



Patient and Other Stakeholder Perspectives on Improving Tele-Mental Health Care for Medicaid Enrollees

Recommendations for Future Research



Acknowledgements

Authors

Vasudha Gidugu, PhD, Health Policy Research & Program Director, NEHI

Wendy Warring, JD, President & CEO, NEHI

Additional Contributors

Lauren Bedel, MPH, Senior Health Policy & Program Associate, NEHI

Sara Mar, MPH, Health Policy Intern, NEHI

Dusan Stojicic, MA, Associate Director, Community Catalyst

Robert Seifert, MPA, Public Policy Consultant

Layout and Design

Olivia Hart, Marketing and Communications Specialist, NEHI

Funding

Patient-Centered Outcomes Research Intitute (PCORI) EAIN-203938

About NEHI

NEHI is a national nonprofit, nonpartisan organization comprising stakeholders from across all key sectors of health and health care. NEHI works with its members to help critical innovations move from idea to implementation.

We bring together sometimes competing stakeholders and thought leaders, from every corner of health care, to discuss innovations and figure out, together, how to make them real. To find solutions to problems that they alone can't solve.

NEHI is focused on issues that require innovations and where innovations matter to our members: access to mental health care, improving health equity, and incentivizing value through alternate payment models. NEHI wants to leave our health care system better than we found it. Innovations, well-considered, can do that.

Contents

Executive Summary	4
Introduction	6
Recruitment and Participants	7
Findings	8
Perceived benefits of tele-mental health	8
Concerns about tele-mental health and considerations for future implementation	10
Recommendations for future research	18
Feedback from Participants	23
Conclusion	24
References	26
 Appendix A	
Tele-mental Health’s Potential to Improve Access to Mental Health Care Among Medicaid Recipients: Literature Review	28
Overview	28
Methodology	29
Background	29
Effectiveness of Tele-mental Health	31
Clinical Outcomes.....	32
Quality of Interaction.....	36
Engagement and Satisfaction.	37
Emerging technology beyond telephone and video.....	40
Telehealth Before, During, and After the COVID-19 Pandemic	41
Coverage	42
Technology support	42
Access issues to consider.....	42
Lessons Learned from Telehealth Utilization During COVID-19 Pandemic.....	45
Telehealth utilization grew, but net use of services declined ...	45
Equity issues	46
Considerations for the Future of Tele-mental Health	47
Securing Access	47
Measuring Value.....	47
Conclusion.....	48
References	49

Executive Summary

The use of tele-mental health has grown rapidly, especially in connection with the pandemic's impact. Our understanding of the circumstances in which tele-mental health is most effective has not, however, been able to keep pace with the growth in utilization by a wider range of patients and providers. This project, funded by the Patient-Centered Outcomes Research Institute (PCORI), was designed to obtain multi-stakeholder perspectives on the research needed to enhance the beneficial impact of tele-mental health for Medicaid enrollees.

The focus of our project was on tele-mental health for Medicaid enrollees because Medicaid is the largest payer for mental health and substance use disorder services. Moreover, the population covered by Medicaid includes a large portion of people of color, people with disabilities, and people living in poverty who have experienced long-standing health disparities and disproportionate negative mental health challenges related to the COVID-19 pandemic.

This work featured a series of focus groups and a day-long conference involving patients (Medicaid enrollees with a lived experience of mental health or substance use disorder), providers (clinicians), and payers (Medicaid state officials and representatives of Medicaid managed care health plans). Participants exchanged perspectives on tele-mental health, reviewed our summary of existing research through the lens of their own experiences, and generated consensus-based recommendations for future patient-centered outcomes research (PCOR) and comparative-effectiveness research (CER) on tele-mental health. Voicing significant appreciation for a dynamic conversation, participants articulated the following questions for further study:

- How does the effectiveness of tele-mental health vary based on patient characteristics?
- Which types of treatment and appointments are appropriate for the use of tele-mental health?
- What outcomes are important in assessing the effectiveness of tele-mental health and how can they be measured?
- What are the factors that most affect patients' experience and engagement in tele-mental health care?
- How can patient preferences be effectively incorporated into treatment guidelines?
- What training and supports are beneficial for both providers and patients?
- How can tele-mental health extend provider capacity?

At the conclusion of this initial work, NEHI hosted a webinar and panel discussion involving participants from our project and external commentators. Please [listen](#) to hear directly from participants about their experiences and to hear their perspectives on why the recommendations for research are important. Panelists emphasized the need for evidence-based practice guidelines that consider all available modalities of care from in-person to different forms of tele-mental health. There was strong agreement among panelists on the importance of addressing the issue of provider capacity with a cautionary note about the unintended consequences of extending tele-mental health capacity, such as reduced availability of in-person services. Panelists also discussed considerations related to tele-mental health for populations that were not a focus of this project, children and adolescents prominent among these.

Much research is needed, but including the questions of those who provide, pay for, and receive tele-mental health services is essential to speeding understanding and knowledge that enables broader and more effective access to tele-mental health. In the report that follows we describe in detail project participants' perspectives on tele-mental health and the research needed to advance its benefits for Medicaid enrollees. As an appendix to the report, we have included the literature review we presented to the participants.

Introduction

Tele-mental health has played a vital role in providing access to mental health treatment during the COVID-19 pandemic and it is expected to continue to do so in the future. The widespread use of tele-mental health is, however, relatively new. So, there are many unresolved questions about its effectiveness, differences among types of tele-mental health, and the circumstances in which it is best used. Stakeholders' contributions to these questions can direct research that addresses their concerns and is useful in making evidence-based, treatment-related decisions.

The Network for Excellence in Health Innovation (NEHI) designed this project, “Leveraging Patient and Other Stakeholder Perspectives to Advance Research on Medicaid Access to Tele-Mental Health Care” to elicit multi-stakeholder perspectives on patient-centered outcomes research (PCOR) and comparative effectiveness research (CER) recommendations that would be pertinent to Medicaid enrollees. We focused on Medicaid enrollees because of the significant role played by Medicaid in providing access to mental health treatment to members of racial and ethnic minorities, individuals with low income, and individuals with disabilities, whose mental health treatment needs were exacerbated by the COVID-19 pandemic (Guth, 2021; Kaiser Family Foundation, 2019; Saltzman et al., 2021). Identifying how tele-mental health can benefit those with Medicaid coverage, a population that has long experienced disparities in access to mental health care (National Conference of State Legislatures, 2018), is critical.

We conducted the project in two phases. The first phase consisted of four virtual focus groups held in October and November 2021. Two of the focus groups involved only patients (Medicaid enrollees with mental health or substance use conditions). The other two involved providers (clinicians) and payers (including Medicaid state officials and representatives of Medicaid managed care health plans). Participants in the focus groups shared their experiences with tele-mental health services during the pandemic, reacted to existing research on tele-mental health, and made initial suggestions for future research. The findings from the focus groups contributed to the second phase, a day-long conference that NEHI hosted, virtually, in April 2022. The conference brought all stakeholders together to exchange perspectives on tele-mental health, review updated research findings¹ through the lens of their own experiences, and generate consensus-based recommendations for future patient-centered outcomes research (PCOR) and comparative-effectiveness research (CER) on tele-mental health.

¹ See Appendix A for Review of Literature that informed the discussion.

Recruitment and Participants

We recruited participants to join both phases of the project in summer 2021. We originally planned for the conference to be in-person. Therefore, we restricted recruitment to New England to limit travel-related barriers to participation. To recruit payers, we contacted state Medicaid officials and representatives from the major health plans serving Medicaid enrollees. We used snowball sampling to contact clinicians serving Medicaid enrollees across a variety of organizations and those with different areas of expertise in terms of the population they serve (e.g., children and adolescents, individuals with substance use disorder, non-English speakers). To recruit patient participants, we sought referrals from the clinicians we contacted for the project and the Massachusetts Clubhouse Coalition (MCC), which includes clubhouses across Massachusetts serving individuals with mental illness. We also contacted individual clubhouses within the MCC, and other community-based mental health programs including the Metro Boston Recovery Learning Community (Metro-Boston RLC) which offers peer-to-peer services for people with mental health or substance use conditions. Due to COVID-19 restrictions most of our recruitment efforts were limited to virtual interactions.

A total of thirty individuals participated across both phases of the project — eight providers, six payers, and sixteen patients. Payers who had dual roles as providers and presented both perspectives. Providers were from programs within academic medical centers and community health centers that serve Medicaid enrollees. The provider group included those with different training backgrounds (psychiatrists, psychologists, and social workers) and expertise (e.g., substance use treatment, pediatric mental health, and treatment of non-English speaking patients).

Two of the payers were state Medicaid officials. The remaining participants represented private health plans, all but one of which cover Medicaid enrollees.

Patient participants were all Medicaid enrollees with a mental health or substance use disorder and included individuals who reported having a serious mental illness, and those with a dual diagnosis of mental health and substance use disorder. Two of the patients had physical disabilities - one had a vision impairment and the second had a hearing impairment. The participant with vision impairment was able to read the screen during virtual sessions. The participant with hearing impairment requested closed captioning, which we used throughout. All patient participants had experience with tele-mental health in the past year. They included nine females, six males, and

one gender non-binary individual. Twelve of the patient participants were White, two were multi-racial, one was Asian, and one was Hispanic. The average age of this group was 47.5 years. Patient participants all had at least some high school level education and more than half had at least a bachelor's degree. Participants across the stakeholder groups were from the states of Connecticut, Massachusetts, New Hampshire, and Vermont.

Findings

We present here the findings and our conclusions from across both phases of the project. These are laid out in three sections that cover the perceived benefits of tele-mental health, concerns about tele-mental health and related considerations for its future implementation, and recommendations for future research that draw upon the perspectives described in the preceding sections.

Perceived benefits of tele-mental health

Patients and providers emphasized that tele-mental health eased material access challenges, especially those associated with travel time and effort.

Patients noted the following benefits:

- ***Time-saving and reduced stress.*** Patients noted that it was stressful and time consuming to travel to appointments, especially if they had multiple appointments that were not well-aligned. Patients associated stress with navigating inefficiencies in public transportation, and travel costs. Tele-mental health eliminated these challenges.
- ***Scheduling ease.*** The reduced travel time also made more options available for scheduling.
- ***Ideal for medication management and short check-ins.*** Patients found telehealth was ideal for medication management appointments which are generally short check-ins and involve more time spent traveling than gaining therapeutic advantage if they are in-person.
- ***More comfortable.*** Patients mentioned that given the wait times often associated with appointments, they preferred waiting in their own spaces, instead of in a clinic waiting room.

Providers supported these comments. One of the providers said:

“I really appreciate having the telephone capacity to do follow-ups for meds because people are working. I want to honor that.”

Within telehealth, providers noted the important role of audio-only services in maintaining access to treatment for those without any or adequate access to the internet for video appointments. Patients and providers described that the telephone-only option was especially helpful in avoiding internet issues; it became a primary modality of care for some of the patient participants. As one noted:

“We do phone all the time now because I can take the phone call anywhere. I can just step away for 30 minutes.”

Additionally, providers remarked that they experienced lower no-show and cancellation rates in telehealth appointments.

The literature on experience with tele-mental health echoes these perceived benefits, in studies from prior to the pandemic and in surveys conducted during the pandemic (Campion et al., 2021; Norman et al., 2022). There is emerging quantitative data on reduced no-show rates (Muppavarapu et al., 2022); future research might examine this further and elaborate on the factors that contribute to it. As we note in our recommendations, research may consider the role of stress and how its reduction contributes to effectiveness of tele-mental health.

In addition, two patient participants speculated about the potential for tele-mental health to encourage new patients to seek treatment by providing greater anonymity and reducing fear of the stigma associated with going to a clinical setting for mental health treatment. Notably, providers and payers did not remark on the role of tele-mental health in overcoming the impact of stigma on seeking mental health treatment. One clinician emphasized the importance of determining whether tele-mental health provided access to care to individuals who had not previously received any form of treatment.

Concerns about tele-mental health and considerations for future implementation

All participants, including payers, appreciated the significant advantages tele-mental health offers in terms of accessibility and flexibility and they believed it should be an important component of care in the future. However, participants were also uniformly clear that certain factors might influence the effectiveness of tele-mental health. They identified the primary factors as patient preference, patient's stage of treatment, patient's diagnosis and clinical status, and the type of intervention a patient required. Additional factors included provider and patient comfort with the technology and access to private physical space for the therapy being provided.

Participants also expressed concern about the barriers to access to tele-mental health, especially for Medicaid enrollees. They emphasized that future implementation and expansion of tele-mental health should address these barriers. Providers highlighted the challenges they face from the rapid adoption of tele-mental health and the simultaneously increasing demand for mental health services. They voiced the importance of addressing these challenges and concern that not doing so might exacerbate the paucity of mental health services if burnout or provider dissatisfaction resulted from tele-mental health expansion.

We describe participants' considerations and concerns here in greater detail, many of which are echoed in extant literature.

Factors to consider in determining whether tele-mental health is a good fit in specific treatment situations.

Patient preferences.

Despite the convenience of tele-mental health, the key role it played in the continuation of care during the pandemic, and overall high rates of satisfaction among patients, a few of the patient participants retained a strong preference for in-person treatment. Some providers reported observing this preference in their practices, with patients electing not to engage via telehealth during the pandemic and opting instead to wait for the return to in-person services. One provider added that some patients also expressed a preference for a particular modality.

Patients' preferences were affected by their initial experiences with tele-mental health, how connected they were able to feel to their provider, and their comfort with the technology used. Some patient preferences may be altered by addressing these underlying concerns.

For example, one patient's experience with fixable, technology-related glitches during telehealth interactions led them to believe that quality interaction was not possible via telehealth and a preference for in-person care:

“When I tried to do telehealth, the videos were being dropped, it was choppy, intermittent, they could hear every other word...it was just so frustrating that I didn't want to do it anymore. I wasn't getting the care I needed.”

