Stakeholders have reported multiple issues in setting up video capabilities. One provider reported that while they have the hardware to conduct a visit, they have been unsuccessful at getting the technology to consistently work. Others have reported that the technology is not as a reliable as a phone visit and is often considered to be not worth the extra hassle.

The two modalities may be suitable for different populations. Data from CHORDS found that older adults were heavier users of telephone only visits compared to other age groups. CHI's analysis also found that children ages 0 to 17 are the only group where video visits were a larger proportion of visits than telephone only.[28] This is potentially being driven due to the high proportion of therapies being delivered for children via telemedicine, which may be more conducive to video than audio only. Other patient characteristics lead to phone or video as the better choice. Phone visits can be difficult for patients with dementia or those struggling with symptoms of paranoia. Some providers feel that video is more appropriate when meeting new patients for the first time, compared to an established patient where a foundation for familiarity and trust has already been established. Stakeholders have voiced similar thoughts on conducting patient assessments for behavioral health with a preference

[28] Colorado Health Institute. (September 2020). "Insights from Patient Care Utilization in Colorado."

for video to conduct initial assessments.[29] As previously mentioned in this report, translation services are challenging to incorporate into a video visit.

The future of telephone only visits is uncertain. The United States Department of Health and Human Services Office of Civil Rights (OCR) suspended the enforcement of the Health Insurance Portability and Accountability Act (HIPAA) during the public health emergency. Some telephone modalities – in addition to other modalities such as Skype and Facetime – are not HIPAA compliant. At the time of writing, OCR has not signaled whether this will become a permanent policy. It would need to be a permanent policy for Health First Colorado to receive the federal match. In Colorado, providers have expressed the desire to continue the allowance for telephone only reimbursement. During interviews with providers on behalf of the Department, CHI found that providers were hopeful that most telemedicine visits could one day be conducted over video. However, the providers noted, the reality is that due to the barriers previously cited: broadband limitations, technology will not always work the way it is intended, there will be members who require translation services, and unforeseen circumstances will continue to interrupt video visits. The Department will continue monitoring the allowance of telephone only.

Question 3: How has telemedicine impacted continuity of care and maintenance of medical home?

Connection to a medical home and medical neighborhood is a central organizing component of the Accountable Care Collaborative (ACC). The ACC is built on the robust evidence that delivery systems with a strong primary care base deliver better health outcomes to members and lower costs to payers.[30,31] Comprehensive primary care is relatively more important for Health First Colorado members because they are more likely to have complex medical and social histories for which ongoing, personal provider-patient relationships have been shown to be effective. Additionally, many Health First Colorado providers specialize in care to low-income populations and persons with disabilities. To ensure that all members have access to a primary care medical provider (PCMP), the Department enrolls all eligible members into the ACC and automatically connects members to a PCMP based on their preferences, utilization history, and other factors. Once connected to a PCMP, the member is assigned to a Regional Accountable Entity (RAE), which is responsible for supporting PCMPs' ability to deliver comprehensive primary care and organizing the medical neighborhood on behalf of PCMPs and members.

As described in prior sections, telemedicine has become a common offering of Health First Colorado PCMPs and other providers associated with RAEs. There also is a growing market of virtual-only providers, who are not affiliated with a physical office, do not practice within the ACC and are licensed but may not be based in Colorado. These providers can be independent or part of one of the large, national companies that provide this service. Although they do not have brick-and-mortar clinical locations, some of these entities have enrolled their Colorado-licensed providers as regular fee-for-service providers. Although they often offer a subset of primary care services on an urgent care basis, they practice outside the ACC, do not contract with the RAEs, and are not part of the PCMP network as described above.

[29] Colorado Health Institute. (2020). "Answers to 10 Key Questions About Telemedicine."
[30] Starfield, B, Shi L, Macinko, J. (2005). "Contribution of Primary Care to Health Systems and Health." Millbank Quarterly 83(3):457-502.
[31] The Commonwealth Fund. (2013). "Primary Care: Our First Line of Defense"

PCMPs receive per population payments from the RAEs to serve as the focal point of member care, known as the medical home. The payments are the same regardless whether the visit is in person or via telemedicine. The RAEs are accountable for promoting members' physical and behavioral health and ensuring members have access to necessary care coordination, disease management, and specialty services. The Department holds the RAEs and PCMPs accountable by monitoring performance metrics that focus on health care access (such as well visits, dental visits, behavioral health engagement, and specialty care compacts) as well as health outcomes (such as, immunization receipt, diabetes screening and control, and low birth weight rates). Because virtual-only providers are not PCMPs, they do not have to report similar performance data and are comparatively unaccountable.

Despite the Department's efforts to connect members with PCMPs and establish a medical home within a RAE, some members still do not take a comprehensive approach to their health care, access health care providers sporadically, and often use the emergency department or urgent care inappropriately as a medical home. Reducing the rate of emergency department use, especially for primary care amenable reasons, has been a long-standing Health First Colorado challenge and a key performance indicator for measuring quality of care.

Telemedicine and Access

As referenced earlier in this report, the uptake of telemedicine in the early months of the pandemic was swift and dramatic. Telemedicine utilization rose from near zero in most provider types to about 35% of services in a single month. Health First Colorado providers made changes to their care delivery that provided access and continuity of care for members who might have otherwise gone without care. Though the availability of telemedicine increased access to care, this access has been uneven. This is clearly evidenced in low-telemedicine uptake providers, such as Rural Health Clinics, that have not seen their total visit volumes return to pre-pandemic levels.

Telemedicine Outside the Medical Home

State law currently allows reimbursement of telemedicine visits without the provider having any previous or follow-up in-person contact with the patient. Section 25.5-5-320 states: On or after July 1, 2006, in-person contact between a health care provider and patient is not required under the state's medical assistance program for health care or mental health care services delivered through telemedicine that are otherwise eligible for reimbursement under the program.

This means that any member can access telemedicine outside their PCMP, regardless of any previous provider-patient relationships. This provision requires the Department to reimburse providers that have superficial or no ongoing relationships with members, PCMPs or RAEs, which undermines the ACC's primary care-centered design.

