



Telemedicine Utilization Report

Telehealth and Telemedicine during the COVID-19 Pandemic

12/16/2020



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Significant guidance and assistance provided by:

DHS Behavioral Health Division Research, Analytics and Communication staff and DHS Health Care Division Research and Analytics staff. We extend our sincere gratitude to Lisa Blacker, William Burleson, Erin Flicker, Anne Graham, Jeshua Livstrom, Megan Loew, Julie Marquardt, Weston Merrick, Melorine Mokri, Jana Nicolaison, Neerja Singh, Diogo Reis, Mary Paulson, Cindy Swan-Henderlite, Amy Walkner, and our partnership with Portage Partners Consulting.

Acknowledgements:

Sincere recognition to our community health care providers and organizations who shared their time, energy, insight, and experiences with the State during the public health emergency to create a greater Minnesota. Their contributions were invaluable in the production of this report.

Special appreciation to Jonathan Neufeld, Program Director of Great Plains Telehealth Resources & Assistance Center at the University of Minnesota's Institute for Health Informatics, who volunteered his time, energy, insight and expertise to this project.

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Acronyms

Public health emergency (PHE)

Minnesota Department of Human Services (DHS)

Substance use disorder (SUD)

Black, Indigenous, and People of Color (BIPOC)

Center for Medicare and Medicaid Services (CMS)

Children's Health Insurance Program (CHIP)

Health Information Portability and Accountability Act (HIPAA)

Ear, Nose and Throat (ENT).

Medicaid Management Information System (MMIS)

Culturally and linguistically appropriate services (CLAS)

Executive Summary

This report summarizes primary and secondary research on the use of telemedicine to deliver services covered by Medicaid in the state of Minnesota. The report includes a review of:

- contemporary literature on the use of telemedicine;
- temporary state and federal telehealth policy waivers and modifications in response to the COVID-19 pandemic;
- qualitative analyses of provider focus group and survey feedback data;
- quantitative analyses of federal and state Medicaid claims data; and
- key findings and initial recommendations on the future use of telehealth in Minnesota after the COVID-19 peacetime emergency ends.

Due to the COVID-19 public health emergency (PHE), the Centers for Medicaid and Medicare Services (CMS) and the Minnesota Department of Human Services (DHS) approved a number of federal and state waivers and modifications allowing temporary expansion of telemedicine service delivery methods and provider types eligible for Medicaid coverage. These temporary policy changes were requested and approved in response to the state's urgent health care needs, not only in terms of emergency health care, but also primary and specialty health care, including mental health and substance use disorder (SUD) treatment.

The DHS Telemedicine Project Team assessed the impact of federal and state telemedicine waivers and modifications on providers and patients/clients in Minnesota during the COVID-19 peacetime emergency based on the following: literature review, stakeholder survey feedback, Medicaid claims data, and provider focus groups. Based on this assessment, telemedicine utilization increased for most populations, but significantly less so for minority and elder populations. It served as an essential mechanism to support recipients and providers to provide safe health care. Claims analysis results indicate behavioral health services utilized telemedicine services at a higher rate compared to non-behavioral health, both before and after the PHE. From the 87.3% of Minnesota residents who received health care services, approximately 25% of the recipients engaged in telemedicine care.

Overall the feedback received as of the date of this report voiced support for the continued use of telehealth as an option for the provision of some health care services depending on the type of health care service, the frequency and the amount of telemedicine services delivered in combination with in-person care, patient preference, and if longer-term outcome data indicates positive patient outcomes. Generally both patients/clients report that telemedicine services are not as good as face-to-face services. It was noted that some patients/clients would become distracted, have difficulty focusing during treatment sessions and/or would have discomfort/be self-conscious with video sessions. Future investigation will consist of supporting additional provider-based focus groups and monitoring telemedicine utilization to observe change over time. Use of telephone-only as a telemedicine modality for clinical services also needs to be examined further and independently of other telemedicine modalities.

Recommendations for further consideration by DHS include:

- integrating telemedicine as a permanent modality in delivery of services, developing specific guidance on licensing standards around telemedicine;
- investing resources in understanding comparatively low level of utilization of telemedicine by Black, Indigenous, and People of Color (BIPOC) communities;
- advocating and prioritizing funding for telehealth infrastructure development; and
- supporting legislation to allow Medical Assistance (MA) and MinnesotaCare enrollees to have more than three telemedicine visits in a week.

Purpose and aims of telemedicine utilization report

Purpose: To inform Minnesota Department of Human Services (DHS) leadership and personnel about the past and current uses of telemedicine as well as identifying evidence of effective telemedicine and telehealth-related services and policies at both state and national levels. The DHS Telemedicine Project Team reviewed academic literature and used both qualitative and quantitative research methods to examine the anticipated impacts of federal and state telehealth and telemedicine waivers on the delivery of health care services based on data collected from providers and patients/clients in Minnesota since the onset of the COVID-19 pandemic through the end of June 2021, or until the end of the public health emergency (PHE).

Aims:

- Describe telemedicine and telehealth modalities, current federal and state waiver and modifications enacted in response to the PHE, and relevant research from Minnesota and across the United States.
- Examine which types of providers using telemedicine modalities and which types of services are being delivered via telemedicine during the PHE.
- Assess how telemedicine service delivery patterns are evolving during the PHE to best anticipate future provider and patient/client needs in Minnesota.
- Summarize current research and evidence on the use and effectiveness of telemedicine and telehealth service delivery methods to better inform future technical assistance, training, and legislative proposals recommended by DHS after the PHE ends.

Background

The COVID-19 pandemic caused by the coronavirus SARS-CoV-2 poses unique challenges for providers of physical health care and mental health care services due to masking, social distancing, and disinfecting requirements to avoid the spread of the disease.

Health care services and providers must be available to all Minnesota residents in need of primary care visits, behavioral health support, substance use disorder (SUD) treatment, and referrals to specialty care. This is especially true during the COVID-19 pandemic, to decrease the risk of exposure to COVID-19 by continuing to

maintain standard and preventative care. Given the Centers for Disease Control and Prevention's (CDC) COVID-19 health guidelines and Minnesota's stay-at-home order, providing health care through telemedicine has been considered an essential and viable evidence-based solution in response to current needs.

Telehealth and **Telemedicine** are essential components of a person-centered approach to both primary health care and specialty health care, such as behavioral health. This approach is effective and helps protect patients/clients, health care providers, families, and communities from increased risk of exposure to COVID-19. For the purposes of this report, the terms telehealth and telemedicine are each defined and separately distinguished¹ in the following ways:

- **Telehealth** is the use of electronic information and telecommunications technologies to support long-distance clinical health care, patient and professional health-related education, public health and health administration. Technologies include videoconferencing, the internet, store-and-forward imaging, streaming media, and terrestrial and wireless communications.¹ Telehealth refers to a broader scope of remote healthcare services than telemedicine.
- **Telemedicine** refers specifically to remote clinical services. Telemedicine can refer to remote non-clinical services, such as provider training, administrative meetings, and continuing medical education, in addition to clinical services.¹

Both telehealth and telemedicine are terms that will be referred to throughout this report based these two distinct definitions and are not considered interchangeable terms for the purposes of this report.

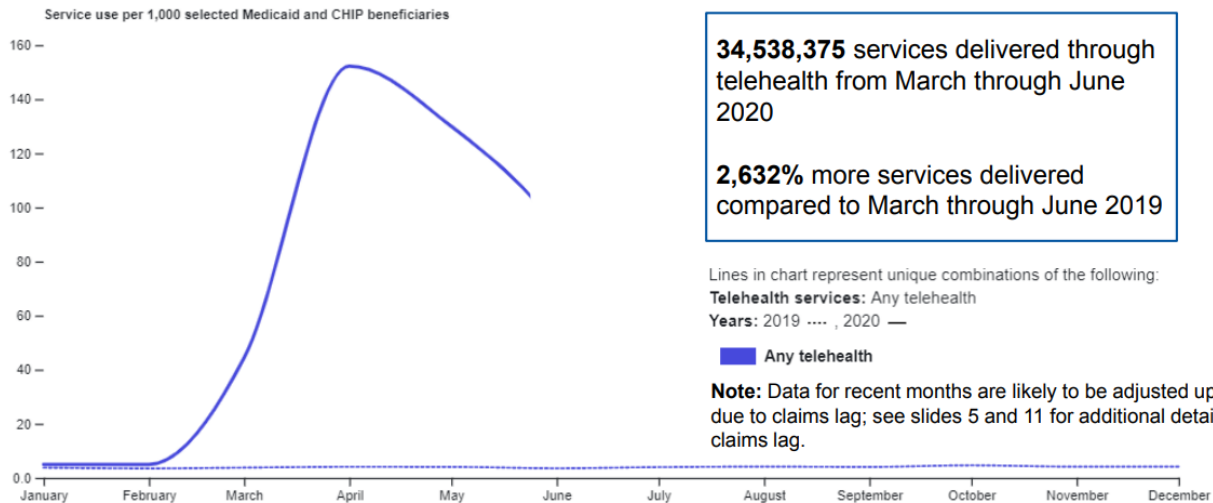
Federal telehealth data

Medicaid Telehealth Data. The Center for Medicare and Medicaid Services (CMS) released a national snapshot of services delivered via telehealth among Medicaid and Children's Health Insurance Program (CHIP) beneficiaries during the beginning of the COVID-19 pandemic. Medicaid and CHIP data was composed of 91.8 million Americans receiving telehealth care via virtual check-ins, asynchronous electronic communication, and other digital platforms for routine and consultation care.² Their results indicated that telehealth services increased from February through April 2020 and remain above previous rates. Moreover, services delivered via telehealth were highest among working age adults, followed by children, and then older adults.

¹ The [Health Resources Services Administration](https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7301824/table/t0005/?report=objectonly) or HealthIT.gov, extracted on 10/14/2020 from: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7301824/table/t0005/?report=objectonly>

² To view the Medicaid and CHIP data snapshot on telehealth utilization during the PHE, please visit: <https://www.medicaid.gov/resources-for-states/downloads/medicaid-chip-beneficiaries-COVID-19-snapshot-data-through-20200630.pdf>.

Preliminary data suggest that services delivered via telehealth increased from February through April 2020



Notes: These data are preliminary. Data are sourced from the T-MSIS Analytic Files v4 in AREMAC, using final action claims. They are based on August T-MSIS submissions with services through the end of July. Recent dates of service have very little time for claims runout and we expect large changes in the results after each monthly update. Because data for July are mostly incomplete, results are only presented through June.