Other factors, such as beliefs about the strength of patient-provider relationship, might be less mutable. Patients expressed mixed opinions about whether a strong connection or therapeutic alliance between provider and patient could be established via tele-mental health. Patients who preferred in-person treatment did not think so. While the focus here is on patient preferences, it is worth noting that some providers echoed patients' concerns about therapeutic alliance. Similar to the patient group, this was not a unanimous concern among providers. The following quotes from two providers illustrate the contrasting views:

“I've noticed that getting back with my patients in the room, people are more willing to share more personal things...I feel like [when] talking to a person in a box, it could be a hologram. It's not a real person.”

“I've actually heard the opposite...Some people feel more comfortable sharing more over video because there's a layer of protection of not having to physically sit in the room with someone after you've shared something that feels particularly vulnerable.”

Whether therapeutic alliance and quality of the patient-clinician interaction, in general, is inferior in tele-mental health relative to face-to-face treatment has remained an unresolved issue in the research on tele-mental health (Irvine et al., 2020; Turgoose et al., 2018). Surveys of providers have revealed contradicting views similar to those described above (Lipschitz et al., 2022; Mark et al., 2021). Given that the patient-provider relationship is vital to the outcomes of mental health treatment, participants in our group reiterated a call for more research on the topic.

Further, even among their patients who preferred tele-mental health, providers found several factors affecting the type of telehealth that was preferred. For example, while limited internet access was a major factor influencing the use of the audio-only option, one provider described having patients who preferred the audio-only option because they did not trust the video option to be private:

“I’ve had some patients that don’t trust the video. They don’t believe there’s really any privacy. Is this really HIPAA compliant? So they’d rather do phone...especially when you have individuals who have migrated from different countries, who might have different experiences, and to what degree do they trust certain systems?...One patient has phone from the beginning of COVID till now. We’re still on phone, she does not want video.”

Some patient participants, particularly those who preferred in-person care, worried about a greater shift toward tele-mental health and whether their preferences would be honored in the care they are offered. Some of these patients reported feeling cornered into accepting virtual care, such as the person who said:

“The thing that I’m noticing as a patient is that we’re moving to a space where people are not gonna have a choice. I’m looking for a new group therapist and I can’t find anyone who’s doing in-person. And I’m one of those people with therapy who need to be in-person.”

To what extent patient preferences are changeable, and the degree to which initial experiences with tele-mental health establish long-term preferences, are open questions for research.

New vs established patients.

Provider participants commented that they consider whether a person is new to treatment in deciding whether to proceed with a tele-mental health visit. They noted the advantages of providing immediate access via tele-mental health, but also observed that it was more difficult to assess the patient in this way. Therefore, they expressed a preference for conducting initial evaluations face-to-face. They were unable to comment on whether telehealth versus face-to-face intake impacted the future course or outcomes of treatment. Providers were more comfortable using telehealth for follow-up care and review of treatment plans. They also highlighted the importance of tele-mental health for patients who are struggling to follow up if the severity of their symptoms made it difficult for them to attend in-person appointments.

Patient participants largely agreed with providers; in general, in-person appointments are better for developing rapport in initial meetings and tele-mental health works best after establishing a relationship with the provider. However, patients also mentioned factors that made tele-mental health preferable even for initial contacts, including greater anonymity and reduced fear of the stigma associated with mental health treatment.

Diagnostic conditions.

All participants noted that most of the literature on the effectiveness of tele-mental health is limited to a few diagnostic conditions. Not much is known about how well it works for individuals with more serious conditions (e.g., psychosis) or with conditions that present more cognitive challenges (e.g., neurodiverse individuals or individuals with developmental disabilities).

Participants with co-occurring physical conditions, such as neurological effects of psychiatric medications, found that some of their symptoms were not being adequately evaluated via telehealth and that at least some in-person care was critical for appropriate evaluation and treatment. Providers agreed that hybrid options are crucial for those in need of physical screenings.

Patient clinical status/stage of recovery.

Participants stated that the appropriateness of tele-mental health needed to be evaluated based on the progression of their illness. A patient example related to recovery status was that of individuals experiencing an exacerbation of isolating behavior. Participants described that tele-mental health appointments might not be helpful in that case and in-person appointments can help motivate people to leave the house and socialize with others.

Providers found that telehealth was not an effective platform for substance use treatment for people who were experiencing relapses with their addictions. Patients echoed this, stating that in-person appointments are preferable for substance use treatment because in-person visits establish greater accountability. In person visits also make it harder for patients to hide relapses. Participants in prior survey research have made similar observations (Mark et al., 2021). Providers and patients in our group provided examples to illustrate this point:

“I was sober for 12 years before the pandemic, and I suffered a relapse...I was able to keep that hidden for a really long time. And I think had I been going to my in-person treatment, that it would’ve been discovered... I wasn’t doing my regular urine analysis because we weren’t required to come in.” ~Patient

*“The women in our program started off excited about telehealth and the women who were doing well with their addiction hated telehealth. For privacy reasons, for relationship reasons. They wanted to come into the office, they wanted to provide their urine drug screen on site, they wanted to be here. And the women who were not doing well in recovery, and were actively using and relapsing were the ones saying, ‘Can I have a telehealth visit?’...we were almost always able to predict when someone called us and said, ‘I can’t come in, can we just convert over to telehealth today,’ that they were struggling with their addiction.”
~ Provider*

However, a patient participant in our group cautioned against writing off telehealth for all substance use treatment. In some cases, the immediate availability of telehealth outweighs the disadvantages. Timely access to some treatment was better than none. Immediacy was the key advantage and delayed telehealth appointments would undermine its advantages.

Patient’s environment.

Providers and patients noted that patients’ access to suitable private space privacy is critical in considering whether to offer telehealth rather than in-person visits. Providers described that many of their patients lacked the ability to conduct tele-mental health visits in a space in which it is safe to disclose sensitive information or is free from distractions. One provider described patients being forced to conduct appointments from uncomfortable spaces due to the lack of other private spaces:

“Many of the women in our program, with histories of addiction and some in recovery, were in relationships or housing situations where they would meet with us in their bathroom, in their car, in their closet...it was both a barrier to treatment and in some cases raised safety issues.”

Type of intervention.

Some providers raised as a limitation of current telehealth technology that it is designed primarily for one-on-one interactions. Despite the availability of technologies that allow for larger meetings (e.g., Zoom), these have not yet been incorporated

widely in treatment contexts for either patient group meetings or care team planning and review sessions. When telehealth was used for group sessions, patient participants remarked that it can be difficult to read social cues and develop interpersonal relationships. They observed that if group members had previously established relationships with each other and the providers, tele-mental health might be more comparable to inperson sessions.

Participants underscored the importance of outcome assessment to better understand how the factors described above impact the effectiveness of tele-mental health. None of the stakeholder groups was satisfied with the status of outcome assessment. Payers, especially, emphasized that while tele-mental health offers significant access advantages, the assessment of quality of services via telehealth needs greater attention. Payers pointed out, for example, that the difference in the quality of care between tele-mental health modalities such as telephone and video is not well understood and that they would not support an option purely based on access if it did not offer comparable outcomes. Providers found that outcome assessment was often more focused on cost of care than on quality measures.

We gleaned two major issues related to outcome assessment from the discussion. One, existing methods of data collection do not adequately utilize available quality measures to satisfactorily address payer or provider concerns. Second, the available quality measures do not represent the patient priorities. Several participants pointed to the need to identify outcomes that mattered to patients. The following quote from a provider illustrates this point:

“When you’re looking at outcomes, you [want to] look at not just “objective” outcomes like improved symptom scores, or ED visits and hospitalizations, but also patient-reported outcomes. What are the things that are important to the patients that they get from this type of treatment?”

Tele-mental health has the potential to expand access to treatment, but further work is needed to determine how and to mitigate barriers.

Participants noted that, despite important access benefits, several barriers prevent tele-mental health from being a viable option for many stakeholders and limit the extent to which it can improve access to mental health treatment. Providers and payers observed that tele-mental health provided an alternative to in-person care during the pandemic to those who already had access to mental health care, but it did not expand

access for those who did not previously have a relationship with a provider. Payers reported greater uptake of telehealth in rural areas compared to the pre-pandemic period, but this did not appear to bring in new patients. Participants described the following major barriers they believed needed to be addressed. The first two are specific to the use of tele-mental health and the third, concerning provider capacity, is a larger issue that is not mitigated by tele-mental health.

Technology remains a barrier.

Participants noted that there remain a significant number of people who struggle with, or do not have, the appropriate technology to access tele-mental health. This concern echoed trade and academic literature; lack of broadband has been an area of concern, especially for video modalities. In some rural areas, audio-only (a telehealth option that was not typically reimbursed pre-pandemic) was the only telehealth option available to conduct evaluations and prescribe medications.

Language and accessibility barriers.

Participants described that the barriers to in-person care for people who are not fluent in English or who have disabilities and require assistive technology persist in tele-mental health as well. Many telehealth platforms do not accommodate the features these individuals require to receive adequate care. For example, the lack of translation services integrated into digital platforms limits the ability of people who speak a language other than English to participate in telehealth. Similarly, not all telehealth platforms offer closed captioning which is necessary for those with hearing disabilities to participate in telehealth.

Future initiatives to expand the reach of tele-mental health should include strategies to lower these technology and accessibility barriers in making treatment decisions.

Provider capacity.

The availability of telehealth does not mitigate the limitations in mental health provider capacity, which existed prior to the pandemic and have been compounded by the mental health impact of the pandemic. Providers expressed interest in research to identify how tele-mental health can extend provider capacity. Despite the convenience of providing therapy virtually, providers were unwilling to conclude that telehealth would allow them to see more patients.

Patients emphasized that the issue of provider shortage is especially challenging for Medicaid enrollees, who routinely have difficulty finding behavioral health providers who meet their specific treatment needs and accept Medicaid coverage. Several patients noted that peer support was an essential part of their treatment and urged consideration of incorporating supplemental treatment supports –especially peers—into tele-mental health.

Tele-mental health currently presents several challenges for providers.

While provider participants expressed relief that they could continue to see their patients during the pandemic, they also acknowledged that telehealth may contribute stress to patient care. Even though several studies have found overall high levels of satisfaction among providers despite the technological and administrative challenges of tele-mental health, many providers feel overburdened by the need for services and ill-equipped to deliver them via telehealth. These concerns highlight the risk of provider burnout, which could further diminish the quality and availability of mental health services.

Not all providers have the necessary skills.

Providers in our group stated that tele-mental health requires a unique skill set, and most providers are only trained in and are used to delivering in-person mental health services. They stated that it is unreasonable to expect providers to become highly skilled at tele-mental health with a few hours of orientation. One provider described the issue this way:

“This is really a different workforce that we’re hiring for. Hiring people to be in-person, in-the-room therapists - and then switching them to be telehealth therapists - is not always the right fit.”

Providers interviewed in other studies have made similar calls for training specific to tele-mental health to feel equipped to deliver high-quality care (Lipschitz et al., 2022; Schoebel et al., 2021). Patients in the conference also expressed the need for provider training specific to telehealth. Some were clear that a provider’s lack of facility with telehealth negatively impacted their clinical experience.

In the conference, a few providers observed that provider preferences were an important factor to consider in the delivery of tele-mental health. They noticed generational differences among providers. A few providers remarked that they struggled with the reduced opportunity for impromptu consultation with colleagues; the transition to virtual consultation seemed easier for younger clinicians.

Inadequate reimbursement.

Providers found a need for significant additional resources to provide the necessary support to their patients to engage in tele-mental health -- staff to provide technical assistance to patients, for example. This demand for additional resources augments the staffing challenges providers already face. They emphasized that adequate reimbursement is critical to address provider shortage and quality of service. Patients also noted the importance of adequately paying providers, particularly those who treat Medicaid enrollees. As one patient participant put it:

“A lot of mental health professionals went into private practice...we have to incentivize providers to accept MassHealth [the Massachusetts Medicaid program], reduce the paperwork, and expedite payment...they also need to be paid for the in-between sessions...”

Recommendations for future research

Based on the observations and considerations for future implementation of tele-mental health that emerged from the focus groups and conference, participants offered recommendations for needed research on tele-mental health. NEHI prioritized the recommendations through polling and discussions with participants. Notably, providers and patients were the most vocal in presenting their perspectives on the use of tele-mental health and in recommending directions for future research. Payer comments and recommendations were largely focused on the measurement of outcomes, particularly the comparison with outcomes achieved through in-person treatment. We synthesized the recommendations for future research, considering the results of the prioritization process and their relationship to the major concerns that were voiced about tele-mental health during the conference. Our recommendations further considered how they related to the gaps identified in the existing literature on tele-mental health and the research questions’ particular significance to Medicaid enrollees.

These recommendations focus on opportunities for Patient-Centered Outcomes Research (PCOR).² Within these recommendations we highlight the possible Comparative Effectiveness Research (CER) questions.

2 <https://www.pcori.org/research/about-our-research/patient-centered-outcomes-research>; <https://www.pcori.org/research/about-our-research/research-we-support>

How does the effectiveness of tele-mental health vary based on patient characteristics?

As described previously, participants identified several patient characteristics such as modality preference, diagnosis, and stage of recovery as factors that might determine the effectiveness of tele-mental health. Research to understand the impact of these factors was of high importance to participants to support decision making relating to their own treatment or that of their patients. Participants were particularly interested in knowing more about how well tele-mental health worked for diagnoses beyond depression. Patients stated that, to make research-based decisions regarding tele-mental health for themselves, it is imperative that there be research specific to their condition. Indeed, there is limited rigorous, large-scale research on the use of tele-mental health in the treatment of serious mental illness and substance use disorders (Lawes-Wickwar et al., 2018; Mark et al., 2021; Santesteban-Echarri et al., 2020). There also are gaps in tele-mental health research focused on the treatment of depression, however, including inadequate research on patient characteristics that impact effectiveness (Berryhill et al., 2019; Giovanetti et al., 2022).

Providers added that they needed more research on demographically diverse populations to make evidence-based treatment decisions for their patients. The lack of demographic diversity among participants in prior studies of tele-mental health is well-documented. This gap is especially significant in the context of Medicaid, given the role it plays in providing coverage to non-white and non-English speaking individuals from diverse backgrounds. There was broad consensus among participants on the need for more research on how demographic and cultural characteristics affect the effectiveness of tele-mental health and the types of tele-mental health interventions that are effective.

