2021 COLORADO TELEHEALTH PROVIDER SURVEY

ANALYSIS AND REPORT

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OVERVIEW

In a collaborative effort led by the Office of eHealth Innovation (OeHI) and Prime Health, 1,357 providers and healthcare professionals responded to a survey between May and June 2021 that centered on needs to effectively use and expand telehealth access in Colorado. The Colorado Health Institute provided analysis support on demographic, geographic, and utilization trends.

More than 25 state departments and agencies, research organizations, provider organizations, and community partners for the development and dissemination of the statewide survey provided support to develop and disseminate this survey. The wealth of information gathered from survey responses will be leveraged to inform future decision-making in support of advancing equitable statewide telehealth access, adoption, and sustainability.

The 2021 survey looked at respondents' demographics, geography of practice, telehealth utilization, funding, and overall sentiments on telehealth. This analysis includes further detail on behavioral health and substance use disorder (SUD) services, barriers to telehealth, direct-to-consumer telehealth, safety net providers and populations they serve, value-based programs, and broadband access for providers and patients.

71% of respondents stated that they are motivated to increase the use of telehealth in their practice. However, respondents cited patient technology challenges and telehealth workflows as top barriers to expanding telehealth, followed by the cost of implementing/maintaining a telehealth platform, integration of additional technology, lack of technical support, liability, and low or no reimbursement. Licensure and low patient engagement were the least problematic compared to the larger issues of technical support needs, both for providers and their patients.

Overall, respondents identified the most significant barriers for their patients as lack of access to broadband and internet, digital literacy, and a preference for in-person visits, followed by technology access, understanding of insurance coverage for telehealth, and awareness and understanding of telehealth offerings. Other patient barriers included lack of health insurance, access to community-based resources, and need for interpreters or same-language providers.

Given these barriers, 63% of the respondents agree or strongly agree that audio-only and/or telephone-based services are essential for patients' access to care.

RESPONDENT DEMOGRAPHICS

Age
Respondents ranged in age from 18 to 65+, with the great majority (65%) between ages 31-50.

Gender
The majority of respondents were cisgender women (44%), followed by cisgender men (37%). 22% of respondents identified as non-binary, transgender, or two spirit.

Race and Ethnicity
47% of respondents identified as White, 28% identified as Black, 15% identified as Native American or Indigenous, 15% identified as Asian or Pacific Islander, and 12% identified as Hispanic or Latinx.

Profession
About 60% of the respondents held administrative roles, and about 40% held clinical roles (often overlapping).
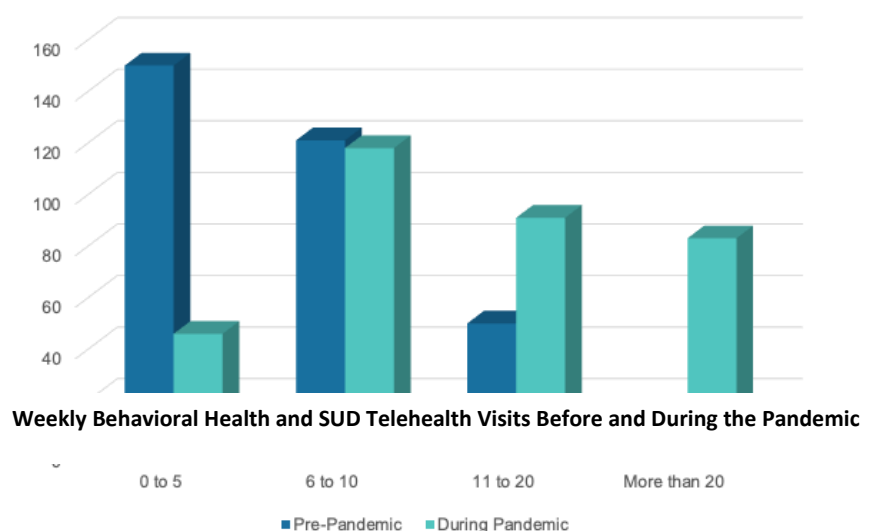
Insurance Types Accepted
Just under 48.8% of respondents accepted Medicare, Medicaid, and private/commercial insurance, while approximately 25% accepted free/uninsured, Veterans Administration, and CHP+, and approximately 8% accepted Indian Health Services as a payer.

BEHAVIORAL HEALTH AND SUBSTANCE USE DISORDER TREATMENT

The biggest takeaway from responses to questions about behavioral health and SUD was not necessarily surprising - behavioral health providers reported a dramatic increase in telehealth visits during the pandemic. There was a noticeable increase in telehealth visits by behavioral health providers during the pandemic as compared to before the pandemic.

The barriers experienced by behavioral health and substance use disorder (SUD) providers offering services through telehealth largely mirrored the general survey respondents' barriers to telehealth. Technology challenges and the digital divide experienced by patients remained consistent as the number one barrier.

Weekly Behavioral Health and SUD Telehealth Visits Before and During the Pandemic

0 to 5   6 to 10   11 to 20   More than 20

■ Pre-Pandemic ■ During Pandemic

Low or no reimbursement ranked higher as a barrier for respondents offering behavioral health and SUD services via telehealth.

The most common telebehavioral health service offered by providers was individual therapy, at just under 35%, followed by integrated primary care, group therapy, and medication management. Medication Assisted Treatment and SUD services were each offered by about 18% of respondents. Crisis stabilization was offered by about 8%, and about 6% specified pediatric service offerings.

GEOGRAPHY OF TELEHEALTH

Survey respondents represented service providers and health professionals from every county in Colorado and reported on telehealth service provision in their area. The highest concentrations of providers reporting telehealth are in Denver, Jefferson, Adams, and Arapahoe, as well as Jackson, Grand, Mesa, Gunnison, Hinsdale, Archuleta, Alamosa, and Huerfano. The lowest are Ouray, San Miguel, Dolores, Saguache, Mineral, Conejos, Park, Teller, Elbert, Crowley, Otero, Morgan, Phillips, and Yuma.