CMS Telehealth Toolkit. Along with the national Medicaid data, CMS released a toolkit to help states identify which services can be accessed through telehealth, what types of providers may deliver those services, and how providers may deliver services through telehealth, including the circumstances under which telehealth can be reimbursed once the PHE ends.

Federal and state waivers during COVID-19 Pandemic³

Due to the COVID-19 PHE, the CMS approved federal waivers allowing states to expand coverage of telehealth and telemedicine services and the types of providers authorized to deliver these services during the PHE. These waivers were granted in response to urgent health care needs, including emergency health care, primary health care, specialty health care, and SUD and mental health treatment services. In Minnesota, federal and state waivers and modifications temporarily allow expanded access to telemedicine.^{4,5} [See Appendix A for a list of state and federally approved waivers and modifications temporarily allowed in Minnesota in response to the PHE].

³ See Appendix A for complete list of waivers

⁴ For federal waivers, click the links: <https://mn.gov/dhs/waivers-and-modifications/#50> <https://mn.gov/dhs/waivers-and-modifications/#54>

⁵ For state waivers, click the link: <https://mn.gov/dhs/waivers-and-modifications/#11>

DHS telemedicine and telehealth study

The DHS Telemedicine Project Team employed quantitative and qualitative research methods to examine the potential impact of federal and state waivers and modifications temporarily allowing the expansion of telemedicine for health care providers and patients/clients in Minnesota until June 2021 or when the PHE ends.

The study aims to:

- Understand which types of providers and services are being delivered via telemedicine in Minnesota during the pandemic
- How telemedicine service delivery patterns are evolving during the pandemic to best anticipate future patient/client and provider needs in Minnesota

The study used the following methods to reach these aims:

- Contextual Analysis: Review of Literature
- Telemedicine Waiver Feedback Survey
- Claims Analysis Report
- Provider Focus Groups

Contextual analysis: a brief review of contemporary literature⁶

Scope: Review of literature about the provision of telehealth and telemedicine services prior and during the occurring COVID-19 pandemic, specifically for primary care, specialty care, mental health, and SUD, as well as the current policy waivers issued in the State of Minnesota. *N* = 49 scholarship products were reviewed.

Aim: Summarize current research to inform future technical assistance, training, and legislative proposals put forth by DHS for telehealth and telemedicine.

Introduction

Health care services have been moving toward a more patient-centered approach while integrating technological advances for over 40 years. From 2004 to 2014 there was rapid growth nationwide in telemedicine to address behavioral health issues among rural Medicare beneficiaries. While telemedicine services were expanding, Medicare reimbursements in some state policies were also shifting toward supporting patients' and providers' use of telehealth. Minnesota has historically served as an instructive case study for investigating the availability of telemedicine, specifically because the state encompasses large metropolitan areas and rural areas with varying unmet health care needs that may be addressed by telemedicine. Additionally, Minnesota has enacted policies during the past decade aimed at expanding the use of telemedicine. Notably, in 2006 Medicaid began covering real-time videoconferencing telemedicine services for mental health care at parity with in-

⁶ See Appendix B for Full Contextual Analysis and citations

person service delivery. By 2009 some commercial payers were also covering telemedicine services. The Minnesota Telemedicine Act of 2015 mandated universal reimbursement parity for telemedicine and in-person services beginning in January 2016 for Medicaid beneficiaries and in January 2017 for commercial beneficiaries.

The number of health care related telemedicine visits in Minnesota increased from 11,113 in 2010 to 86,238 visits in 2015, representing growth of over 600 percent. The bulk of this increase was accounted for by increases in telemedicine use among commercial settings. These visit volumes increased from 2,242 visits in 2010 to 51,955 visits in 2015. The volume of Medicaid and Medicare telemedicine visits also grew rapidly over this period, but to a lesser extent than that of commercial telemedicine visits (over 400 percent and 200 percent, respectively). Despite the growth from 2010 to 2015, only 0.7 percent of patients used any telemedicine during the study period.

Due to the COVID-19 pandemic the United States Department of Health & Human Services Administration waived the Health Information Portability and Accountability Act (HIPAA) requirements to allow for the use of non-encrypted (FaceTime and Skype) telemedicine services. In addition, the federal Drug Enforcement Administration (DEA) waived and expanded some of the face-to-face prescribing requirements, allowing for the provision of Schedule II -V prescriptions via telemedicine. In tandem, the MN DHS also implemented waivers for expanded telemedicine and telehealth policy to support a quick response to health care needs and to prioritize the benefits of providing these services to Minnesotans, with awareness of the potential risks of utilizing non-HIPAA compliant technologies and other patient protections. These policy changes allowed for triage to screen potential early symptoms of COVID-19, protecting patients, health care providers and communities. Telemedicine allowed for the provision of essential health care services while reducing exposure risks for patients and service providers.

Support for telemedicine

Telemedicine, as an alternative health care delivery option, provides quicker access to some health care services to ensure patient needs are met during this public health emergency. Among the many approaches to continue providing needed care in the wake of physical distancing, telemedicine is an effective, yet underutilized method. Proponents for telemedicine have argued for years about its potential for reaching hard-to-reach patients. Current research has demonstrated that telemedicine services create additional capacity, greater convenience, and also yield greater use of services when offered via telemedicine. Some of the striking disparities in access to healthcare have been reduced when implementing a telemedicine model. There is limited research available which addresses racial inequities in telemedicine services.

Key empirical findings

- Telehealth and telemedicine have shown to increase access to patients, communities, and vulnerable populations, including adolescents, adults, seniors, veterans, rural patients, persons diagnosed with a disability and/or a mental health condition, and persons with transportation barriers and mobility issues.
- The provision of health care services via telehealth and telemedicine has been shown to decrease the wait times for emergency departments, an appointment with a general practitioner, and referrals to several medical specialties, such as behavioral health and Ear, Nose and Throat (ENT).

- Telehealth and telemedicine can be utilized to provide prevention and early intervention services and to support follow-up care for chronic conditions.

Considerations for state programming and policy toward the expansion of telemedicine

- It has been recommended that patients be screened to determine whether telemedicine is a desirable and appropriate service for them, and that providers use an office and technology checklist to determine if telemedicine videoconferencing services are appropriate for them.
- Providers and educators interested in the rapid adoption of telemedicine would benefit from attending trainings and reviewing comprehensive guidelines and training materials that are widely available. Examples consist of Post COVID-19 training, education such as Telehealth 101, Multicultural Aspects of Rural Health, Cultural Aspects of Telemedicine, Laws and Ethics of Telemedicine.
- Health insurance companies should follow CMS lead of reimbursing same rates for telemedicine services during the COVID-19 pandemic and possibly beyond.
- Policy makers need to ensure reimbursement rates are aligned with face-to-face rates for the same procedures.
- Continue with simplified billing procedures and documentation requirements enacted during COVID-19 that decrease clinician time spent on documentation and provide more time for the clinician to spend attending to the patient.

Policy makers were encouraged to base policy decisions on evidence provided by robust research on feasibility, utilization, efficacy, and aimed at addressing health care disparities.

Initial stakeholder feedback summary⁷

Scope: Analysis of various survey data gathered by different provider organizations across the state on utilization of telehealth modes during the pandemic.

Aim: To elicit qualitative telemedicine waiver feedback from all sectors including health systems, treatment providers, tribal nation behavioral service providers, educational services for youth, and advocacy groups.

Results

Feedback was consistent with the contextual analysis findings. We were able to engage with $N = 16$ community provider and partner participants.

Summary based on information collected from the following community providers between June 29, 2020 and August 5, 2020:

- AspireMN (residential/non-residential mental health and foster care)
- Essentia Health (physical care)

⁷ See Appendix C for Complete Telemedicine Waiver Stakeholder Feedback Survey Document

- Gillette Childrens Hospital (physical care)
- HealthPartners (primary, mental/substance use disorder)
- Hennepin Health (physical, psychiatric, addiction medicine)
- Itasca Medical Care (mental/substance use disorder and primary care)
- Lower Sioux Human Services (targeted case management and child protection services)
- Minnesota Association of Resources for Recovery and Chemical Health (provider organization)
- Minnesota Association of Community Mental Health Providers (provider organization)
- Minnesota Department of Education (special education health-related services)
- Minnesota Hospital Association (all services)
- Minnesota Psychological Association (mental health)
- Minnesota Chapter of the American Academy of Pediatrics (physical and mental health care)
- North Homes Organization (children’s mental health)
- NuWay (adult co-occurring mental/substance use disorder services)
- Nystrom and Associates (adult co-occurring mental/substance use disorder services)

General agreement

- Telehealth made it easier to access services, and easier to involve other family members in healthcare services.
- Telehealth freed-up time to serve more clients/patients in need of services since healthcare staff could provide services from one location, eliminating drive-time between provider sites.
- Patient/client attendance was improved by fewer “no-shows” and late arrivals.
- Some patients who would otherwise not access care due to their illness, travel distance, lack of transportation, lack of child/senior care, or level of motivation, can more easily access services in the comfort of their home.
- The input from metro county ethnic minority groups and rural tribal recipients were positive for telehealth service provision, noting that telehealth improves equity in access to healthcare.
- Responses from ethnic minority groups and rural tribal recipientgroups mentioned a preference that telehealth be provided by telephone and not via the internet.

Initial conclusions

Overall the feedback received as of the date of this summary voiced support for the continued use of telehealth as an option for the provision of some health care services depending on

- The type of health care service
- The frequency and the amount of telehealth services delivered in combination with in-person care
- Patient preference
- If longer-term outcome data indicates positive patient outcomes.

Since current expansion has relied heavily on relaxation in the enforcement of the privacy and security requirements under the federal HIPAA, any longer term changes must also be considered within the context of HIPAA enforcement.

Claims data analysis⁸

Scope: Telemedicine data was collected from claims data housed in the Medicaid Management Information System (MMIS). Data was extracted for analysis at fixed points, since MMIS data is uploaded daily. The last claims data extraction was Sept. 28, 2020.

Aim: A descriptive cross-sectional review of the claims data by recipient demographics was performed to assess telemedicine utilization before and after the COVID-19/public health emergency waivers were issued.