Which types of treatment and appointments are appropriate for the use of tele-mental health?

Providers and patients alike were emphatic in their belief that the type of treatment and type of appointment were critical factors in their determination of whether to use telehealth. As described above, participants had reservations about the effectiveness of tele-mental health for group therapy and as a comparable alternative to face-to-face interaction for initiation of treatment. Participants reiterated the need for more research on the effectiveness of tele-mental health across types of treatment and appointments to identify when and which type of tele-mental health might be appropriate.

Possible avenues of CER related to these questions include: i) comparison of the impact on course and outcomes of treatment for initiation of treatment via in-person versus tele-mental health; ii) comparison of treatment outcomes in audio vs video tele-mental health; and iii) comparison of the outcomes of group therapy delivered in-person versus via tele-mental health. Similar questions have been raised in the literature on tele-mental health. The use of audio vs video-based tele-mental health, for example, has been an area of much debate in terms of whether the modalities produce comparable outcomes. These questions are often linked to discussions of payment parity for these options (Hirsch et al., 2021; Uscher-Pines & Schulson, 2021). Given the digital access barriers many Medicaid enrollees experience, which makes the audio-only option a crucial means for accessing treatment, CER in this area is of significance to this group.

A related question raised by a patient was whether some treatment protocols need to be redesigned specifically for tele-mental health instead of attempting to translate in-person procedures to virtual settings. This observation suggests the importance of identifying new models of care associated with the use of tele-mental health and comparing their effectiveness to in-person treatments.

Payers and providers discussed the potential for addressing some of these questions using claims data, but noted that the lack of specificity in coding limited the usefulness of these data for research.

What outcomes are important in assessing the effectiveness of tele-mental health and how can they be measured?

There are many calls in the literature for increasing the use of patient-reported outcome measures. There is a broad academic consensus that using outcome measures to assess patient improvement and adjust treatment accordingly is critical to achieving better outcomes (The Kennedy Forum, n.d.).

Two issues emerged from the participants' discussion of patient outcome measures at the conference. One is a lack of standardized implementation of available outcome measures. Variation in outcome measurement across payers poses a significant burden for providers (Centers for Medicare and Medicaid Services, 2021) and could impede providers' ability to assess and improve tele-mental health delivery. While payers at the conference agreed with the need for standard outcome measures, they did not specify their approaches to assessing effectiveness. Surveys of Medicaid practices on the coverage and measurement of tele-mental health outcomes would be informative, especially as Medicare is also in the process of considering the issue of data collection on telehealth utilization and care quality (King, 2022).

The second issue that lends itself to future PCOR is patients' desire to incorporate measures that reflect outcomes beyond the symptoms of their conditions and care utilization. Patient examples included measures of social and occupational functioning. Participants also discussed incorporating measures that assess patient and provider satisfaction. Research is needed to identify measures that reflect effectiveness and are meaningful to the different stakeholder groups.

What are the factors that most affect patients' experience and engagement in tele-mental health care?

This issue is closely related to the need for outcome measures. There was considerable interest in better understanding what factors in tele-mental health impact patient experience and how they can be addressed to improve patient engagement in care. Patients described some of the aspects they found challenging in tele-mental health treatments. They highlighted the lack of standardization in digital platforms used for tele-mental health. Patients found it challenging to switch among a variety of digital platforms across providers, particularly without an orientation to the requirements of each. For those with physical disabilities, the absence of universal accessibility features such as closed captioning was especially difficult. Measures that incorporate ease of the telehealth modality would indicate an aspect of patient satisfaction and engagement and allow better comparison among them.

The lack of standard procedures for telehealth appointments (such as check-in and feedback regarding delays) was another aspect that patients found impaired their experience and negatively impacted engagement. A provider supported this, reporting that they received more complaints from patients who experienced long wait times in virtual waiting rooms than they did from patients in physical settings with check-ins.

Patients recognized that the implementation of tele-mental health during the pandemic was necessarily rushed and did not allow for much attention to the systems and procedures used for tele-mental health appointments. They asserted that it was now time for more research, including CER, to better understand factors that influence patient experience and to develop platforms and best practices to promote engagement.

How can patient preferences be effectively incorporated in treatment guidelines?

Patients emphasized that decisions about modality of care (in-person or tele-mental health options) should be driven by patient preferences. The principal question for providers and payers is how they should balance patient preferences with other factors

that might affect treatment outcomes. This question is somewhat complex. It incorporates the question of the extent to which patient preferences affect patients' therapeutic alliance (which can affect outcomes) as well as the question of whether patient preferences can be altered to align with other treatment considerations by addressing the underlying reasons for patients' expressed preferences. Future research might examine the factors that most affect patient preference for a modality and the degree of impact patient preferences have on treatment relative to other factors. These studies would provide data that inform treatment guidelines for different circumstances.

What training and supports are beneficial for both providers and patients?

A clear theme in our discussion was that providers are inexperienced in tele-mental health and desired training specific to it. Patients were similarly inexperienced in tele-mental health, and some found it difficult to use without assistance. In some instances, provider discomfort with the technology negatively impacted patient experience. On the provider side, feeling ill-equipped can worsen provider stress. These negative experiences can exacerbate the existing challenges to access to and engagement in mental health treatment. Participants, therefore, expressed interest in identifying the types of training and/ or support that would be beneficial for each of these groups. CER can be valuable in identifying best practices in this area.

How can tele-mental health extend provider capacity?

Providers expressed a strong interest in research that examines how the benefits of tele-mental can be leveraged to extend provider capacity. Future research using CER might explore, for example, how paraprofessionals, such as peer support specialists, can provide some tele-mental health services; the impact of tele-mental health delivery in different settings, such as emergency rooms, schools etc.; and whether asynchronous options such as app-based monitoring can supplement real-time interactions with providers. Consideration should further be given to administrative supports that might extend provider capacity.

For the research based on these recommendations to influence practice, access to research findings is vital. Stakeholders, especially patients, encounter significant barriers to accessing research findings in a timely manner. We, therefore, sought participant input on how research can be made more accessible to stakeholders. Participants had numerous suggestions for dissemination strategies to improve access to research. These included: using non-technical language and graphics and multimedia formats in research reporting to make findings more accessible to individuals of different cognitive and reading abilities; giving providers pre-print access to research to ensure timely implementation in

practice; and eliminating paywalls to access research. Finally, participants recommended active efforts by researchers and sponsors to disseminate research to stakeholders, such as targeted presentations to stakeholder groups, rather than placing the onus on them to seek out research. Participants noted social media as an important avenue for broader dissemination but added a cautionary note about ensuring the credibility of the information source.

Feedback from Participants

This project was successful in generating robust engagement across stakeholder groups, resulting in recommendations that represent their varied perspectives. Participants appreciated the opportunity to share their experiences and insights, and to hear from those with different backgrounds and from other stakeholder groups. In a post-conference survey, ninety percent of the twenty-one respondents reported being satisfied or very satisfied with the extent to which they were able to share their perspectives. However, the degree of contribution in the conference varied across stakeholders. Patients and providers contributed the most in terms of both sharing experiences and making recommendations, while payers were relatively reserved in their input. One payer remarked that this project was an opportunity for them to hear patient and provider perspectives.

While most participants were satisfied with the virtual format of the project, the format proved challenging in two respects. It was challenging for individuals with visual limitations and those who were unaccustomed to extended virtual interaction to remain engaged. In addition, we found that a polling exercise using “dot-voting” did not work well in the virtual format- it lengthened the discussion and caused confusion among participants. Participants found our use of a pre-conference survey to identify priorities in preparation for the discussion at the conference beneficial. They recommended greater utilization of this type of pre-session polling. Finally, participants shared that a conference closer in length to the focus groups and split over two days, instead of a day-long event, might have been easier in terms of continuity and engagement.

Conclusion

Overall, there was broad support for the continued use of tele-mental health care across stakeholder groups, with a few exceptions of patients who indicated it was not a good fit for them. The reasons tele-mental health was not a good fit included having symptoms that needed physical evaluation, and discomfort or dissatisfaction with virtual interaction. There was variation among participants around the extent to which they preferred to use tele-mental health and the situations in which they preferred to use this option. Participants noted gaps in current knowledge about the many factors (such as diagnosis, stage of recovery, demographics, and culture) that might impact the effectiveness of tele-mental health and the importance of this information in making treatment decisions. One of the challenges that emerged from this discussion was how patient preferences will be balanced with other factors that might inform which treatment options are expected to be beneficial in the options offered to patients.

It is important to note that the perspectives gathered are from a relatively limited sample in terms of the demographic diversity of patient participants and geographic regions represented. Despite significant efforts to engage persons of color, we fell short of our goal. Restricting recruitment to a limited geographic area likely contributed to this. We also believe that the predominantly virtual process with limited opportunity to meet and develop relationships with potential participants impeded our recruitment efforts.

This project did not explore questions about the delivery of tele-mental health by non-clinician providers such as peer support specialists and other paraprofessionals who might play a key role in mitigating the impact of provider shortages. We also did not focus on asynchronous tele-mental modalities, the use of which is increasing. Future work might examine their role in expanding access to mental health services. Finally, both providers and payers noted that little is known about the impact of expanded access via tele-mental health on engaging patients who were previously not connected to mental health treatment. More research on the patterns of uptake of tele-mental health can be informative regarding the use of tele-mental health to reach new patients.

While we did not identify entirely new research domains using this process, we confirmed areas of focus and sharpened some of the research issues. The strong participant engagement in the project indicates that it would be worthwhile for researchers to obtain this type of multi-stakeholder input on specific research questions and designs that emerge

from these recommendations. We consulted researchers not involved in the project in preparation for the discussions with participants and for reactions to the emerging recommendations. These researchers validated the relevance of the questions for future research that were identified through the project. We look forward to learning how other researchers respond to the recommendations from this project.

References

- Berryhill, M. B., Culmer, N., Williams, N., Halli-Tierney, A., Betancourt, A., Roberts, H., & King, M. (2019). Videoconferencing Psychotherapy and Depression: A Systematic Review. *Telemedicine and E-Health*, 25(6), 435–446. <https://doi.org/10.1089/tmj.2018.0058>
- Campion, F. X., Ommen, S., Sweet, H., Shah, N., Rabson, B., Dougherty, N., Goldsack, J., Sylvester, P., Jones, K., Burgman, A., McIntosh, N., Sangaralingham, L., Jiang, D., McGinn, J., Rojas, R., Suther, T., Anderson, B., & Halamka, J. (2021). A COVID-19 Telehealth Impact Study—Exploring One Year of Telehealth Experimentation. *Telehealth and Medicine Today*, 6(3). <https://doi.org/10.30953/tmt.v6.280>
- Centers for Medicare and Medicaid Services. (2021, December). *Core Measures*. <https://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/QualityMeasures/Core-Measures>
- Giovanetti, A. K., Punt, S. E. W., Nelson, E.-L., & Ilardi, S. S. (2022). Teletherapy Versus In-Person Psychotherapy for Depression: A Meta-Analysis of Randomized Controlled Trials. *Telemedicine and E-Health*, tmj.2021.0294. <https://doi.org/10.1089/tmj.2021.0294>
- Guth, M. (2021). *State Policies Expanding Access to Behavioral Health Care in Medicaid: Appendix A* (Medicaid). Kaiser Family Foundation. <https://www.kff.org/report-section/state-policies-expanding-access-to-behavioral-health-care-in-medicaid-appendices/>
- Hirsch, Q., Davis, S., Stanford, M., Reiter, M., Goldman, M., & Mallow, J. (2021). *Beyond Broadband: Equity, Access, And The Benefits Of Audio-Only Telehealth* [Data set]. <https://doi.org/10.1377/forefront.20210916.819969>
- Irvine, A., Drew, P., Bower, P., Brooks, H., Gellatly, J., Armitage, C. J., Barkham, M., McMillan, D., & Bee, P. (2020). Are there interactional differences between telephone and face-to-face psychological therapy? A systematic review of comparative studies. *Journal of Affective Disorders*, 265, 120–131. <https://doi.org/10.1016/j.jad.2020.01.057>
- Kaiser Family Foundation. (2019). *Health Coverage & Uninsured*. <https://www.kff.org/state-category/health-coverage-uninsured/nonelderly-with-medicaid/>
- King, R. (2022, May 26). *Senate Finance Committee details telehealth “Bill of Rights” for mental health care services*. <https://www.fiercehealthcare.com/payers/senate-finance-committee-detailstelehealth-bill-rights-mental-healthcare-services>
- Lawes-Wickwar, S., McBain, H., & Mulligan, K. (2018). Application and Effectiveness of Telehealth to Support Severe Mental Illness Management: Systematic Review. *JMIR Mental Health*, 5(4), e62. <https://doi.org/10.2196/mental.8816>