More investigation needs to be done to determine if this is reflective of true utilization of telehealth services in these counties, or is more related to survey penetration rate into these areas and overall population size.

Number of Telehealth Providers Serving Each County

Legend: 9 - 26 | 27 - 34 | 35 - 55 | 56 - 84 | 85 - 187
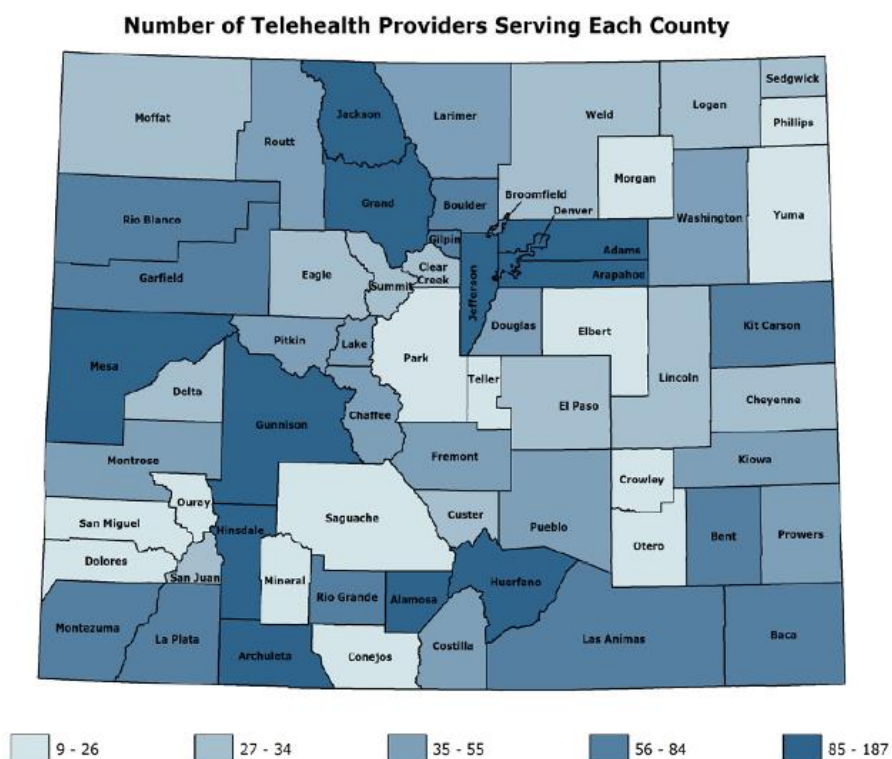
Among survey respondents, the number of telebehavioral health providers is a bit different from the overall telehealth service provision picture. Park, Saguache, Mineral, Conejos, San Miguel, Dolores, Morgan, Crowley, and Otero reported the least amount of both general telehealth and telebehavioral health availability. Of the counties with the highest number of providers reported, Adams,

Arapahoe, Denver, Grand, Mesa, Gunnison, Archuleta, and Alamosa fall into the top category for both overall telehealth providers and for telebehavioral health providers.

It is worthwhile to examine how both general telehealth and telebehavioral service provider availability overlaps with broadband and internet access by county since this is a significant barrier identified for both behavioral and general telehealth services. This comparison is made under the Broadband and Internet Access Deserts section of the report. All county numbers are based on respondents to the survey; actual distribution by county may differ and should be cross-referenced with other data sources such as licensures by county.

Number of Telebehavioral Providers Serving Each County

0 - 5   6 - 10   11 - 16   17 - 27   28 - 55
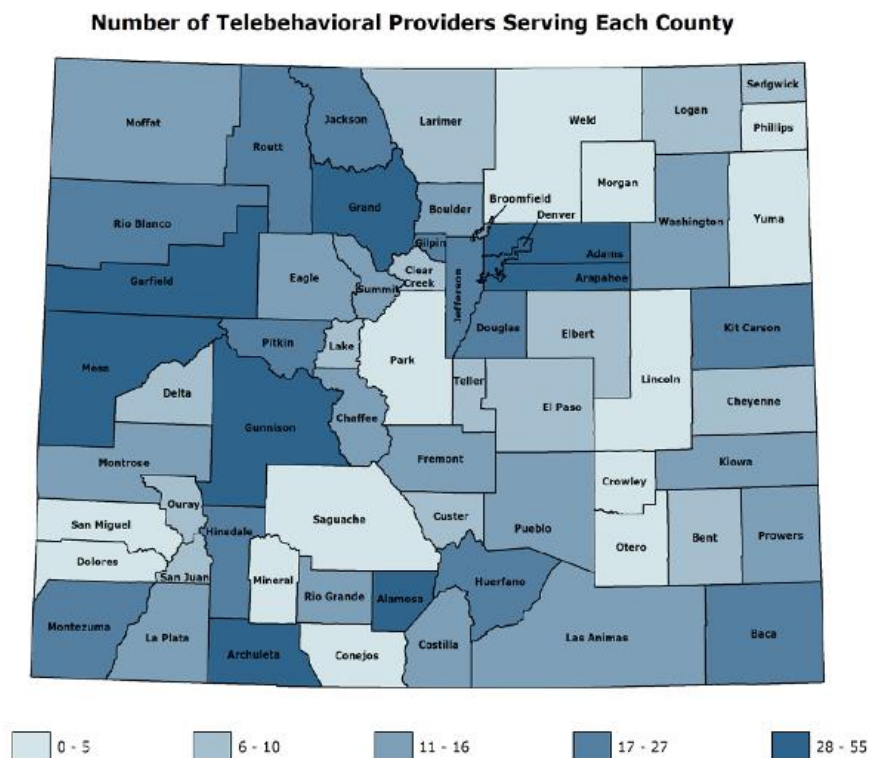
DIRECT TO CONSUMER TELEHEALTH

Providers reporting that they offer Direct to Consumer (DTC) made up 347 of the 1357 total responses. DTC telehealth occurs when patients initiate an appointment and consult with a health care provider on their own device, on their own schedule. It can happen synchronously or asynchronously, depending on the goal of the appointment and the patient's needs, with or without a prior doctor-patient relationship. DTC companies often exclusively offer services virtually and typically do not have an in-person option for care. Although a traditionally in-person clinic may also choose to offer telehealth services directly to the consumer without requiring in-person care or an established relationship.