The origin of this language is important to acknowledge. In 2006, telemedicine was uncommon and the Department sought to promote its use. Similar language was reiterated in an executive order released during the spring months of the COVID-19 pandemic. These emergency provisions sought to provide additional health care access points to compensate

for dramatically reduced access to primary care, especially during the stay-at-home orders.[32] Not all PCMPs were able to immediately transition to telemedicine during this time, and relaxing requirements around medical home relationships was necessary to ensure access to care during a health crisis, even though these relationships remain a key tenet of the Accountable Care Collaborative. The unusual access concerns superseded usual continuity of care considerations, and the Department supports continuation of this policy through the duration of the public health emergency.

However, telemedicine is now well-established. Post-pandemic, the Department would like to examine the effects of this statutory provision that waives any telemedicine provider's medical home/neighborhood connection. This raises a pointed question about the appropriate role of virtual-only telemedicine providers that do not have prior relationships with the patients they serve. "Virtual-only" means they do not have a physical clinical location, at all or near the members they serve. As discussed, these virtual-only providers may be disconnected and unrelated to a member's usual source of primary care and RAE.

Virtual-only providers have expanded their services, aiming to increase access to a range of primary care and sometimes behavioral health services by providing care, including prescriptions, to patients in an "on-demand" style similar to an urgent care provider. Pre-pandemic, the most common virtual-only services were for sinus problems, respiratory infection, allergies, and flu.[33]

Research on the quality of care delivered by virtual-only providers is mixed. For example, evidence suggests these providers prescribe antibiotics at somewhat higher rates than other providers, but also that these differences can be overcome by training.[34] Continuity of care is another concern. Most, for example, do not have the capability to connect with a member's electronic health record (EHR) or established care plan, with current medications. While providers who are established as PCMPs are held to the performance measures mentioned above, virtual-only providers are not held to these standards and lack the accountability that has been instilled in providers who are part of the ACC. Evidence is also mixed about the effect of virtual-only providers on emergency department use and total cost of care. Some studies have found very high rates of new and potentially low value utilization.[35] On the other hand, it is possible that these providers have contributed to recent trends of reduced ED use by Health First Colorado members during the pandemic, but this is unknown.

For these cost, quality and accountability reasons, commercial health plans contract differently with virtual-only providers than they do with brick-and-mortar providers. These different contracting arrangements allow health plans to impose additional safeguards including operational and quality of care standards as well as value-based reimbursement provisions. Similarly, the Department is considering how to ensure that virtual-only providers are integrated via data sharing into the ACC's medical home and medical neighborhoods and to apply the appropriate payment model and regulatory structure to incentivize those connections.

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[32] State of Colorado State Plan Amendment: Section 1135 Waiver.
[33] Fogel AL, Kvedar JC. Reported Cases of Medical Malpractice in Direct-to-Consumer Telemedicine. JAMA. 2019;321(13):1309–1310. doi:10.1001/jama.2019.0395
[34] Mehrotra A, & Uscher-Pines L, & Lee M.S. "The Dawn of Direct-to-Consumer Telehealth." *Understanding Telehealth*. McGraw-Hill.
[35] Ashwood, J et al. (March 2017) Health Affairs. "Direct-To-Consumer Telehealth May Increase Access to Care but Does Not Decrease Spending."

The Department is studying existing examples of virtual-only providers that have been able to integrate into the RAE model. For example, Rocky Mountain Health Plans (RAE 1) contracts with a virtual-only provider to provide on-demand care to its members. RAE 1 requires its vendor to submit visit information to the local health information exchange so the visit is integrated into the member's EHR and accessible by the PCMP. This telemedicine-only vendor is also required to make its platform available to local brick and mortar providers that have an interest in telemedicine, but do not want to purchase their own platforms.

The Department will continue analyzing the impact of virtual-only providers on telemedicine utilization and outcomes among its members.

Person-Centered Care

Presently, the Department does not have claims analysis on what proportion of members had a telemedicine visit with their established provider versus those who saw someone new. The Department's member survey did ask respondents their preference. Of those who had a telemedicine visit, 21.7% said it was with a provider they did not already know. The survey then asked those respondents who did see a provider they knew how important it was for them to meet with someone they already know, and results found that most respondents (70.2%) said that it is either extremely or very important. Though the survey data suggests that most members who have had a telemedicine visit did so with a provider they already know, there is a question of whether or not the remaining 20% saw another provider in the practice or if they saw a virtual-only provider.

Both physical and behavioral health provider associations echo these themes stressing continuity of care and member-centeredness. In a Board Position Statement, the Colorado Behavioral Healthcare Council stated that "telehealth should augment, not replace, in-person services" and affirmed that patient-centered care may mean that a patient's preferences may change over time. [36] The recommendation from CHBC is to give patients the choice of telemedicine versus in person as part of the continuum of care. Similar guidance has been released by the primary care community. The Colorado Primary Care Payment Reform Collaborative released a recommendation to "maintain network adequacy for in-person care when indicated and/or preferable." The recommendation cites that "telehealth is a beneficial and desirable benefit to in-person care delivery, expected to replace some, but definitely not all, in-person office visits."[37] On the national level, the American Medical Association issued guidance in their Code of Medical Ethics Opinion: Ethical Practice in Telemedicine.[38] The Opinion stresses the importance of the informed consent process specific to telemedicine to ensure that the patient is able to weigh the benefits and limitations of this type of care. Person-centered care has been a theme during the Department's stakeholder engagement, particularly during conversations with providers who serve members with disabilities. The Department will continue to consider person-centered care a key design consideration as it looks toward policymaking for a post-pandemic future.

[36] Colorado Behavioral Health Care Council. Board Position Statement 25.0 Telehealth for Behavioral Healthcare
[37] Colorado Primary Care Payment Reform Collaborative. "Recommendations Regarding the Use of Telehealth to Support Primary Care Delivery during the COVID-19 Pandemic and Beyond: Recommendation #3."
[38] American Medical Association. "Ethical Practice in Telemedicine."

Question 4: What are the biggest challenges for providers in implementing or expanding telemedicine?

The transition from in-person care to virtual care happened in a very short time frame – in some cases, providers report that the change was overnight. Some providers, particularly those in behavioral health, had been providing some level of telemedicine for several years. Others were implementing a virtual line of business for the first time. The shift to telemedicine has resulted in a training and learning curve as long-established workflows were forced to change. Providers have reported several challenges in making this change including billing and administrative functions, difficulty in conducting team-based care, and fatigue from being in front of a screen all day. Overall, however, providers have reported that the changes to the Department's telemedicine policy have made it possible to deliver needed care to members.