- Lipschitz, J. M., Connolly, S. L., Van Boxtel, R., Potter, J. R., Nixon, N., & Bidargaddi, N. (2022). Provider perspectives on tele-mental health implementation: Lessons learned during the COVID-19 pandemic and paths forward. *Psychological Services*. <https://doi.org/10.1037/ser0000625>
- Mark, T. L., Treiman, K., Padwa, H., Henretty, K., Tzeng, J., & Gilbert, M. (2021). Addiction Treatment and Telehealth: Review of Efficacy and Provider Insights During the COVID-19 Pandemic. *Psychiatric Services*, *appi.ps.202100088*. <https://doi.org/10.1176/appi.ps.202100088>
- Muppavarapu, K., Saeed, S. A., Jones, K., Hurd, O., & Haley, V. (2022). Study of Impact of Telehealth Use on Clinic “No Show” Rates at an Academic Practice. *Psychiatric Quarterly*, *93*(2), 689–699. <https://doi.org/10.1007/s11126-022-09983-6>
- National Conference of State Legislatures. (2018). *The Costs and Consequences of Disparities in Behavioral Health Care*. https://www.ncsl.org/Portals/1/HTML_LargeReports/DisparitiesBehHealth_Final.htm
- Norman, S., Atabaki, S., Atmore, K., Biddle, C., DiFazio, M., Felten, D., Fox, E., Marschall, D., Newman, J., Robb, A., Rowland, C., Selekman, R., Slovin, A., Stein, M., Strang, J., & Sable, C. (2022). Home direct-to-consumer telehealth solutions for children with mental health disorders and the impact of Covid-19. *Clinical Child Psychology and Psychiatry*, *27*(1), 244–258. <https://doi.org/10.1177/13591045211064134>
- Saltzman, L. Y., Lesen, A. E., Henry, V., Hansel, T. C., & Bordnick, P. S. (2021). COVID-19 Mental Health Disparities. *Health Security*, *19*(S1), S-5-S-13. <https://doi.org/10.1089/hs.2021.0017>
- Santesteban-Echarri, O., Piskulic, D., Nyman, R. K., & Addington, J. (2020). Telehealth interventions for schizophrenia-spectrum disorders and clinical high-risk for psychosis individuals: A scoping review. *Journal of Telemedicine and Telecare*, *26*(1–2), 14–20. <https://doi.org/10.1177/1357633X18794100>
- Schoebel, V., Wayment, C., Gaiser, M., Page, C., Buche, J., & Beck, A. J. (2021). Telebehavioral Health During the COVID-19 Pandemic: A Qualitative Analysis of Provider Experiences and Perspectives. *Telemedicine and E-Health*, *27*(8), 947–954. <https://doi.org/10.1089/tmj.2021.0121>
- The Kennedy Forum. (n.d.). *A Core Set of Outcome Measures for Behavioral Health Across Service Settings*. https://thekennedyforum-dotorg.s3.amazonaws.com/documents/MBC_supplement.pdf
- Turgoose, D., Ashwick, R., & Murphy, D. (2018). Systematic review of lessons learned from delivering tele-therapy to veterans with post-traumatic stress disorder. *Journal of Telemedicine and Telecare*, *24*(9), 575–585. <https://doi.org/10.1177/1357633X17730443>
- Uscher-Pines, L., & Schulson, L. (2021). *Rethinking The Impact Of Audio-Only Visits On Health Equity* [Data set]. <https://doi.org/10.1377/forefront.20211215.549778>

Appendix A

Tele-mental Health’s Potential to Improve Access to Mental Health Care Among Medicaid Recipients: Literature Review

Authors

Vasudha Gidugu

Wendy Warring

Robert Seifert

Funding

Patient-Centered Outcomes Research Institute (PCORI) EAIN-20938

Overview

This literature review is part of the project “Leveraging Patient and Other Stakeholder Perspectives to Advance Research on Medicaid Access to Tele-Mental Health Care,” conducted by the Network For Excellence in Health Innovation (NEHI) and funded by a PCORI Engagement Award. The goal of the project was to garner multi-stakeholder perspectives to develop research recommendations that inform patient-centered outcomes research (PCOR) and comparative effectiveness research (CER) topics, especially those pertinent to Medicaid enrollees.

The project involved focus groups and a day-long meeting with key stakeholders, including patients (Medicaid enrollees with mental health or substance use conditions), providers (clinicians), and payers (including Medicaid state officials and representatives of Medicaid managed care health plans).

We conducted a review of the current literature on tele-mental health, presented below, to inform the questions for discussion in the focus groups and convening. This literature review consists of three sections:

- **The effectiveness of tele-mental health care.** The review organizes findings from the literature around three dimensions of effectiveness: clinical outcomes; quality of interactions; and engagement and satisfaction. It considers studies of the more commonly used forms of tele-mental health care and identifies research gaps

related to treatment modalities, treatment of specific conditions, and variations among specific populations.

- **Lessons learned from utilization of tele-mental health care during the COVID-19 pandemic.** Expanded coverage of tele-mental health during the public health emergency and the dramatic increase in the use of tele-mental health services, provide timely insight into the benefits and future use of tele-mental health. Increased utilization suggests a promising outlook; despite this, there is evidence of an increasing unmet need for behavioral health services and continuing demographic disparities in access and use.
- **Considerations for the future**, including the need for further research.

Methodology

NEHI conducted the literature search for this review in the summer of 2021 in preparation for four focus groups held in October and November 2021. We examined grey literature, peer-reviewed research, and federal agency reports to describe how telehealth is defined, the changes in telehealth from prior to the COVID-19 pandemic to the present, patterns of telehealth utilization, and considerations for future use of tele-mental health with a focus on Medicaid recipients. We relied primarily on the peer-reviewed literature to describe the research findings on the effectiveness of tele-mental health services. NEHI updated the literature review was between January and March 2022 in preparation for the stakeholder meeting in April 2022.

Background

Telehealth, sometimes referred to as telemedicine, is the use of electronic information and telecommunications technologies to extend care when providers and patients are not in the same place at the same time. Types of telehealth include (Center for Medicare and Medicaid Services (CMS), 2021):

Synchronous (“real-time”) modes

- **Live video** – A two-way, face-to-face interaction between a patient and a provider using audiovisual communications technology
- **Audio-only visits** – Use of telephone for visits without video
- **Case-based teleconferencing** – A method of providing holistic, coordinated, and integrated services across providers; usually interdisciplinary, with one or multiple internal and external providers and, if possible and appropriate, the client and family members/close supports

This review focuses on the first two of these modes, which are the most used and where most research has been done.

Asynchronous modes

- **Store-and-forward** – Remote evaluation by a provider of recorded video and/or images submitted by an established patient
- **E-visits** – Non-face-to-face, patient-initiated communication through an online patient portal
- **Remote patient monitoring** – Use of digital technologies to collect health data (including vital signs, weight, blood pressure, blood sugar, pacemaker information, etc.) from patients in one location and electronically transmit that information securely to providers in a different location
- **Mobile health (mHealth)** – Allows patients to review their personal health data via mobile devices, such as cell phones and tablet computers, which can be done from their home and assists in communicating their health status and any changes; often includes use of dedicated application software (apps), which are downloaded onto devices

The appeal of telehealth for enhancing access.

Broadly, telehealth is considered appropriate for conditions and situations that do not require a physical examination or procedure, which includes mental health services. Tele-mental health, the use of telehealth for providing mental health care, has long been seen as a way of addressing barriers to mental health care access (Smith & Allison, 1998). More than one-third of Americans live in areas where mental healthcare providers are in short supply. The shortage is more acute in rural areas (Kaiser Family Foundation, 2021a; USA Facts, 2021), and 55 percent of counties don't have a single practicing psychiatrist (National Council for Mental Wellbeing (last), 2017). Given the inadequate access to mental health services in the country, especially among Medicaid recipients, telehealth offers the important advantage of giving patients wider access to providers (Chauhan et al., 2020), closing long-standing workforce gaps, especially in areas of the country where provider recruitment and retention are challenging, (e.g., rural areas (American Hospital Association (AHA), 2021), and addressing barriers to utilization such as long travel times and concerns about stigma (MACPAC, 2018).

States began providing coverage for telehealth to expand access to care for Medicaid recipients prior to the COVID-19 pandemic (Gifford et al., 2018). The exponential growth in the use of telemedicine during the pandemic demonstrated that there is system capacity for its large-scale delivery and that a sizeable portion of non-urgent outpatient

visits can be effectively managed through telemedicine (Bashshur et al., 2020; Schaffer et al., 2020).

Effectiveness of Tele-mental Health

Tele-mental health is among the oldest and most frequently provided telehealth services, with providers in at least 35 states delivering tele-mental health services in the late 1990s (Smith & Allison, 1998). In the decades of tele-mental health practice, numerous studies have examined its effectiveness regarding the impact on symptom improvement, patient and provider satisfaction, and patient engagement. Some studies compared these outcomes with those achieved through in-person treatment; some compared different modalities of delivery such as telephone only, video interactions, and, more recently, smartphone applications. This review of the literature focuses primarily on synchronous or real-time interactive modes of delivery, via telephone and video interactions, which are the most used methods of tele-mental health service delivery.

Published research on tele-mental health falls on a continuum connecting studies of efficacy (the performance of an intervention under ideal and controlled circumstances) and effectiveness (performance under ‘real-world’ conditions) (Singal et al., 2014). Understanding how interventions work in ‘real-world’ conditions and how they work relative to another intervention or method of delivery (comparative effectiveness) assists consumers, clinicians, purchasers and policy makers in making informed decisions that will improve health care at individual and population levels (Treweek & Zwarenstein, 2009). Characteristics of a particular study determine its generalizability to a broader population (Singal et al., 2014). This review uses the term “effectiveness” to refer not to a specific type of study, but to what the body of research tells us about an intervention’s impact on outcomes, quality of interaction, and patient/provider satisfaction, and about the conclusions we can draw regarding the benefits and use of tele-mental health in regular clinical practice.

The research on tele-mental health considers a wide range of factors, such as the types of tele-mental health services used and the conditions treated. Study designs vary as well, from randomized controlled trials to observational studies, with and without comparison interventions and with a wide range of comparison conditions. All these factors affect the applicability of findings to clinical practice. To manage the variety and best understand the implications for clinical practice, we relied on syntheses of findings across studies provided by systematic reviews and meta-analyses (Gopalakrishnan & Ganeshkumar, 2013) where available.

We present the findings about the effectiveness of telephone and video-based tele-mental health in the following three subsections: clinical outcomes or symptom improvement; quality of interaction; and engagement and satisfaction with care from patient and provider perspectives. To the extent available, we discuss findings pertaining to these outcomes in relation to the mental and behavioral health conditions treated. The section concludes with a brief description of the growing body of research on asynchronous tele-mental health options.

Clinical Outcomes.

Most of the research on the use of telephone and videoconference for delivering mental health care examines the impact on common psychiatric conditions such as depression and anxiety disorders. Some reviews also consider PTSD and OCD, alone or in combination with other conditions. Table 1 below presents an overview of the systematic reviews we examined. Across the studies included in these reviews the method of tele-mental health delivery was evenly distributed between telephone and video. While some studies compared tele-mental health delivery with the same intervention delivered face-to-face, the research varies considerably in the comparison interventions studied.

Table 1 Systematic Reviews Examining Telephone and Videoconference Based Tele-mental Health Treatment

Authors/ Year	Review Type	Telemental Health Modality and Treatment	Comparison Condition (s)	Study Types Included	MH Conditions Assessed	Number of Studies
Giovanetti et al 2022	Meta-analysis	Video evidence-based psychotherapy (EBP)	Face-to-face delivery of EBP	RCTs	Depression	11
Osenbach et al 2013	Meta-analysis	Telephone (10)/ Video (4) psychotherapy	<ul style="list-style-type: none"> • Telephone mostly compared to Treatment-As-Usual (TAU; not clearly defined) • Video compared to same intervention face-to-face 	RCTs	Depression	14
Castro et al 2020	Meta-analysis	Telephone delivered psychotherapy	Wide range: face-to-face CBT or psychotherapy; short structured weekly call; psychoeducational reading materials; undefined treatment-as-usual	RCTs	Depression	10
Berryhill et al 2018	Narrative Review	Video psychotherapy	Wide range: same intervention face-to-face to some telephone support to none	RCT, Quasi-experimental and uncontrolled	Depression	33
Coughtry & Pistrang 2016	Narrative Review	Telephone delivered EBP	Wide range: same intervention face-to-face; undefined TAU; wait-list; none	RCT, Quasi-experimental and uncontrolled	Depression-10 Anxiety- 4	14
Turgoose et al 2017	Narrative Review	Video (majority)/ Telephone delivered trauma therapy	Wide ranging not clearly described	RCT, Quasi-experimental, uncontrolled, and case studies	PTSD (among veterans)	41
Tuerk et al 2018	Narrative Review of Reviews since 1965	Video EBP	Wide ranging across reviews	RCT, Quasi-experimental, uncontrolled, and case studies	Depression ~13; Anxiety, PTSD, OCD, or combination	35

Studies show tele-mental health improves symptoms of depression and anxiety; important questions remain.

Multiple reviews concluded that evidence-based psychotherapy delivered via video-conference produced symptom improvements in depression and anxiety comparable to in-person evidence-based psychotherapy (Berryhill et al., 2019; Giovanetti et al., 2022; Osenbach et al., 2013; Tuerk et al., 2018). Far fewer studies examined the impact of tele-mental health on anxiety than on depression. Cognitive behavior therapy (CBT) was the most common psychotherapy in the studies of the effectiveness of tele-mental health for depression. Osenbach and colleagues (2013) included both telephone and videoconference delivered tele-therapy in their meta-analysis, but they could not conclusively estimate the differences in outcomes between the two modalities due to the heterogeneity of interventions and comparison treatments; studies testing videoconference compared it to face-to-face treatment whereas studies of telephone delivered care did not consistently do so. This review and others (Castro et al., 2020; Coughtrey & Pistrang, 2018) concluded that evidence-based psychotherapy delivered via telephone can produce symptom improvement in depression and anxiety that is comparable to nontele-mental health options. Given the variety of comparison conditions in the studies these reviews consider, however, the effectiveness of telephone-based therapy relative to face-to-face treatment specifically is inconclusive.

Important questions remain about the effectiveness under specific circumstances of telephone and video tele-treatment for depression and anxiety.

- **Major depression.** Many studies focused on treatment of depression, most often where a mental health condition was the primary diagnosis. Two reviews of telephone-delivered care included studies of treatment of depression in connection with other physical health conditions such as Parkinson's, multiple sclerosis, and HIV (Castro et al., 2020; Coughtrey & Pistrang, 2018). There are not many studies where the primary diagnosis or focus of treatment is major depression.
- **Clinical significance.** While researchers concluded that evidence-based psychotherapy delivered via telehealth reduces symptoms of depression and anxiety, they also found that only a few studies report on the clinical significance of change, as measured by change in meeting criteria for diagnosis or the categorization of severity of the condition (Berryhill et al., 2019; Coughtrey & Pistrang, 2018).
- **Long-term impacts.** The retention of outcomes over a follow-up period after treatment (Berryhill et al., 2019; Castro et al., 2020), another important metric to determine the beneficial impact of treatment, is also ambiguous in the existing

research. For example, in one study participants receiving telephone-based treatment for depression in primary care had greater adherence to treatment than in face-to-face treatment and both groups had similar improvements in depression immediately following treatment. Over the long-term, however, the depression outcomes in face-to-face treatment were superior to those in telephone-based treatment (Mohr et al., 2012). More research can help identify whether additional supports are required in tele-mental health for better long-term outcomes.

