Telehealth for Treating Serious Mental Illness and Substance Use Disorders

FOREWORD

Evidence-Based Resource Guide Series Overview

The Substance Abuse and Mental Health Services Administration (SAMHSA), and specifically, its National Mental Health and Substance Use Policy Laboratory (Policy Lab), is pleased to fulfill the charge of the 21st Century Cures Act to disseminate information on evidence-based practices and service delivery models to prevent substance misuse and help people with substance use disorders (SUDs), serious mental illness (SMI), and serious emotional disturbances (SEDs) get the treatment and support they need.

Treatment and recovery for SUD, SMI, and SED can vary based on several factors, including geography, socioeconomics, culture, gender, race, ethnicity, and age. This can complicate evaluating the effectiveness of services, treatments, and supports. Despite these variations, however, there is substantial evidence to inform the types of resources that can help reduce substance use, lessen symptoms of mental illness, and improve quality of life.

The Evidence-Based Resource Guide Series is a comprehensive set of modules with resources to improve health outcomes for people at risk for, experiencing, or recovering from SMI and/or SUD. It is designed for practitioners, administrators, community leaders, and others considering an intervention for their organization or community.

A priority topic for SAMHSA is increasing access to treatment for SMI and SUD using telehealth modalities. This guide reviews literature and research findings related to this issue, examines emerging and best practices, discusses gaps in knowledge, and identifies challenges and strategies for implementation. While this guide is focused on the needs of people experiencing SMI and SUD, readers can broadly apply its resources and lessons from the field for the treatment of any mental illness.

Expert panels of federal, state, and non-governmental participants provided input for each guide in this series. The panels included accomplished scientists, researchers, service providers, community administrators, federal and state policy makers, and people with lived experience. Members provided input based on their knowledge of healthcare systems, implementation strategies, evidence-based practices, provision of services, and policies that foster change.

Research shows that implementing evidence-based practices requires a comprehensive, multi-pronged approach. This guide is one piece of an overall approach to implement and sustain change. Readers are encouraged to visit the SAMHSA website for additional tools and technical assistance opportunities.

Content of the Guide

This guide contains a foreword and five chapters. The chapters stand alone and do not need to be read in order. Each chapter is designed to be brief and accessible to healthcare providers, healthcare system administrators, community members, policy makers, and others working to meet the needs of people at risk for, experiencing, or recovering from SMI and/or SUD.

The goal of this guide is to review the literature on the effectiveness of telehealth modalities for the treatment of SMI and SUD, distill the research into recommendations for practice, and provide examples of how practitioners use these practices in their programs.

FW	**Evidence-Based Resource Guide Series Overview** Introduction to the series.
1	**Issue Brief** Overview of the current landscape of telehealth, including its need, benefits, and challenges for the treatment of SMI and SUD among adults.
2	**What Research Tells Us** Current evidence on effectiveness of integrating telehealth modalities for the treatment of SMI and SUD among adults across a continuum of services, including screening and assessment, treatment, medication management, case management, recovery support, and crisis services.
3	**Guidance for Implementing Evidence-based Practices** Practical information to consider at the individual client and provider, provider-client, organizational, and regulatory levels when selecting and implementing telehealth modalities.
4	**Examples of Telehealth Implementation in Treatment Programs** Examples of programs that have implemented telehealth modalities for the treatment of SMI and SUD among adults.
5	**Resources for Evaluation and Quality Improvement** Guidance and resources for evaluating telehealth-delivered practices, monitoring outcomes, and improving quality.

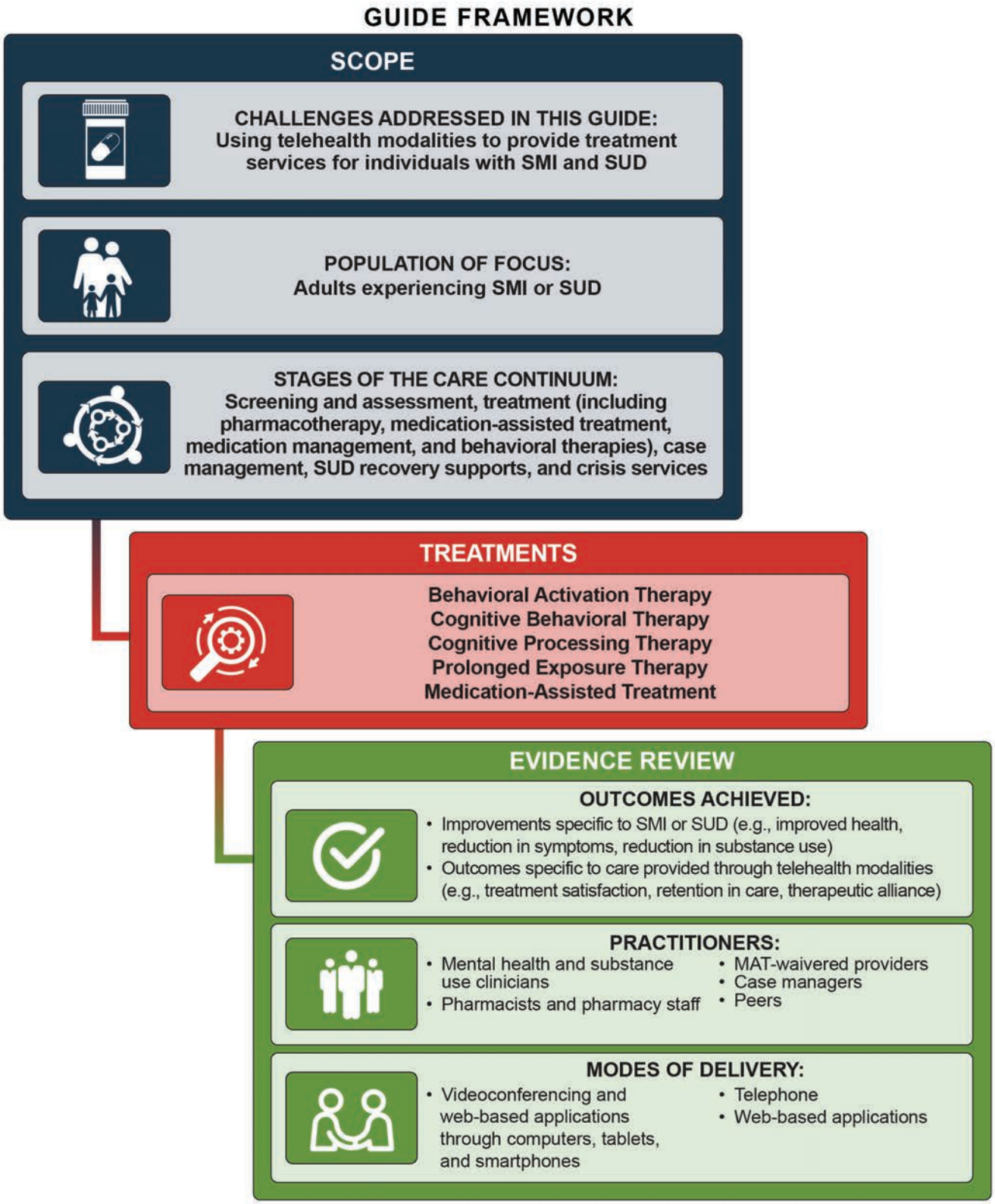
FOCUS OF THE GUIDE

SMI and SUD impact millions of Americans. Barriers to accessing care include access to appropriate services and providers, stigma associated with SMI or SUD, and competing priorities (e.g., employment and caregiving responsibilities).

Telehealth is the use of two-way, interactive technology to provide health care and facilitate client-provider interactions. Telehealth modalities for SMI or SUD may be synchronous (live or real time) or asynchronous (delayed communication between clients and providers).

Telehealth has the potential to address the treatment gap, making treatment services more accessible and convenient, improving health outcomes, and reducing health disparities.

The framework below provides an overview of this guide. The guide addresses the use of telehealth to provide SMI and SUD treatment. The review of these treatments in Chapter 2 of the guide includes specific outcomes, practitioner types, and modes of delivery.



CHAPTER

1

Issue Brief

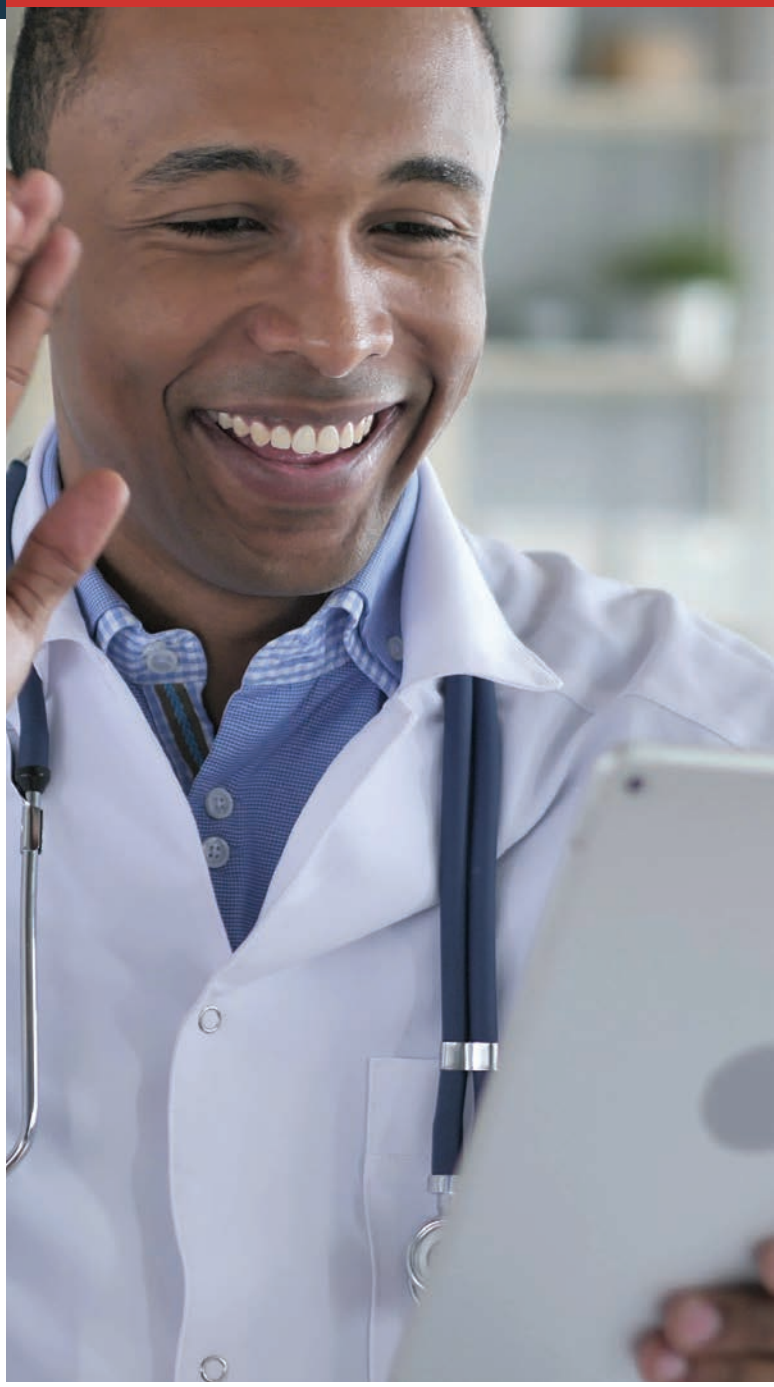
Telehealth is the use of telecommunication technologies and electronic information to provide care and facilitate client-provider interactions. It is comprised of two forms:

1. Two-way, synchronous, interactive client-provider communication through audio and video equipment (also referred to as telemedicine)
2. Asynchronous client-provider interactions using various forms of technology (further described in the chart below)[1, 2]

Serious mental illness (SMI) is defined as a mental, behavioral, or emotional disorder among adults aged 18 and older resulting in serious functional impairment, which substantially interferes with or limits one or more major life activities.[3]

Substance use disorder (SUD) is a diagnosis that applies when the recurrent use of alcohol or drugs causes clinically significant impairment, including health problems, disability, and failure to meet major responsibilities at work, school, or home.[4]

Co-occurring disorder (COD) refers to the coexistence of both a substance use and mental disorder.[4]



Telehealth is a mode of service delivery that has been used in clinical settings for over 60 years and empirically studied for just over 20 years.[5-7] Telehealth is not an intervention itself, but rather a mode of delivering services. This mode of service delivery increases access to screening, assessment, treatment, recovery supports, crisis support, and medication management[8, 9] across diverse behavioral health and primary care settings. Practitioners can offer telehealth through synchronous and asynchronous methods.

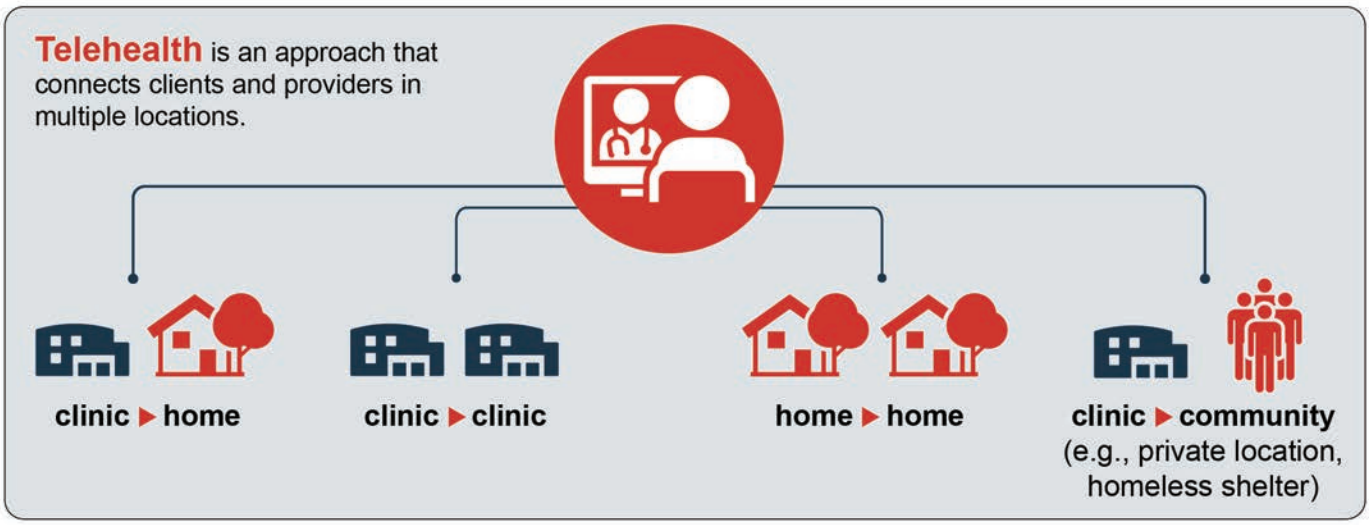
	Timing	Application	Technology Options
Synchronous	Real-time interactive client and provider interactions.	Clinical assessments, ongoing care and treatment, and triage of emergency service needs (e.g., for clients with suicidal ideation).[10]	Telephone, video calls, and web-conferencing platforms.[11]
Asynchronous	Sharing of health information that is collected at one point in time and responded to or interpreted at a later time to direct the next steps of a client's treatment or care plan and complement synchronous treatment.[12] Methods can be interactive (i.e., the client actively sending information to the provider) or passive (i.e., client data transmitted to providers through portals, sensors, or peripherals).	Clinical assessments, symptom management, client education, and treatment reminders that complement synchronous client-provider interactions and inform updates to treatment plans through methods such as: • Store and forward (i.e., client uploads and transfers medical information, such as health histories, to identify or refine a treatment plan) • Remote client monitoring (i.e., collecting medical and health data in one location and transmitting to another) • mHealth (i.e., capture of health information by the client and transmission of the information to a provider through mobile applications, mobile devices, smartphones, tablets, or computers) • Client education (e.g., online psychoeducation sessions and workbooks)	Web-based portals (i.e., client portals), email messages, text messages, mobile applications, symptom management tracking, sensors, peripherals, client education modules, or electronic medical record data.[13-19]

While telehealth is used in health care for a broad range of ages and presenting problems, this guide focuses on synchronous, direct to consumer (sometimes referred to as "D to C") applications of telehealth for the treatment of SMI and SUD among adults.[20]

Furthermore, this guide focuses on the needs of people experiencing SMI and SUD, but readers can broadly apply its resources and lessons for the treatment of any mental illness.

Background

Telehealth can connect clients and providers in multiple locations such as at a home, private space in a clinical setting, or another location in the community. The graphic below depicts examples of ways to connect using telehealth, but there are many ways to deliver and receive care that address connectivity barriers and client preferences.



A variety of providers (e.g., psychiatrists, primary care providers, mental health counselors, social workers, psychologists, addiction counselors, case managers, opioid treatment providers, peer workers) can implement telehealth methods. In addition, practitioners can use telehealth with a hybrid approach for increased flexibility. For instance, a client can receive both in-person and telehealth visits throughout their treatment process depending on their needs and preferences.

Telehealth methods can be implemented during public health emergencies (e.g., pandemics, infectious disease outbreaks, wildfires, flooding, tornadoes, hurricanes)[21-25] to extend networks of providers (e.g., tapping into out-of-state providers to increase capacity). They can also expand capacity to provide direct client care when in-person, face-to-face interactions are not possible due to geographic barriers or a lack of providers or treatments in a given area. However, implementation of telehealth methods should not be reserved for emergencies or to serve as a bridge between providers and rural or underserved areas. Telehealth can be integrated into an organization's standard practices, providing low-barrier pathways for clients and providers to connect to and assess treatment needs, create treatment plans, initiate treatment, and provide long-term continuity of care.

SMI and SUD impact millions of Americans. However, for a variety of reasons and despite a perceived need, many do not seek treatment.

- Among adults aged 18 or older in 2019, 5.2 percent (13.1 million people) had an SMI. Of those, 47.7 percent (6.2 million people) reported an unmet need for mental health services in the past year.
- Among people aged 12 or older in 2019, 7.4 percent (20.4 million people) reported experiencing a SUD. Among people aged 12 or older in 2019, 7.8 percent (21.6 million people) needed substance use treatment in the past year. Of these 21.6 million people, 12.2 percent (2.6 million) received substance use treatment at a specialty facility.[26]

Telehealth has the potential to address this treatment gap, making treatment services more accessible and convenient, improving health outcomes, and reducing health disparities. Clients experiencing SMI and SUD have traditionally been excluded from both treatments delivered through telehealth and research evaluating the efficacy of telehealth among people experiencing SMI and SUD. However, telehealth is a tool that providers can use for all clients.

Appropriate and additional upfront work, provider-client agreements, and safeguards can ensure that clients experiencing SMI and SUD benefit from services delivered via telehealth. Providers can use assessments (further discussed in Chapter 3) to identify their clients' specific barriers to participating in telehealth appointments (e.g., access and comfort with technology, ability to have private or confidential conversations, safety of the home environment) and inform conversations with their clients on strategies to address these barriers.

Implementation and use of telehealth as a mode of service delivery has been increasing in recent years. Between 2016 and 2019, use of telehealth doubled from 14 to 28 percent.[9] This trend continued between 2019 and 2020, due in large part to the COVID-19 pandemic. Telehealth visits for mental health increased by 556 percent between March 11 and April 22, 2020.[27]

The use of telehealth was steadily increasing prior to the COVID-19 pandemic. Between 2016 and 2019, SUD treatment offered through telehealth increased from 13.5 to 17.4 percent. Greater adoption of telehealth was associated with rural locations, as well as those that provided multiple treatment settings, offered pharmacotherapy, and served both adult and pediatric populations.[28]

Telehealth visits increased among rural Medicare beneficiaries, including a 425 percent increase for mental health appointments between 2010 and 2017. Among these beneficiaries, people living with schizophrenia or bipolar disorder in rural areas were more likely to use telehealth for mental health care than those with any other mental illness or those living in urban areas.[29]

Benefits of Telehealth

Telehealth supports team-based care and its interrelated care objectives. The Quadruple Aim is a conceptual framework to understand, measure, and optimize health system performance. The Quadruple Aim organizes benefits of telehealth into four categories:[30]

- Improved provider experience
- Improved client experience
- Improved population health
- Decreased costs

1. ***Provider experience.*** Providers may improve the quality of care they provide and experience the following benefits from implementing telehealth methods:

   - **Provision of timely client care.** Providers may have increased flexibility in appointment scheduling by using telehealth. They can extend care beyond a clinic's normal operating hours and its four walls and leverage "virtual walk-in visits." Increased flexibility can help clinics to more effectively manage client "no-shows" and cancellations.[34-37]
   - **Effective and efficient coordination of care.** An estimated 40 to 60 percent of civilian clients (not inclusive of military populations) with mental and substance use disorders are currently treated in primary care offices rather than specialty care settings.[31] Providers can use telehealth methods for tele-consultation, tele-supervision, and tele-education to coordinate, integrate, and improve care (e.g., through the "hub and spoke" model).[11, 38-40]
   - **Reduction in workforce shortages**. This is especially true for underserved and rural areas.[7-9, 41]
   - **Ability to assess client's home environment.** Rather than rely on a client's report of their home and living conditions, telehealth makes it possible for providers to see, with appropriate permission, inside a client's home, meet family support systems, and determine if an in-person visit at a person's home is needed.[42]

Rural Workforce Shortages

Approximately 80 percent of rural areas in the United States are classified as medically underserved and in health professional shortage areas (HPSAs). These regions are lacking the physicians, dentists, registered nurses, and other health professionals needed to care for a client throughout the lifespan. HPSAs also often have shortages in behavioral health providers (including psychiatrists, psychologists, and therapists).[31]