Similar to the increase seen for behavioral health providers conducting telehealth visits during the pandemic, there was a noticeable increase in direct-to-consumer telehealth visits in the same time period.

Weekly DTC Telehealth visits before and during the pandemic
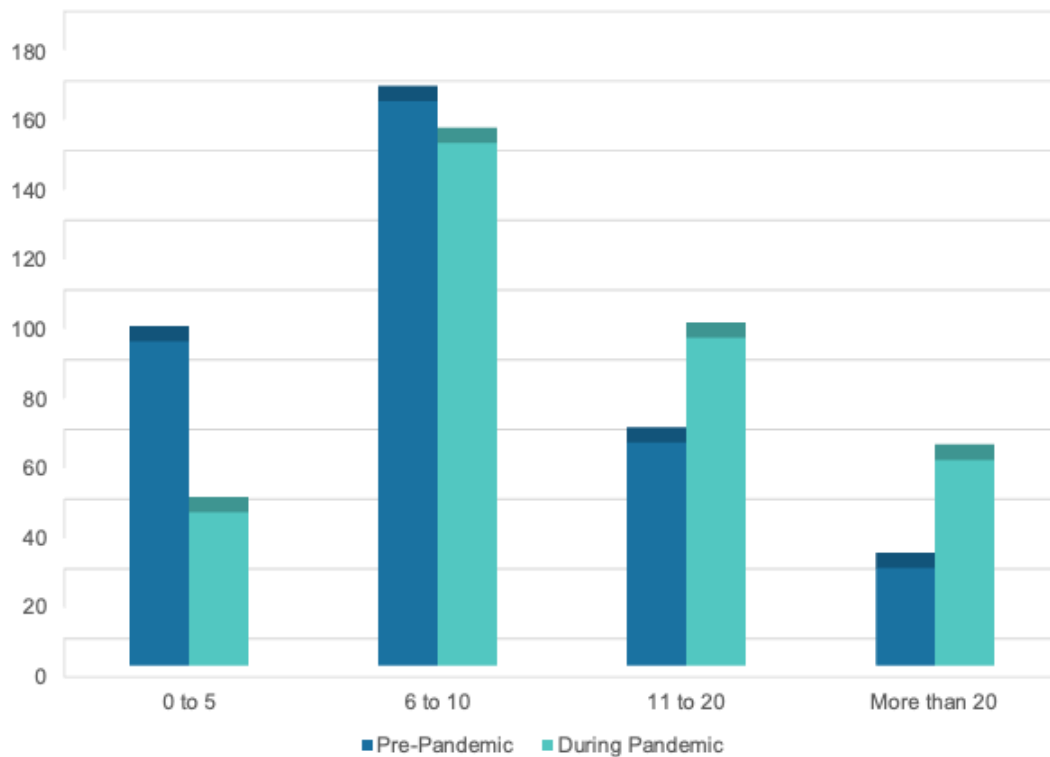
As demonstrated in the graph below, DTC providers indicated a significant percentage of their visits were with patients with whom they already had an established patient/physician relationship.

Percent of visits with patients with whom the provider has established a clinical relationship
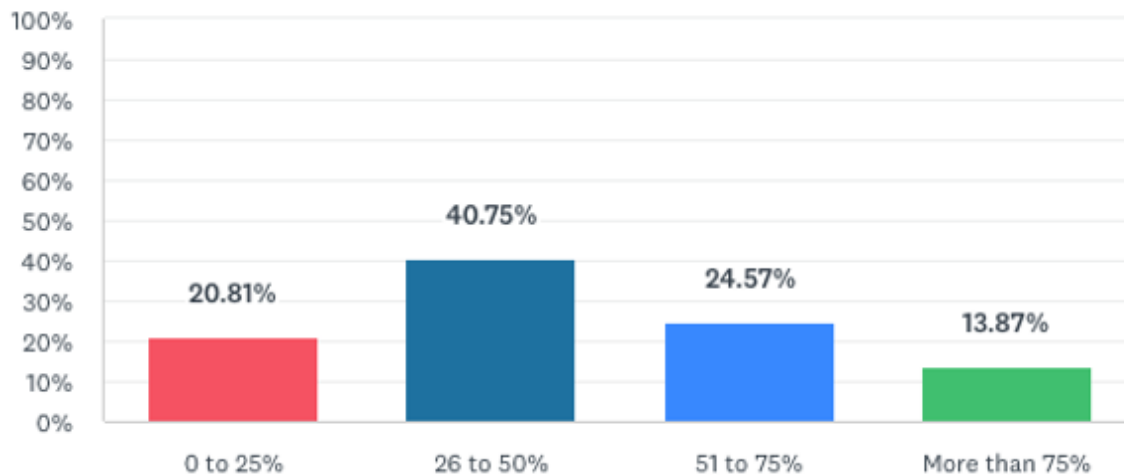
Close to 30% of DTC respondents provided interactive video visits for a patient at a school or childcare facility. Asynchronous telehealth care, also referred to as "store-and-forward," both

to receive advice from another clinician and provide clinical care to a patient, accounted for about 28% of DTC telehealth situations.