As the map of COVID-19 cases across the country showed the increasing spread of COVID, payers of all types quickly made changes to their telemedicine policy. Providers serving patients with a mix of insurance types reported that these were welcome changes to improve access to care, but that the changes made it difficult to know which rules applied to who and for which services. Concerns around new policy changes were mostly concentrated at the beginning of the pandemic, but providers have voiced concern that has shifted towards which policies will remain in a post-pandemic world. In its interviews with providers, the Colorado Health Institute stated that the general consensus among interviewees could be summed up by the comment: "Sustain as much of this as you can."[39]

Providers have cited challenges with reimbursement for team-based care in a fee-for-service telemedicine environment. In one FQHC, for example, the care model organizes clinical and non-clinical staff into a team of 10, including a physician, a behavioral health provider, a case manager, a patient navigator, and two nurses. Of those 10 team members, only four can provide billable services via telemedicine under current rules and payment model. This makes it difficult for providers to implement a team-based care model via telemedicine. Providers report that encouraging team-based care could present opportunities for efficiencies and cost savings by allowing all provider types to practice at the top of their scope.[40]

Finally, challenges around telemedicine technology have created roadblocks to delivering care. Administrative staff spend much more time assisting patients with connecting to visits and trouble shooting. Providers have reported that in some visits, much of the time is spent navigating technical and logistical barriers. These issues have led some providers to default to telephone only visits due to the relative ease compared to video visits.

Stakeholders have communicated a desire to continue conversations around what is appropriate from a coding perspective. One provider shared with the Colorado Health Institute that "the current code set open for telemedicine should not be the same in a year, or five."[41] A provider learning collaborative sponsored by the Office of eHealth Innovation will launch in early 2021 to provide a space for these conversations and to continue identifying solutions to roadblocks. The Department encourages providers to keep up to date with changes by visiting the COVID-19 provider page and signing up for the Department's provider

[39] Colorado Health Institute. (2020). "Answers to 10 Key Questions About Telemedicine."
[40] Ibid.
[41] Ibid.

newsletter. In addition, recordings of the five trainings conducted for providers and a running list of frequency asked questions and answers are available on the Department's Telemedicine Stakeholder Page.

VII. Payment and Reimbursement

Telemedicine presents clear opportunities to improve access to care for members. The outstanding question is – at what cost? There are several questions to consider in making this assessment. Health First Colorado's current payment methodology of fee-for-service at parity for physical health services may not be a sustainable model for paying for telemedicine services going forward. For example, providers have expressed a desire to use asynchronous communications with patients, such as email or phone-based "apps." These types of communications reimbursed fee-for-service at full parity may not be financially feasible or appropriate. Some forms of telemedicine, such as these, are better suited to managed care models and/or alternative payment models that pay on a per member, rather than per service basis. This section evaluates the cost of telemedicine and its potential for efficiencies using currently available information.

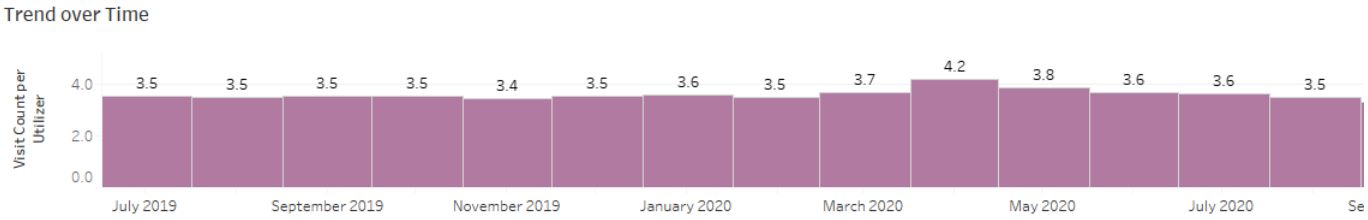
Question 1: Are telemedicine visits creating new visits or replacing in-person visits?

The first question to answer around the budget impact of telemedicine is whether or not the visits being performed via telemedicine are replacement visits that would have happened in person or if these are new visits where, in the absence of the ability to access care via telemedicine, the member would not have sought care. The pre-pandemic literature reveals a range of answers to this question. One study of a virtual-only provider – those providers who are part of companies that do not have a physical office space – found that 88% of visits were new and only 12% of visits were replacement.[42] Telemedicine use during the COVID-19 pandemic, when overall utilization has been depressed, tells a very different story. A September 2020 report from the Task Force on Telehealth formed by NCQA did not find evidence of supply-induced demand during the pandemic period thus far.[43] However, trends in telemedicine utilization during the pandemic period are likely unique compared to non-pandemic periods when members are not being discouraged from in-person visits due to fear of exposure or guidance from the provider office. The long-term budget impact of telemedicine will depend on whether post-COVID-19 utilization more resembles pre-COVID-19 (largely additive) or during-COVID-19 (largely replacement) trends.

Available data indicates that a portion of telemedicine visits – at least in the beginning of the pandemic and for particular groups of members – have been additive. Department data on fee-for-service claims show that the average number of visits per utilizer initially increased at the height of the pandemic. See Figure 12 for the visit count per utilizer from July 2019 - August 2020. Prior to March 2020, members who utilized services had an average visit count of 3.5 visits per month. In April, that average increased to 4.2 visits – an increase of 20%. The average visit count remained above average through July and has since stabilized to 3.6. A 20% increase in visits per person in the initial months of the pandemic suggests an initial additive effect.

[42] Ashwood, J et al. (March 2017) Health Affairs. "Direct-To-Consumer Telehealth May Increase Access to Care but Does Not Decrease Spending."
[43] NCQA. (September 2020). "Taskforce On Telehealth Policy: Findings and Recommendations"

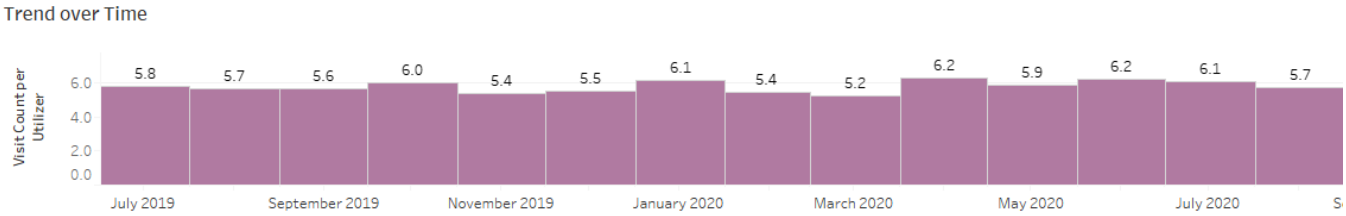
Figure 12. Visits Count Per Utilizer July 2019 - August 2020



Source: Colorado Department of Health Care Policy & Financing

Though the average visits per utilizer has returned to pre-pandemic levels for the population as a whole, a sub-group analysis reveals that utilizers of different types of services have maintained higher averages. For example, physical, occupational, and speech therapies delivered in the home have the highest monthly average number of visits. This group of services has also experienced a lasting stretch of higher than average visits per utilizer.