Shortages in the rural healthcare landscape disproportionately impact rural Americans who tend to be older, have lower socioeconomic status, are more reliant on public insurance, and have worse health outcomes.[32, 33]

   - **Ability to share information for psychoeducation and assessment.** Psychoeducation, or the didactic communication of information to the client about therapeutic intervention or diagnosis, can be done through screensharing, thus allowing the clinician to seamlessly display videos, slideshows, and other visuals to the client. Mental health and substance use assessments can also be done this way, allowing the clinician to track the client's responses in real-time.[43]
   - **Efficient connections to crisis services.** In emergencies, telehealth providers can instruct clients to call emergency response systems (e.g., 911, 988) while the providers remain connected via telephone or video. Enhanced 911 (E911) automatically provides emergency dispatchers with the location of the client, rather than the client needing to provide their address to the dispatcher.
   - **Reductions in provider burnout.** Provider burnout is a pervasive issue in the healthcare field and exacerbated by numerous factors, including time pressures, fast-paced environments, family responsibilities, and time-consuming documentation.[44] Telehealth may lead to reductions in provider stress and burnout through promoting more manageable schedules, greater flexibility, and reductions in commute time.[44-46]

2. ***Client experience.*** Clients may experience many benefits receiving mental health and substance use treatment by telehealth:

   - **Increased access to experienced providers and high-quality care.** Through telehealth, clients can access experienced providers that may be geographically distant from their homes. Through telehealth modalities, clients can access providers with expertise in their particular conditions and treatment plans that can provide care appropriate for their culture, race, gender, sexual orientation, and lived experience.[20, 47, 48]
   - **Improved access to and continuity of care.** Telehealth provides a mechanism to increase access to quality care and reduce travel costs for clients, increasing the likelihood that clients will see their provider regularly and attend scheduled appointments.[36, 49]
   - **Increased convenience that removes traditional barriers to care, including:**
     - **Geographic barriers** (e.g., transportation and distance to providers). Telehealth increases the opportunity for individuals in remote locations to access the care they need.[8, 9, 50-55]
     - **Psychological barriers**. Clients who experience anxiety about leaving their homes to access treatment (e.g., clients experiencing panic disorder or agoraphobia) are able to receive care in a safe environment.[56, 57]
     - **Accessibility**. Individuals with physical, visual, or hearing impairments and clients who are isolated (e.g., older adults) or incarcerated are able to access needed health care through use of telehealth.[8, 58]
     - **Employment**. The use of telehealth allows clients to receive care while not requiring them to take significant leave from employment or other essential activities.[37, 38]
     - **Childcare and caregiver responsibilities**. Receiving home-based telehealth can help to reduce the burden of finding childcare.[59] For family caregivers, telehealth technologies, such as remote monitoring, can relieve some caregiver responsibilities, thereby decreasing stress and improving quality of life.[60]
     - **Team-based services and group-based interventions.** Team-based and coordinated care is critical to high-quality client treatment. However, geographic distances between providers and clients can limit communication. Telehealth enhances team-based care across geographic barriers by remotely connecting multiple providers with a client, promoting provider collaboration and the exchange of health information.[61] Similarly, telehealth improves access to group-based interventions, which demonstrate similar treatment outcomes as in-person groups.[62]

Health Equity and Telehealth

While telehealth has many benefits, concerns around access to telehealth and telemedicine services, especially for those with low technology literacy or disabilities, remain.[71-73]

- Americans aged 65 and older (18 percent of the population) are most likely to have a chronic disease, but almost half (40 to 45 percent) do not own a smartphone or have broadband Internet access.[71]
- People experiencing poverty report lower rates of smartphone ownership (71 percent), broadband Internet access (59 percent), and digital literacy (53 percent) compared to the general population.[74, 75]
- People who are Black or Hispanic report having lower computer ownership (Black: 58 percent; Hispanic: 57 percent) or home broadband Internet access (Black: 66 percent; Hispanic: 61 percent) than White respondents (82 and 79 percent, respectively), although smartphone access is nearly equal (Black: 80 percent; Hispanic: 79 percent; White: 82 percent).[76]

Due to these limitations, some clients may not benefit from telehealth.[77, 78]

- **Reduction in stigma associated with experiencing SMI and SUD and accessing treatment.** Through telehealth, clients can disclose their SUD and/or SMI from the privacy of their own home.[63] In rural communities with fewer behavioral health providers, telehealth can connect clients with providers in other geographic locations, which can increase their privacy and protect their anonymity when accessing care.[38, 64-66]
- **Satisfaction with care consistent with in-person treatment.** Despite some initial client hesitancy towards using telehealth, clients often report comparable satisfaction between telehealth and in-person care.[67-70]

3. ***Population health.*** Treatments delivered through telehealth have been shown to improve health outcomes, including improved quality of life and access to health care. For people experiencing SMI, telehealth has the potential to improve quality of life and general mental health, reduce depressive symptoms, build more confidence in managing depression, and increase satisfaction with mental health and coping skills (when compared to treatment offered in-person only).[8, 79-83] For people experiencing SUD, treatments delivered through telehealth have resulted in reductions in alcohol consumption, increased tobacco cessation, and increased engagement and retention in opioid use disorder treatment.[84]

4. ***Costs.*** In rural communities in particular, implementing telehealth services reduces organizational costs by replacing the budget for a full-time, onsite behavioral health provider with as needed hourly fees.[36]

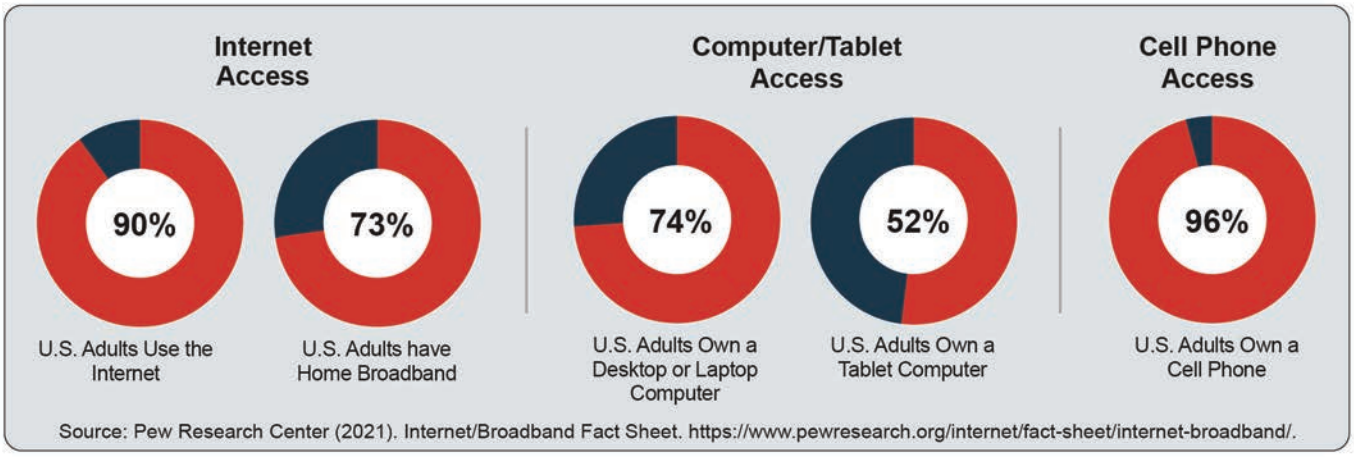
Implementation of Telehealth

While the use of telehealth as a mode of service delivery is increasing, providers, clients, and healthcare settings continue to experience challenges related to adoption and implementation. For example, uptake of telehealth can be hindered by disparities in access to appropriate and needed technology.

Recent advances in technology and access to personal computing devices and mobile phones have led to a rapid increase in the application of telehealth across the continuum of care (i.e., assessment, treatment, medication management/monitoring, recovery supports). Both providers and clients need access to appropriate technology to benefit from synchronous or asynchronous telehealth. Practitioners can provide synchronous SMI and SUD treatment through relatively low-tech options, including telephones, smartphones, tablets, and laptops.[10, 14]

The age, usability, and functionality of clients' devices may inhibit their use (e.g., ability to utilize various mHealth applications, appropriate data plans). Additionally, clients may be sharing devices with family members or others in a household, limiting the types of data a client would want to store or share through a device. For providers, some clinics struggle to have enough laptops to support staff working from home or outside of typical shared office space,[73, 85-88] and may not have updated devices or software systems to utilize available telehealth applications.

Barriers associated with access to technology are compounded by challenges experienced on multiple, interrelated levels (further discussed in Chapter 3).



Individual client and provider	• Increasing access to and comfort using telehealth
Interpersonal client-provider relationships	• Preparing clients to use telehealth • Building a therapeutic relationship
Organizational	• Assessing organizational needs • Increasing organizational readiness and workforce capacity to participate in telehealth • Ensuring security and confidentiality
Regulatory and reimbursement environments	• Complying with federal, state, and local regulations

Future of Telehealth

The use of telehealth has increased substantially in recent years and has accelerated rapidly with the COVID-19 pandemic. While the landscape of telehealth is continually evolving, and provider, client, population, and cost benefits are emerging, the practices and programs included in Chapter 2 have demonstrated efficacy in improving client mental health and SUD outcomes in multiple settings and contexts.

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CHAPTER

2

What Research Tells Us

Telehealth is the use of two-way, interactive, video and/or audio technology to provide health care to individuals experiencing serious mental illness (SMI) or substance use disorder (SUD). The goal of this chapter is to present the evidence for specific telehealth-delivered treatments for individuals with SMI, SUD, and co-occurring disorders (CODs). While telehealth modalities for SMI or SUD may be synchronous (real-time) or asynchronous (non-urgent communication between clients and providers), the evidence review in this chapter focuses on synchronous interventions to treat SMI or SUD. In addition to treatments via telehealth modalities, this chapter also provides information on ways programs can provide telehealth-delivered services along the continuum of care for SMI and SUD, which includes screening and assessment, medication management, case management, recovery support, and crisis services.

Telehealth is effective across the continuum of care for SMI and SUD, including screening and assessment, treatments, including pharmacotherapy, medication management, and behavioral therapies, case management, recovery supports, and crisis services.

Evidence Review and Rating Process

This evidence review (detailed in Appendix 2) began with an environmental scan to identify treatments for mental disorders and SUD that have been found effective when implemented through telehealth modalities.

STEP 1: Identify treatments that meet the inclusion criteria:

- Have a standardized, replicable implementation protocol
- Use synchronous telehealth modalities for treatment of SMI or SUD
- Are currently being implemented in the field

Following an environmental scan, review of the literature, and consultation with experts, Cognitive Behavioral Therapy (CBT), Cognitive Processing Therapy (CPT), Prolonged Exposure Therapy (PE), Behavioral Activation Therapy (BA), and Medication-Assisted Treatment (MAT) met the inclusion criteria.