Direct to Consumer: Types of Telehealth Used	
Types of Telehealth	% of Total
Interactive video visits for patient at school or childcare facility	27.2%
Live interactive video visits for a patient in an outpatient clinic	25.0%
Remote patient monitoring of a patient who is at home	24.7%
Live interactive video visits for a hospitalized patient	23.1%
Remote patient monitoring of a patient who is at a healthcare facility	22.5%
Live interactive video visits for a patient in the Emergency Department	22.2%
Asynchronous telehealth to receive advice from another clinician	17.1%
Asynchronous telehealth to provide clinical care to a patient	11.1%
Telephone/audio-only calls with patients	8.9%
Text messages/SMS	4.4%
Note: Statistics based on 316 respondents	

Asynchronous telehealth is when a provider/patient collects medical history and then sends it to a specialist physician for diagnostic and treatment expertise. The other predominant types of care - a mix of remote patient monitoring and live video visits, are represented in this table. Of 316 respondents who answered this question, interactive video visits for a patient at a school or childcare facility were the top answer at 27.2%.

Nearly 43% of DTC respondents reported offering telehealth SUD services - this was the most reported type of telehealth service provided for DTC providers. This was followed by primary care, behavioral and mental health, psychiatry, and surgery and anesthesia consults. The DTC telehealth services offered by the fewest providers were pediatrics, obstetrics and gynecology, and palliative care.

SAFETY NET PROVIDERS

"The health care safety net is a term describing the providers and clinics serving people who experience inequities that create barriers to getting needed care. Many of these inequities are rooted in historic policies and discrimination that have kept people in poverty. Primarily located in areas where care is limited and social barriers are common, safety net providers offer medical services, oral health care, behavioral health care, and other resources most needed

within the communities they serve."[1] Safety net providers deliver health services to patients regardless of their ability to pay and serve primarily uninsured and low-income patients.

710 of survey respondents, or 52%, selected Federally Qualified Health Center, Community Mental Health Center, School Based Health Center, or Indian Health Services/638 Clinic as the description that best represented their type of organization.[2]

Sentiments Regarding Telehealth

Sentiments amongst safety net provider respondents regarding telehealth were generally positive, most notably when asked about perceptions of patient experience. 65% of respondents agreed or strongly agreed that telehealth has improved the timeliness of care for their patients. 57% of respondents agreed or strongly agreed that telehealth has improved the cost of care for their patients.

52% agreed or strongly agreed with the sentiment, "I like using telehealth." 71% of safety net respondents shared that they and/or their organization's leadership was motivated to continue using telehealth after the Public Health Emergency has ended.

Barriers to Telehealth Utilization

When asked to identify anticipated barriers to sustaining telehealth, 41% of safety net respondents shared that technology challenges for patients were the biggest challenge.

This priority was closely followed by a number of workflow issues, including "telehealth specific workflows" (28%), "integration with the EHR" (28%), "integration of additional technologies" (27%), and "lack of technical support" (24%).

Internet access and/or reliability, as well as lack of access to technology for patients were also identified as key challenges experienced when using telehealth. 62% of providers agree or strongly agree that audio-only/telephone based services are essential for their patients' ability to access care.

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[1] Safety Net Primer (Colorado Health Institute, 2021)

[2] The question options for organization type did not include Rural Health Clinics, Critical Access Hospitals, or Local Health Departments. The 2022 survey has been updated to include these options.

Health Insurance Payer Types

The health insurance payer types most commonly accepted among respondents from safety net organizations were Medicare (57%) and Medicaid (54%).

Insurance Type	Safety Net Respondents (710)	All Respondents (1,357)
Medicare	57%	51%
Medicaid	54%	49%
Private/Commercial Payer	49%	47%
Uninsured/No insurance	31%	25%
Veteran's Affairs (VA)	29%	25%
Child Health Plan *Plus*	27%	22%
Indian Health Services	9%	8%

Services Offered via Telehealth

The most common types of services provided via telehealth were behavioral health services (41%), substance use disorder services (39%), and primary care (32%). The least commonly reported types of services were palliative care (0.6%), obstetrics and gynecology (3%), and pediatrics (10%).

Of chronic conditions treated, over 47% provided care for high cholesterol, followed by diabetes (32%), cancer (29%), and chronic obstructive pulmonary disease (21%). Only 11% of safety net respondents said they treated hypertension.

Respondents were asked which types of visits they would like to continue offering via telehealth, which can provide insight as to where providers are engaging the most with telehealth or experiencing the greatest benefits.
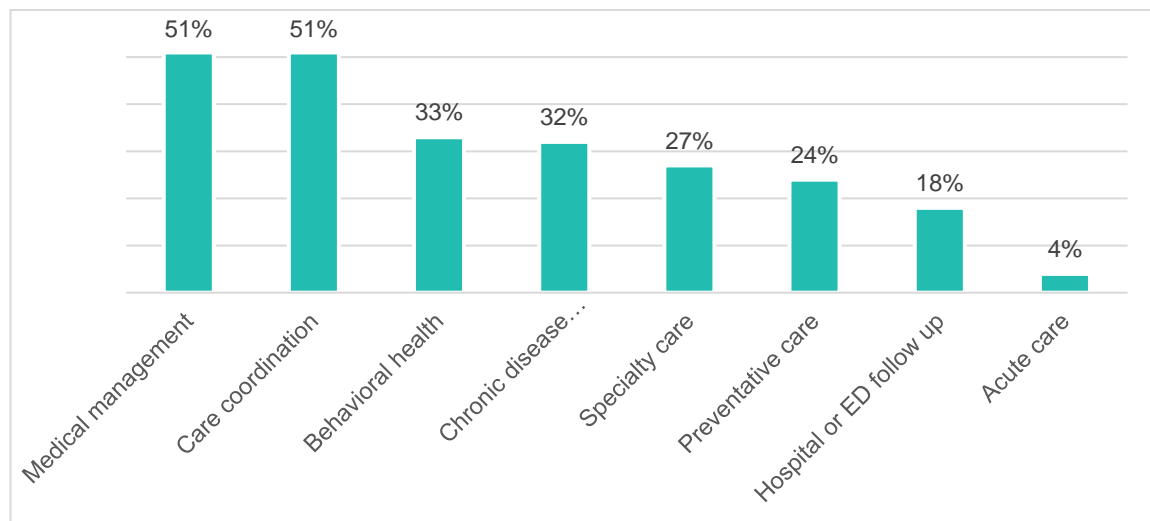
When asked what resources or training were needed for expanding telehealth, the highest indicated need from safety net respondents was for help teaching patients about telehealth (39%) and help integrating telehealth into their existing in-person practice to reduce disruption (35%).