The heterogeneity of studies across these reviews of telehealth treatment of depression and anxiety call out the need for further research. Studies to date inconsistently compare telehealth to in-person care and lack extensive consideration of different populations and treatments, which hampers broad conclusions about effectiveness. Further research should seek to establish the types of interventions, delivery method, and delivery setting (home versus clinic) in which tele-mental health services are most effective, and the clinical profiles, demographics and cultural factors of clients for whom they are most beneficial (Berryhill et al., 2019; Coughtrey & Pistrang, 2018; Giovanetti et al., 2022).

Findings regarding PTSD are promising but incomplete.

A systematic review of synchronous tele-mental health treatment for PTSD (Turgoose et al., 2018), which included largely video-based treatment, concluded that tele-therapy in a majority of studies produced clinical outcomes comparable to in-person treatment. But further research is needed, for example to determine which specific interventions—prolonged exposure, cognitive processing therapy, behavioral activation, etc.—are most effective, and how they should be adapted to tele-therapy.

Less is known about the effectiveness of synchronous telehealth treatment for serious mental illness.

In contrast to the research on the use of synchronous telehealth for common psychiatric conditions, there is less evidence about its use for serious mental illness such as schizophrenia and bipolar disorder. A large portion of telehealth interventions in this population have focused on asynchronous, internetbased self-management and psychoeducational methods (Lawes-Wickwar et al., 2018). Among synchronous methods, telephone support has been used largely to promote medication adherence (Kasckow et al., 2014; Lawes-Wickwar et al., 2018). Studies of the use of videoconference mainly demonstrate feasibility and acceptability for assessment and intervention using small samples, with only preliminary evidence regarding its impact on clinical outcomes (Kasckow et al., 2014; Lawes-Wickwar et al., 2018; Santesteban-Echarri et al., 2020).

The pandemic provided some encouraging real-world data regarding the use of tele-mental health with individuals at risk of psychiatric hospitalization, but more rigorous research is needed. One study conducted during the COVID-19 pandemic demonstrated feasibility of delivering video group teletherapy for individuals at risk for psychiatric hospitalization and preliminary evidence of its benefit in improving clinical outcomes (Puspitasari et al., 2021). This is additionally notable because much of the existing research focuses on individual therapy.

In another study (Bulkes et al., 2022), a program that had some experience with telehealth prior to the pandemic quickly moved to telehealth delivery of intensive outpatient and partial hospitalization programs. The researchers compared the outcomes of those who received individual and group therapy services during this time with a matched sample of patients from a pre-pandemic period and found symptoms and quality of life outcomes to be comparable. Generalizability of these findings is limited by the provider's prior experience in delivering telehealth treatment and the technological support they gave to patients, raising questions (which could be answered by future research) about the essential supports needed for tele-mental health to have a beneficial impact. Additionally, the interventions delivered via telehealth in this study were highly structured, evidence-based interventions; the conclusions would not apply to less rigorously tested approaches. Similarly, in the systematic reviews of tele-mental health for common psychiatric disorders described above, researchers limited their positive conclusions about the effectiveness of tele-mental health as an alternative to in-person therapy to evidence-based psychotherapy (Berryhill et al., 2019; Coughtrey & Pistrang, 2018; Giovanetti et al., 2022; Tuerk et al., 2018).

Limited findings regarding substance use disorder, and broader ones regarding medication management, are positive.

Studies comparing telehealth with in-person treatment for substance use disorder are limited. A review of the existing evidence indicates that counseling via telehealth is equally as effective as in-person treatment in terms of retention, therapeutic alliance, and substance use outcomes, and is an effective method for medication management (Mark et al., 2021). Other studies established the effectiveness of telephone-based care for medication management and adherence for other behavioral health conditions. Medication management was the most frequently used tele-mental health service, according to a survey of members of the National Council for Behavioral Health, a provider organization (Mace et al., 2018). Researchers found telephone-based care to be

beneficial in improving medication adherence among people on antidepressants (Rickles et al., 2005) and antipsychotic medication (Beebe et al., 2008; Montes et al., 2010) and telehealth has been recommended as an adjunct to in-person treatment of people using these medications. Other studies have shown the effectiveness of telehealth, not specifically telephone-based care, for medication management in the treatment of opioid use disorder (Mark et al., 2021).

Quality of Interaction.

The quality of interaction in the practice of tele-mental health includes elements such as therapeutic or working alliance, expression of empathy, and disclosure of sensitive information (Irvine et al., 2020). Studies of the quality of interaction are more mixed in their findings than those about clinical outcomes.

Patients and providers involved in some of the studies of tele-mental health have reported lower levels of comfort and greater difficulty reading nonverbal cues (Turgoose et al., 2018).

A recent systematic review empirically examined provider concerns about the quality of a therapeutic relationship established over the telephone, and the ability to exercise professional skill and judgment in their interactions with patients in the absence of visual cues (Irvine et al., 2020). This review found little difference between telephone and face-to-face treatments in terms of therapeutic alliance, disclosure, empathy, attentiveness, and participation. Telephone therapy sessions were significantly shorter than those conducted face-to-face. The researchers recommend exploring how these findings might be translated to influence practice, noting the importance of risk assessment and consideration of patient preferences in determining the appropriateness of service delivery mode. They also note the limitations of existing research and that much of the research on telephone-based care is limited to common mental health conditions. Research on tele-mental health for serious mental illness has shown that both patients and providers have a strong preference for video modalities, finding these critical for developing therapeutic alliance (Santesteban-Echarri et al., 2020).

The unprecedented expansion of tele-mental health during the pandemic provided substantial data on perceptions of quality of interaction in tele-mental health in regular practice. Providers in one study reported unexpected benefits, such as patients disclosing more sensitive information via telehealth, telehealth giving providers more insight into patients by opening a window into their home lives, and allowing providers to

tailor treatment to the circumstances of their patients' lives (Lipschitz et al., 2022). However, the providers interviewed in this study also found tele-mental health therapeutically challenging, with patients distracted by on-screen notifications or by other household activities during sessions. In some cases, providers found patients did not share information due to lack of private space and fear of being overheard, and they found themselves more likely to miss subtle non-verbal cues and worried about the impact on rapport. Addiction treatment providers expressed similar concerns in another study (Mark et al., 2021). Providers in that study also noted the challenges of keeping patients engaged in video group sessions, that not all providers have the skills necessary for conducting the sessions, and that patient preferences are a critical variable to consider in determining which treatment modality is most appropriate.

Engagement and Satisfaction.

Widespread and sustained adoption of any health care service requires the willingness of recipients and providers of the service to engage and be satisfied over time with the service's results, access, and cost. Research on engagement and satisfaction with tele-mental health points to generally positive findings in these regards, though with some reservations and areas for improvement.

Engagement in tele-therapy among recipients is comparable to in-person therapy and convenience drives satisfaction.

In addition to achieving treatment outcomes on par with in-person care, at least for some patient populations, there is consistent evidence of uptake of tele-therapy being comparable to in-person therapy and of high levels of feasibility, acceptability, and satisfaction among recipients (Tuerk et al., 2018; Turgoose et al., 2018). Telehealth has allowed patients to avoid delaying their care or having to go to the emergency room for services (Campion et al., 2021). Additionally, patients largely attribute their satisfaction with telehealth to the removal of transportation barriers and savings from no longer having to take time off work (Campion et al., 2021). For example, a study found that tele-mental health saved patients an average of 60 miles that would have otherwise been spent traveling to an in-person appointment (Norman et al., 2022). One interesting example came from a farmer who conducted a visit with his physician via his smartphone while on his tractor, a process that would have taken three hours in person.

A majority of the providers in one survey (Schoebel et al., 2021) reported that their clients experienced increased satisfaction with care compared to in-person services as they became familiar with telehealth and that their satisfaction was driven in large part

by convenience. Several systematic reviews found that rates of attrition for common psychiatric disorders in tele-mental health were similar to non-tele-mental health treatment (Castro et al., 2020; Giovanetti et al., 2022; Turgoose et al., 2018), though some researchers called for clearer, more uniform definition of adherence, noting the varying reporting of dropout versus average attendance across studies (Castro et al., 2020).

Providers are also satisfied, with qualifications.

The overall experience with tele-mental health remained positive during the pandemic, with a majority of providers in one survey reporting that the experience of transitioning to tele-mental health was better than expected (Steidtmann et al., 2021). Addiction treatment providers reported a high degree of satisfaction with telehealth as well. Most respondents to a survey of providers treating opioid use disorders found telehealth broadly as effective as in-person treatment (Riedel et al., 2021). Providers in California who serve large numbers of clients covered by Medicaid or other county funding were most confident that individual counseling via telehealth was as effective as in-person individual counseling. They were less sure about the relative effectiveness of telehealth-delivered medication management, group counseling, and intake assessments (Mark et al., 2021). These providers found that telehealth substantially mitigated barriers to treatment and enabled reaching challenging patients to keep them connected to treatment. They were enthusiastic about telehealth as a mechanism for improving access to addiction treatment.

Provider satisfaction with tele-mental health remained high despite challenges with technology and concerns about privacy and equity (Goetter et al., 2022; Lipschitz et al., 2022). Providers in multiple studies noted being able to provide quality care and reduce no-show rates as key benefits of tele-mental health (Lipschitz et al., 2022; Schoebel et al., 2021). An AHA hospital member reported a substantial increase in access to specialists because of the expansion of telehealth during the COVID-19 public health emergency (PHE); the convenience patients experienced and the resulting reduction in no-show rates contributed to the hospital administrator's satisfaction. Following their experience with tele-mental health during the pandemic, psychiatrists interviewed for a study about appropriateness of telehealth versus in-person treatment believed that most patients were good candidates for telehealth, especially in the context of hybrid treatment models (Uscher-Pines et al., 2022). Psychiatrists reported basing their decisions regarding modality of treatment on patient preference and factors such as access to private space rather than demographic or diagnostic criteria. They found that telehealth could be used as a tool to retain patients in treatment.

A SAMHSA report noted reduced provider burnout as a potential benefit of tele-mental health (Substance Use and Mental Health Services Administration (SAMHSA), 2021). While several providers said they had better work-life balance because of tele-mental health, some were dissatisfied with the lack of collegial interaction and opportunities for impromptu consultation that are possible in office settings (Lipschitz et al., 2022; Schoebel et al., 2021). Some providers reported the lack of separation between work and home and the loss of privacy due to their home life being disclosed during telemental health sessions as sources of dissatisfaction (Lipschitz et al., 2022). Most providers interviewed recommended continuing with hybrid in-person and tele-mental health models and offering treatment options based on the best fit for the type of appointment (e.g., in-person intake) and patient characteristics (e.g., digital literacy, risk concerns, ability to be attentive, access to private space) (Lipschitz et al., 2022; Schoebel et al., 2021). They also emphasized the need for training specific to tele-mental health for providers to feel adequately equipped to deliver services in this format.

There is some evidence of clinician satisfaction lagging patient satisfaction, largely due to administrative and technical issues (Tuerk et al., 2018), a challenge that has persisted in the experience with tele-mental health during the pandemic (Lipschitz et al., 2022). Another qualification to the overall provider satisfaction in the literature are the concerns expressed about challenges experienced by some patients such as older adults, people with lower incomes and rural populations with poorer digital access (Lipschitz et al., 2022; Schoebel et al., 2021).

Satisfaction would spur future use of telehealth.

Survey results indicate that overall favorability of telehealth during the pandemic made increased future use more likely. About 40 percent of consumers believe they will continue to use telehealth—up from 11 percent of consumers using telehealth prior to COVID-19. As of April 2021, 84 percent of physicians were offering virtual visits and 57 percent stated a preference to continue offering virtual care, though not at a discount; health systems were continuing to monitor the potential cost-effectiveness of telehealth (Bestsenny et al., 2021).

Emerging technology beyond telephone and video.

Apps for common conditions: findings are sparse and mixed.

While much of the research on tele-mental health has focused on the use of video and telephone, there is emerging evidence about other telehealth modalities such as smartphones. Some systematic reviews of smartphone applications for management of anxiety and stress (Rathbone & Prescott, 2017) have concluded that these applications show promise. More recently, researchers (Goldberg et al., 2022), noting the heterogeneity of available research, examined multiple meta-analyses that focused specifically on randomized controlled trials for mental health interventions, including treatments for depression, anxiety, and smoking cessation. The researchers concluded that there was not convincing evidence across a variety of studies in support of mobile phone applications for any outcome. Overall, the magnitude of effect of app-based interventions diminished as they were compared to more rigorous interventions. The lead researcher noted in an interview connected to the study that findings suggest mobile phone-based interventions might not be uniquely effective, but still are effective relative to nothing or non-therapeutic interventions.

Research in this field is still at a nascent stage and there likely will be much stronger evidence in the next few years as researchers develop better, app-specific trial designs (Aguilar, 2022). Other researchers also commented on the limitation of lumping together interventions with vastly different degrees of rigor under the umbrella of “smartphone apps,” indicating the need for more nuanced evaluation.

Apps for serious mental illness.

As with tele-mental health research overall, there is limited research on the use of smartphone apps for individuals with serious mental illness. A recent randomized trial provided preliminary evidence, comparing a smartphone-based (mHealth) intervention with clinic-based care for people with serious mental illness (Ben-Zeev et al., 2018). This study, which also is one of the few studies with majority non-white participants, found that the mHealth intervention showed superior patient engagement and produced patient satisfaction, as well as clinical and recovery outcomes that were comparable to those from a widely used clinic-based group intervention for illness management.

Apps for substance use disorder.