STEP 2: Identify studies that meet the following inclusion criteria:

- Published in or after the year 2010
- Employ a randomized or quasi-experimental design (RCT or QED) or are a single sample pre-post design or an epidemiological study that analyzes what would have happened in the absence of the intervention
- Descriptive and implementation studies, meta-analyses, and systematic reviews were not included in the review.

STEP 3: Review each study meeting inclusion criteria for strength of study design and statistically significant positive outcomes related to SMI and SUD. For each reviewed study, assign a study rating.

Many of the telehealth studies examine a slightly different question than most evaluation studies. Typically, an evaluation of the effectiveness of a specific therapeutic practice will assess whether the practice yields better outcomes than a control consisting of no treatment or a treatment-as-usual approach. However, for many telehealth studies, the question posed is whether outcomes for telehealth recipients are comparable for those receiving the therapy in-person. Given that telehealth is typically less expensive and easier to access, the question addressed by these studies is one of “non-inferiority,” i.e., does telehealth-delivered evidence-based therapy produce similar (and no worse) outcomes than evidence-based therapy delivered in-person?

STEP 4: Assign evidence rating for each treatment based on the number of studies demonstrating a high or moderate causal impact on mental health and substance use outcomes.

See the evidence review methods and Appendix 2 for more information on the process for treatment selection and rating.

CAUSAL EVIDENCE LEVELS

Strong Evidence

Causal impact demonstrated by at least ***two*** randomized controlled trials, quasi-experimental designs, or epidemiological studies with a high or moderate rating.

Moderate Evidence

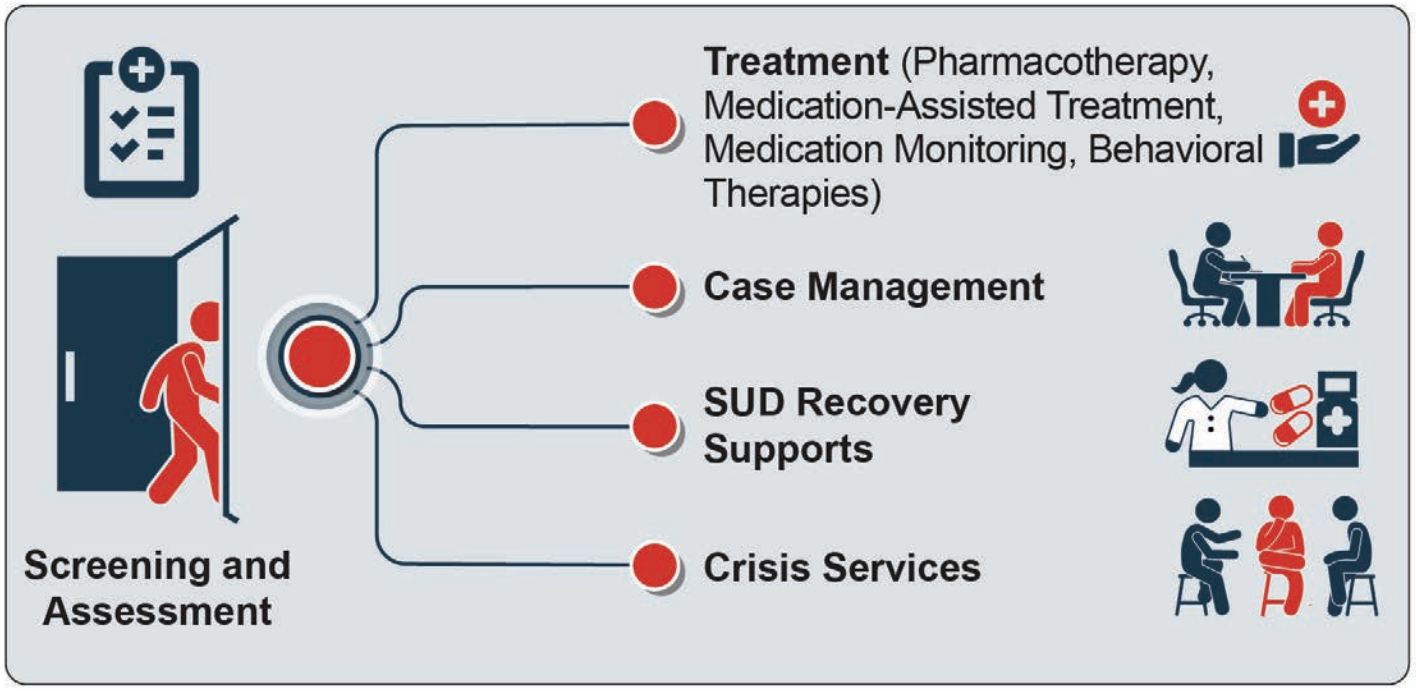
Causal impact demonstrated by at least ***one*** randomized controlled trial, quasi-experimental design, or epidemiological study with a high or moderate rating.

Emerging Evidence

No study received a high or a moderate rating. The practice may have been evaluated with less rigorous studies (e.g., pre-post designs) that demonstrate an association between the practice and positive outcomes, but additional studies are needed to establish causal impact.

The evidence for use of telehealth across the continuum of care for SMI and SUD is included below, with the detailed evidence review results (i.e., causal evidence level ratings) included for MAT and behavioral therapies.

Using the approach identified in the evidence review methods (discussed above), interventions that have undergone a formal evidence review are included as illustrative examples of the application of telehealth-delivered services to treat people with SMI and SUD. One should not conclude that these are the only treatments that can be implemented using telehealth modalities for individuals experiencing SMI and SUD. When implemented using the same core steps and components as the original model (i.e., with fidelity to the model), synchronous telehealth treatments can be comparably effective to in-person services.



Screening and Assessment

Screening and assessment for SMI and SUD are the first steps to effective treatment and can be effectively conducted using synchronous and asynchronous telehealth modalities.

- **SMI:** Synchronous screenings and assessments for mental disorders conducted via videoconferencing modalities have similar reliability and accuracy to in-person screening and assessment. Asynchronous tools that are completed by a client and later reviewed by and discussed with a provider can increase access to screening and assessment when no clinician is available.[1]
- **SUD**: Providers can administer screening tools to assess risk of SUD using telehealth.[2] Early evidence suggests computer-based assessment tools for SUD may increase engagement in the screening process, as well as response accuracy.[3] However, confirmation and diagnosis of SUD through telehealth has limited evidence. This is largely due to the 2008 Ryan Haight Online Pharmacy Consumer Protection Act, which, prior to the COVID-19 pandemic, required in-person evaluations before providing medication-assisted treatment (MAT).[4]

Telehealth modalities can be used to connect clients, care teams, and support systems during the creation and implementation of an individualized care plan by:

1. Increasing the diversity of specialists (in terms of clinical specialty and geographic location) that can be consulted for diagnosis, assessment, and treatment
2. Engaging administrative staff (via patient portals), clinicians, and providers (via electronic health records and videoconferencing consultations) and support networks such as friends and family (via videoconferencing and social media) in various components of treatment[5, 6]

Once a diagnosis is made, clients and providers can determine together the appropriateness of various telehealth modalities and identify when telehealth, in-person, or a hybrid approach will best meet the client's treatment goals. Appropriateness of telehealth may depend on several factors, including the:

- Nature and complexity of the intervention and the client's condition
- Client's comfort with technology and telehealth appointments
- Ease and preferences of accessing in-person services or using technology

Designing and updating the care plan is a collaborative and iterative process between client and provider, and involves a conversation on client comfort, preferences, and goals (further discussed in Chapter 3).

SMI and SUD Treatment

Pharmacotherapy, Medication-Assisted Treatment, and Medication Management

Pharmacotherapy can be implemented using synchronous telehealth for SMI. Prescribing and monitoring medication using telehealth can lead to reduced length of hospitalization and symptomology, and improved medication adherence.[7, 8] There are also limitations to prescribing and monitoring medication that should be noted, such as evaluating movement disorders and the ability to test muscle tone (e.g., in order to gauge rigidity as a side effect of a medication).

Medication-Assisted Treatment (MAT) uses pharmacological medications in combination with counseling and behavioral therapies to treat diagnosed SUD.[9] MAT involves multiple components tailored to meet individual clients' needs,[10] including initiating medication, monitoring adherence, and providing access to counseling and psychosocial supports.[11] MAT includes FDA-approved treatments for opioid use disorder (using methadone, buprenorphine, and naltrexone),[12-14] and alcohol use disorder (using naltrexone, disulfiram, and acamprosate).[15,16] Currently, there are no FDA-approved medications to treat stimulant or marijuana use-disorders.[17]

MAT is regulated by the Drug Enforcement Administration (DEA). Prior to the COVID-19 pandemic, practitioners could not provide certain components via telehealth.[18, 19] Due to temporary changes for COVID-19 that may or may not become permanent, there are several models for using a hybrid in-person and telehealth approach to delivering MAT.[20] For example, a physician may perform an initial assessment and prescribe medication via videoconference, while local clinicians provide counseling and follow up in-person; or, a physician could prescribe medications and monitoring during in-person visits and the client then receives counseling via telehealth.[21]

As a result of changing regulations, evidence for the provision of MAT solely through telehealth modalities is limited. Studies included in the review (below) examined multiple components of MAT, some of which are provided via telehealth modalities and others through a hybrid approach (combination of in-person and telehealth approach).

Medication-Assisted Treatment using a hybrid telehealth and in-person approach

Health outcomes	• Reduction in rates of positive urine drug screens over course of study[22] and no significant difference in positive urine screens between in-person and telehealth groups[22, 23]
Telehealth-specific outcomes	When compared to in-person treatments: • No significant difference in retention[22] and counseling attendance rates[23] • No significant difference in and high level of client satisfaction[23] • No significant difference in client and provider ratings of therapeutic alliance[23]
Populations that benefit from the treatment	• People living with opioid use disorder[22, 23] • Pregnant women living with opioid use disorder[22]
Providers who can offer intervention services	A range of providers can implement MAT activities depending on both the specific activity they conduct, the location of the prescriber and treatment program, and the type of medication offered. The care team can include: • Waivered prescribers at buprenorphine[18, 24] and opioid treatment programs[25] • Social workers, peer recovery counselors, addiction counselors, outreach workers, and nurses • Pharmacists[26]
Technology used	• Videoconferencing and web-based applications[22, 27]
Intensity, duration, and frequency	• MAT is designed to meet clients' clinical needs, so there is no protocolized model for the intensity and duration of the program • Clients may vary in the types of supports they need and those needs may change over the course of treatment and recovery[11] • MAT begins with treatment initiation, followed by weekly urine drug screens, medication monitoring, and counseling sessions that taper to monthly depending on response to treatment[22, 23] • Medications are often administered gradually, and providers work with clients to appropriately adjust the dosage between initiation and stabilization[28]
Lessons learned from transitioning from in-person care to telehealth	• Telehealth can be used to integrate care and extend the reach of specialty providers to make MAT available to underserved populations[22] • Although some clients experienced technical problems, most enjoyed the convenience of telehealth services[23] • Providing MAT via telehealth is limited by regulatory constraints and practitioners should consult state and federal prescribing laws prior to initiating telehealth MAT programs[29]
Four studies met criteria for review (one RCT, two QEDs, and one single sample pre-post), resulting in a rating of Strong Support for Causal Evidence.	