Respondents from safety net organizations ranked the following types of support as most useful for sustaining telehealth for their practice, which are listed here in order or priority:
1. Funding for technology for providers
2. Funding for technology for patients ranked
3. Clearer guidance on telehealth policies and regulations
4. Funding to hire additional support staff
5. Centralized/streamlined access points for accessing econsult services
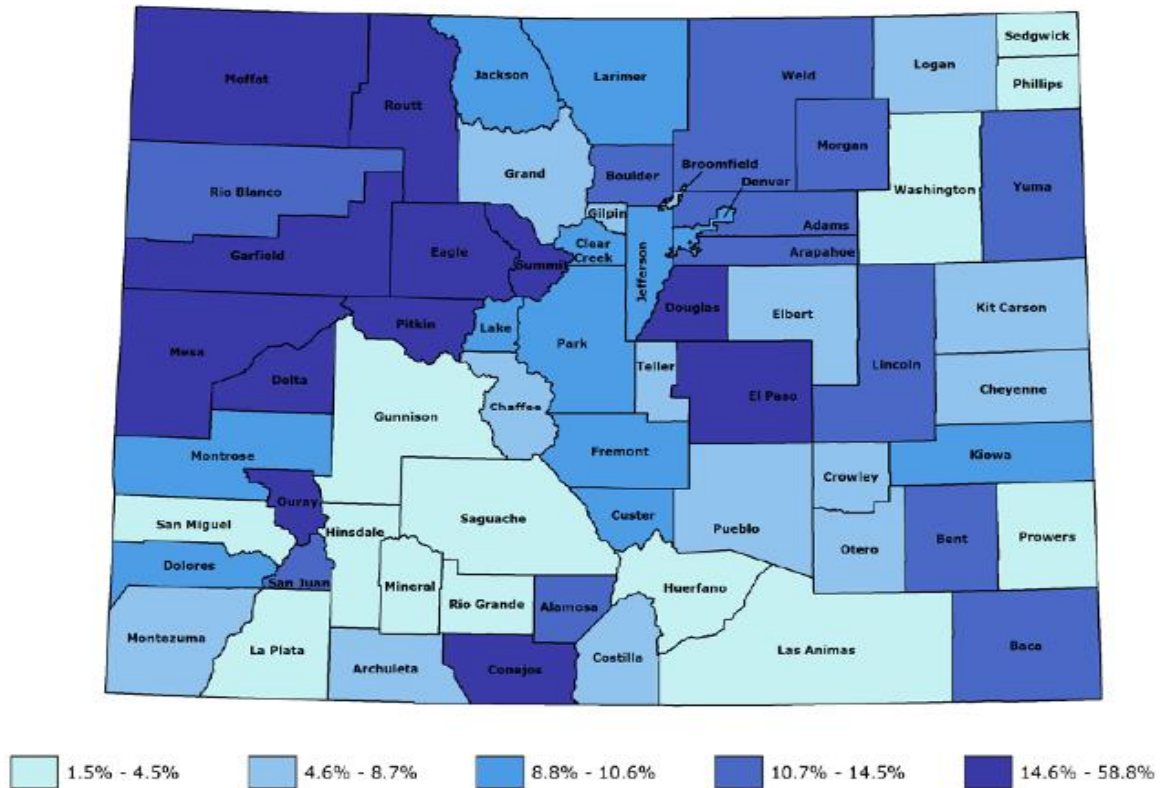6. More affordable options for telehealth specialty care and econsult services