An initial evaluation plan was developed to assess changes in telemedicine usage as a result of the COVID-19 pandemic. The following questions were posed:

- What was the scope of telemedicine utilization during the pandemic?
- Did service utilization change from pre-COVID to COVID time period?
- What are the provider profiles of those who utilized telemedicine/telephonic contact during the pandemic?
- Who used telemedicine services?

⁸ See Appendix D for full Claims Analysis Report Methodology

Results^{9,10}

Telemedicine utilization by distinct count of persons before and after public health emergency (PHE).

Recipients of Telemedicine	Non-Behavioral Health	Behavioral Health
Prior to the public health emergency:	Percentage	Percentage
Percentage who utilized telemedicine	< 2%*	6%
After the public health emergency:	Percentage	Percentage
Percentage who utilized telemedicine**	19%	30%
Percentage of increase for telemedicine-only use	3%	17%
Percentage who have started services	8%	7%
Of those that started services, percentage that did NOT use telemedicine	81%	49%
Percentage that had no other claim after this date (stopped services)	41%	54%
Percentage who were still utilizing non-telemedicine services*	56%	28%

* Includes those using only telemedicine as well as hybrid (and occurrence of both face to face and telemedicine).

Results indicate behavioral health services utilized telemedicine services at a higher rate compare to non-behavioral health, both before and after the PHE. Of the individuals who utilized telemedicine for all health care

⁹ **Please Note.** This data has numerous limitations. The numbers used are snapshot averages taken from “Before” months of data pre-COVID (July 2019-March 19, 2020) and “After” the public health emergency (PHE)/stay at home order (March 20, 2020 – September 28, 2020). The trend for all telemedicine is downward after the spike in April but by averaging it implies it is being consistently used.

¹⁰ Data analyzed was based on distinct count of person recipients. There are five categories recipients were categorized as: Both services, No Telemedicine, Only Telemedicine, No Services and Stopped Services. Both Services refers to persons with a telemedicine claim (POS 02) as well as another claim (one other than telemedicine). No telemedicine refers to persons with claims that did not include a POS 02. Only telemedicine refers to persons that only had a claims with POS 02. No service refers to persons who only had a claim(s) after the stay at home order. Lastly, stopped services refers to persons that did NOT have a claim after the stay at home.

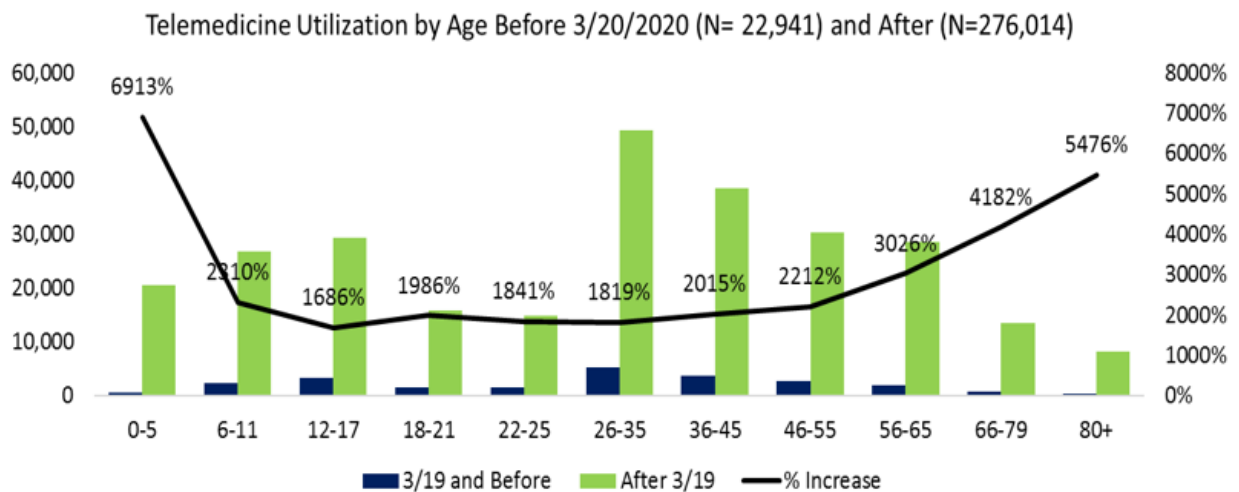
services, 20% used telemedicine-only, 15% started services after the PHE and have continued follow-up via telemedicine, approximately 50% of individuals stopped services (submitted no claims after the PHE).

Telemedicine utilization of individuals who did not use telemedicine services before PHE by distinct count of persons

Utilization	Count	% of total
No Telemedicine Before - Stopped Services	119466	60.40%
No Telemedicine Before - Only Telemedicine After	28365	14.30%
No Telemedicine Before - No Telemedicine After	27399	13.90%
No Telemedicine Before - Both Services After	22573	11.40%
Total	197803	87.30%

Results indicate that of the 87.3% of individuals who received health care services, approximately 25% of the recipients benefited from telemedicine being available. Moreover, 14.3% of patients receiving Medicaid support who needed care and did not utilize in-person visit, were able to start telemedicine-only services after the PHE.

Telemedicine utilization Before the PHE (3/20/2020) and After by Age.



Due to the data limitations, the percentages are inflated. Results evidence significant changes in telemedicine utilization that impacted age groups differently. Specifically, individuals within age groups 0-5 years old and 66+ years old, were served more by telemedicine services when compared to individuals aged between 6-65 years old.

Key findings and next steps

- Of the individuals who utilized telemedicine for all health care services, 20% used telemedicine-only, 15% started services after the PHE and have continued follow-up via telemedicine, approximately 50% of individuals stopped services (submitted no claims after the PHE).
- Results indicate that of the 87.3% of individuals who received health care services, approximately 25% of the recipients engaged in telemedicine care. Moreover, 14.3% of patients receiving Medicaid who needed care and did not utilize in-person visits were able to utilize telemedicine-only services after the PHE. Further investigation on these particular utilization groups is warranted and could illuminate how to better engage individuals with telemedicine health care services.
- Results suggest changes in telemedicine utilization which impact age groups differently. Specifically, individuals within age groups 0-5 years old and 66+ years old had more telemedicine claims compared to individuals 6-65 years old. This is inconsistent with the CMS Medicaid and CHIP snapshot data, which found that working age adults were more likely to utilize telemedicine services.
- To measure provider and service patterns at a more granular level, next steps will utilize longitudinal method with monthly and/or weekly time points starting in January 2020 to more accurately identify telemedicine trends in provider and services.
- Age and additional demographics warrant further investigation based on volume based on services received.
- Further examination on service patterns based on services being utilized by individual differences including racial and ethnic groups and geographic location.

Focus groups¹¹

Scope: DHS partnered with external consultant, Portage Partners Consulting, to investigate what services have worked for what type of provider, and what has not worked in the implementation of telemedicine across all health care areas.

Aim: To elicit feedback by health care provider type and service to inform future technical assistance, training, waiver-related legislative proposals put forth by DHS for telehealth and telemedicine.

Focus groups were used to ask providers:

- What worked well about telemedicine services during the pandemic?
- Were there specific forms of telemedicine that worked better than others (video chat vs phone only)?
- What were the barriers experienced by consumers in terms of gaining access to services using telehealth during pandemic?
- What were the barriers experienced by providers in providing quality care to consumers using different forms of telehealth options?

¹¹ See Appendix E for Complete Provider Focus Groups Methodology and Results

- What are the recommendations from providers and consumers regarding future use of telemedicine in the Minnesota?

Results

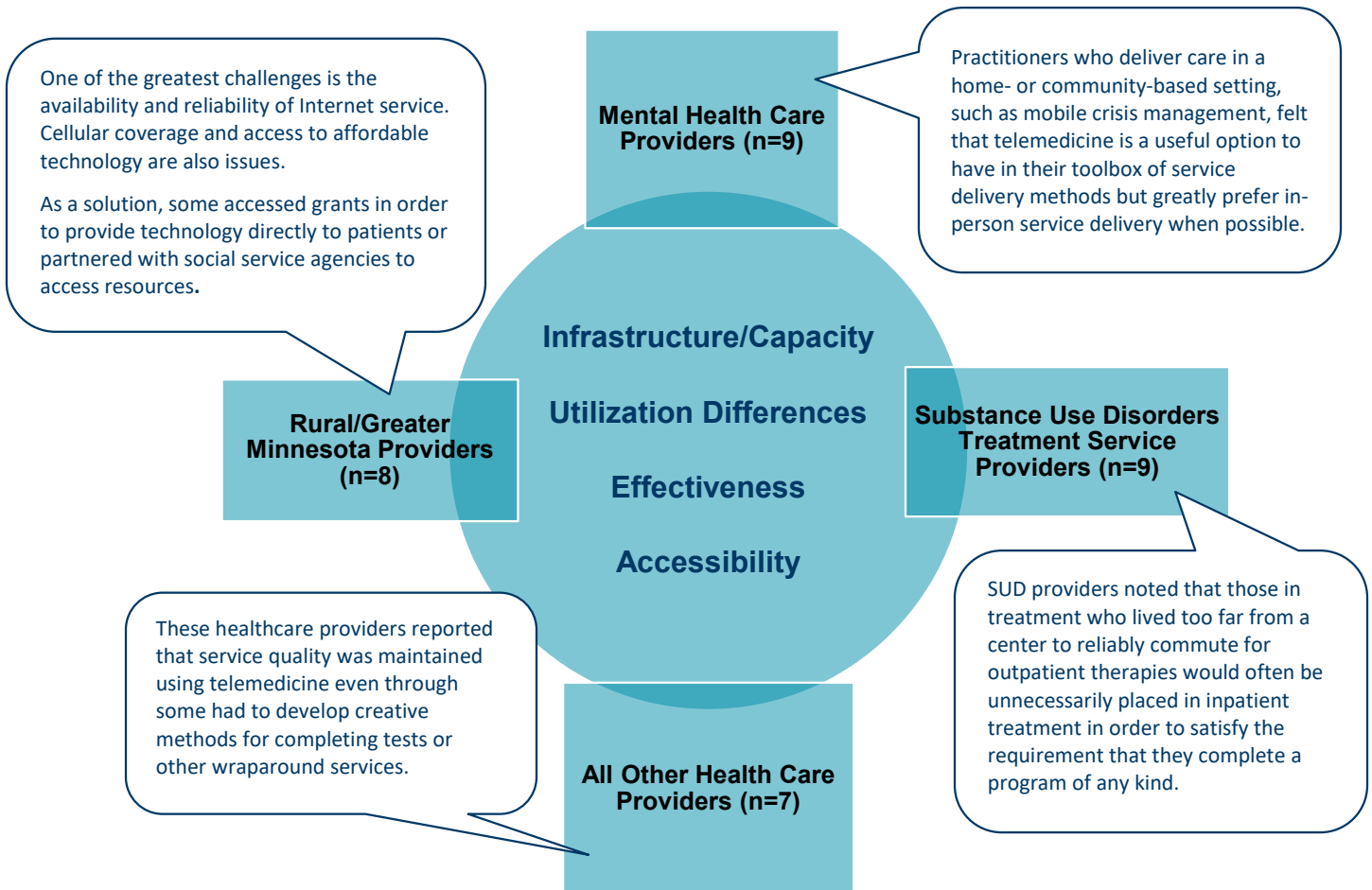
Focus groups consisted of $N = 33$ Health care providers