Medication management via telehealth ranges from automated, non-specific text messages to adherence counseling conducted over the telephone.[7, 30] Examples of telehealth modalities for conducting medication management are described below:

- **Text message** interventions, designed to remind clients to take their medication, have been found to be effective for people experiencing SMI even if the messages were not customized or specific to the dosage, timing, or medication prescribed.[31, 32]
- **Smart pill containers** remind clients to take their medication, provide alerts about taking the wrong medication, and are linked to programs for the client to report side effects to providers. Used together with telephone support, smart pill containers have shown statistically significant improvement in medication adherence.[33]
- **mHealth apps** have been used in combination with smart pill containers, in-home dispensing devices, or other systems to dose medications. These apps remind clients to take medications and communicate medication use information to their healthcare provider through a client portal.[34]
- **Treatment support over the phone** from case managers, nurses, or other health professionals offers clients prescribed medications for SMI and SUD information and adherence support. These approaches have shown statistically significant improvements on medication adherence rates.[35-37]

Medication monitoring, including both support for medication adherence of the prescribed treatment and prevention of non-prescribed or illicit substance use that may cause dangerous interactions, is an essential component of MAT. Clinics or other agencies without a local, trained MAT provider have used telehealth to link clients to a remote MAT provider. The local clinic and agency can provide in-house medication monitoring and urine toxicology screening while providing space for the client to meet with the MAT provider using telehealth technology.[25] In some treatment models, monitoring visits are conducted using telehealth, but the client is required to report in-person for regular urine toxicology screening.[20, 23, 38]

Behavioral Therapies

Practitioners can implement psychotherapy[39] and behavioral therapies through synchronous telehealth modalities while adhering to clinical specifications and producing clinical improvements similar to treatment outcomes from in-person care.[40]

This evidence review identified four interventions that met evidence review criteria (described above and in Appendix 2) and improved health outcomes for people experiencing SMI, including Behavioral Activation (BA) Therapy, Cognitive Behavioral Therapy (CBT), Cognitive Processing Therapy (CPT), and Prolonged Exposure (PE) Therapy. Each behavioral therapy is described below, including associated health outcomes, populations that may benefit, and other important information for implementing these therapies using telehealth.

Behavioral Activation (BA) Therapy via telehealth

BA is a treatment component based on changing behavior to change one's mood. It involves identifying, scheduling, and completing positive reinforcement activities.[41, 42] *Behavioral Activation-Therapeutic Exposure (BA-TE)* is an integrated, evidence-based treatment for Post-Traumatic Stress Disorder (PTSD) and Major Depressive Disorder (MDD). BA-TE combines BA with exposure-based therapy. It involves weekly BA activities along with situational exposure to clients' avoided stimuli and imaginal exposure to past traumatic events.[42, 43]	
Health outcomes	• Reduction in depression[41] and major depression[42, 43] symptoms • Reductions in PTSD symptoms[42, 43] • Reduction in anxiety[42]
Telehealth-specific outcomes	When compared to in-person treatments: • Reduction in Veteran's Affairs health utilization costs one-year post-telehealth intervention[44] • Similar rates reduction in PTSD symptoms (e.g., disturbing memories/thoughts about military experience, avoidance of external stimuli, nightmares, and re-experiencing)[43, 45]
Populations that benefit from the treatment	People experiencing MDD, including: • Older veterans (58+)[41] • Rural veterans[41] • Black/African American veterans[41] • Male veterans[41] People experiencing PTSD, including: • Male and female veterans of Operation Enduring/Iraqi Freedom[43] and the Vietnam War, the Persian Gulf War, and Operation New Dawn[43]
Providers who can offer intervention services	• Master's-level clinicians with over five years of experience who participate in a two-day training and who receive weekly supervision throughout the trial[41] • Master's-level counselors who completed an eight-hour workshop and shadowed a senior-level clinician administering the treatment[43] • Mental health therapists who completed a week-long training, shadowed a senior-level clinician, and received weekly supervision[42]
Technology used	• In-home videoconferencing technology, set up via an analogue telephone[41] • Computer, tablet, or smartphone with encrypted videoconferencing software similar to Skype or FaceTime[42, 43] • A landline-based videoconferencing program which functions like a typical touch-phone but includes an adjacent video screen[42, 43]
Intensity, duration, and frequency	• Eight 60- to 90-minute weekly sessions[42, 43]
Lessons learned transitioning from in-person care to telehealth	• Telehealth treatment was effective even though the in-home videoconferencing technology used in the studies has become somewhat obsolete; researchers believe new technology can only improve communication between clients and providers, thus easing future implementation[41] • Home-based telehealth has potential advantages over hub-and-spoke models (e.g., where a client is treated in an office setting by providers at another office setting) for addressing treatment barriers, including cost, stigma, and travel logistics[46]
Four studies met criteria for review (three RCTs and one single sample pre-post), resulting in a rating of Strong Support for Causal Evidence.	

Cognitive Behavioral Therapy (CBT) via telehealth

CBT is a goal-oriented psychotherapy that seeks to modify an individual's thought patterns, beliefs, and behaviors. CBT programs use a variety of cognitive and behavioral techniques in group and individual settings while remaining structured and time-limited.[46] Through cognitive restructuring, CBT may be used to help clients re-evaluate their negative thought patterns that include overgeneralizing or catastrophizing negative outcomes.[47, 48] CBT techniques can be used to help clients address traumatic experiences and develop more effective thought patterns and realistic perspectives on the trauma.[47]	
Health outcomes	• Reduction in severity of depression symptoms[49, 50] • Reduction in symptoms of PTSD[51] • Reductions in self-reported depressive and general anxiety symptoms[51]
Telehealth-specific outcomes	When compared to enhanced usual care (defined as conversations with primary care physicians): • Higher level of client satisfaction[50, 51] • No significant difference in therapeutic working alliance between provider and client[51] When compared to in-person treatment: • Higher level of treatment completion[49]
Populations that benefit from the treatment	People experiencing major depressive disorder, including: • Primary care clients[49] • Rural, Latino/Latina clients[50] • People experiencing PTSD, including: – College women who are survivors of rape[51]
Providers who can offer intervention services	• Doctoral-level therapists[49, 51] • Students working towards master's in social work degree [50] • Master's-level social workers[50] • Licensed social workers[50]
Technology used	• Telephone[49, 50] • Computer-based online program facilitated by a therapist[51]
Intensity, duration, and frequency	• Participants were offered 8 to 18 sessions of CBT; sessions (offered in both English and Spanish) were designed to be 45 to 50 minutes[49, 50] • Through an online, therapist-facilitated CBT program, clients completed nine modules over the course of 14 weeks[51]
Lessons learned transitioning from in-person care to telehealth	• Lack of telephones was not a significant barrier to participation[50] • Providing culturally tailored CBT via telephone has the potential to enhance access to care for Latinas/Latinos living in rural areas[50] • Providers and clients developed a strong therapeutic working alliance despite the largely asynchronous nature of communication[51] • Future research is needed to assess the effectiveness of delivering similar therapist-facilitated online programs to diverse populations and in multiple practice settings[51]
Four studies met criteria for review (four RCTs), resulting in a rating of Strong Support for Causal Evidence.	

Cognitive Processing Therapy (CPT) via telehealth*

CPT is a trauma-focused cognitive therapy aimed at reducing symptoms of PTSD.[52] CPT has been found to be effective in reducing symptoms of PTSD developed as a result of experiencing traumatic events, such as child maltreatment, sexual assault, and military-related stressors.[53-55] CPT consists of four main components: 1) Education; 2) Processing; 3) Challenging thoughts about the trauma to restructure thought patterns; and 4) Focus on trauma-related themes of safety, trust, power and control, esteem, and intimacy.[55-57]	
Health outcomes	• Greater or equivalent reduction in severity of PTSD symptoms [55, 58-60] • Reduction in symptoms of depression[59, 60]
Telehealth-specific outcomes	When compared to in-person treatments: • Increased access to care for underserved rural populations[58] • No significant difference in client treatment adherence (homework completion) and retention[55, 58] • No significant difference in client satisfaction[55, 58] • No significant difference in therapeutic alliance between provider and client[55, 58, 60]
Populations that benefit from the treatment	People experiencing PTSD, including: • Veterans[55, 59, 60] • Civilian women[55] • Male combat veterans living in rural areas[58]
Providers who can offer intervention services	• Licensed psychologists[59] • Doctoral-level psychologists[58, 60] • Licensed social workers[59] • Master's-level and doctoral-level social workers[58, 60] • Family therapists[59] Although formal CPT training is not required for practitioners, resources are available, including a program delivery manual and certification trainings[52]
Technology used	• Videoconference[55, 58-60]
Intensity, duration, and frequency	• Participants received CPT over 12 sessions, conducted once or twice a week for approximately 50 to 90 minutes each [55, 58-60]
Lessons learned transitioning from in-person care to telehealth	• Videoconference is a familiar format for many users[59] • Participants encountered few disruptions using videoconferencing (e.g., no sessions were canceled due to technological difficulties)[58] • Smaller technology screens may reduce rapport and communication[59]
Four studies met criteria for review (four RCTs), resulting in a rating of Strong Support for Causal Evidence.	

*Originally, the primary version of CPT was administered with a written account of trauma and cognitive-only CPT was administered without a written account of trauma. Research comparing the efficacy of the two versions found that both versions are as effective, and, notably, the cognitive-only version led to a decrease in dropout rate. As a result, the terminology changed and CPT without a written account of trauma became the primary version implemented. For the purpose of this evidence review, this guide uses the terminology as CPT delivered with or without a written account of trauma.