Figure 13. Visits Per Utilizer, Physical/Occupational/Speech Home Health Therapy, June 2019 - September 2020



Source: Colorado Department of Health Care Policy & Financing

Prior the pandemic, the average number of visits per utilizer, per month for these services was 5.6. In April, this metric spiked to 6.2 visits per person and has maintained a higher than pre-pandemic average of 6.0. Stakeholders have reported that telemedicine has allowed for greater flexibility in scheduling and children receiving these services may be receiving the appropriate amount of services for the first time. The Department will continue to monitor the number of visits per utilizer over time. If the greater intensity of services is determined to be appropriate and desirable, it may warrant a shift from FFS to a member-based payment to ensure sustainability.

Question 2: Is telemedicine impacting the cost of care or efficiencies for providers?

Fee-for-service payment is, like the name suggests, a reimbursement per visit. Provider rate setting methodologies typically consider the underlying cost of the service explicitly or implicitly. For providers that get cost-based reimbursement, the relationship is direct. If cost-per-visit increases/decreases, the reimbursement rate adjusts up/down over time. The lag, however, can be substantial and large swings can have significant provider or state budget impact.

For fee schedule providers, associating reimbursement rates to costs is accomplished indirectly. For example, the Department often benchmarks to Medicare, and Medicare does consider cost in setting its rates. The challenge for telemedicine is that Health First Colorado telemedicine policy has been and continues to be "ahead" of Medicare. Colorado is one of the first states to set permanent telemedicine policy, so benchmarking to other state Medicaid programs is also not currently useful.

Given the Department's cost-focused rate setting philosophy, payment parity makes most sense if cost-per-visit for in-person and telemedicine visits are the same. We sought to explore this assumption. Cost-per-visit will be less, if costs decrease or productivity increases, or, in the case of telemedicine, both have likely occurred at least for some providers. Understanding any cost efficiencies offered by telemedicine is important for long-term reimbursement considerations.

The Department contracted with the Colorado Health Institute to conduct analysis of health care providers' cost structures, current and future utilization of telemedicine services, and the interaction between the two.[44] To conduct this analysis, CHI built a model based on practice cost structure data, literature reviews, and key informant interviews, that examines how cost structures for different types of providers may change in the immediate and longer term, and an analysis of the implications these changes have for reimbursement. Data was provided by the Medical Group Management Association, who received cost information directly from practices.

Potential for Efficiencies: Cost Structure Changes

In their analysis of current practice cost structures, CHI found that provider salaries comprise the majority of practice costs with more than half going towards paying doctors, nurses, and other providers. Assuming that increased use of telemedicine would not lead to any changes in provider salaries, the question is whether there are opportunities for efficiency in the other areas of practice costs. Frequently cited cost efficiencies of telemedicine range from those related to the physical practice space such as reduced cleaning costs, front office staff, travel for home health providers and potentially reduced rent from giving up leased space to cost savings from reduced no-show rates. However, the type of provider and their ability to conduct virtual visits determines the level of savings for providers that might be gained from these efficiencies. For example, specialties such as orthopedics that require in-person visits may not have much ability to see efficiencies from telemedicine. Provider types with fewer in-person requirements such as those in dermatology, however, have a higher potential to see reduced visit costs.

The effect of telemedicine on provider cost structures will vary by practice and is likely to change over time. For example, new IT costs may be higher in the first year of telemedicine adoption, as new systems are set up, but level out to maintenance and upgrade costs in the next year. Fewer in-person visits may mean lower occupancy costs, but practices will need time to sell real estate or renegotiate leases. Areas that are more likely to see changes tend to incur smaller expenses. For example, as shown in Figure 14, CHI estimates a decline in building and occupancy costs of as much as 15%, but these costs account for less than 10% of an average practice's total expenses. IT costs, on the other hand, are likely to increase by as much as 25%, but these account for just 1-2% of practice costs. Overall, anticipated changes

[44] Colorado Health Institute. (October 2020). "Telemedicine's Impact on Provider Costs."

to provider cost structures under telemedicine adoption result in marginally lower costs for telemedicine relative to in-person, ranging from 0.1% to 2.7% in FY2022.

Savings associated with lower costs of care accrue to the practice, not the Department. To capture these efficiency savings, the Department could lower the telemedicine rate (currently precluded by parity provisions) or lower the combined telemedicine and in-person rate. For every 1% of telemedicine efficiency savings the Department "captured" through provider rate setting, the state could save approximately $1.6 million, based on current telemedicine utilization. Additional time is needed to observe and monitor the trends in cost.

Figure 14. Cost Structure of Primary Care, Orthopedics, and Dermatology and Telemedicine Changes (Status Quo, FY2021, and FY2022)

	Primary Care			Orthopedics			Dermatology		
	Status Quo	Change in FY 2021	Change in FY 2022	Status Quo	Change in FY 2021	Change in FY 2022	Status Quo	Change in FY 2021	Change in FY 2022
Clinical staff	52%	0%	0%	52%	0%	0%	52%	0%	0%
Drugs / medical supply	12%	+1%	+1%	3%	+0.3%	+0.3%	12%	+3%	+3%
Building / occupancy / cleaning	7%	-5%	-15%	4%	0%	0%	7%	-5%	-30%
Admin / accounting / IT support staff	6%	+3%	+1%	2%	+1%	+1%	6%	+9%	+3%
Front office staff	5%	-5%	-10%	4%	0%	0%	5%	-15%	-30%
Ancillary support staff	2%	0%	0%	3%	0%	0%	2%	0%	0%
IT operating	2%	+25%	+20%	1%	+10%	+5%	2%	+30%	+25%
Supplies / furniture	2%	0%	-5%	1%	0%	0%	2%	0%	-15%
Insurance premiums	1%	-1%	-1%	1%	0%	0%	1%	-3%	-3%
Other	11%	0%	0%	30%	0%	0%	11%	0%	0%
TOTAL	NA	+.03%	-1%	NA	+0.1%	+0.1%	NA	+0.5%	-2.7%