- Mental Health Care Providers (9 participants)
- Substance Use Disorder Treatment Services Providers (9 participants)
- All Other Health Care Providers (7 participants)
- Greater Minnesota Providers (8 participants)

Themes across focus groups

- **Infrastructure and Capacity:** Whether providers did or did not use the telemedicine prior to the COVID-19 public health emergency, all providers significantly scaled up their telemedicine operations or converted entirely to telemedicine during the reporting period.
- **Utilization differences by Age and Geography segments:** Telemedicine appears to be ideal for young to middle aged adults with some fluency in and accessibility to technology.
- Seniors and children faced greater barriers in using technology and/or engaging in this format. Providers expressed frequently that it was difficult to engage children in calls for extended periods of time which limited the level of service they could provide.
- **Accessibility:** providers felt that telemedicine has significantly improved access for their patients, especially for those who would otherwise have to travel long distances, have mobility issues or need to travel during inclement weather.
- **Effectiveness:** All participants agreed that moving forward they will need to be intentional deciding the types of visits and fields of practice that can or should be done via telemedicine.

Shared Themes and Individual Experiences by Provider Type



Provider recommendations

- **Clear guidelines from DHS** on billing and payment, patient notes and any other aspects of care or charting which may be audited or should be standardized across practitioners.
- State assistance (grants, legislation, etc.) to ensure **access to high speed Internet statewide**, both for providers and facilities and for patients, especially in rural areas.
- Providers **particularly want to ensure that telephone continues** to be viewed as a viable form of treatment and billable on par with video treatment options.
 - This is especially important as Internet availability and reliability continue to be a barrier for many patients in accessing remote medicine via video services.
- Move to a **single or greatly reduced number of HIPAA compliant, easy to use, affordable platforms** as the vast number of different programs used currently can create difficulties in coordination of care among facilities, providers and other agencies as well as difficulties for patients who see multiple providers utilizing different systems.

- One idea is to create a public- private partnership between DHS and a telemedicine platform company which would allow for a low-cost, HIPAA compliant system used by most Minnesota providers.
 - Pursue interstate licensure for telemedicine so providers close to state borders can serve more patients.
 - Promote collaboration with insurance companies and the state insurance commissioner to ensure **equity in billing of telemedicine** for patients across Minnesota-based insurance companies.
- Interpreters are an important part of providing mental health and substance use care, and these providers urged that they be included in supporting a successful telemedicine model in Minnesota.
 - These providers stressed that **interpreters** who are providing ancillary support to providers should be included in any grant funding for devices, Internet provision or other technological assistance as they are currently left to cover these costs themselves.
 - Likewise, if there is to be any standardization of care guidelines or regulations created by DHS, they should take into account the **need for interpreters** and having a three-way video call, phone call or other means of utilizing interpreter services.

Limitations of this review

Negligible control of extraneous variables: Pandemic related variables pose unique challenges. DHS was unable to control for pandemic related variables, such as permission based on the issuance of waivers, need based on COVID-19, additional investment in telemedicine infrastructure, and additional awareness and interest in telemedicine.

Resource constraints: Given the hiring freeze and budget deficits, DHS does not have the resources to work exclusively on this study. No single staff member from the Behavioral Health Division or the Health Care Administration at DHS was able to dedicate themselves full-time to this effort. Limited funds existed to hire a consultant to help with focus groups and develop a framework for further work.

Data limitations: Utilization data is based on MA enrollees and does not include managed care and self-payees. This dataset only included approximately 40% matured data (meaning, has been entered by providers with enough to allow quality assurance from us and them, so it is assumed to be more valid). As a cross-sectional design, the results only offer a "binary snapshot" of before and after which minimizes interpretations.

Lessons learned

Telemedicine has helped people access services during the COVID-19 pandemic. Telemedicine utilization increased for most populations. It served as an essential mechanism to support recipients and providers to provide safe care. Lessons learned include the need to:

- Integrate telemedicine as a permanent modality in delivery of services
- Provide training, assistance and clarification in provider manual regarding use of telemedicine

- Offer specific guidance for Office of Inspector General on review of licensing standards around telemedicine
- Invest resources in exploring reasons behind comparatively low level of utilization of telemedicine by Black, Indigenous, and People of Color (BIPOC) communities
- Use of telephone-only as a telemedicine modality for clinical services needs to be examined further and independently of other telemedicine modalities.
 - Possibly keep this as an option for future public health emergencies.

Final summary

The purpose of the Telemedicine Utilization Report and telemedicine-related studies are to inform DHS leadership and personnel on the background of telemedicine and current evidence on telemedicine and telehealth-related services and policies.

In response to the COVID-19 public health emergency, federal and state waivers to support telemedicine and telehealth were enacted for the immediate health care needs, such as emergency health care, primary health care, specialty health care, and treatment services for SUD, and mental illness. Current research has demonstrated that telemedicine services create additional capacity, greater convenience, and also yield greater use of services when offered to some patients and providers, depending on age, geographic location, and available technology and related skillset.

National CMS data results indicated that telehealth services increased from February through April 2020 and remain above previous rates. Minnesota's claims analysis report echoes the national trend, with a peak in April 2020 followed by a reduced, but continued utilization across all health care providers and services. Medicaid services on the national-level delivered via telehealth were highest among working age adults, followed by children, and then older adults. Minnesota's claims analysis report findings were in contrast; specifically, individuals aged 0-5 years old and 66+ years old were found to utilize telemedicine services more frequently than individuals aged 6-65 years old. Further investigation is warranted on identifying the services and type of providers by age to shed context on which services and provider types are offering the most frequent support services to Minnesota residents in both the younger and older age categories.

To assess telemedicine service delivery patterns of providers and patients, quantitative and qualitative data was gathered. Provider surveys offered agreement on the increased access and efficiency of telemedicine services during the PHE, while acknowledging that not all health care services needs can be met effectively with telemedicine. Key factors to assess on the fit between patient and health care service are; type of health care service, frequency and amount of telehealth services delivered in combination with in-person care, patient preference, and if longer-term outcome data indicates, positive patient outcomes.

Quantitative results from Minnesota's Medicaid services found that of the individuals who utilized telemedicine for all health care services, 20% used telemedicine-only, 15% started services after the PHE and have continued follow-up via telemedicine, approximately 50% of individuals stopped services (submitted no claims after the PHE). Results also indicate that of the 87.3% of individuals who received health care services, approximately 25% of the recipients engaged with telemedicine care. Moreover, 14.3% of patients receiving Medicaid support who

needed care and did not utilize in-person visit, were able to start telemedicine-only services after the PHE. Further investigation on these particular utilization groups is warranted and could illuminate how to better engage individuals with telemedicine health care services. To measure provider and service patterns at a more granular level, next steps will utilize longitudinal method with monthly and/or weekly time points starting in January 2020 to more accurately identify telemedicine trends in provider and services. Age and additional demographics warrant further investigation based on volume based on services received. Further examination on service patterns based on services being utilized by individual differences including racial and ethnic groups and geographic location.

DHS, and an external consultant, facilitated focus groups of providers utilizing telemedicine across all health care areas. Four themes were identified related to infrastructure/capacity, utilization differences based on patient demographics, effectiveness, and accessibility. Of note, younger patients and older patients were reported to have more challenges when utilizing telemedicine and yet were seen more frequently as evidenced by the claims report. This is a gap to be mindful toward when planning next steps in resources and policies. Results are mixed regarding the continuation of telephone-only waivers; though patients and providers have expressed support, behavioral health services (e.g., crisis interventions, long-term psychotherapy) may not benefit from the telephone only alternative. Also noted in the focus groups, interpreters are an important part of providing mental health care and these providers urged that they be included in supporting a successful telemedicine model in Minnesota.

Final recommendations

Conduct additional provider-based focus groups. Over 450 providers responded to our solicitation, expressing interest to participate in focus groups. In our first phase, we conducted four focus groups to cover a cross-section of provider types and geography. Findings were relatively consistent across these groups, however it will be in our interest to seek more feedback from a broader representation of provider groups. Not only will this help us to broaden our dataset and improve our overall understanding, it will also support strong provider relationships and partnerships as we leverage the current interest and momentum.

Continue to monitor utilization and focus group data to observe change over time. Current results were gathered under time constraints. Six months is not enough time to reliably predict long term trends. Continued analysis of service utilization data supplemented with focus group data is needed as we engage with providers over time. While there was a precipitous increase in March telemedicine use for some providers that reached the zenith in April 2020, followed by a gradual decline in subsequent months, other providers may have telemedicine programs that still need help to get off the ground. Based on initial feedback from focus groups, there is a need for state investment in telemedicine infrastructure.

Future provider-based focus groups should target culturally-specific providers. In accordance with DHS core values to provide culturally and linguistically appropriate services (CLAS) for youth and families paired with the claims analysis results, an increased understanding of a culturally-informed perspective on telemedicine would benefit Minnesota residents. Specifically, results after March 20, 2020, indicate a slim increase in telemedicine utilization for Hispanics, American Indians, Asians, and Black/African Americans. However, data from the literature review and focus groups did indicate that telemedicine can be an effective way for increasing

equitable access to services. This **underscores the importance of giving due consideration to data beyond utilization**, which will not help us to understand consumer-experience preferences of those that were precluded from using telemedicine during the first phase of the Peacetime Emergency.