Prolonged Exposure (PE) Therapy via telehealth

PE is a type of CBT that focuses on helping individuals confront their fears from traumatic experiences.[61] First developed as an intervention to treat sexual assault survivors suffering from PTSD, PE has been shown as effective for treating survivors of varied traumas, including combat, accidents, and disasters.[62] Through weekly sessions of PE, individuals learn how to gradually approach their trauma-related memories and feelings.[61, 63] Exposure therapy through imaginal exposure (describing the traumatic event) and in vivo exposure (confronting feared stimuli) also helps reduce symptoms of PTSD.[48,61]	
Health outcomes	• Reduction in the severity of PTSD symptoms[64-69] (compared with both no treatment and in-person PE therapy) • Reductions in symptoms of anxiety[64, 68, 69] • Reductions in symptoms of depression[64-69]
Telehealth-specific outcomes	When compared to in-person treatments: • Increased access to care for rural veterans[68] • No statistical differences in client satisfaction, although participants in the in-person group reported a higher level of comfort when communicating with their therapist than participants in the telehealth group[64] • High acceptability of telehealth modalities[66] • Reductions in the extent to which PTSD interferes with activities of daily living (including health, diet, and work)[69]
Populations that benefit from the treatment	People experiencing PTSD, including: • Veterans, predominantly male [64-67, 69] • Rural veterans[68]
Providers who can offer intervention services	• Clinical psychologists[66, 68,69] • Psychiatrists[68] • Master's-level therapists and counselors[64, 65, 67] • Master's-level social workers[68, 69] • Psychology interns/fellows[68] • Although formal PE training is not required, practitioners of PE often received training and supervision in the form of: – Weekly supervision from a licensed clinical psychologist who was a certified PE trainer[64] – 32-hour workshop training program in PE[65] – Observation of a senior-level clinician through a complete course of prolonged exposure, both in-person and via telehealth[65] – Recordings of therapy sessions for treatment fidelity[67] – Extensive training and supervision in exposure therapy for PTSD[69]
Technology used	• Videoconferencing via computer[64-69] or smartphone[68]
Intensity, duration, and frequency	• Participants received PE once a week ranging from approximately 60 to 90 minutes;[65-69] they were typically offered between 6 to 12 sessions depending on treatment response,[64, 65, 67-69] and up to 21 sessions in one case[66]
Lessons learned transitioning from in-person care to telehealth	• Clients express general interest and acceptability in using PE delivered via videoconferencing[68] • Telehealth-delivered PE can help overcome geographic barriers to care and help providers reach underserved populations[68, 69] • Providers can make small adaptations to telehealth-delivered care to increase adherence to PE; some small, yet useful changes in care include using smartphone calendar reminders, scheduling an initial in-person client meeting to build rapport, and using the PE Coach app to augment and supplement treatment[66, 68] • During telehealth visits, the quality and positioning of video cameras and monitors can reduce providers' ability to notice and respond to clients' nonverbal communications[69]
Seven studies met criteria for review (four RCTs, two QEDs, and one single sample pre-post), resulting in a rating of Strong Support for Causal Evidence.	

While this review focuses on synchronous interventions, providers can use asynchronous tools to complement, support, and reinforce synchronous client-provider interactions. Examples of asynchronous tools can be found through online repositories such as the M-Health Index and Navigation Database or the VA App Store.

Case Management

Ongoing case management may include routine check-ins and follow-ups, updates and modifications to care and treatment plans, identification of and connections with needed resources, and support in achieving the goals of an individualized care plan. These ongoing conversations are readily adapted to synchronous telehealth modalities and Health Insurance Portability and Accountability Act (HIPAA) compliant asynchronous messaging platforms, including texting and messaging through a clinic electronic health record (EHR) system. Specific studies have demonstrated ongoing case management interventions using telehealth are effective for people with depression[70, 71] and schizophrenia.[72]

SUD Recovery Supports

Practitioners can provide ongoing recovery support for people in SUD treatment through synchronous telehealth methods. Peer recovery support services use peers (people who have similar lived experiences as the client, such as someone who is in SUD recovery themselves) to provide support for clients while in treatment and recovery.[73] Some peer recovery support services use technology-assisted peer support to engage clients, conducting regular check-ins over telephone or videoconference.[74]

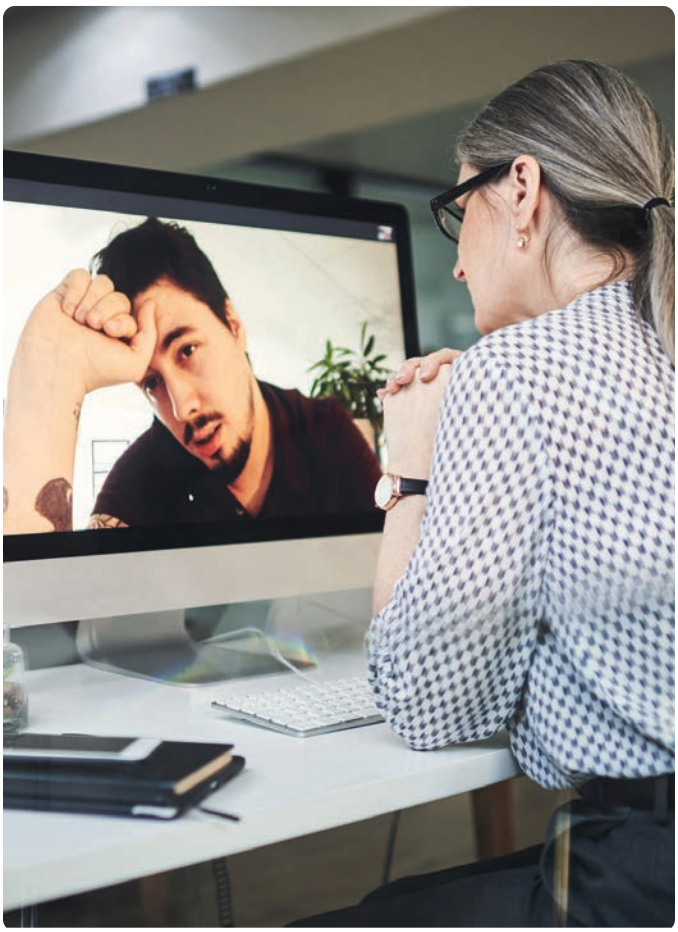
Crisis Services

Telehealth modalities can increase the availability of needed crisis services, ensuring these services are available to anyone, anywhere, at any time, and that there is a "no-wrong-door" approach for entry into services.[75] Crisis services are an effective strategy for suicide prevention and resolving acute mental health and substance use crises, as well as for reducing psychiatric hospital bed overuse, inappropriate use of emergency departments, inappropriate use of law enforcement resources, and the fragmentation of mental health care.[75]

Cited by the *National Guidelines for Behavioral Health Crisis Care* as an essential element of an integrated crisis system, regional crisis call centers provide synchronous telephonic crisis services, text, and online chat technology to triage needs, assess for additional needs and preferences, and coordinate connections for additional post-crisis support. In addition to telephone calls and live online chats or texts, regional crisis call centers can also make use of the following technologies to support an individual's well-being:

- 24/7 outpatient scheduling
- Crisis bed registry
- GPS-enabled mobile crisis dispatch
- Real-time performance outcome dashboards

Asynchronous tools such as My Mental Health Crisis Plan[76] (designed by SAMHSA) can be used to create a personal advance directive, a legal document outlining an individual's preferences during a mental health crisis should the individual not be able to determine or communicate their own decisions.



Suicide Screening and Assessment

Telehealth modalities provide an effective alternative to in-person suicide screening and assessment.[77] The following suicide screening and assessment tools can be implemented through telehealth modalities:

- The Ask Suicide-Screening Question Toolkit (ASQ) from the National Institute of Mental Health (NIMH) is an evidence-based, 20-second, four-question suicide screening tool.[78]
- The Collaborative Assessment and Management of Suicidality (CAMS) is an evidence-based intervention to assess, treat, and manage clients with suicidal ideation in a range of clinical settings.[79-87]
- Columbia-Suicide Severity Rating Scale (C-SSRS), also known as the Columbia Protocol, can be used to determine whether someone is at risk for suicide, assess the severity and immediacy of that risk, and gauge the level of support the person needs.[88]

If a client is at risk of imminent harm:

1. **Assess immediate danger.** If the client is in immediate danger and the provider is unable to detain or physically intervene, the provider must contact emergency services.
2. **Identify the client's location** in case emergency services are necessary.
3. **Work with other care providers (e.g., suicide prevention coordinators) when contacting emergency services.** Remain connected with the client as the client connects with emergency services or while arranging hospitalization.[89]
4. **Support clients as they navigate the triage process at an emergency department.** Treatment programs should have safety protocols to mitigate risks and create a workflow to support the client; providers should determine the suicide risk level with criteria that identify the appropriate clinical response.[90, 91]

Future Directions

This evidence review supported conclusions related to *treatment outcomes*:

- Telehealth is effective across the continuum of care for SMI and SUD, including screening and assessment, treatments, including pharmacotherapy, medication management, and behavioral therapies, case management, recovery supports, and crisis services.
- Evidence-based treatments for SMI and SUD, traditionally provided face-to-face, are also effective when delivered using telehealth and have outcomes comparable to in-person service delivery.
- Therapeutic services provided using telehealth modalities generate positive outcomes for the client, including engagement in treatment, retention in care, and client satisfaction, which in turn lead to improved long-term health outcomes.

- Positive outcomes are dependent on the provider and client having the necessary resources to conduct telehealth well, including training and technology (more information on supporting telehealth implementation can be found in Chapter 3).

Additionally, several conclusions related to *healthcare access* and *utilization* can be made from this evidence-review:

- Use of telehealth modalities increases individuals' and communities' access to trained providers and evidence-based practices that may otherwise be unavailable to them.
- When geographic and other access barriers (e.g., transportation, mobility, and obligations like employment and caretaking responsibilities) prevent individuals from accessing services, telehealth fills a treatment gap and improves health outcomes.
- Some clients may prefer to receive services wholly or partially by telehealth, and any of the treatment practices presented in this chapter may be part of an overall treatment plan that includes a hybrid of telehealth and in-person services.

However, research on the telehealth application of evidence-based practices has been limited for the following reasons:

- *Evidence review limitations.* While there may be innovative behavioral therapies currently delivered via telehealth for specific conditions, this evidence review relies on specific types of published research to determine the strength of evidence. Included studies must be either randomized controlled trials, use a quasi-experimental design, or use a pre-post design with a strong counterfactual; therefore, innovative treatments and interventions that have not been studied with such rigorous methods are excluded.
- *Limitations of the literature.* While telehealth has been used for numerous other conditions, individuals experiencing SMI and SUD have traditionally been regarded as having complex conditions and therefore excluded from telehealth research. With limited implementation of telehealth for people with SMI and SUD, it offered fewer opportunities for researching treatment to treat those conditions. Some providers have been reluctant to offer telehealth in the past, in part due to negative views towards the modality and perception of clients' experiences with telehealth,[92] which has slowed access to telehealth for individuals experiencing SMI or SUD.
- *Need examination of asynchronous forms of treatment.* This evidence review demonstrated strong evidence to support synchronous interventions to support telehealth-delivered, evidence-based treatments. However, more research is needed to determine the effectiveness of asynchronous treatments, which can be effective complementary tools to synchronous virtual or in-person treatment by increasing client engagement, promoting healthy behaviors, reducing feelings of stigma, and increasing access to treatment.[93, 94] Text messages, online chat features, email, and social networking sites can also be used to facilitate ongoing communication outside of face-to-face sessions.[6]

While there are limitations to the research, telehealth is a key strategy to increasing and ensuring access to care for people living with SMI, SUD, or COD. Future research could expand beyond telehealth efficacy and focus on implementation and evaluation considerations, including provider/patient buy-in, necessary technological infrastructure, and methods of quality improvement. Considerations related to implementation and evaluation will be discussed in Chapters 3 and 5, respectively.