Source: Colorado Health Institute

Potential for Efficiencies: Productivity Changes

Although the impact of lower costs on practices' cost-per-visit is modest, increased productivity may have a relatively larger impact. Providers have reported that one efficiency of telemedicine during the COVID-19 period has been a reduction of no-show rates. Missed appointments are associated with lost productivity and higher administrative costs for providers. Telemedicine reduces some of the common barriers to in-person visits experienced by members such as lack of transportation or child care. The flexibility of scheduling has also impacted no-show rates. Said differently, this increased productivity lowers the cost-per-visit for telemedicine relative to in-person visits.

Based on an internal review of studies related to **no-show** rates, the Department has found at baseline, these rates to be anywhere from 10 to 60% prior to the pandemic depending on the population served.[45,46] **No-show** rates also tended to be higher among clinics serving Medicaid patients.[47] According to a report from the Colorado Health Institute, **no-show** rates have declined by "one-third to one-half" with the adoption of telemedicine.[48] Information from the Colorado Community Health Network, the group representing Community Health Centers, finds that no-show rates have declined by as much as half. A decrease in no-show rates would allow providers to see more patients in a given time frame and therefore, generate additional access for members, more revenue for providers, and greater expenditures for the state budget.

Potential for Efficiencies: Staff Models

The amount of "savings" a practice realizes as a result of increased productivity depends on how practices pay clinical staff. For those that pay on a salaried basis, the cost of these staff salaries does not change despite increases in revenue. Yet many practices include an additional "productivity" metric when determining clinicians' pay. In these cases, increased revenue for the practice will not necessarily be kept by the practice as profit margin. Some amount will be passed onto clinical staff, increasing this cost.

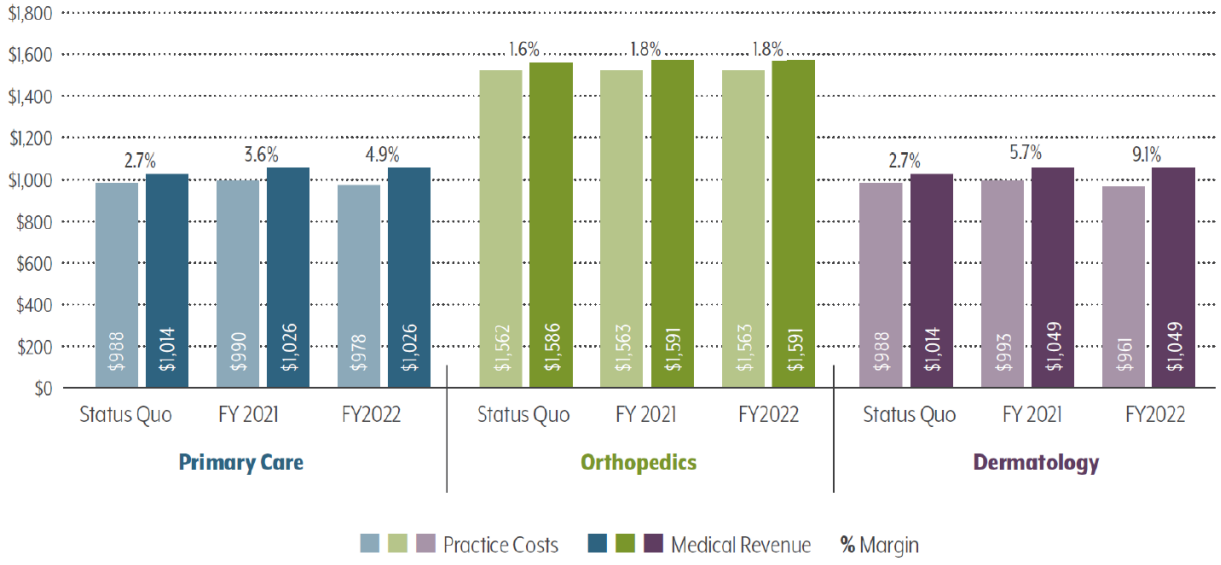
Another key consideration is whether the practice decides to use a "dedicated staff virtualist" in providing telemedicine. Staff virtualists are providers – employed by practices - who only provide care via telemedicine. Because they provide no in-person services, there is never a clinic room going unused because they are seeing a patient virtually. While the virtualist model can lead to less continuity of care when patients switch between remote and in-person visits, it leads to even greater building and occupancy savings than practices where all clinicians provide some telemedicine.

Projected Revenue and Profit Margin Changes

CHI's analysis took the above considerations (changes in cost structure, productivity, and staffing models) into account in order to project potential changes to profit margins in future years. The figure below shows the estimates for increased revenue and profit margins for three different practice types. It is assumed that orthopedics would be on the lower end of telemedicine adoption, dermatology on the higher end of the take-up rate, and primary care somewhere in the middle.

[45] Davies, Michael L et al. "Large-Scale No-Show Patterns and Distributions for Clinic Operational Research." Healthcare (Basel, Switzerland) vol. 4,1 15. 16 Feb. 2016, doi:10.3390/healthcare4010015
[46] Abraham, Jerry P et al. "Achieving NCQA-PCMH Recognition: Challenges for Federally Qualified Health Centers." National Medical Fellowships. 15 Sept. 2013.
[47] Kaplan-Lewis, Emma, and Sanja Percac-Lima. "No-show to primary care appointments: why patients do not come." Journal of primary care & community health vol. 4,4 (2013): 251-5.
[48] Colorado Health Institute. (2020). "Answers to Ten Key Questions About Telemedicine."