To identify culturally-specific providers, BHD should adopt the definition of “Culturally-specific program” in [Minnesota Statutes, section 254B.01, subd. 4a](#), and broaden it to include all Behavioral Health Services. In a follow-up survey, providers can be asked to self-identify based on criteria in that statute. Known culturally-specific programs can also be actively recruited. Inquiries in these focus groups should hone in on identifying barriers specific to each cultural group, and identifying specific solutions and opportunities.

Identify resource-effective and ethical approaches for collecting recipient-based feedback. To complete our understanding of consumer preferences, in addition to the effectiveness of services delivered via telemedicine, we need to listen to recipient voices. BHD should continue to explore solutions to receive anonymous online feedback to supplement focus group data, as well as consumer-based focus groups.

Further analysis of longitudinal data is warranted. Thus far, BHD analysis has focused on cumulative telemedicine utilization before and after a point in time—March 20, 2020. This analysis informs, as it does tend to show that DHS-issued waivers increased telemedicine utilization. However, it does not show month over month change in utilization since March 20, 2020. Nationwide trends indicate a precipitous increase of about 13% in March, followed by a gradual decline over the following months. The national trend line across all services seems to be plateauing around a 6%, although the plateau has not settled yet. That said, for behavioral health services the subsequent decline has been significantly less, indicating that telemedicine utilization may endure in behavioral healthcare. It will be important to monitor how longitudinal data progresses in the coming months, and particularly impactful to see how behavioral health service utilization changes month over month. Based on the literature review, the use of telemedicine in behavioral healthcare is especially likely to endure, and national trends seem to support this. In Minnesota, it is yet to be determined where the trend lines for behavioral health care services flat-line, and whether the Department will have an interest in growing utilization beyond that line.

Support legislation to enable all Behavioral Health Care provider types, currently covered by Peacetime Emergency waivers, to continue to provide services via telemedicine to Minnesotans enrolled in Medical Assistance and MinnesotaCare. Early utilization data does show some variability in usage across provider type. Data from focus groups indicates consensus that telemedicine provides a tool that should be available to all behavioral health providers in some capacity, even though some will use it more frequently than others.

Support legislation to allow Medical Assistance and MinnesotaCare enrollees to have more than three telemedicine visits in a week. Based on a review of all data sources, there are no early indications that removing the current limit of three telemedicine visits per week will negatively impact service quality or wasteful spending. Providers, in focus groups and surveys, supported the flexibility to utilize telemedicine more than three times per weeks, citing flexibility, access, patient engagement, and service quality.

Next-phase focus groups should concentrate on the delivery of services via telephone. Early focus-group data indicates a preference by providers to maintain the current waiver-option to provide services via telephone. Providers cite equity and access as an interest that is advanced by this option. The use of telephone appears to be especially useful to support equitable access for elderly, rural, and communities of color, As such, BHD should continue to work with providers to explore whether clinically-sound behavioral health services can be delivered via

telephone, especially as a means of removing barriers for vulnerable populations. That said, the Department should exercise caution before supporting the provision of clinical services via this method. Further study is required to better understand the extent to which telephonic delivery removes barriers, and also the effectiveness of the telephone-only modality across different services.

Advocate and prioritize funding for telehealth infrastructure development. Data from provider focus groups indicates a need for investment in telehealth. There is a need for investment to support interoperability of telemedicine platforms, access to high-speed internet, and devices for staff and devices that can be leased to patients. Funding should include translation as an allowable expense, in order to reduce barriers for recipients for whom English is a second language. Investment should focus on rural and communities of color.

Appendices

Appendix A: Temporary state and federal waivers and modifications

Waivers or modifications to state requirements have included:

- [Allowing telemedicine alternative for School-Linked Mental Health services and Intermediate School District Mental Health services for children and their families](#)
- [Modifying certain licensing requirements for substance use disorder treatment](#)
- [Modifying certain licensing requirements for children’s residential facilities](#)
- [Modifying certain licensing requirements for intensive residential treatment service providers](#)
- [Modifying certain licensing requirements for detoxification programs](#)
- Expanding access to telemedicine services for Children’s Health Insurance Program, Medical Assistance and MinnesotaCare enrollees
- Expanding telemedicine in health care, mental health, and substance use disorder settings
- [Alcohol, drugs and addictions, Children’s mental health, or Adult mental health](#)
- **Executive Order 20-28: Out-Of-State Licensed Mental Healthcare Providers**
 - Allowed to Register with Boards of Social Work, Psychology, Marriage and Family Therapy, and Behavioral Health and Therapy, to Provide Telehealth to Meet Needs of Emergency
 - [Emergency Executive Order 20-28](#) April 6, 2020 authorizes out-of-state mental health providers to provide telehealth services to Minnesota patients during the COVID-19 peacetime emergency to help ensure that the mental health needs of Minnesotans are met during the stress and uncertainty the COVID-19 pandemic. Many Minnesotans receive mental healthcare services from providers in neighboring states.
 - out-of-state behavioral healthcare providers who hold a license, certificate, or other permit in good standing issued by a state of the United States or the District of Columbia may be authorized to provide time-limited telehealth to meet the needs of this emergency.
 - Authority: Emergency Executive Order 20-28, Minnesota Statutes section 12.42, and in response to the Minnesota COVID-19 Peacetime State of Emergency,
 - This authorization applies only to healthcare providers who would otherwise be required to obtain a license from one or more of the following Minnesota health-related or regulatory boards: Behavioral Health and Therapy, Marriage and Family Therapy, Psychology, Social Work. Before rendering any such aid in this state, such healthcare providers shall (a) complete the registration form required by the appropriate Minnesota health-related licensing or regulatory board, and (b) receive from the appropriate Minnesota health-related licensing board an acknowledgment of receipt of the registration form. [Minnesota Board of Social Work EO 20-28 COVID-19 Telehealth Registration Form](#)

Appendix B: Full Contextual Analysis

Introduction

Health care services have been moving toward a more patient-centered approach while integrating technological advances for over 40 years.¹⁻³ *Telemedicine*, defined as “healing at a distance” to remotely diagnose, monitor and treat patients, is a service delivery option utilized to ideally increase access to care and quality of health care services while decreasing health care costs.¹ Telemedicine interfaces include but are not limited to, electronic medical health records, patient-provider platforms (e.g., MyChart), telephone-based care, video conferencing, texting, mobile apps, web-based support, and virtual reality.^{1,4-5} The new online and virtual space offered by the various interfaces have begun to shift the siloed health knowledge and access away from providers only to a more collaborative approach toward empowering patients, as such *Telehealth* has been defined as the application of technologies to help patients manage their own care through education and support.¹

Telemedicine for health care services for some patients and providers is not new. From 2004 to 2014 there was rapid growth nationwide in telemedicine to address behavioral health issues among rural Medicare beneficiaries.^{1,6} The use of telemedicine services within this population varied dramatically across states and was highly concentrated in terms of both who received that care and who provided it. One major vendor of telemedicine services for individuals has been the Department of Veteran Affairs, who have routinely demonstrated that telemedicine service in behavioral health significantly increases access while decreasing costs without negatively impacting patient-care to individuals in rural areas.^{6-12,32} While telemedicine services were expanding, Medicare reimbursements in some state policies were also shifting toward supporting patients and providers use of telehealth.¹² In fact, Medicare claims data from 2011-2013 around the Great Lakes region demonstrated sharp gains following changes in state Medicaid and commercial payer policy in the examined states.¹² Specifically, Medicare utilization in Illinois grew by 173% in 2012 (over 2011) following Medicaid coverage expansion, and Medicare utilization in Michigan grew by 118% in 2013 (over 2012) following adoption of telemedicine parity for commercial payers.¹² The takeaway being, state and federal policies that have supported telemedicine reimbursement significantly impacts telemedicine services offered to providers and patients alike. Given the empirical evidence supporting telemedicine services paired with the various shifts in state and federal Medicare policies, systemic changes were in motion prior to year 2020.

Since March 2020, telemedicine has been thrust into mainstream health care through a crisis of medical necessity.¹³ Due to the coronavirus 19 (COVID-19) peacetime emergency, waivers were enacted by the Centers for Medicaid and Medicare Services (CMS), and the Minnesota Department of Human Services (DHS) policy and licensing divisions, to expand both telemedicine and telehealth health care services and the professionals/staff allowed to provide these services.^{13,14} The waivers were a response to address Minnesotan’s immediate medical needs (i.e. emergency, primary, specialty, mental illness and substance use disorder health care services) during the COVID-19 pandemic. The waivers made it possible to initiate or continue with ongoing treatment for patients, especially for those whom treatment disruptions could have resulted in equally dire consequences.¹⁵

Due to the COVID-19 pandemic the United States Department of Health & Human Services Administration waived the Health Information Portability and Accountability Act (HIPAA) requirements to allow for the use of non-encrypted (FaceTime and Skype) telemedicine services. In addition, the federal Drug Enforcement

Administration (DEA) waived and expanded some of the face-to-face prescribing requirements, allowing for the provision of Schedule II -V prescriptions via telemedicine. In tandem, the MN DHS also implemented waivers for expanded telemedicine and telehealth policy to support a quick response to health care needs and to prioritize the benefits of providing these services to Minnesotans, with awareness of the potential risks of utilizing non-HIPAA compliant technologies and other patient protections.^{15,16} These policy changes allowed for triage to screen potential early symptoms of COVID-19, protecting patients, health care providers and communities. Telemedicine allowed for the provision of essential health care services while reducing exposure risks for patients and service providers.¹³ Based on reviewed literature and current Minnesota health care services, the purpose of this contextual analysis is to inform future technical assistance, training, and legislative proposals put forward by DHS regarding telemedicine and telehealth.

Scope of Contextual Analysis

This contextual analysis included literature on telemedicine and telehealth pre-COVID, and current COVID-19 pandemic for primary, specialty, mental illness and substance use disorder treatment services as well as the current policy waivers issued in the State of Minnesota.

Support for Telemedicine

Telemedicine, as an alternative health care delivery option, provides quicker access to some health care services to ensure patient needs are met during this extraordinary time of COVID-19. Among the many approaches to continue providing needed care in the wake of physical distancing, telemedicine is an effective, yet underutilized method.¹⁷ Proponents for telemedicine have argued for years about its potential for reaching the hard-to-reach patients.^{6-11,27} These arguments are now realized more than ever. Current issues and barriers related to telemedicine service reimbursement are coming to the forefront, and coverage is being expanded in ways that many never thought possible.¹³ Simply put, health care services and related reimbursement waivers in response to COVID-19 have been a catalyst for telemedicine services which ensure more timely access to harder to reach patients but more information and time is needed to evaluate the efficacy and longer-term outcomes.