When summarized, respondents representing safety net organizations prioritized funding for technology, clearer guidance on policies and regulations, and improved access to econsult and specialty care services as most important and/or useful.
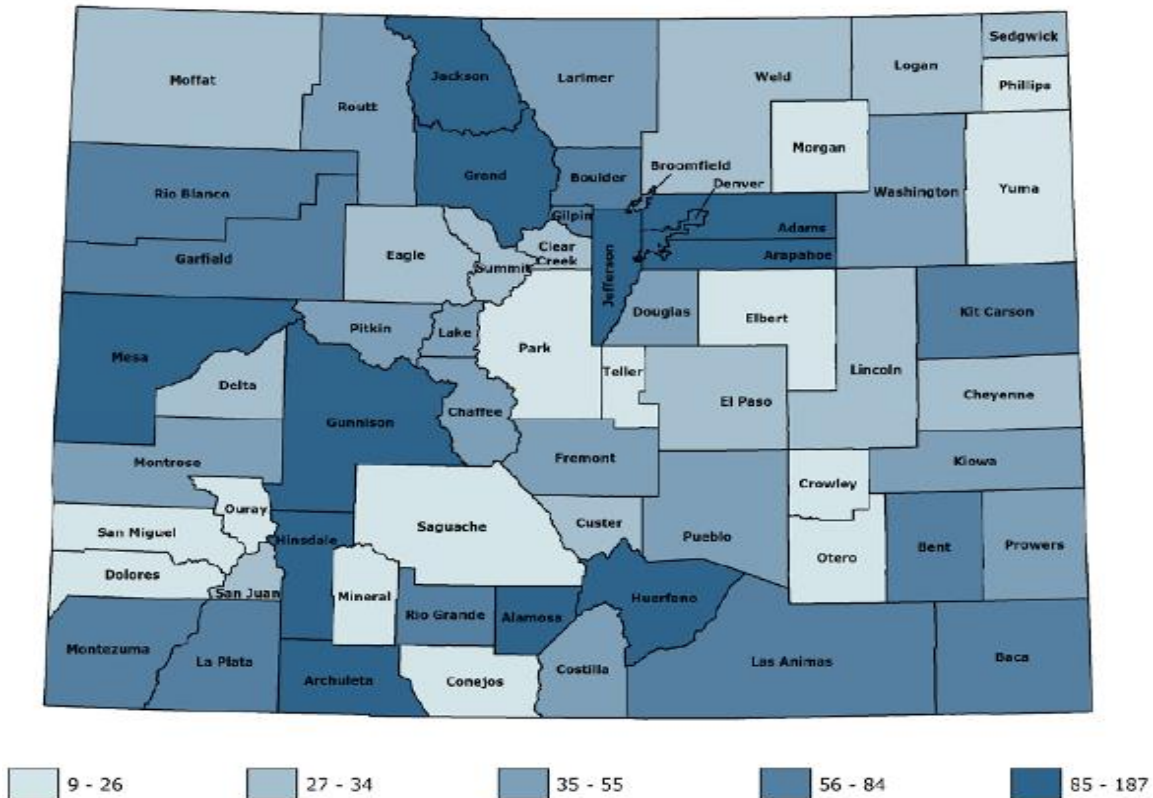

BROADBAND AND INTERNET ACCESS DESERTS

In the analysis, the percent of providers using telehealth and reporting a lack of access to reliable internet/cell service was broken into 5 categories and displayed by geographic location (as seen in the map below). 12 out of Colorado's 64 counties (18.75%) were in the highest category, with the most providers reporting poor access. These are indicated by the counties in dark purple and include Moffat, Routt, Garfield, Eagle, Summit, Mesa, Delta, Pitkin, Ouray, Conejos, Douglas, and El Paso counties.

When comparing this with the number of telehealth providers serving each county (see below) we can see some overlap between the two. For example, Ouray and Conejos had both the highest percentage of reported lack of reliable internet/cell and the lowest number of telehealth providers. Other counties such as Morgan and Yuma fall in the lowest percentage of reported telehealth providers and also fall into one of the higher categories for lack of reliable internet/cell service. While there may be a direct correlation between these two maps, it is important to note that some areas have the highest percent of unreliable internet/cell and the highest number of providers serving the area. It would be beneficial to study possible connections further, and this will be explored in the 2022 survey.

## Percent of Telehealth Providers Reporting Poor Access to Reliable Internet/Cell Service

Legend:
- 1.5% - 4.5%
- 4.6% - 8.7%
- 8.8% - 10.6%
- 10.7% - 14.5%
- 14.6% - 58.8%

Number of Telehealth Providers Serving Each County

Legend:
- 9 - 26
- 27 - 34
- 35 - 55
- 56 - 84
- 85 - 187

FUNDING FOR TELEHEALTH

While many respondents reported having multiple sources of funding for telehealth services, 31.4% responded that they have not received funding for telehealth (as seen in the chart below). Of those who reported that they have received funding, most reported receiving state funding at 23.6%, followed by federal at 22.2%, non-profit/foundation at 20.4%, and corporate funding at 16.9%.
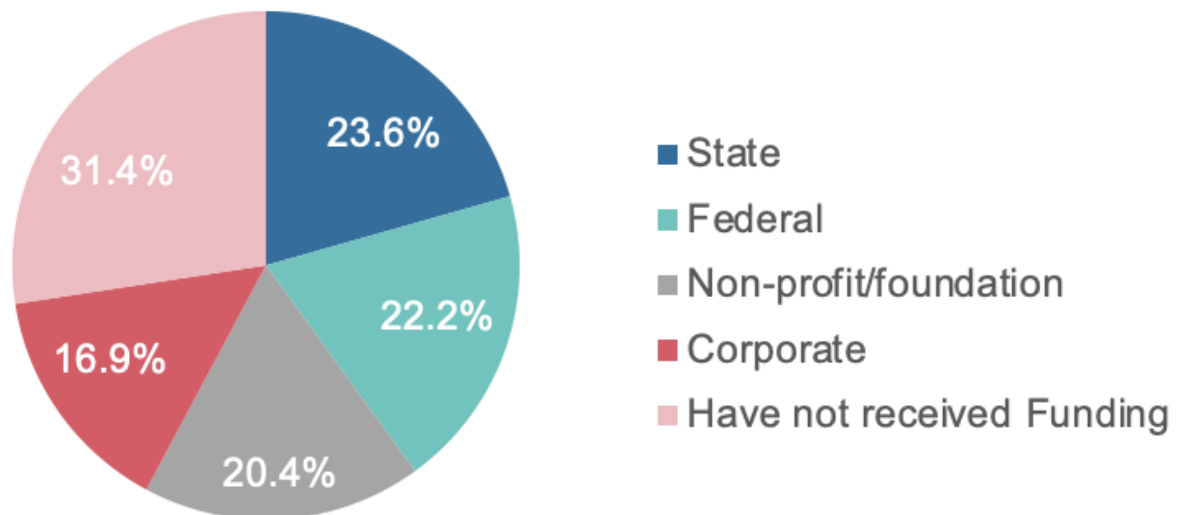
Note: Statistics based on 1,132 respondents. Respondents could choose more than 1 answer.