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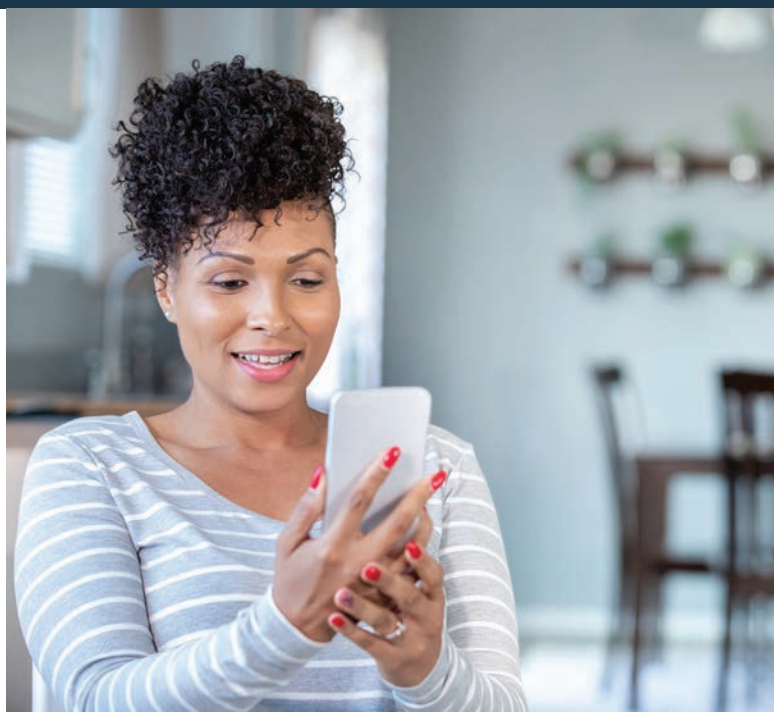
CHAPTER

3

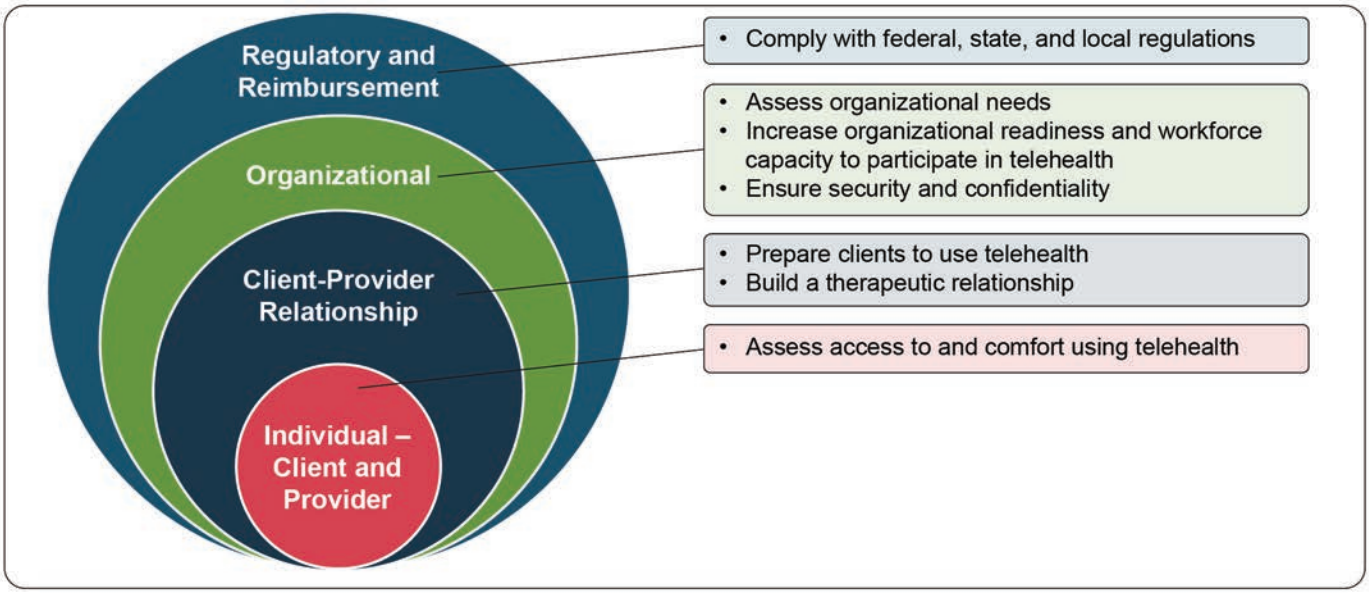
Guidance for Implementing Evidence-Based Practices



Before using telehealth modalities for screening, assessing, treating, and supporting people with serious mental illness (SMI) and substance use disorder (SUD), clinicians should consider several important implementation factors. While this guide is focused on telehealth-delivered treatments for people experiencing SMI and SUD, the implementation considerations and strategies discussed in this chapter can be broadly applied for the treatment of any mental illness.

This chapter presents implementation considerations and strategies to facilitate effective implementation on multiple, interrelated levels.

This chapter starts with factors focused on the individual level, including the client and provider. It then identifies considerations and strategies across the interpersonal client-provider relationship, the organization, and the policy and regulatory landscape.



Individual-Level Considerations

Client-Level

Clients have different levels of:

- Comfort or willingness to engage with telehealth
- Access to technology or high-speed Internet
- Apprehension about using technology or concern about the privacy risks involved

The recent proliferation of smartphones provides a convenient way for many to engage in telehealth. Access to smartphones allows for both synchronous videoconferencing for telehealth-based therapy, as well as asynchronous apps to support medication monitoring, symptom recording, and messaging between the client and provider.

Health Equity and Telehealth

Telehealth holds the promise of increasing access to equitable health. However, telehealth-delivered treatments require access to technology and the Internet. Approximately 10 percent of Americans did not have Internet access in 2019. People who don't use the Internet tend to live in rural areas, be 65 and older, have less than a high school education, and be people of color.[1] Organizations and practitioners should be aware of and address equity issues and guard against increasing disparities in equitable healthcare access for underserved populations.[2] Translation services increase accessibility for clients not proficient in English.[3]

Strategies to increase client access to and comfort using telehealth

- **Increase access to mobile phones and Internet** – In addition to a fast and stable Internet connection, clients need tablets, computers, or smartphones that support face-to-face videoconferencing or eHealth app services. Technical difficulties, such as low image resolution, audio delays, or other glitches in communication can disrupt the regular flow of conversation between the provider and client.[4, 5]
  - Providers can supply devices and signal boosters to clients who need them.[6] However, purchasing phones and maintaining Internet access involves significant start-up and maintenance costs.[7]
  - Clients who do not have smartphones, tablets, or computers have reported high satisfaction using the telephone for psychotherapy.[8, 9]
- **Increase awareness of telehealth** – Post signage about telehealth in waiting or exam rooms, share promotional materials during the visit or as part of the after-visit summary, or provide telehealth demonstrations.[3]

Discuss the individual-level benefits of telehealth – Clients may experience benefits that go beyond SMI or SUD outcomes. For example, for clients who experience physical limitations (e.g., chronic pain or mobility-related challenges), have panic disorders, or are more comfortable in environments they can predict and control, telehealth modalities can help them focus on their care in a safe and comfortable setting of their choosing.

- **Conduct a health technology trial-run** – While many technologies are designed to be easy to use, people who have less comfort with technology may struggle with telehealth platforms, devices, and applications and worry about technical problems that could occur.[10-12] Test the connection and interface before a first session to reduce technology anxiety and manage minor issues.[13] Assign an IT or other staff member to set up a brief pre-appointment with the client to work through the functionalities of their telehealth appointment and help the client overcome any challenges. This staff member can demonstrate how to use the program or app and give tips about how to use the device to interface with the program (e.g., how to effectively "tap" to press start or stop), how to use the camera, how to record or view recordings, and how to upload and delete files.[14]
- **"Let's try it and see if you like it"** – Prior to engaging in telehealth, clients may have fears or concerns about the experience and the care they will receive in a virtual format. Testing out the technology, encouraging clients to try out various synchronous forms of communication, and reminding clients that they can discontinue telehealth at any time can support client engagement in telehealth visits.

Provider-level

Provider reticence to adopt telehealth can occur for several reasons, including concerns related to poor therapeutic relationship, less commitment from the client to therapy, and technological difficulties affecting the therapeutic experience.[15-17] However, acceptability studies have found many benefits to therapy using telehealth.[5, 13, 15, 18-20]

Strategies to increase provider comfort with telehealth

- **Review the literature on the efficacy and effectiveness of telehealth** (see Chapters 1 and 2 of this guide).
- **Provide trainings** – Increase digital literacy through trainings to increase comfort and familiarity with various digital platforms. Use training time to get input from providers on what works and what can be improved.[21, 22]
- **Identify individual provider-level benefits** – Individual providers may find that through telehealth, they are able to create flexible work schedules, expand the number and kinds of clients they work with, and reduce provider burnout.
- **Engage clinical and IT staff to support telehealth** – Using telehealth coordinators or trained medical assistants to schedule and provide reminders for telehealth visits can improve no-show rates and provide needed technical assistance. Providing available staff to effectively manage technical difficulties can also improve provider acceptance of telehealth.

Interpersonal Client-Provider Relationship Considerations

Client-provider relationships are essential to successful SMI and SUD treatment. However, telehealth can be challenging to building an effective therapeutic relationship. Client-provider pre-work (i.e., discussions, planning, and training prior to beginning treatment) and special attention to building therapeutic alliances can help overcome barriers to developing strong client-provider relationships.

Strategies for providers to prepare clients for telehealth

- **Assess client for appropriateness to engage in telehealth** – Relationships between clients and providers begin with screening and assessment prior to starting treatment or therapy. Telehealth modalities may not be appropriate for all clients at all points of their treatment plans. Some treatment and follow-up care requires in-person visits (e.g., urine drug screenings for clients on medication for SUD). Some clients may respond differently to in-person versus videoconference therapy and may benefit from a hybrid or in-person approach. Screening and assessing clients for their readiness to participate in and conduct appropriate activities using telehealth modalities can inform both care planning and delivery. In addition, it can mitigate client challenges through careful preparation and structured conversations.
- **Conduct a thorough informed consent process** – Use tools such as the easy-to-understand telehealth consent form template developed by the Agency for Healthcare Research and Quality (AHRQ). The informed consent process includes the following key pieces:
  - *What is telehealth*: Explain what telehealth is and why you are using it for the client's care.
  - *Potential privacy concerns*: The presence of family members, caregivers, or roommates in the home during a telehealth visit could hinder a client's ability to fully engage in the visit.[5] Remind the client to be in a private space, away from other people, and assure the client that their conversation is private on the provider's side. Ensure the client knows how to mute the audio and disable video in case they want privacy during disruptions.[23]
  - *Patient communications*: Notify clients about how electronic client communications are stored and who may access these communications.[24]
  - *Backup plan:* Discuss protocols in the case that technology fails or clients need a higher level of care.[25]

- **Develop a telehealth checklist for the provider to use prior to each visit** – A checklist can be a convenient way to ensure the provider has followed appropriate procedures and shared relevant information with the client.[26]
- **Discuss ways to ensure client privacy during sessions** – To guarantee privacy, consider making it a practice to clarify the client's location and who is in the virtual room in case someone is off-camera. This action can affirm your commitment to the client's privacy.