Accessibility and Reduced Wait Times

Telemedicine has shown to increase access for some communities and individuals including adolescents, older patients, veterans, and individuals located in rural locations, individuals diagnosed with a disability and/or mental health conditions, and those who have transportation barriers and mobility issues.^{1,4,6-11,31} Relatedly, health care access when diagnosed with a stigmatized chronic disease (e.g., HIV, mental health conditions, and substance use disorder [SUD]) can be a barrier itself to seeking access. Yet, it is chronic diseases that often warrant providers to stay connected with patients over extended periods of time. Previous studies have shown increased rates of engagement *when* patients with chronic diseases are utilizing the telehealth support but that the services themselves are at times under-utilized.^{4,35,36}

The provision of health care services via telemedicine has also been shown to decrease wait times for emergency department, general practitioner appointment, and multiple subspecialty referral services (e.g., behavioral health; Ear, Nose & Throat [ENT]).^{1,28-31} Wait time for an in-person appointment that on average takes approximately 20 days to secure a 20 minute in-person appointment with a general practitioner and often consumes more than 2 hours of the patient's time (including travel time).³¹ Specifically, patients seeking in-

person health care have spent an average 123 minutes obtaining medical care, including 86 minutes of clinic time and 38 minutes travel time.²⁸ From an equity lens, most concerning is the burden of wait times on marginalized populations, which has been measured to significantly longer for racial/ethnic minorities, individuals with less education, and unemployed individuals; for example, clinic time for non-Hispanic whites was 80 minutes vs 105 minutes for Hispanic individuals.²⁸ In contrast, offering telemedicine appointments to meet health care needs even in rural communities shown to reduce average specialty wait times from 4.2 months to 2.1 month, a 59% decrease, in ENT services.³⁰ In emergency department telemedicine treatment for behavioral health (e.g., depression, anxiety, and SUD) cases the wait time was significantly shorter at an average of 12 minutes compared to an average of 27 minutes for non-telehealth cases.²⁹ Wait times are only a piece on health care access and services but the current literature clearly supports telehealth as supported alternative to individuals who may otherwise not have the time or resources to be seen by health care providers.

Another strategy to reduce wait times while increasing communication between patient and health care providers is using an electronic referral system. One such example is eReferral, an is an interface used by primary care providers and specialists, developed at San Francisco General Hospital in 2005.^{1,33} Utilizing this strategy, wait times for initial specialty consults dropped from an average of 112 days ($SD=74$); to 49 days ($SD=49$).³³ The program now covers more than forty specialties and services. Similar programs have since been established at the Los Angeles County Department of Health Services, the Mayo Clinic, and at UCSF and UCLA, all of which have experienced similar results while improving patient, primary care provider, and specialist collaboration and satisfaction.^{1,33}

One often acknowledged caveat to the argument toward increased accessibility is that of the digital divide. Defined as, “the differential access to telecommunications technologies on the basis of geographic and social factors, is a major barrier to the adoption of telehealth.”^{43,35} That is, individuals who are older, lower education, lower income, live rurally, and develop chronic conditions, as less likely to have internet access or resources when compared with younger-aged individuals, and those with higher education and incomes with fewer chronic health issues. Though with current COVID-19 initiated waiver reimbursements and policy changes that support telemedicine, increased efforts could be aimed to address the current gap between individuals in need and newly available telemedicine support.

Patient-Provider Efficiency

Health care services provided via telehealth optimizes clinician time, allowing providers to see more patients.^{1,28,31-33} The disproportionate ratio of health care providers to elderly individuals and individuals with chronic illnesses are creating a strained health care system and may not be sustainable without adopting new ways of delivering care such as telemedicine.^{1,37-39} The growth in chronic illness will continue to increase as current projections include a 40 percent increase in heart disease and a 50 percent increase in cancer and diabetes projected for 2023.³⁷ The generation of individuals who are sixty-five years plus are beginning to enter their high-maintenance health care years, while workforce statistics show that health care workers are in short supply.^{38,39} Commentary by Sinsky and Linzer²¹ stated that telemedicine decreases administrative time, costs and relief from extensive administrative burdens. They noted that during the COVID-19 crisis one health system leader described a conversation with a primary care physician who had been feeling demoralized and burned out for some time, who said that with the current waivers to expand telemedicine, “it feels like we are practicing

medicine again.” In short, increased efficiency in health care services without a negative impact on patient safety and outcomes is an issue that both health care services and policies will need to address.

Evidence for telemedicine to be part of the solution for increasing health care service efficiency exists. For instance, telemedicine services have been used to facilitate initial screening and assessments for substance use disorder (SUD). In a study of 363 SUD treatment settings, the two telemedicine technologies that generated the most interest were computerized screenings/assessments and texting appointment reminders. Both technologies represent opportunities to increase face-to-face clinical time with the patient. Computerized assessments reduce time needed to collect demographics and other background information, allowing counselors more time to discuss clinical issues. Texting appointment reminders has been found to reduce appointment no-shows, and higher show rates result in more clinical time with patients.¹⁷

Preventative Care and Medication Adherence

Telemedicine can be utilized to provide preventative care, earlier interventions, and to support follow-up care for chronic conditions.^{1,31} The various platforms that telemedicine can be utilized through create a learning environment not previously experienced by providers or patients. The interfaces have become spaces to learn about one’s health and many are inherently educational and lead to patient empowerment through increased health literacy, knowledge, disease management, and collaborative relationships.^{33-35,44}

A number of studies have addressed the impact of home telemonitoring on health outcomes for patients with congestive heart failure (CHF), reporting a decrease in both hospital readmissions and mortality.^{1,40-42} Telemedicine has also shown to be effective in addressing the pervasive problem of medication adherence.¹⁹ Millions of Americans suffer from chronic illnesses that could be effectively managed with prescription drugs, but on average, patients take their medications as prescribed only about half the time.⁴⁵ Compelling data show that patients who adhere to treatment regimens for chronic illnesses have fewer clinical problems and are less costly to care for over time compared with patients who do not take medications as they have been prescribed.¹ Individually tailored treatment for nonadherence through telehealth delivery has been supported as feasible and acceptable across diseases and populations. Furthermore, improvement in medication adherence is a more sustainable intervention that often reduce costs for the patient and health care systems.^{19, 46-48}

Telemedicine can also be used as a supplemental support.^{1,25} For example, one study found that a relatively small fraction, that is less than 15 percent, of rural telemental health recipients received mental health specialty care only via telemental health. In this case, telemedicine could be a stepping stone for engaging in care or for a short follow-up after in-person appointments.²⁵ Moreover, telemedicine in behavioral health has demonstrated significant improves related to patient self-efficacy, disease management, patient-provider communication and rapport.^{34,1}

Points of Consideration Regarding Telemedicine Support in Minnesota

Telemedicine remains an underutilized method of health care service delivery with basic technical requirements for telehealth of a broadband connection, an application for the video, technology support, and a device capable of handling the technology that create barriers for some patients and providers.^{25,33} Prior to telemedicine waiver expansion related to COVID-19, few clinician used telemedicine (15.4% of medical doctors) because they work in practices that don’t use telemedicine for patient interactions.¹³

Significant differences exist between types of behavioral health providers and their utilization of telemedicine.^{17,44} In one study, 329 behavioral health provider organizations representing all 50 states, 48% used video-conferencing, with psychiatrist being the most common health care provider followed by mental health counselor.⁴⁹ Data analyzed on state Medicaid programs revealed psychiatrists to be the behavioral health provider most commonly authorized to perform telehealth, followed by social workers and then psychologists, with addiction counselors being the least likely to have authorization. This low representation of addiction counselors may be due to the variety of licensing tracks required and the several levels of credentials existing in each state.⁴⁹ This is echoed with only 12-15% of Minnesota's licensed substance use disorder (SUD) treatment programs employ telemedicine.²² One reason for this is that not until 2017 was telemedicine an allowed service option in Minnesota for any SUD treatment services.²³ Telehealth has been underused and understudied in SUD prior to COVID-19, and the regulatory hurdles limited wide scale adoption of telehealth for SUDs. Since COVID-19, major changes have rapidly reduced barriers across the United States, and provide an opportunity to expand the use of telemedicine in the treatment of substance use disorders.¹⁵ Additional barriers to telemedicine include the reality that many patients rely on land-lines, pre-paid cellular plans with limited data, and may have limited broadband access or limited internet time due to virtual school requirements for children during COVID-19.¹⁷ In addition, some SUD providers lack the technology, technology support or broad band for providing telemedicine.

Lastly, more rigorous and broad investigation is needed to determine effectiveness and outcomes of telemedicine. Efficacy research is especially limited in marginalized populations such as racial/ethnic minorities, individuals living in low socioeconomic status, and individuals with pre-existing health conditions.²⁴ Minnesota is similar to many states that are facing an increase in number of older adults and their related health care needs, as well as the unmet needs of persons with disabilities, mental illness, substance use disorder or other chronic health conditions, while employing fewer clinicians to meet these health care needs.