An examination of publicly available smartphone apps for substance use treatment found that very few apps offered evidence-based content and none facilitated connec-

tion to primary care-based or specialty substance use treatment programs (Tofighi et al., 2019). A review of web-based therapeutic interventions for substance use (Tofighi et al., 2018), such as motivational interviewing or CBT, have shown promise as have text-messaging interventions for smoking cessation, appointment and medication adherence, and reducing alcohol and drug use. This research identified only two studies of smartphone applications, both of which demonstrated reductions in alcohol use, indicating potential as a treatment option and the need for further study.

Future research on emerging technology.

Though relatively unexplored, researchers identified interactive voice response (IVR) that uses telephone-delivered recorded scripts as an intervention modality worthy of further research. Tofighi and colleagues (2018) also suggested exploring emerging technologies in digital health such as biosensors, which allow remote real-time information transfer between patients and providers, and artificial intelligence to predict risky behaviors. Tofighi and colleagues raised additional considerations for research and development of technology-based interventions (TBIs) for substance use treatment, including strategies specific to those with dual diagnosis; the impact of access barriers applicable to all telehealth; privacy considerations, given the stigma associated with substance use; the appropriate level of ‘dose’ of TBIs versus clinician-delivered interventions; and the comparative effectiveness of delivery platforms -- computer versus mobile phone versus smartphone app.

Telehealth Before, During, and After the COVID-19 Pandemic

The COVID-19 pandemic was a watershed moment for telehealth in general and for tele-mental health more specifically. The necessity of making remote health care services more available allowed providers, insurers, and governments to see new potential for telehealth as a mainstream source of health care. As the pandemic recedes, so will some of the expansions and liberalizations around telehealth. What ultimately remains will depend, at least in part, on what is known about the effectiveness and value of different modes of telehealth for different conditions and populations, relative to alternatives. This section addresses advancements in telehealth during the pandemic and questions raised by the rapid changes for policy makers considering the future of telehealth.

Coverage.

While all states had some degree of Medicaid coverage for telehealth services prior to the pandemic, until the COVID-19 public health emergency (PHE), Medicaid coverage of telehealth was subject to several restrictions. Restrictions included the location from which the telehealth appointment was conducted, which Medicaid populations could use the benefit, which providers could deliver services, and the technology used to deliver services (Guth & Hinton, 2020).

State-level policies vastly expanded insurance coverage for telehealth during the COVID-19 pandemic. Twenty-two states changed laws or policies to require more robust coverage of telemedicine, focusing on three key areas: requiring coverage of audio-only services, waiving cost sharing (or requiring cost sharing no higher than identical in-person services), and requiring reimbursement parity between telemedicine and in-person services (Volk et al., 2021).

State Medicaid programs issued guidance to expand telehealth access to specific services, most frequently addressing telehealth access for mental health services (Guth & Hinton, 2020). As of June 2020, all states had used emergency Section 1135 waivers to expand the provider pool in various ways and to adjust reimbursement and cost sharing. Two-thirds (38) of the states allowed audio-only delivery of telehealth for at least some services (Center for Connected Health Policy, 2021; Guth & Hinton, 2020).

Technology support.

States also introduced measures to support providers' use of telehealth. For example, the Washington Healthcare Authority provided free Zoom video conference licenses to providers, prioritizing those serving a meaningful number of Medicaid recipients (Guth & Hinton, 2020). In addition, relaxation of HIPAA rules (US Department of Health and Human Services, n.d.) allowed providers to use non-public facing popular apps such as FaceTime, Zoom, and Google Hangouts for video appointments. The Federal Communications Commission (FCC) provided financial support to eligible nonprofit and public health care providers for telecommunications services, information services, and devices necessary to provide critical connected care services.

Access issues to consider.

Interstate services.

The future of policies to expand access to telehealth beyond the PHE is an evolving picture. While all states allowed clinicians with out-of-state licenses to provide tele-

health services to Medicaid enrollees during the PHE, so far only 19 states have made inter-state telehealth delivery permanent (Federation of State Medical Boards, 2022). The importance of finding long-term solutions to support interstate tele-mental health delivery also has an equity aspect, for example for BIPOC and LGBTQ individuals who have a harder time finding providers among a scarce supply who are affirming of their identities. Inability to receive inter-state services will worsen these challenges, especially following the pandemic, when many people had to relocate due to unemployment, child care or other family caregiving reasons (Do, 2022). The benefits of inter-state service delivery experienced during the pandemic have heightened the desire for long-term solutions such as interstate compacts, which would streamline the process of applying for cross-state or state-specific licenses (Palmer, 2021).

Location and modality.

Whether and in which states Medicaid enrollees will continue to be able to attend appointments from their homes remains unclear, though CMS has extended this option for Medicare enrollees into 2023 (Polsinelli et al., 2021). CMS also extended Medicare coverage for audioonly services but continuation of Medicaid coverage for audio-only services remains both uncertain and much debated. About half the states extended Medicaid coverage of audio-only telehealth beyond the PHE, with coverage in other states expired or set to expire (Noguchi, 2021). The debate sets equity issues related to uneven digital access (Hirsch et al., 2021; Robeznieks, 2021) against concerns about inappropriate use and the quality of care of audio-only services (Uscher-Pines & Schulson, 2021). Proponents of coverage for audio-only services offer solutions to concerns about fraud and overuse such as value-based payment models, clinical guidelines, requiring an established doctor-patient relationship, and methods to verify identify and validate services (Hirsch et al., 2021).

Payment.

Payment parity between telehealth and in-person care is another area of much debate is. A majority of states implemented parity between at least some services during the PHE but, as of February 2022, only nineteen states offer long-term payment parity for telehealth (Augenstein et al., 2022). Some argue that reimbursement rates for telehealth should be negotiated as they are for any innovation, lest payment rates fosters inefficient use by insurers and patients (Dills, 2021). Some pro-parity arguments focus on incentivizing practices to invest in telehealth infrastructure in underserved communities, without which hard-to-reach patients might be left with no option for remote care.

There are safeguards against overuse, and proponents also caution against the assumption that telehealth of any kind is synonymous with low value care (Ellimoottil, 2021).

Privacy and security.

At the federal level, HIPAA restrictions on digital platforms are expected to be reinstated, thus disallowing the use of popular apps such as What's App, FaceTime, and Google Hangouts. There is a strong argument for the use of healthcare-specific video conferencing software with adequate privacy and security features from the perspectives of experts (Jalali et al., 2021) and providers and patients (Kapersky, 2021). Balancing these concerns is the potential impact of restrictions on people with limited digital access (Katzow et al., 2020).

Benefit to underserved areas.

Meanwhile, recognizing the convenience of telehealth and its critical role in continuity of care during the pandemic, the federal government has been increasing its investment in telehealth. In late summer 2021, the Health Resources and Services Administration (HRSA) announced \$19 million in funding for expanding telehealth in rural and underserved areas, to support training, technical assistance, and the establishment of centers of excellence (Landi, 2021). The final round of Federal Communications Commission funding that supported healthcare providers in delivering telehealth services through the PHE was announced in January 2022 (Federal Communications Commission (FCC), 2022a), and the FCC has continued investing in expanding broadband access to rural and underserved areas with the announcement in March 2022 of an additional \$640 million for expanding broadband access in 26 states. So far the program has expanded broadband access in 47 states to bring broadband to almost 2.7 million locations (Federal Communications Commission (FCC), 2022b).

Even as telehealth coverage policies under Medicaid evolve, the continued federal investment in digital access and steady growth in telehealth use (Bailey, 2021) are clear indicators that telehealth is here to stay. Health system leaders and industry experts anticipate that telehealth will be used in a targeted fashion to treat certain conditions and for certain types of patients (Vaidya, 2021). Mental health services, , the most used telehealth service during the PHE, and medication refills are examples of such targeted areas. Reimbursement models are expected to evolve alongside the evolution of targeted telehealth use. Accumulating evidence of effectiveness will inform policies shaping both targeted use and reimbursement.

Lessons Learned from Telehealth Utilization During COVID-19 Pandemic

Telehealth utilization grew, but net use of services declined.

Telehealth services have been available in the United States for decades, but utilization remained low: in 2019, only 8 percent of Americans used telemedicine services (Perry et al., 2021) and only 16 percent of providers offered telehealth (Campion et al., 2021). There was growth in the use of telehealth and tele-mental health in the five years prior to the pandemic, but telehealth remained a small portion of all outpatient visits (Barnett et al., 2018; FAIR Health, 2019).

With expanded availability, the utilization of telehealth across plans and providers rose sharply during the pandemic. Telehealth services delivered to Medicaid recipients surged 2,700 percent during the PHE, to nearly 68 million between March and October 2020 (Medicaid & CHIP, 2021). After an initial spike to 32 percent of all visits (78 times higher than pre-pandemic), telehealth visits have stabilized around 13-17 percent of visits (38 times higher than pre-pandemic) as of July 2021, with the greatest uptake in psychiatry (50% of visits) and substance use treatment (30% of visits) (Bestsenny et al., 2021). Tele-mental health has remained among the most used telehealth services. Between September and October 2021, overall telehealth use declined, but the percentage of mental health related telehealth claims increased (FAIR Health, 2022).

Telehealth has not been a panacea for mental health access, however. Despite the rapid growth in and reports of overall satisfaction with telehealth (see the discussion in “Engagement and Satisfaction,” above), total healthcare service utilization among Medicaid recipients dropped substantially during the pandemic. CMS data show that, from March through October 2020, Medicaid recipients skipped millions of primary, preventive, and mental health care visits due to the COVID-19 PHE, compared to the same time-period in 2019 (Medicaid & CHIP, 2021). There was a 22 percent decline in the use of mental health services by adults aged 19 to 64, compared to the same time period in 2019, which translates to approximately 12 million fewer mental health visits for adults. Telehealth was long considered a way to deliver access to mental health services to more people. However, data from a large health system showed a decline of over 40 percent in individuals without a prior psychiatric diagnosis seeking mental health services between March and May 2020, compared to the same period in 2019 (Ridout et al., 2021). Growth also was hampered by multiple barriers to provider reimbursement for telehealth services (Turner Lee et al., 2020). National data that present a

slightly more optimistic picture indicate that pandemic-related expansion of telehealth led to an increase of only 5-6 percent in those receiving mental health care for the first time (Terlizzi & Zablotsky, 2019; Vahratian et al., 2021; Ducharme, 2021). These numbers are especially concerning considering the simultaneous rise in people reporting poor mental health, from 11 percent pre-pandemic to over 30 percent in 2021 (Kaiser Family Foundation, 2021b). Unmet need for mental health services has been on the rise through the pandemic, increasing from 9.2 percent to 11.7 percent reported between August 2020 and February 2021 (Vahratian et al., 2021).

Equity issues.

There are significant demographic disparities in access to telehealth. One study found that the likelihood of using video modalities was lower among Blacks and American Indians relative to Whites, for males versus females, for those who preferred a non-English language versus English speakers, and for Medicaid or Medicare recipients versus commercially insured. Compared to individuals in their 20s and 30s, utilization of video modalities steadily declined in older age groups (Sachs et al., 2021). These findings align with federal data that show the proportion of telehealth users is highest among people who are publicly insured, Black, and earning less than \$25,000 per year, but the highest proportion of video telehealth users were among people who are White, earning more than \$100,000, privately insured, and between the ages of 18 and 24. Video telehealth rates were lowest among people without a high school diploma, Black, Latino, and Asian individuals, and adults 65 years and older (Karimi et al., 2022). Similar patterns were recorded in another study that compared the relative use of telephone and video telehealth across demographic categories (Drake et al., 2022). These differences echo disparities elsewhere in health care delivery. While differences in access to and comfort with technology are likely drivers, cultural preferences and other contextual factors also warrant further study.

Medicaid covers some of the most vulnerable individuals, including people living in poverty, people with disabilities, and racially and ethnically underrepresented groups who have substantially worse access to mental health care (SAMHSA, 2020). The long-term impact of these utilization variations might therefore be significant. While telehealth is a potential solution to improving access to mental health care, the overall decline in service utilization during the pandemic among Medicaid recipients, combined with substantial demographic disparities, indicate that there is much work necessary to realize telehealth's potential.

Considerations for the Future of Tele-mental Health

The extensive use of telemedicine during the COVID-19 PHE has demonstrated that infrastructure for connectivity is available, to a large extent, at both ends of the clinical encounter, most readily through the ubiquitous smartphone. Moreover, necessary logistics, including workflow and staffing changes, can be developed promptly (Bashshur et al., 2020). However, several long-standing barriers remain to be addressed to leverage the long-term potential of telehealth for mental health care for both patients and providers.

Securing Access.

Critically, while telehealth is intended to facilitate access to care, it does not overcome all existing barriers to that access. For example, those without English proficiency require medical interpreters, and individuals who have visual, speech or hearing impairments often require special apps. Analogous to the transportation challenges for considerable segments of the population seeking in-person care, wi-fi bandwidth required for video appointments might not be available for many families and digital health platforms for telehealth visits may not work on mobile devices, often the only tools to which some patients have access (Katzow et al., 2020; Mace et al., 2018). Digital literacy and access to technology, including electronic devices and broadband, are major challenges for those over the age of 65 years and those living in rural areas (Sutton, 2021), and for Black and low-income communities (Tomer et al., 2020). While rural Americans are among the groups most likely to live in underserved areas and therefore to benefit from telehealth, they are ten times more likely to lack access to broadband than those living in urban areas (Dornauer & Bryce, 2020). For Medicaid recipients, it is also important to consider additional factors that might affect the net benefit of tele-mental health relative to in-person care. Access to a safe and private space, for example, is an issue mentioned in many reports (MMDN & Academy Health, 2021; Uscher-Pines et al., 2022). Consequently, questions remain as to how to ensure ease of access for the most vulnerable groups.

Measuring Value.

Metrics to assess the value of telehealth will be critical as it moves from an emergency solution, adopted broadly but temporarily, to an integral part of healthcare. In recognition of this need the American Medical Association developed a framework (Zarefsky, 2022) to measure the value of virtual care or telehealth. The goal of the framework is to understand how to optimize telehealth for patient, physician and caregiver satisfaction, patient

access, and health equity. The framework consists of six value streams that demonstrate ways telehealth models can generate value, with specific metrics within each:

- Clinical outcomes, quality and safety.
- Access to care.
- Patient, family and caregiver experience.
- Clinician experience.
- Financial and operational impact.
- Health equity.