Funding Sources

As seen in the table below, most state funding came from the Colorado Department of Public Health and Environment (CDPHE) at over 16%. Federal funding came chiefly from the Substance Abuse and Mental Health Services Administration (SAMHSA) at nearly 27%. Funding from Colorado-based non-profits/foundations mostly came from the Colorado Health Foundation (7%).

Funding Organization	% Respondents
Substance Abuse and Mental Health Services Administration	26.59%
Health Resources & Services Administration	21.04%
US Department of Agriculture	18.80%
Colorado Department of Public Health & Environment	16.47%
Office of the National Coordination of Health IT (ONC)	13.61%
Federal Communications Commission	12.62%
Cares Act	11.28%
Colorado Broadband Office	8.95%

Colorado Office of Behavioral Health	8.86%
Regional Accountable Entity	8.59%
Colorado Health Foundation	7.43%
US Securities & Exchange Commission	7.16%
Colorado Office of eHealth Innovation	6.98%
Center for Medicare & Medicaid Innovation	6.89%
Colorado Trust	4.39%
Colorado Health Care Policy & Financing	2.33%
Denver Foundation	2.06%
Anschutz Foundation	1%
Corporate	1%
Note: Statistics based on 1,117 respondents. Percentage totals add up to more than 100% because respondents could choose more than one answer.	

A deeper exploration of CMS and therefore HCPF (and RAE) funding opportunities for telehealth may be warranted, given that more than 50% of respondents indicated they served Medicaid, Medicare, and/or CHP+ patients and identified telehealth as a meaningful tool for access and cost savings improvements for health care.

Types of Funding Received
For those that received funding for telehealth, 66% reported funding was used to support staff and clinician compensation and organizational capacity building to support telehealth. 27% of funding received was for internet access expansion, and 20% for telehealth software or equipment.

Access to Grant Writing Services
Further highlighting the importance of funding, over 92% of those that received funding had access to a grant writer. Only 8% of respondents who did not have access to a grant writer reported receiving any funding.

Geographic Distribution of Funding
The map below shows a breakdown by county of providers who received any funding for telehealth. Counties with the fewest providers who received telehealth funding were Eagle, Summit, Park, El Paso, Weld, Morgan, Yuma, Dolores, Ouray, Mineral, Conejos, Crowley, and Otero.

| | 6 - 18 | | 19 - 25 | | 26 - 38 | | 39 - 59 | | 60 - 132 |
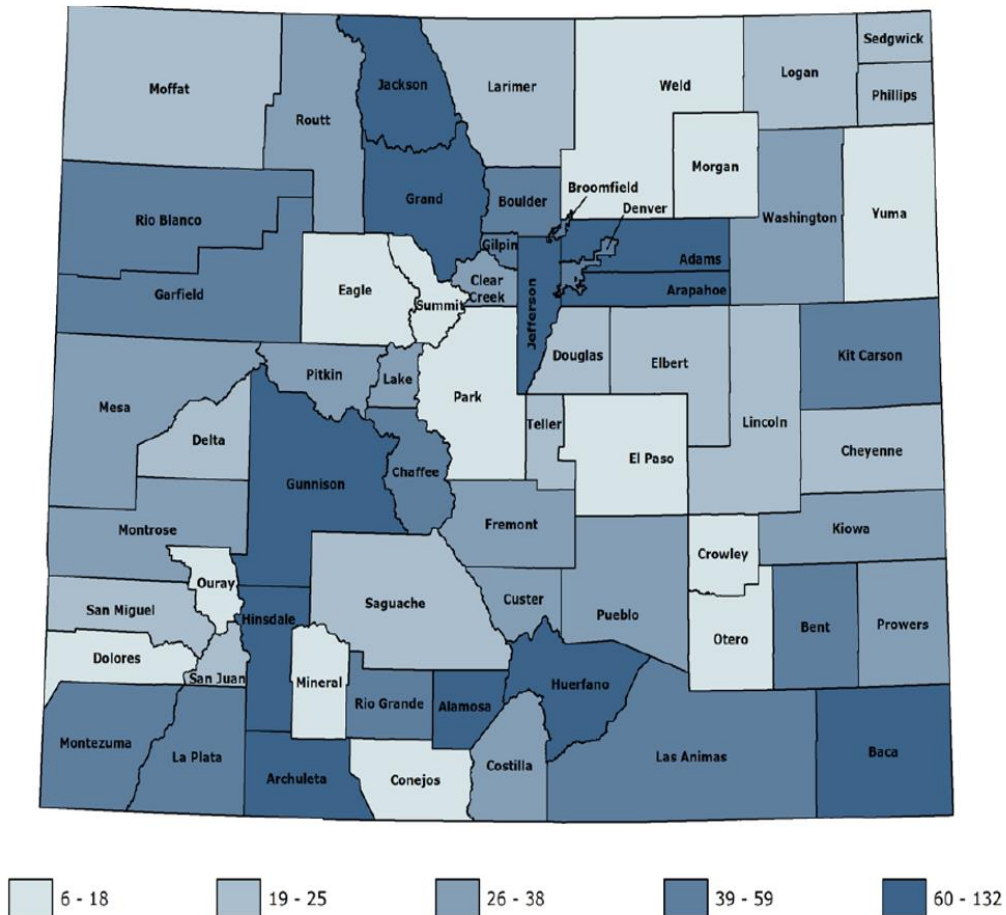
Park, Morgan, Yuma, Dolores, Ouray, Mineral, Conejos, Crowley, and Otero were also among the counties with the lowest number of telehealth providers serving them overall.

PROVIDER TELEHEALTH UTILIZATION

Of all the respondents, 93% said that they utilize telehealth services. At the time of the survey, 87% of respondents reported utilizing telehealth to deliver services to their patients for 18 months or less.