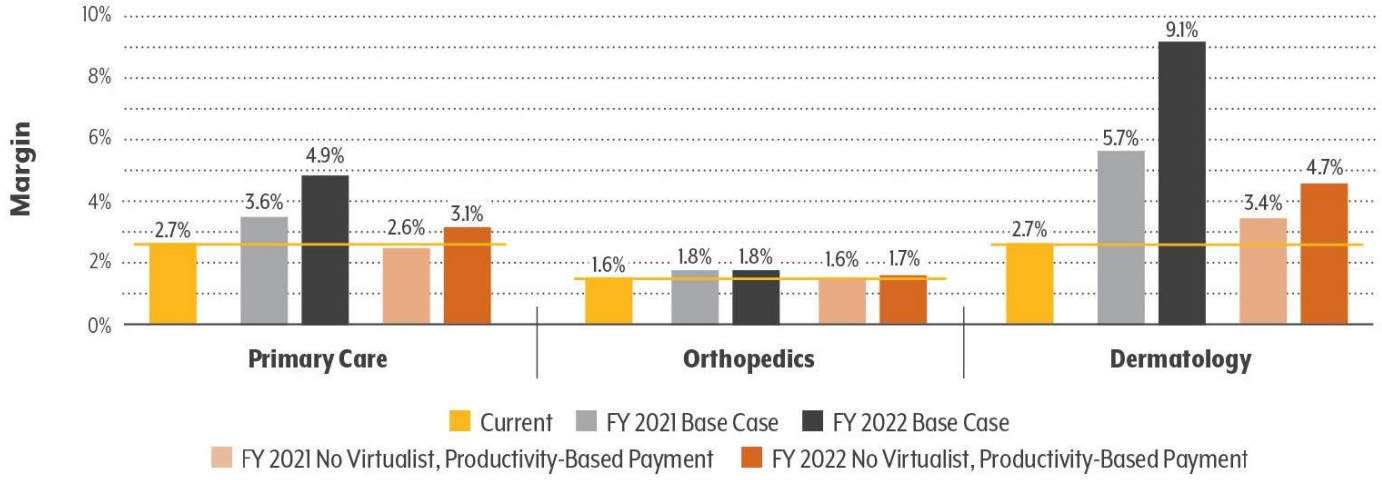
Chart 15. Changes to Margins According to Telemedicine Adoption: Average Costs, Revenue, and Margin by Provider Type (Average Per Provider FTE, in Thousands)



Source: Colorado Health Institute.

CHI's model assumes a default base case scenario in which clinicians are paid by salary and practices employ a dedicated virtualist, but practices set up differently will see fewer cost impacts — and in some years, could even see their revenue margins decline. See Figure 16 for details.

Figure 16. Estimated Margins by Practice Type and Design



Source: Colorado Health Institute

In summary, CHI concluded that the potential savings of telemedicine adoption are reliant on a number of factors. First, it is clear that more savings opportunities are available to providers who adopt certain staffing models, such as the use of a salaried virtualist. And yet, without major changes to how health care providers are paid and with a continuing need to

provide some services in person, we can expect few seismic shifts in costs at the practice level.

As with cost efficiencies, practice-level revenue increases associated with increased productivity do not accrue to the Department. To capture these efficiencies, the Department could lower the telemedicine rate (currently precluded by parity provisions) or lower the combined telemedicine and in-person rate. Using the estimates from CHI on increases in provider profit margins, the Department estimates that a rate change range of two to 10% would put the budget impact in the four to 20 million dollar range.

Question 3: How has this experience caused us to reflect on payment parity?

Payment parity means that Health First Colorado must reimburse telemedicine visits at the same rate as in-person visits. Advocates of payment parity point to increased reimbursement for telemedicine as an incentive for adoption by providers. Providers argue that payment parity is appropriate because telemedicine services are required to be of the same quality as in-person services. However, the CHI analysis has projected that telemedicine likely lowers the cost-per-visit, which is a key consideration in payment policy.

The Department plans to continue assessing whether legislated payment parity between in-person and telemedicine visits is a fair and sustainable payment model that enables the Department to maintain other health benefits and services at appropriate levels. The economic crisis associated with the public health emergency has dramatically increased Health First Colorado membership. Membership is up more than 150,000 since March 2020. With the associated reduction of tax revenues, the Department is forecasting several years of significant budget reductions to Department programs.

Telemedicine has the potential to provide the expanded access necessary to meet these dual enrollment and budgetary demands to provide more for less. However, payment parity is a barrier to the Department's ability to devise innovative ways to provide care to more people during an economic downturn and tight budgets. In a worst-case scenario, unrestricted growth in telemedicine could actually contribute to budgetary pressures. The Department's projected total expenditure on telemedicine, assuming current trends continue, will be more than $160 million in the current fiscal year. While the current challenge at hand is an economic downturn, the restriction of payment parity means that the Department would be unable to incentivize providers to utilize telemedicine by increasing its rates in a future healthier budget outlook.

The Department is not alone in questioning whether payment parity should extend beyond the pandemic. In an August Issue Brief, the Commonwealth Fund succinctly argued against payment parity as follows: "While we recognize that implementing telemedicine does require significant investment in the short term, in the longer term a provider's marginal costs for telemedicine visits should be lower than for in-person visits, and reimbursement should reflect those costs. Lower payment rates could also spur more competition through new, more efficient providers."[49] The Brookings Institution and National Governors Association have

[49] The Commonwealth Fund. (August 2020). "Issue Briefing. Telemedicine: What Should the Post Pandemic Regulatory and Payment Landscape Look Like?"

recently arrived at a similar conclusion.[5051] In a December 2020 report, the National Governors Association (NGA) recommends to Governors that "pairing payment policies and incentives to move towards more value-based models may serve as a lever to support appropriate use of telehealth without increasing costs to the health care system."[52] This rationale is in line with the Department's thinking on how to incorporate telemedicine into a wider continuum of services to meet member needs.

One way the Department is maximizing its current flexibilities in the absence of changes to parity is implementation of value-based payment models. Value-based payment models can utilize prospective payments to replace fee schedule payments. This gives providers flexibility in service provision, such as the use of telemedicine. The Department is currently implementing two different value-based payment programs that utilize prospective payments. The first program is for Federally Qualified Health Centers and replaces the traditional encounter payment with a prospective per member per month payment. The second program is for primary care medical homes enrolled in the Accountable Care Collaborative and replaces a percentage of a primary care provider's revenue with a prospective per member per month payment. Each of these payment models will give providers flexibility to provide the appropriate services at the right time rather than reliance on the fee schedule. These models also bolster the integrity of the medical home.