The framework can be used by physicians, health care organizations, payers, and policymakers. Care providers can use it to develop and evaluate new models for care, and payers and policymakers can use it to support long-term fair and equitable payment for clinicians to sustain telehealth services.

Conclusion

The pandemic has provided vital momentum for the work needed to realize the full potential of telehealth in improving access to mental health care. While there is substantial evidence supporting the effectiveness of providing mental health care via telehealth, particularly via videoconference, the literature also points to several areas for further research, including:

- The effectiveness of tele-mental health for diverse patient populations, including comparisons to the effectiveness of in-person care;
- The optimal uses of telehealth, considering treatment settings, other conditions including serious mental illness, and other variables;
- Factors related to the long-term retention of outcomes;
- The use of modalities of delivery beyond videoconferencing to facilitate easier access; and
- Provider training needs specific to tele-mental health.

The barriers to engaging in telehealth that different patient groups experienced, in addition to highlighting issues of access to technology, are indicative of work needed in determining best practices for supporting patients in telehealth use. Finally, as telehealth moves from an adjunct to in-person care to standard practice, healthcare organizations will need to determine specific quality metrics to assess its impact on overall care and inform operational decisions.

References

- Aguilar, M. (2022, January 19). *What types of mental health apps actually work? A sweeping new analysis finds the data is sparse.* <https://www.statnews.com/2022/01/19/mental-healthmeditation-app-evidence/>
- American Hospital Association (AHA). (2021, March). *Statement of the American Hospital Association for the Subcommittee on Health of the Committee on Energy and Commerce of the U.S. House of Representatives “The Future of Telehealth: COVID-19 is Changing the Delivery of Virtual Care.”* <https://www.aha.org/2021-03-02-aha-statement-future-telehealth-covid-19-changing-deliveryvirtual-care>
- Augenstein, J., Marks, J., & Andrade, M. (2022). *Executive Summary: Tracking Telehealth Changes Stateby-State in Response to COVID-19.* <https://www.manatt.com/insights/newsletters/covid-19update/executive-summary-tracking-telehealth-changes-stat>
- Bailey, V. (2021, December 7). *Telehealth Use Continues to Rise, But COVID-19 Not Among Top Diagnoses.* <https://mhealthintelligence.com/news/telehealth-use-continues-to-rise-but-covid-19-not-among-top-diagnoses>
- Barnett, M. L., Ray, K. N., Souza, J., & Mehrotra, A. (2018). Trends in Telemedicine Use in a Large Commercially Insured Population, 2005-2017. *JAMA*, *320*(20). <https://doi.org/10.1001/jama.2018.12354>
- Bashshur, R., Doarn, C. R., Frenk, J. M., Kvedar, J. C., & Woolliscroft, J. O. (2020). Telemedicine and the COVID-19 Pandemic, Lessons for the Future. *Telemedicine and E-Health*, *26*(5). <https://doi.org/10.1089/tmj.2020.29040.rb>
- Beebe, L. H., Smith, K., Crye, C., Addonizio, C., Strunk, D. J., Martin, W., & Poche, J. (2008). Telenursing Intervention Increases Psychiatric Medication Adherence in Schizophrenia Outpatients. *Journal of the American Psychiatric Nurses Association*, *14*(3). <https://doi.org/10.1177/1078390308318750>
- Ben-Zeev, D., Brian, R. M., Jonathan, G., Razzano, L., Pashka, N., Carpenter-Song, E., Drake, R. E., & Scherer, E. A. (2018). Mobile Health (mHealth) Versus Clinic-Based Group Intervention for People With Serious Mental Illness: A Randomized Controlled Trial. *Psychiatric Services*, *69*(9), 978–985. <https://doi.org/10.1176/appi.ps.201800063>
- Berryhill, M. B., Culmer, N., Williams, N., Halli-Tierney, A., Betancourt, A., Roberts, H., & King, M. (2019). Videoconferencing Psychotherapy and Depression: A Systematic Review. *Telemedicine and E-Health*, *25*(6), 435–446. <https://doi.org/10.1089/tmj.2018.0058>

- Bestsenny, O., Gilbert, G., Harris, A., & Rost, J. (2021). *Telehealth: A quarter-trillion-dollar post-COVID19 reality?* <https://www.mckinsey.com/industries/healthcare-systems-and-services/ourinsights/telehealth-a-quarter-trillion-dollar-post-covid-19-reality#>.
- Bulkes, N. Z., Davis, K., Kay, B., & Riemann, B. C. (2022). Comparing efficacy of telehealth to in-person mental health care in intensive-treatment-seeking adults. *Journal of Psychiatric Research*, *145*, 347–352. <https://doi.org/10.1016/j.jpsy-chires.2021.11.003>
- Campion, F. X., Ommen, S., Sweet, H., Shah, N., Rabson, B., Dougherty, N., Goldsack, J., Sylvester, P., Jones, K., Burgman, A., McIntosh, N., Sangaralingham, L., Jiang, D., McGinn, J., Rojas, R., Suther, T., Anderson, B., & Halamka, J. (2021). A COVID-19 Telehealth Impact Study—Exploring One Year of Telehealth Experimentation. *Telehealth and Medicine Today*, *6*(3). <https://doi.org/10.30953/tmt.v6.280>
- Castro, A., Gili, M., Ricci-Cabello, I., Roca, M., Gilbody, S., Perez-Ara, M. Á., Seguí, A., & McMillan, D. (2020). Effectiveness and adherence of telephone-administered psychotherapy for depression: A systematic review and meta-analysis. *Journal of Affective Disorders*, *260*, 514–526. <https://doi.org/10.1016/j.jad.2019.09.023>
- Center for Connected Health Policy. (2021). *State Telehealth Laws and Reimbursement Policies Report*. Center for Connected Health Policy. <https://www.cchpca.org/resources/state-telehealth-lawsand-reimbursement-policies-report-spring-2021/>
- Center for Medicare and Medicaid Services (CMS). (2021). *Telehealth for Providers: What You Need to Know*. U.S. Department of Health and Human Services. <https://www.cms.gov/files/document/telehealth-toolkit-providers.pdf>
- Coughtrey, A. E., & Pistrang, N. (2018). The effectiveness of telephone-delivered psychological therapies for depression and anxiety: A systematic review. *Journal of Telemedicine and Telecare*, *24*(2), 65–74. <https://doi.org/10.1177/1357633X16686547>
- Dills, A. (2021, December 21). Telehealth payment parity prevents cost savings. *The Hill*. Telehealth payment parity prevents cost savings
- Do, D. (2022, March 3). The Pandemic Underscored Why We Need Equitable Tele-mental Health Service. *Robert Wood Johnson Foundation: Culture of Health Blog*. https://www.rwjf.org/en/blog/2022/03/the-pandemic-underscored-why-we-need-equitable-tele-mental-health-services.html?cid=xfb_rwjf_unpd_dte:20220301
- Dornauer, M., & Bryce, R. (2020). *Too Many Rural Americans Are Living In the Digital Dark. The Problem Demands A New Deal Solution* [Data set]. <https://doi.org/10.1377/forefront.20201026.515764>

- Drake, C., Lian, T., Cameron, B., Medynskaya, K., Bosworth, H. B., & Shah, K. (2022). Understanding Telemedicine's "New Normal": Variations in Telemedicine Use by Specialty Line and Patient Demographics. *Telemedicine and E-Health*, 28(1), 51–59. <https://doi.org/10.1089/tmj.2021.0041>
- Ellimoottil, C. (2021). Understanding The Case For Telehealth Payment Parity [Data set]. <https://doi.org/10.1377/forefront.20210503.625394>
- FAIR Health. (2019). *A Multilayered Analysis of Telehealth*. <https://s3.amazonaws.com/media2.fairhealth.org/whitepaper/asset/A%20Multilayered%20Analysis%20of%20Telehealth%20-%20A%20FAIR%20Health%20White%20Paper.pdf>
- FAIR Health. (2022, January 10). *National Telehealth Utilization Declined Nearly Seven Percent in October 2021*. <https://www.prnewswire.com/news-releases/national-telehealth-utilization-declined-nearly-seven-percent-in-october-2021-301456259.html>
- Federal Communications Commission (FCC). (2022a). *FCC ANNOUNCES FINAL GROUP OF COVID-19 TELEHEALTH PROGRAM AWARDS*. <https://www.fcc.gov/document/fcc-announces-final-group-covid-19-telehealth-program-awards>
- Federal Communications Commission (FCC). (2022b). *FCC Announces Over \$640 Million for Rural Broadband in 26 States*. <https://www.fcc.gov/document/fcc-announces-over-640-million-ruralbroadband-26-states>
- Federation of State Medical Boards. (2022). *U.S. States and Territories Modifying Requirements for Telehealth in Response to COVID-19*. <https://www.fsmb.org/siteassets/advocacy/pdf/stateswaiving-licensure-requirements-for-telehealth-in-response-to-covid-19.pdf>
- Gifford, K., Ellis, E., Edwards, B. C., Lashbrook, A., Hinton, E., Antonisse, L., & Rudowitz, R. (2018). *States Focus on Quality and Outcomes Amid Waiver Changes*. KFF and NAMD. <https://files.kff.org/attachment/Report-States-Focus-on-Quality-and-Outcomes-Amid-WaiverChanges-Results-from-a-50-State-Medicaid-Budget-Survey-for-State-Fiscal-Years-2018-and2019>.
- Giovanetti, A. K., Punt, S. E. W., Nelson, E.-L., & Ilardi, S. S. (2022). Teletherapy Versus In-Person Psychotherapy for Depression: A Meta-Analysis of Randomized Controlled Trials. *Telemedicine and E-Health*, tmj.2021.0294. <https://doi.org/10.1089/tmj.2021.0294>
- Goetter, E. M., Iaccarino, M. A., Tanev, K. S., Furbish, K. E., Xu, B., & Faust, K. A. (2022). Tele-mental health uptake in an outpatient clinic for veterans during the COVID-19 pandemic and assessment of patient and provider attitudes. *Professional Psychology: Research and Practice*. <https://doi.org/10.1037/pro0000437>

- Goldberg, S. B., Lam, S. U., Simonsson, O., Torous, J., & Sun, S. (2022). Mobile phone-based interventions for mental health: A systematic meta-review of 14 meta-analyses of randomized controlled trials. *PLOS Digital Health*, 1(1), e0000002. <https://doi.org/10.1371/journal.pdig.0000002>
- Gopalakrishnan, S., & Ganeshkumar, P. (2013). Systematic Reviews and Meta-analysis: Understanding the Best Evidence in Primary Healthcare. *Journal of Family Medicine and Primary Care*, 2(1), 9–14. <https://doi.org/10.4103/2249-4863.109934>
- Guth, M., & Hinton, E. (2020). *State Efforts to Expand Medicaid Coverage & Access to Telehealth in Response to COVID-19*. Kaiser Family Foundation. <https://www.kff.org/coronavirus-covid19/issue-brief/state-efforts-to-expand-medicare-coverage-access-to-telehealth-in-response-to-covid-19/>
- Hirsch, Q., Davis, S., Stanford, M., Reiter, M., Goldman, M., & Mallow, J. (2021). *Beyond Broadband: Equity, Access, And The Benefits Of Audio-Only Telehealth* [Data set]. <https://doi.org/10.1377/forefront.20210916.819969>
- Irvine, A., Drew, P., Bower, P., Brooks, H., Gellatly, J., Armitage, C. J., Barkham, M., McMillan, D., & Bee, P. (2020). Are there interactional differences between telephone and face-to-face psychological therapy? A systematic review of comparative studies. *Journal of Affective Disorders*, 265, 120–131. <https://doi.org/10.1016/j.jad.2020.01.057>
- Jalali, M. S., Landman, A., & Gordon, W. J. (2021). Telemedicine, privacy, and information security in the age of COVID-19. *Journal of the American Medical Informatics Association*, 28(3), 671–672. <https://doi.org/10.1093/jamia/ocaa310>
- Kaiser Family Foundation. (2021a). *Mental Health Care Health Professional Shortage Areas (HPSAs)*. <https://www.kff.org/other/state-indicator/mental-health-care-health-professional-shortageareas/?currentTimeframe=0&sortModel=%7B%22colId%22:%22Location%22,%22sort%22:%22asc%22%7D>
- Kaiser Family Foundation. (2021b). *Mental Health and Substance Use State Fact Sheets*. Kaiser Family Foundation. <https://www.kff.org/statedata/mental-health-and-substance-use-state-fact-sheets/>
- Kaspersky. (2021). *Telehealth take-up: The risks and opportunities* (Healthcare Report 2021). Kaspersky. https://media.kasperskycontenthub.com/wpcontent/uploads/sites/43/2021/11/22125239/Kaspersky_Healthcare-report-2021_eng.pdf
- Karimi, M., Lee, E. C., Couture, S. J., Gonzales, A., Grigorescu, V., Smith, S. R., De Lew, N., & Sommers, B. D. (2022). *National Survey Trends in Telehealth Use in 2021: Disparities in Utilization and Audio vs. Video Services* (HP-2022-04). Assistant Secretary of Planning and Evaluation: Office of Health Policy. <https://www.aspe>.

hhs.gov/sites/default/files/documents/4e1853c0b4885112b2994680a58af9e
d/telehealth-hps-ib.pdf?_ga=2.253104522.2056234146.1647547978-
1229022464.1643210047