Considerations for Clinical Programming and Policy toward the Expansion of Telemedicine

- It has been recommended that patients be screened to determine whether telemedicine is a desirable and appropriate service for them, and that providers use an office and technology checklist to determine if telemedicine videoconferencing services are appropriate for them.¹³
- Providers and educators interested in the rapid adoption of telemedicine would benefit from attending trainings and reviewing comprehensive guidelines and training materials that are widely available.
- Examples consist of Post COVID-19 training, education such as Telehealth 101, Multicultural Aspects of Rural Health, Cultural Aspects of Telemedicine, Laws and Ethics of Telemedicine.¹⁷
- The American Medical Association has articulated a number of guidelines for the ethical practice of telemedicine with which providers should be familiar before they engage in telemedicine visits.
- Health insurance companies should follow CMS lead of reimbursing same rates for telemedicine services during the COVID-19 pandemic and possibly beyond.²³
- Policy makers and need to ensure reimbursement rates are aligned with face-to-face rates for the same procedures.²⁵
- Continue with simplified billing procedures and documentation requirements enacted during COVID-19 that decrease clinician time spent on documentation and provide more time for the clinician to spend attending to the patient.²¹

- Policy makers were encouraged to base policy decisions on evidence provided by robust research on feasibility, utilization, efficacy, and aimed at addressing health care disparities.²¹
- Examine lessons learned after the COVID-19 waivers end to further reduce administrative requirements and remove some of the barriers that show no evidence that the costs are justified by the benefits, or that aren't shown to improve patient care or outcomes.²¹
- Whether—and if so, how—the expansion of telemental health is improving access and outcomes for patients remains unclear, but this early analysis can help guide future policy and regulatory decisions at the state and federal levels.²⁵

Conclusions

The aim of this contextual analysis is to inform future technical assistance, training, and legislative proposals put forward by DHS regarding telemedicine and telehealth. Health care services and related reimbursement waivers in response to COVID-19 have been a catalyst for telemedicine services which ensure more timely access to harder to reach patients while shifting to a more efficient health care system of services. Increased efforts from clinical programming and policy standards for telemedicine resources are warranted for providers supporting individuals who are older, who have less education, lower income, live rurally, have pre-existing health conditions, and are as less likely to have internet access or resources. Research and grant opportunities are needed to evaluate the efficacy and longer-term outcomes of telemedicine across disease and populations. Lastly, all health care providers (e.g., SUD counselors, psychiatry, etc.) and services could benefit from equal opportunity to offer their services with continued reimbursement.

Appendix C: Telemedicine Waiver Stakeholder Survey Feedback

This summary is based on information the Minnesota Department of Human Services (DHS) Behavioral Health Division and Health Care Administration received as of August 5, 2020 from stakeholders engaged in the developing of this study:

- AspireMN (residential/non-residential mental health and foster care)
- Essentia Health (physical care)
- Gillette Childrens Hospital (physical care)
- HealthPartners (primary, mental/substance use disorder)
- Hennepin Health (physical, psychiatric, addiction medicine)
- Itasca Medical Care (mental/substance use disorder and primary care)
- Lower Sioux Human Services (targeted case management and child protection services)
- Minnesota Association of Resources for Recovery and Chemical Health (provider organization)
- Minnesota Association of Community Mental Health Providers (provider organization)
- Minnesota Department of Education (special education health-related services)
- Minnesota Hospital Association (all services)
- Minnesota Psychological Association (mental health)
- Minnesota Chapter of the American Academy of Pediatrics (physical and mental health care)
- North Homes Organization (children's mental health)
- NuWay (adult co-occurring mental/substance use disorder services)

- Nystrom and Associates (adult co-occurring mental/substance use disorder services)

Note: surveys conducted by the various organizations varied depending on the responder and/or type of service provided via telehealth. Telehealth services varied too, with some service provided compliant with the Health Insurance Portability and Accountability Act (HIPAA) two-way interactive video or store and forward technology, some were telephonic only, and some service provision utilized a combination of non- HIPAA compliant video and telephone.

Participants: patients/clients, parents/family, clinicians/therapists, educators

Service types: mental health (residential/non-residential), foster care, substance use disorder (residential/non-residential), primary care (adult and pediatric), targeted case management and child protective services]

Supporting comments

During the COVID-19 pandemic, telehealth has been a vital service tool to provide needed healthcare services to Minnesotans. Telehealth provided the ability to maintain connections with patients/families, and to continue to provide therapy/treatment services. Telehealth made it easier to access services, and easier to involve other family members in healthcare services.

Telehealth freed-up time to serve more clients/patients in need of services since healthcare staff could provide services from one location, eliminating drive-time between provider sites. In addition, patient/client attendance was improved by fewer “no-shows” and late arrivals.

There was **differing opinions on telemedicine with some primary care providers** whole-heartedly endorsing telemedicine for the majority of health care, and others seeing it as an efficient option for certain services (i.e. “med” checks and well-child visits), and a service that supports better access to health care for some specific populations (i.e. rural populations, college students, new moms, home-bound seniors, etc.) Also, some patients who would otherwise not access care due to their illness, travel distance, lack of transportation, lack of child/senior care, or level of motivation, can more easily access services in the comfort of their home.

The input from metro county ethnic minority groups and rural tribal recipients were positive for telehealth service provision, noting that telehealth improves equity in access to healthcare. Also, responses from these culturally diverse groups mentioned a **preference that telehealth be provided by telephone and not via the internet.**

Responses indicate that a **majority of the providers and recipients using telehealth like it and would like telehealth to continue as a permanent available option for some types of services, depending on recipient preference, and as an additional service option in combination with face-to-face services.**

Barriers and Key Considerations

- Generally both patients/clients report that telehealth services are not as good as face-to-face services. It was noted that some patients/clients would become distracted, have difficulty focusing during treatment sessions and/or would have discomfort/be self-conscious with video sessions.

- There is a need to improve access to technology (for some providers and recipients), to access to the internet/broad-band, and to tech support when there are difficulties/disruptions to service. It is problematic when patients/clients have no phone or few cell minutes, no computer, or no access to the internet.
- Providers highlighted concerns about client/patient privacy (HIPAA) and disruptions/interruptions that occur in the home and hamper the provision services. It was suggested that head-phones would be helpful to support recipient privacy when non-participants are nearby. Language/interpreter barriers with telehealth services were also noted.
- Some physicians had concerns about the quality of healthcare via telehealth, concerned that telehealth is not “best practice” since they are not able to see the patient as well via telehealth. One clinician remarked that telehealth “is not good medicine. I need to see, touch, listen and exam patient in-person. Take their weight. Take their blood pressure.” It was noted that many conditions (i.e. ear infections, skin rashes, chronic abdominal pain, pulmonary issues, strep, head aches) are better treated with in-person exams. There was concern about “over/under” treating, and litigation since “inevitably things will get missed.”
- Providers of mental health/substance use disorder services expressed concerns about client “engagement,” suggesting that telehealth only be an option when rapport/engagement with the client has occurred, and not be an option for new patients or for patients who prefer in-person services. It was noted that the group therapy process, and the bonding of group members, is not well supported by telehealth.

Summary of findings from initial provider feedback

- There was general agreement from both telemedicine/telehealth providers and service recipients that the expansion of telemedicine/telehealth services during the COVID-19 peacetime emergency was both necessary and essential, and that there will be an expectation for some services to continue to be available via telehealth in the future. Overall the feedback received as of the date of this summary voiced support for the continued use of telehealth as an option for the provision of some health care services depending on the type of health care service, the frequency and the amount of telehealth services delivered in combination with in-person care, patient preference, and if longer-term outcome data indicates positive patient outcomes. Since current expansion has relied heavily relaxation in the enforcement of the privacy and security requirements under the federal Health Insurance Portability and Accountability Act (HIPAA), any longer term changes must also be considered within the context of HIPAA enforcement.
- Minnesota Department of Education (MDE), Minnesota Olmstead Plan Director, State Personnel Development Grant referenced feedback related to health-related special education services.
- Lower Sioux. Hennepin Health feedback on physical/psychiatric and addiction medicine services.

Appendix D: Claims Analysis Report

Analytic Plan

Claims data was extracted from MMIS using a time period of July 2019 to current. July 2019 to March 20, 2020 was defined as “Prior to the stay at home order,” based on federal and state orders and waivers implemented due to the pandemic. Data dated post March 20, 2020 was defined as “After the stay at home order.” Behavioral data was limited to a category of service equal to Mental Health and included professional claims only. Non-behavioral Health data are professional claims where category of service was not equal to Mental Health. These data were then evaluated by place of service equal or not equal to telemedicine.

Question one: “*What was the scope of the tele-service utilization during the pandemic?*” This was analyzed by taking a distinct count of recipients, claims, and providers. The total mental health population of recipients, claims, and providers were taken and compared by those billing for telemedicine and those not billing for telemedicine services. Next, the data was broken down by month and the growth rate for telemedicine service usage was calculated. This determine increases and decreases in telemedicine usage.

Question two: “*Did service utilization change from pre-COVID to COVID time period?*” There were five categories: Both services, No Telemedicine, Only Telemedicine, No Services, and Stopped Services. “Both Services” referred to recipients with a telemedicine claim and at least one other claim (other than telemedicine). “No Telemedicine” referred to recipients with claims that did not include a telemedicine claim. “Only Telemedicine” referred to recipients that only had a telemedicine claim. “No Services” referred to clients who only had a claim(s) after the stay at home order. Lastly, “Stopped Services” referred to recipients that did not have a claim after the stay at home order.

Question three: *What are the provider profiles of those who utilized telemedicine/telephonic contact during pandemic?* The analysis for this question included a distinct count of Provider NPIs. The NPIs were categorized as those billing for telemedicine before the stay at home order and those billing for telemedicine after the stay at home order.

Question four: *Who used telemedicine services?* This was answered by taking a distinct count of recipients and analyzing them by Age, Race, Ethnicity, County, and Gender. It is broken out by those billing for telemedicine before the stay at home order and those billing for telemedicine after the stay at home order.

Variables Defined

Prior to the stay at home order (July 2019 to March 19, 2020)

After the stay at home order (March 20, 2020 –Ongoing**)

Total (Behavioral Health (BH) + Non-Behavioral Health (NBH)) N= 1,267,015

Data parameters:

- Dates = 07/01/2019 to 09/28/2020 for NBH; BH + NBH
- Dates = 07/02/2019 to 08/31/2020 for BH
- Place of Service (POS) = 02
- Category of Service (COS) = 046 for BH

- Category of Service DOES NOT = 046 for NBH
- Modifier = 95
- Claim Type = A
- Recipient ID = Persons
- Provider NPI = Providers
- Transaction ID = Claims

This section consists of Behavioral Health tables and Non-Behavioral Health tables. The tables are based off of a distinct count of persons (recipient ID).

There are five categories: Both services, No Telemedicine, Only Telemedicine, No Services and Stopped Services. Both Services refers to persons with a telemedicine claim (POS 02) as well as another claim (one other than telemedicine). No telemedicine refers to persons with claims that did not include a POS 02. Only telemedicine refers to persons that only had a claims with POS 02. No service refers to persons who only had a claim(s) after the stay at home order. Lastly, stopped services refers to persons that did NOT have a claim after the stay at home.