Question 4. How will telemedicine impact high and low utilizers? FQHC Case Study

FQHCs have been an area of particular interest because they serve nearly 40% of Health First Colorado members and because of their high adoption of telemedicine. Compared to other provider types, FQHCs and home health agencies are most likely, based on current trajectories, to reach levels of overall utilization higher than previous levels after the public health emergency due to high telemedicine utilization.

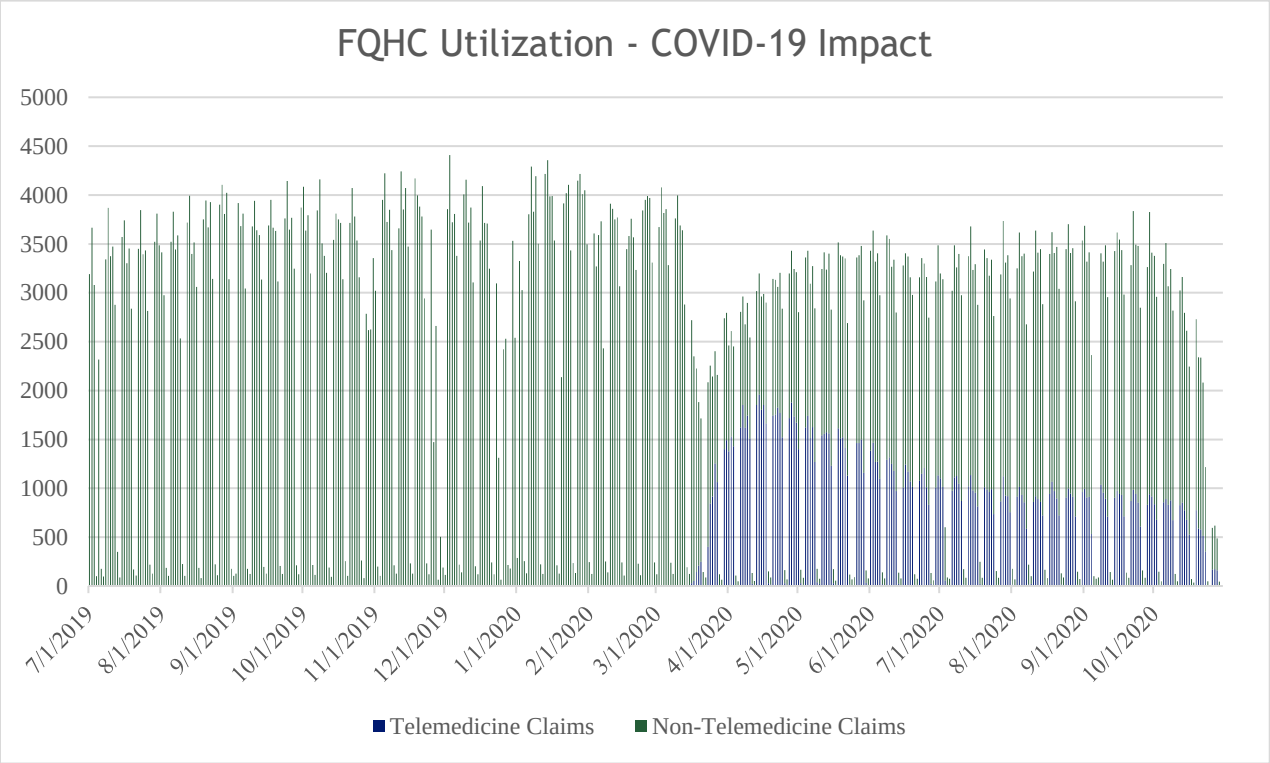
Prior to March 2020, FQHCs could not be directly reimbursed for telemedicine services. FQHCs were reimbursed a cost-based encounter rate for one-on-one, face-to-face visits with an eligible provider such as a physician, physician assistant nurse practitioner, etc. An in-person requirement prohibited FQHCs from reimbursing at their encounter rate for these services. When the public health emergency started in March 2020, the Department moved to expand telemedicine services by changing the definition of an FQHC face-to-face visit to include telemedicine services.

By the summer of 2020, some FQHCs had recovered to pre-COVID-19 utilization levels while others still lagged with decreased utilization and decreased revenue. See Figure 17 for FQHC utilization over time. This graphic shows all utilization rather than telemedicine-eligible utilization. Overall, FQHCs are nearing pre-COVID-19 utilization and revenue due to the adoption of telemedicine and changes in the way visits are provided.

[50] The Brookings Institution and John Locke Foundation. (May 2020). "Removing Regulatory Barriers to Telehealth Before and After COVID-19."
[51] National Governors Association. (2020). "The Future of State Telehealth Policy."
[52] Ibid.

This point is important due to the cost-based reimbursement method used to set rates for FQHCs.

Figure 17. FQHC Utilization, July 2019 to October 1 2020



Source: Colorado Department of Health Care Policy & Financing

Implications of Cost-Based Reimbursement

FQHC rates are set based on costs and visits calculated from the FQHC's cost report. If utilization increased above past levels due to telemedicine adoption, this increased productivity will eventually decrease their reimbursement rates. However, because FQHC rates are set prospectively, an increase in utilization will not fully impact the FQHC rates for several years. In the meantime, FQHCs will be able to bill for additional visits and receive a higher-than-cost rate. Even temporarily inflated rates, combined with increased productivity, could have an unsustainable budget impact for a large provider type. The Department is closely watching FQHC utilization to see if/when the number of visits increases above prior utilization.

Under parity provisions, the Department would have limited tools to respond to the budgetary consequences of dramatic increases in volume by FQHCs or other high-utilizing telemedicine providers, such as home health agencies. Parity requires adjusting rates in a way that impacts both in-person and telemedicine services. Providers that deliver a high percentage of services via telemedicine will be better positioned to absorb these combined rate cuts. Low telemedicine adopters, such as rural FQHCs, could be comparatively penalized. While a rural adjustment could potentially be applied, it would be difficult to design a rate adjustment to protect all impacted clinics. By contrast, a telemedicine-specific rate would allow for a more nuanced payment policy that captures savings where and when they accrue. As the

Department continues its assessment of payment parity, we will carefully consider these equity impacts to members, providers, and taxpayers.

Extensive stakeholder engagement would be required to settle on a fair and appropriate option.

Question 5. How is the Department monitoring potentially fraudulent billing behavior?