In contrast to safety net provider respondents, overall respondents utilizing telehealth identified that teaching their patients about telehealth and connecting with patients through telehealth are top resources and training needs. Integrating telehealth into in-person practices to reduce disruption also ranked in the top three, whereas safety net providers identified integration as the overwhelming top concern, with all other resource and training needs ranking at or under 10%.

Other resources and training needs include team-based care approach for telehealth, facilitating group classes/therapy via telehealth, reimbursement rules and regulations, and workflow refinement, at near or over 20%.

Providers who indicated they did *not* participate in providing telehealth services - 73 respondents - overwhelmingly chose lack of training as the primary reason, at 58%.

Reason for Not Using Telehealth	Count	% of Total
Lack of Training	42	58%
Inadequate Devices/Hardware	18	25%
Workflow Issues	16	22%
Requires More Time for Visits	10	14%
Inadequate Internet/Cellular Coverage	6	8%

Of the top 5 types of support that would be most useful in implementing and sustaining a telehealth practice for non-participating providers, the highest was centralized access points for patients seeking telehealth services.

Top 5 types of support that would be most useful in implementing and sustaining a telehealth practice
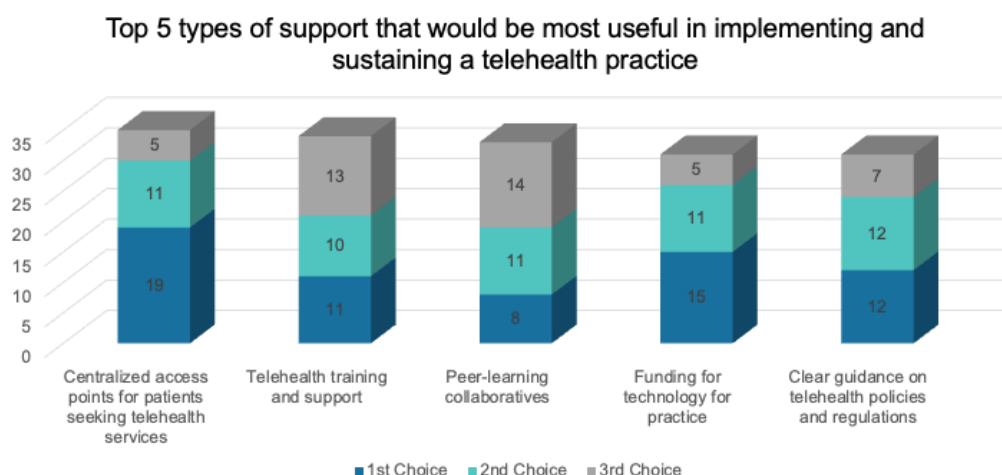
VALUE-BASED PROGRAMS

85% of total respondents indicated that they participate in a value-based program, defined as a healthcare delivery framework that incentivizes healthcare providers to focus on the quality of services rendered, as opposed to the quantity. Nearly 41% participate in Patient Centered Medical Homes (PCMH), 34% participate in Alternative Payment Models (APM), 24% participate in the Hospital Transformation Program (HTP), and 21% participate in Accountable Care

Organizations (ACO). Respondents could indicate participation in more than one value-based program.

By visit volume across all value-based programs, the highest prevalence was found to be 6 to 10 visits per week with the lowest being 0-5 visits per week. The table below shows the complete breakdown of this information.

Telehealth Visits per Week	ACO Count	HTP Count	APM Count	PCMH Count
0 to 5	49	41	65	73
11 to 20	61	101	117	145
6 to 10	98	126	191	234
More than 20	65	47	79	29
Grand Totals	**273**	**315**	**452**	**541**

SENTIMENTS ON TELEHEALTH

Feelings and perception can drive behavior, and a majority of respondents had positive sentiments about telehealth, for both their patients and themselves. Nearly 67% agreed that telehealth had improved their patient's timeliness of care, and nearly two-thirds of respondents agreed it had improved costs of care for their patients and that it had improved the safety of their patients. More than 64% said that their patients have reacted favorably to leveraging telehealth for clinical care, 58% said their patients like using telehealth, and over 56% said their patients have better access to care with telehealth.

Respondents realized tangible and intangible benefits of utilizing telehealth, with just over 54% indicating that telehealth improved the satisfaction of their work, and nearly 53% agreed that it had improved the financial health of their practice.

While 71% of respondents agreed that they or their organization are motivated to increase the utilization of telehealth, they did express concerns. A clear majority have concerns about telehealth-only providers disrupting the quality and coordination of care for their patients and concerns about their ability to retain providers in their in-person practices who might be recruited away by telehealth-only organizations (58% and 54%, respectively). Timeliness in addressing barriers with appropriate training and resources may help Colorado-based, in-person practices maintain and expand their telehealth offerings, retaining providers and

established patients and attracting new ones who may benefit from greater access to telehealth.

CONCLUSION

The results of this survey and the subsequent analysis provide valuable insights into the telehealth landscape of Colorado for organizations, providers, and the communities they serve. This report highlights both a positive surge in the utilization of telehealth which is to be celebrated and built upon and also identifies barriers that need to be addressed. To ensure the data and analysis are, and continue to be, as useful as possible, OeHI and Prime Health are conducting an updated version of the survey in 2022 to assess how that landscape has changed, build upon lessons learned from the 2021 survey and analysis, and to identify new trends and opportunities for improvement as healthcare and technology continue to evolve in Colorado and at large.

For questions or more information regarding 2021 survey results, the upcoming 2022 Colorado Telehealth Provider Survey, or other activities related to Health IT in Colorado, go to oehi.colorado.gov.

For more information on Prime Health and its mission to advance health equity through innovation, collaboration, and ecosystem building, go to www.primehealthco.com.