- Kasckow, J., Felmet, K., Appelt, C., Thompson, R., Rotondi, A., & Haas, G. (2014). Telepsychiatry in the Assessment and Treatment of Schizophrenia. *Clinical Schizophrenia & Related Psychoses*, *8*(1), 21-27A. <https://doi.org/10.3371/CSRP.KAFE.021513>
- Katzow, M. W., Steinway, C., & Jan, S. (2020). Telemedicine and Health Disparities During COVID-19. *Pediatrics*, *146*(2), e20201586. <https://doi.org/10.1542/peds.2020-1586>
- Landi, H. (2021, August 18). Biden administration to invest \$19M to expand telehealth in rural, underserved areas. *Fierce Healthcare*. <https://www.fiercehealthcare.com/tech/bidenadministration-to-invest-19m-to-expand-telehealth-rural-underserved-areas>
- Lawes-Wickwar, S., McBain, H., & Mulligan, K. (2018). Application and Effectiveness of Telehealth to Support Severe Mental Illness Management: Systematic Review. *JMIR Mental Health*, *5*(4), e62. <https://doi.org/10.2196/mental.8816>
- Lipschitz, J. M., Connolly, S. L., Van Boxtel, R., Potter, J. R., Nixon, N., & Bidargaddi, N. (2022). Provider perspectives on tele-mental health implementation: Lessons learned during the COVID-19 pandemic and paths forward. *Psychological Services*. <https://doi.org/10.1037/ser0000625>
- Mace, S., Boccanelli, A., & Dormond, M. (2018). *The Use of Telehealth Within Behavioral Health Settings: Utilization, Opportunities, and Challenges*. University of Michigan School of Public Health. https://behavioralhealthworkforce.org/wp-content/uploads/2018/05/Telehealth-Full-Paper_5.17.18-clean.pdf
- MACPAC. (2018). *Report to Congress on Medicaid and CHIP*. <https://www.macpac.gov/wpcontent/uploads/2018/03/Report-to-Congress-on-Medicaid-and-CHIP-March-2018.pdf>
- Mark, T. L., Treiman, K., Padwa, H., Henretty, K., Tzeng, J., & Gilbert, M. (2021). Addiction Treatment and Telehealth: Review of Efficacy and Provider Insights During the COVID-19 Pandemic. *Psychiatric Services*, appi.ps.202100088. <https://doi.org/10.1176/appi.ps.202100088>
- Medicaid, & CHIP. (2021). *CMS Data Shows Vulnerable Americans Forgoing Mental Health Care During COVID-19 Pandemic*.
- MMDN, & Academy Health. (2021). *Medicaid Medical Directors Network: Perspectives on Telehealth Modernization*. https://academyhealth.org/sites/default/files/publication/%5Bfield_date%3Acustom%3AY%5D%5Bfield_date%3Acustom%3Am%5D/mmdnperspectivestelehealthmodernization_march2021.pdf

- Mohr, D. C., Ho, J., Duffecy, J., Reifler, D., Sokol, L., Burns, M. N., Jin, L., & Siddique, J. (2012). Effect of Telephone-Administered vs Face-to-face Cognitive Behavioral Therapy on Adherence to Therapy and Depression Outcomes Among Primary Care Patients: A Randomized Trial. *JAMA*, *307*(21). <https://doi.org/10.1001/jama.2012.5588>
- Montes, J. M., Maurino, J., Diez, T., & Saiz-Ruiz, J. (2010). Telephone-based nursing strategy to improve adherence to antipsychotic treatment in schizophrenia: A controlled trial. *International Journal of Psychiatry in Clinical Practice*, *14*(4). <https://doi.org/10.3109/13651501.2010.505343>
- National Council for Mental Wellbeing (last). (2017). *The Psychiatric Shortage: Causes and Solutions*. http://www.thenationalcouncil.org/wp-content/uploads/2017/03/Psychiatric-Shortage_National-Council-.pdf?daf=375ateTbd56
- Noguchi, Y. (2021, November 23). Voice-only telehealth may go away with pandemic rules expiring. *NPR*. <https://www.npr.org/sections/health-shots/2021/11/23/1056612250/voice-only-telehealthmight-go-away-with-pandemic-rules-set-to-expire>
- Osenbach, J. E., O'Brien, K. M., Mishkind, M., & Smolenski, D. J. (2013). SYNCHRONOUS TELEHEALTH TECHNOLOGIES IN PSYCHOTHERAPY FOR DEPRESSION: A META-ANALYSIS: Research Article: Meta-analysis of Synchronous Telehealth for Depression. *Depression and Anxiety*, *30*(11), 1058–1067. <https://doi.org/10.1002/da.22165>
- Palmer, K. (2021, July 13). The party is winding down': States and insurers resurrect barriers to telehealth, putting strain on patients. *STAT News*. <https://www.statnews.com/2021/07/13/telehealth-provisions-emergency-patients/>
- Perry, A., Federico, F., & Huebner, J. (2021). *Telemedicine: Ensuring Safe, Equitable, Person-Centered Virtual Care*. Institute for Healthcare Improvement.
- Polsinelli, Gomez, P., Little, L., & Oliver, L. (2021, November 9). *CMS Greenlights Certain Telebehavioral Health Services Beyond the Public Health Emergency and Provides Important Incentives for Further Investment*. <https://www.jdsupra.com/legalnews/cms-greenlights-certaintelebehavioral-4034212/>
- Predmore, Z. S., Roth, E., Breslau, J., Fischer, S. H., & Uscher-Pines, L. (2021). Assessment of Patient Preferences for Telehealth in Post-COVID-19 Pandemic Health Care. *JAMA Network Open*, *4*(12), e2136405. <https://doi.org/10.1001/jamanetworkopen.2021.36405>
- Rathbone, A. L., & Prescott, J. (2017). The Use of Mobile Apps and SMS Messaging as Physical and Mental Health Interventions: Systematic Review. *Journal of Medical Internet Research*, *19*(8). <https://doi.org/10.2196/jmir.7740>

- Rickles, N. M., Svarstad, B. L., Statz-Paynter, J. L., Taylor, L. V., & Kobak, K. A. (2005). Pharmacist Telemonitoring of Antidepressant Use: Effects on Pharmacist–Patient Collaboration. *Journal of the American Pharmacists Association*, *45*(3). <https://doi.org/10.1331/1544345054003732>
- Ridout, K. K., Alavi, M., Ridout, S. J., Koshy, M. T., Harris, B., Dhillon, I., Awsare, S., Weisner, C. M., Campbell, C. I., & Iturralde, E. (2021). Changes in Diagnostic and Demographic Characteristics of Patients Seeking Mental Health Care During the Early COVID-19 Pandemic in a Large, Community-Based Health Care System. *The Journal of Clinical Psychiatry*, *82*(2). <https://doi.org/10.4088/jcp.20m13685>
- Riedel, L., Uscher-Pines, L., Mehrotra, A., Busch, A. B., Barnett, M. L., Raja, P., & Huskamp, H. A. (2021). Use of telemedicine for opioid use disorder treatment – Perceptions and experiences of opioid use disorder clinicians. *Drug and Alcohol Dependence*, *228*, 108999. <https://doi.org/10.1016/j.drugalcdep.2021.108999>
- Robeznieks, A. (2021, April 5). Why audio-only telehealth visits must continue. *American Medical Association (AMA)*. <https://www.ama-assn.org/practice-management/digital/why-audio-only-telehealth-visits-must-continue>
- Sachs, J. W., Graven, P., Gold, J. A., & Kassakian, S. Z. (2021). Disparities in telephone and video telehealth engagement during the COVID-19 pandemic. *JAMIA Open*, *4*(3). <https://doi.org/10.1093/jamiaopen/ooab056>
- SAMHSA. (2020). *2020 Double Jeopardy: COVID-19 and Behavioral Health Disparities for Black and Latino Communities in the U.S.* <https://www.samhsa.gov/sites/default/files/covid19-behavioralhealth-disparities-black-latino-communities.pdf>
- Santesteban-Echarri, O., Piskulic, D., Nyman, R. K., & Addington, J. (2020). Telehealth interventions for schizophrenia-spectrum disorders and clinical high-risk for psychosis individuals: A scoping review. *Journal of Telemedicine and Telecare*, *26*(1–2), 14–20. <https://doi.org/10.1177/1357633X18794100>
- Schaffer, C. T., Nakrani, P., & Pirraglia, P. A. (2020). Tele-mental Health Care: A Review of Efficacy and Interventions. *Telehealth and Medicine Today*. <https://doi.org/10.30953/tmt.v5.218>
- Schoebel, V., Wayment, C., Gaiser, M., Page, C., Buche, J., & Beck, A. J. (2021). Telebehavioral Health During the COVID-19 Pandemic: A Qualitative Analysis of Provider Experiences and Perspectives. *Telemedicine and E-Health*, *27*(8), 947–954. <https://doi.org/10.1089/tmj.2021.0121>
- Singal, A. G., Higgins, P. D. R., & Waljee, A. K. (2014). A Primer on Effectiveness and Efficacy Trials. *Clinical and Translational Gastroenterology*, *5*(1), e45. <https://doi.org/10.1038/ctg.2013.13>

- Smith, H., & Allison, R. (1998). TELE-MENTAL HEALTH: *Delivering Mental Health Care at a Distance*. SAMHSA, HRSA. <http://www.nebhands.nebraska.edu/files/telememtal%20health%20systems.pdf>
- Steidtmann, D., McBride, S., & Mishkind, M. C. (2021). Experiences of Mental Health Clinicians and Staff in Rapidly Converting to Full-Time Tele-mental Health and Work from Home During the COVID-19 Pandemic. *Telemedicine and E-Health*, *27*(7), 785–791. <https://doi.org/10.1089/tmj.2020.0305>
- Substance Use and Mental Health Services Administration (SAMHSA). (2021). *Telehealth for the Treatment of Serious Mental Illness and Substance Use Disorders*. Substance Abuse and Mental Health Services Administration. https://store.samhsa.gov/sites/default/files/SAMHSA_Digital_Download/PEP21-06-02-001.pdf
- Sutton, J. (2021). *Telehealth visit use among U.S. adults*. Bipartisan Policy Center. https://bipartisanpolicy.org/download/?file=/wp-content/uploads/2021/08/SSRS-Telehealth-Report_confidential_FINAL_08.02.21-1.pdf
- Terlizzi, E. P., & Zablotsky, B. (2019). *Key findings Data from the National Health Interview Survey*. <https://www.cdc.gov/nchs/products/index.htm>.
- Tofighi, B., Abrantes, A., & Stein, M. D. (2018). The Role of Technology-Based Interventions for Substance Use Disorders in Primary Care. *Medical Clinics of North America*, *102*(4), 715–731. <https://doi.org/10.1016/j.mcna.2018.02.011>
- Tofighi, B., Chemi, C., Ruiz-Valcarcel, J., Hein, P., & Hu, L. (2019). Smartphone Apps Targeting Alcohol and Illicit Substance Use: Systematic Search in Commercial App Stores and Critical Content Analysis. *JMIR MHealth and UHealth*, *7*(4), e11831. <https://doi.org/10.2196/11831>
- Tomer, A., Fishbane, L., Siefer, A., & Callahan, B. (2020). *Digital prosperity: How broadband can deliver health and equity to all communities*. <https://www.brookings.edu/research/digital-prosperityhow-broadband-can-deliver-health-and-equity-to-all-communities/>
- Treweek, S., & Zwarenstein, M. (2009). Making trials matter: Pragmatic and explanatory trials and the problem of applicability. *Trials*, *10*(1), 37. <https://doi.org/10.1186/1745-6215-10-37>
- Tuerk, P. W., Keller, S. M., & Acierno, R. (2018). Treatment for Anxiety and Depression via Clinical Videoconferencing: Evidence Base and Barriers to Expanded Access in Practice. *FOCUS*, *16*(4). <https://doi.org/10.1176/appi.focus.20180027>
- Turgoose, D., Ashwick, R., & Murphy, D. (2018). Systematic review of lessons learned from delivering tele-therapy to veterans with post-traumatic stress disorder. *Journal of Telemedicine and Telecare*, *24*(9), 575–585. <https://doi.org/10.1177/1357633X17730443>

- Turner Lee, N., Karsten, J., & Roberts, J. (2020, May 6). **Removing regulatory barriers to telehealth before and after COVID-19**. <https://www.brookings.edu/research/removing-regulatory-barriers-totelehealth-before-and-after-covid-19/>
- US Department of Health and Human Services. (n.d.). **Telehealth: Delivering Care Safely During COVID-19**. Retrieved August 19, 2021, from <https://www.hhs.gov/coronavirus/telehealth/index.html>
- USA Facts. (2021, July). **Over one-third of Americans live in areas lacking mental health professionals**. USA FACTS. <https://usafacts.org/articles/over-one-third-of-americans-live-in-areas-lackingmental-health-professionals/>
- Uscher-Pines, L., Parks, A. M., Sousa, J., Raja, P., Mehrotra, A., Huskamp, H. A., & Busch, A. B. (2022). Appropriateness of Telemedicine Versus In-Person Care: A Qualitative Exploration of Psychiatrists' Decision Making. *Psychiatric Services*, appi.ps.202100519. <https://doi.org/10.1176/appi.ps.202100519>
- Uscher-Pines, L., & Schulson, L. (2021). **Rethinking The Impact Of Audio-Only Visits On Health Equity** [Data set]. <https://doi.org/10.1377/forefront.20211215.549778>
- Vahratian, A., Blumberg, S. J., Terlizzi, E. P., & Schiller, J. S. (2021). Symptoms of Anxiety or Depressive Disorder and Use of Mental Health Care Among Adults During the COVID-19 Pandemic—United States, August 2020–February 2021. *MMWR. Morbidity and Mortality Weekly Report*, *70*(13), 490–494. <https://doi.org/10.15585/mmwr.mm7013e2>
- Vaidya, A. (2021, December 27). How Telehealth Will Continue its Evolution Beyond Pandemic Response. *MHealth Intelligence*. <https://mhealthintelligence.com/features/how-telehealth-willcontinue-its-evolution-beyond-pandemicresponse#:~:text=Health%20system%20leaders%20and%20industry,evolving%20virtual%2Dfirst%20reimbursement%20landscape.>
- Volk, J., Palanker, D., O'Brien, M., & Goe, C. L. (2021). **States' Actions to Expand Telemedicine Access During COVID-19 and Future Policy Considerations**. <https://doi.org/10.26099/r95z-bs17>
- Zarefsky, M. (2022, January 21). In 2022, moving beyond telehealth to digitally enabled care. *American Medical Association (AMA)*. <https://www.ama-assn.org/practice-management/digital/2022moving-beyond-telehealth-digitally-enabled-care>