Numbers are based on:

Category of Service 046 (mental health)

Place of Service 02 = Telemedicine

Distinct count of Provider NPI

Appendix E: Provider Focus Groups

Scope: DHS contracted with [Portage Partners Consulting](#) to conduct focus groups with health care providers in Minnesota.

Aim: To elicit feedback by health care provider type and service to inform future technical assistance, training, waiver-related legislative proposals put forth by DHS for telehealth and telemedicine.

Procedure:

- Three iterations of question selection by content expert and panel
- Virtual meetings were held from 09/28/2020 through 10/02/20.
- Every meeting lasted 90 minutes.
- Every meeting was recorded and transcribed.
- Content of the meetings must be kept confidential.

Objectives:

- Quantitative and qualitative data summaries
- Recommendations on next steps, including Possible policy and statutory changes in utilization of telemedicine for Behavioral Health and Physical Health service delivery, which protect client confidentiality but flexible to meet clients' needs.
- Identify barriers related to state and federal requirements and what options may exist to address them.
- Identify specific service categories within Behavioral Health and Physical Health areas which are deemed appropriate and safe to be provided via telemedicine.
- Specific training and infrastructure resources providers and DHS will need to implement telemedicine changes across the State.
- Develop policy guidance and changes in our provider manual
- Ongoing Process and Evaluation Plan

Focus Group discussions with providers to obtain an insight on following major aspects:

- **Experience of Care from client perspective** in terms of accessibility, ease of scheduling (other variables)
- **Clinical Outcomes:** Reduction in symptomology, enhancement of functioning and adjustment, Utilization of emergency services, (other variables)
- **Experiencing of service delivery from provider perspective:** Confidentiality, informed consent, establishing rapport, utilization of different EBP and Best Practices, originating sites (other variables)
- **Struggles experienced by both clients and providers:** resources, training deficits, billing, technology infrastructure, education (others)
- **Equity focused access and quality** in terms of ensuring consumers and providers from minority and disadvantaged communities

Results

N = 33 Health Care Providers

- Mental Health Care Providers (9 participants)
- Substance Use Disorders Treatment Services Providers (9 participants)
- All Other Health Care Providers (7 participants)
- Greater Minnesota Providers (8 participants)

Themes across provider focus groups

Infrastructure/capacity: Whether providers did or did not use the telemedicine prior to the COVID-19 public health emergency, all providers significantly scaled up their telemedicine operations or converted entirely to telemedicine during the reporting period.

- All of the providers in these focus groups plan or hope to continue using telemedicine as an option for their patients even once it is safe to resume regular in-person visits. Participants expressed gratitude and hoped to continue using and improving telemedicine implementation within their practices.
- The vast consensus among providers from these focus groups is that telemedicine has been a tremendous benefit to their practice.

Utilization differences by Age and Geography segments: Telemedicine appears to be ideal for young to middle aged adults with some fluency in and accessibility to technology. Seniors and children faced greater barriers in using technology and/or engaging in this format. Providers expressed frequently that it was difficult to engage children in calls for extended periods of time which limited the level of service they could provide. For seniors and children alike, using a telemedicine platform often requires technological assistance from another person, especially for those who are young or in assisted living facilities, which could compromise the privacy and confidentiality of visits.

Effectiveness: All participants agreed that moving forward they will need to be intentional deciding the types of visits and fields of practice that can or should be done via telemedicine.

- If a patient requires a physical assessment for diagnosis, checking of vitals, or other hands-on care, telehealth is possible, but not always ideal.
- In particular, **mental health providers reported that certain conditions would always require occasional or even regular in-person visits and cannot be conducted as effectively via telemedicine.**

Rural/Greater Minnesota providers

- **Accessibility:** Greater Minnesota providers felt that telemedicine has significantly improved access for their patients, especially for those who would otherwise have to travel long distances, have mobility issues or need to travel during inclement weather.
- **Service quality:** Participants indicated service quality has been maintained. They did need to make a number of adjustments on the provider and patient side to make telemedicine work, but ultimately the adjustments did not negatively impact service quality.
- **Access to broadband services and technology:** One of the greatest challenges expressed by the Greater Minnesota provider group is the availability and reliability of Internet service. Cellular coverage and access to affordable technology are also issues.

- Some of these providers reported trading one barrier (transportation) for another (technology).
- These providers developed a variety of solutions to address the technology problem.
- Some accessed grants in order to provide technology directly to patients or partnered with social service agencies to access resources.
- Others connected patients to resources they can pursue themselves such as free cellular phones.

Substance use disorder treatment service providers

- Consensus among participating SUD providers was that service quality has been maintained or even improved with telehealth as a result of greater visibility into patients' home lives as well as the better match of patient needs to services.
- One of the greatest benefits that this group of providers noted was the ability to gain a more personal and intimate view of their patients' home lives. Some even noted that the ability to see the home environment for themselves, rather than trying to imagine it based on the patient's descriptions, greatly helped in targeting their treatment plans.
- Access: Telehealth provided greater access for clients, especially in rural areas as well as those who have other obligations such as assisting children with distance learning.
- A unique element of access for SUD clients, particularly in rural areas, is the ability to access the situationally appropriate or specialized care they *actually* need rather than having location limit their options.
- For example, some SUD providers noted that those in treatment who lived too far from a center to reliably commute for outpatient therapies would often be unnecessarily placed in inpatient treatment in order to satisfy the requirement that they complete a program of any kind.
- Similarly, patients who previously could not access gender-specific care, programs for those with Traumatic Brain Injuries or other more specific treatment programs due to distance, now can.
- Some challenges expressed on the utilization of telemedicine for substance use disorder treatment providers included the ability to assess whether or not a patient was "using" via a screen or phone as well as maintaining privacy and confidentiality of services, particularly for juvenile patients.
- A subset of providers struggled to develop or maintain relationships with their patients via telehealth.
- Despite these challenges, SUD providers reported the development of successful workarounds including issuing warnings to patients via a chat function, removing patients from a group if confidentiality could not be maintained and developing a safe method for restarting in-person urinalysis or other testing measures to hold patients accountable.

Other health care providers

- Providers in this focus group represented a wide range of healthcare areas including primary care, music therapy, speech therapy, pediatric medicine, private nursing care and reproductive medicine.
- These healthcare providers reported that service quality was maintained using telemedicine even though some had to develop creative methods for completing tests or other wraparound services.
- This group reported that telemedicine provided successful access for their current patients during the health emergency and opened up access for a new set of patients to specialty care areas that they previously did not know about or had barriers to accessing.

- Formal patient feedback (surveys, etc.) they conducted about telehealth during this time resulted in a largely positive response to this healthcare approach.
- One challenge that telemedicine presented for these providers was around scheduling. Reduced no-show rates meant that providers had less ‘break’ time to catch up on paperwork and documentation. These patients have the expectation that a telehealth meeting will begin exactly at the time stated on the appointment, leading to conflicts when a clinic schedule runs behind.
- The clinicians in this group agreed the ideal care model is a hybrid model that provides a mix of in-person visits and telehealth visits for patients.
- These providers reported that despite having to be creative in adapting their services to telemedicine over the past few months, they now feel equipped to continue providing services in this manner.
- Some direction from DHS on a standard of practice for telemedicine visits in varying fields of medicine would be helpful, however most have now adopted their own policies and procedures to make telemedicine successful in their practice.

Mental health provider focus group

- Mental health care professionals who delivered services in an office setting prior to the public health emergency and whose services typically consisted of therapy or psychiatric care, agreed that telemedicine has been just as effective or even more effective for their patients than in-person care.
- Practitioners who deliver care in a home- or community-based setting, such as mobile crisis management, felt that telemedicine is a useful option to have in their toolbox of service delivery methods but greatly prefer in-person service delivery when possible.
- These mental health care providers felt the greatest barrier to access and quality of care they faced was the availability of Internet, especially for clients in rural settings or experiencing poverty.
- Maintaining patient confidentiality / privacy and completing required paperwork presented large challenges to these providers.
- Patient difficulties in completing paperwork. Clinicians indicated that some patients don’t have access to email, aren’t technically savvy enough to complete online paperwork, aren’t able to come into the clinic to pick up and drop off physical copies due to transportation issues, or do not regularly open mail.
- For those that are able to complete and return physical copies via mail, the mail services in their area may be unreliable.
- One provider in particular noted having difficulties with getting mail delivered to their office and having it left in a mailbox where it may be vulnerable to confidentiality issues.
- Verbal consent has been a significant benefit to these providers and to some extent would still be necessary should telehealth continue beyond the public health emergency.
- Interpreters are an important part of providing mental health care and these providers urged that they be included in supporting a successful telemedicine model in Minnesota.
- These providers stressed that interpreters who are providing ancillary support to providers should be included in any grant funding for devices, Internet provision or other technological assistance as they are currently left to cover these costs themselves.

- Likewise, if there is to be any standardization of care guidelines or regulations created by DHS, they should take into account the need for interpreters and having a three-way video call, phone call or other means of utilizing interpreter services.

Recommendations

- Continue the waivers as they have been a big success for providers and patients.
- Decisive action from DHS as the public health situation changes so as not to delay care due to red tape or provider confusion.
- Clear guidelines from DHS on billing and payment, patient notes and any other aspects of care or charting which may be audited or should be standardized across practitioners.
- Pursue interstate licensure for telemedicine so providers close to state borders can serve more patients.
- Providers particularly want to ensure that telephone continues to be viewed as a viable form of treatment and billable on par with video treatment options. This is especially important as Internet availability and reliability continue to be a barrier for many patients in accessing remote medicine via video services.
- State assistance (grants, legislation, etc.) to ensure access to high speed Internet statewide, both for providers/facilities and for patients. This is especially pressing in rural areas.
- State help facilitating the interoperability of telemedicine platforms with EHR/EMR systems.
- Guidance from the State about easier methods for obtaining electronic signatures while remaining within the legalities of informed consent, patient bill of rights, etc.
- Move to a single or greatly reduced number of HIPAA compliant, easy to use, affordable platforms, as the vast number of different programs used currently can create difficulties in coordination of care among facilities, providers and other agencies as well as difficulties for patients who see multiple providers utilizing different systems.
- One idea is to create a public- private partnership between DHS and a telemedicine platform company which would allow for a low-cost, HIPAA compliant system used by most Minnesota providers.
- Promote collaboration with insurance companies and the state insurance commissioner to ensure equity in billing of telemedicine for patients across Minnesota-based insurance companies.

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