The Department's Fraud, Waste and Abuse Division is monitoring the expanded adoption of telemedicine by analyzing trends in data and conducting investigations into potentially fraudulent activity as needed. Much of the work of this team is on post-payment review. Given that telemedicine at its current utilization level is fairly new, more time is needed to gain a full picture of telemedicine patterns. In the meantime, the Department has been analyzing overall aggregate utilization. This overall trend has followed expectations.

One area of focus has been virtual-only telemedicine providers. This includes monitoring providers who are not licensed in Colorado but are serving patients in the state via telemedicine. The Department is also actively working with other states whose telemedicine programs were more robust prior to COVID-19 to understand where we might see fraud and abuse. On a weekly basis, Colorado engages in these conversations with multiple states. The Department also sits on a federal COVID-19 Task Force with attorneys general and federal law enforcement to monitor any illegitimate telemedicine schemes around the country.

Internally, the Program Integrity Contract Oversight Section, within the Fraud, Waste and Abuse Division, works with the policy teams to strengthen rules around telemedicine to proactively prevent fraud and abuse. For example, early in the pandemic, the teams worked together to require that telemedicine be patient-initiated to prevent providers from robocalling Health First Colorado members. The Section also works closely with offices around the Department to receive referrals for potential investigations. Active investigations of potential telemedicine fraud are underway.

VIII. Conclusion

The shift to telemedicine during the COVID-19 pandemic has presented opportunities to improve access to care for members of Health First Colorado during an unprecedented public health emergency. At the same time, this rapid change in health care delivery has introduced questions for policymakers to answer in both the short-term and long-term. This report sought to answer the initial questions of what has been learned about the expansion of telemedicine during the first 10 months of the pandemic. The Department will continue its ongoing evaluation of telemedicine through data analysis, stakeholder engagement, and national research with an update to this report expected at the end of the fiscal year. In addition, the Department will continue seeking the flexibility to implement new models of care and technologies that hold promise to improve access and outcomes to care for our members.

IX. Appendix

Managed Care

In addition to fee-for-service benefits for physical health services, the Department has benefits covered under managed care entities (MCE). Most members receive their behavioral health services under the capitated behavioral health benefit administered by the Regional

Accountable Entities (RAEs). There are also two managed care organization (MCO) contracts that offer physical health services to eligible members: Denver Health Medicaid Choice and Rocky Mountain Health Plans Prime.

MCEs must abide by the Department's telemedicine policies to the extent that the services covered in the fee-for-service policies are also covered by the MCEs. MCEs maintain the ability to negotiate rates and to decide with whom they will contract. With guidance from the Department, all the MCEs have implemented telemedicine flexibilities in response to the COVID-19 emergency. The Department is continuing to work with the MCEs to formalize how telemedicine can be offered in expanded benefits under their contracts. Revisions to future telemedicine policy under the capitation will incorporate changes under FFS as it relates to covered benefits. It will also address expansion of telemedicine for the expanded 1915 (b)(3) services. These changes will require that the MCEs administer telemedicine in a manner that is minimally consistent with services offered under FFS. This means they have to allow for telemedicine for the same services in the MCE as FFS. However, the MCEs can choose who to contract with and how to pay. These changes will not direct how MCEs contract with providers or how they pay providers.

Managed care plans must, at a minimum, cover the services captured under their benefit as they are represented in the state plan. Under managed care state plan, benefits are often referred to as "the floor not the ceiling." For example:

> Example 1:
> Family Therapy (90847) has recently been added as a service that can be provided through telemedicine under FFS. This same service is covered under the capitated behavioral health program and was already allowed to be performed through telemedicine.
>
> Example 2:
> Group Therapy (90853) was also recently added as a service that can be provided through telemedicine under FFS. This service is also covered under the capitated behavioral health program but was not covered through telemedicine prior to the public health emergency temporary expansion of the telemedicine policy. As the FFS benefit is "the floor," the capitated behavioral health benefit will now have to allow for Group Therapy to be provided through telemedicine.

Service limits in the state plan are in place to help manage services administered through fee-for-service. Services covered through managed care have additional flexibilities that are not available under FFS:

	FFS	Managed Care Entities
Unit Limitations	If the state plan stipulates that a service has a hard limit, there is no opportunity to exceed that limit.	MCEs must use hard limits in the state plan as "the floor"; they can pay for additional units beyond the hard limit in the state plan.
Authorization	The state plan will stipulate when an FFS benefit requires authorization.	Aside from emergency services, MCEs can determine which services must be authorized.
Providers	The state plan requires that any willing qualified provider can enroll in Medicaid and	MCEs are required to develop a network of qualified providers that are enrolled in Medicaid.

	members can choose which providers they see.	MCEs can choose which providers to contract and can limit the services providers in their network can provide for the MCE's enrollees.
Rates	FFS rates are set by the Department and are codified in the state plan.	MCEs can negotiate rates with their contracted providers. These rates can be above or below the FFS rates.
Additional services	The FFS benefit is limited to what is available under the state plan.	The MCEs that administer the capitated behavioral health benefit are required to cover additional services not covered under the state plan (these are known as (b)(3) services). The Department works with RAEs determine if these additional services, not in the state plan, can be provided through telemedicine. All of the flexibilities that exist for MCEs with FFS services are also permitted for these additional services. The Department is in the process of working with the MCEs to update this policy in 2021.

Related Work: eConsults

As part of its larger telemedicine strategy, the Department is exploring the addition of an eConsult benefit. An eConsult utilizes the capabilities of virtual technology, but does so in a way that enables virtual communication among providers rather than traditional telemedicine, which facilitates communication between a provider and a patient. eConsults are asynchronous health record consultative services that assist in the diagnosis and/or management of the patient's health care needs without face-to-face contact with the consultant. They are designed to offer coordinated multidisciplinary case reviews, advisory opinions, and recommendations of care. The Department has completed a charge to study and create policy design for eConsults by December 31, 2020. Work is continuing with the goal of implementation early in 2022

The goal is to reduce duplicative and/or unnecessary specialty care expenses while improving access to timely specialized clinical guidance and cost-effective triaging of members.

Objectives:
- Use health care resources efficiently and cost effectively
- Empower primary care providers to operate at the top of their scope of practice
- Manage proper specialist referrals
- Support referrals to specialty care providers within rural communities to sustain providers
- Assist with earlier diagnosis of conditions
- Improve member management of chronic conditions
- Improve member and provider experience
- Decrease cost

Regional Accountable Entity (RAE) Map

COLORADO
Department of Health Care Policy & Financing