Special Considerations

Some clients may have difficulty engaging in telehealth, including those with hearing loss, disabilities, or language barriers.[26]

- The National Association of the Deaf has resources for accessibility for clients who are deaf and hard of hearing.
- The American Psychological Association has a tip sheet about using telehealth with persons with disabilities.
- Providing translation services can help ensure equitable access to health care. Many existing translation services already occur over the phone. Consider ways to expand translation services for use in telehealth.

Inform the Client of Telehealth Norms

Provide the client with an overview of expected norms and behaviors for telehealth.

- The camera angle and quality, screen size, and other factors can limit the ability to read a client's behavior. Ask the client to adjust the camera angle, if possible, to aid in reading non-verbal cues.
- While the session may be taking place in the client's home, ask that the client dress appropriately.
- Remind clients not to multi-task while engaging in the session, such as texting or using the Internet. Empower the client to share if they are having difficulties hearing or engaging with the provider.
- Remind the client that while the provider may be taking notes or documenting in the medical record, the provider's attention is focused on the client.

Strategies for building therapeutic relationship

Providing treatment through telehealth modalities will impact the way a provider builds therapeutic alliance (the relationship developed between the provider and client in working toward the goals of therapy)[27] during the screening and consent process and during treatment. The strategies below help to ensure a client's commitment to therapy, address technological difficulties impacting the therapeutic experience, and mitigate the potential for a client to feel as though conversations are "impersonal."[15-17, 28]

- **Acknowledge differences between in-person and virtual visits** – Slight audio or video lags may disrupt natural communication, which may affect rapport-building. Use traditional tools and strategies to build the therapeutic relationship and implement additional strategies to overcome challenges to building rapport over video, such as using exaggerated non-verbal cues.[29, 30]
- **Start with small talk** – Create a similar environment to that of an in-person visit by asking about a person's day, the weather, or other light topics to warm up the conversation and build familiarity through a virtual visit.
- **Meet in person when needed** – This strategy may be less feasible during pandemics or natural disasters, but may be useful in certain circumstances, such as meeting first while in a hospital setting. In-person meetings are not essential to successful telehealth visits, but can be used at the discretion of the client and provider. Requiring in-person visits can create a barrier to seeking or accessing care, so the decision to have in-person visits should be made in collaboration with the client.

Considerations for Working with Groups Using Telehealth	
Group therapy raises additional concerns when using telehealth, especially related to group dynamics and privacy. Evidence supports the efficacy of telehealth-delivered mental health groups for veterans with outcomes similar to those of in-person groups. However, groups are associated with lower therapeutic alliance and group cohesion ratings (although these differences did not impact group clinical outcomes). • The American Psychological Association has a list of considerations for group therapy using telehealth modalities. • The Mental Health Technology Transfer Center (MHTTC) Central East has a Tip Sheet for Group Teletherapy.	
Format	• Groups may happen in hybrid formats (e.g., some audio only, some video plus audio, some in person). Consider limiting to two delivery modalities to better facilitate groups and troubleshoot challenges.
Considerations	• Who can benefit most from group therapy? Problem-solve barriers to participation (e.g., is a patient's technological set-up appropriate to support a telehealth group?). • Are there any potential negative impacts that the telehealth group could have on potential group members (e.g., paranoia symptoms, disruptive behavior)? • What group size allows for effective engagement while also being able to address emergencies or troubleshoot technology issues, if needed? • Should the groups be closed or open? • Is there a mechanism for reminder calls before the group meeting to proactively address any issues, including technical ones? • How can client privacy and confidentiality be protected in a group setting?
Facilitation	Before the meeting: • Plan ahead by establishing and reviewing curriculum, facilitation prompts, and ways to handle emergencies or disruptions • Send participant materials through the mail or secure messaging platforms • Use a co-facilitator to help with troubleshooting issues or emergencies At the start of the meeting: • Review group rules/expectations, including guidelines to protect group and individual privacy and confidentiality • Use the "share screen" function to share a document with group instructions During the meeting: • Lock the sessions once participants have joined • Utilize the chat box • Utilize the raise hand feature • Mute incoming audio • Allow time for questions and troubleshooting
Emergencies	• Document each patient's physical location and emergency contacts • Remind participants of emergency plan and rules during first group session • Consider co-leading videoconferencing groups with another clinician to: – Ensure group sessions do not have to be cancelled if a clinician is unexpectedly out – Enable a provider to problem-solve technical issues or attend to emergencies while the other clinician proceeds with group material

Organizational-Level Considerations

Telehealth requires organization-level change to be sustained. Before a treatment program or clinic implements telehealth services, it is important to assess the appropriateness of the services for the setting, the clients being served, and the providers who will be using telehealth to deliver treatment services. An organization must ensure there is appropriate space, technology, training, financial and human resources, and support to implement telehealth.

Strategies to assess organizational needs and readiness

Prior to implementing telehealth practices, each program or organization should conduct a needs assessment to explore the following factors:

- **The organization's readiness for telehealth** – Review existing protocols and procedures (e.g., intake procedures, scheduling) that could facilitate or impede implementation using a readiness assessment tool. The American Psychological Association has an office and technology checklist for telepsychological services that is a tool for checking client and agency readiness. Similarly, the American Psychiatric Association has a comprehensive Telepsychiatry Toolkit to provide information and resources about using telehealth for psychiatric care.[31-33]
- **A program's or organization's strengths and areas for development** – Review the budget, infrastructure, information management support, understanding and compliance with regulations, billing and reimbursement policies, and organizational ability to support telehealth.
- **Available internal resources and local factors** – Identify internal resources (e.g., staffing, technology, space) and local factors (e.g., geography, transportation, availability of telehealth, availability of high-speed Internet) that could affect service delivery via telehealth.
- **Financial implications** – Determine the costs of implementing and sustaining telehealth modalities. Verify that payers will reimburse for services provided over telehealth and whether reimbursement rates are sufficient.
- **Characteristics of the client population** – Identify the population of focus and their unique risk factors, cultures, challenges, assets, technology access (including broadband and equipment), and ways that telehealth can be used to overcome client challenges.[34, 35]

Based on results of the needs assessment, organizational leaders can work with their clinical teams, administrators, client representatives or patient advisory boards, community members, and partners to create an implementation plan that includes the following:

- Organizational priorities, technology needs, necessary changes to existing policies and workflows, and training needs
- Short- and long-term outcomes (to be measured using tools identified in Chapter 5)
- A logic model (a graphic depiction of the relationship between a program's activities and their expected outcomes)
- Privacy, security, and confidentiality procedures

Strategies for boosting internal readiness and workforce capacity to participate in telehealth

- **Identify a program champion** – Program champions can serve a variety of roles in the clinic (e.g., providers, telehealth coordinators, leadership), but as champions they can advocate for telehealth to leadership, provide formal and informal training on telehealth, and identify challenges and propose solutions.[3]
- **Training and capacity-building** – When possible, provide protected time to support implementation training.[36] Training and capacity-building efforts should engage all involved staff and partners, and include information about the following:
  - Changing workflows (e.g., processes for intake, scheduling, and documenting visits) and the HIPAA (Health Insurance Portability and Accountability Act)-approved technology used.
  - Educating providers on the evidence-base for telehealth to increase provider and organizational buy-in for promoting telehealth for clients.
  - Messaging about the service and to set expectations that all staff should support telehealth.[3]
- **Create a pilot program** – Motivated and engaged providers can test out implementation tools and then share their lessons back with fellow providers.[36] Providers can also engage in peer learning consultations to share lessons learned and implementation strategies. According to the Diffusion of Innovation Theory,[37] these innovators can influence early adopters who can influence the majority of providers.
- **Engage clinical staff to support telehealth** – Staff at all levels will need to be engaged to effectively implement telehealth technologies. When a broad range of team members are trained, teams can maintain continuity when a team member is on leave or absent.[38]
  - Telehealth coordinators or trained medical assistants can schedule and provide reminders for telehealth visits, improving no-show rates, and provide needed technical assistance to clients.[38]
  - Engaging clinical staff in ongoing communication provides a mechanism for leadership to understand implementation challenges and successes.[36]
- **Obtain secure devices and videoconference platforms** – Agencies that want to expand telehealth options must have reliable and sustainable technology and IT support.[13, 39]
  - Providers and agencies may need to purchase, upgrade, or maintain equipment to conduct telehealth sessions and securely send information both inside and outside of the clinic. Equipment that can be used outside the clinic is useful for when providers are not able to come into the clinic due to public health emergencies or natural disasters, and for the ability to flex their clinical schedules and work from home.
  - Clinics will need to provide a sufficient number of laptops to support staff working from home or outside of typical shared office space.[40]
  - Typically, telehealth services must be delivered via a HIPAA-compliant platform;[41] however, during public health emergencies, regulations may allow the use of videoconferencing applications, such as Skype or FaceTime. State medical privacy laws may still apply. The American Psychiatric Association has an overview of platform and software requirements for engaging in telepsychiatry.

- **Ensure high quality Internet connection** – Invest in high quality broadband Internet to overcome challenges related to image resolution, audio delays, or service disruption.
  - While disruptions can originate with either the client or the provider, it is critical the provider has stable Internet to reduce interruptions.
  - Agencies should consider providing signal boosters for clinicians who are working from home and providing telehealth services without stable high speed, broadband Internet.[40]
  - Ensure provider devices are capable of videoconferencing and accessing the electronic health record simultaneously.
- **Provide ongoing technical support** – Provide technology resources to maintain equipment, support changes in technology, and provide training and assistance as issues arise.[13] Ensuring staff are available to troubleshoot emergent technology issues can make telehealth implementation easier.

Strategies for ensuring security and confidentiality

Clients and providers must trust that their personal information will remain secure when using telehealth and online systems.[43] Similarly, privacy and confidentiality concerns could deter clients from talking about sensitive health issues through telehealth modalities.[5] When clients experience a loss of confidentiality or privacy, it can negatively impact the client-provider relationship, treatment adherence, and compliance, and, therefore, treatment effectiveness.[44]

SAMHSA issued guidance on 42 CFR Part 2, emphasizing that providers are permitted to disclose patient information to medical personnel without the client's written consent to treat a bona fide medical emergency. In the context of telehealth, this guidance is intended to ensure clinically appropriate communications and access to SUD care in instances where a client may not be able to access normal care due to a public health emergency.[42]

Telehealth providers must use secure and private platforms to engage in telehealth with clients. Common strategies for addressing client concerns about privacy include:

- **Identify secure spaces to engage in telehealth** – Providers may face concerns with lack of space and privacy, but having the appropriate space to engage in telehealth is essential.[38, 40]
  - Identify private offices and meeting rooms (with doors that close to minimize interruptions and no windows to hallways where others can look in on sessions) that can be outfitted with the appropriate technology for telehealth visits.
  - The impact of breaches in client confidentiality is exacerbated in clinically unsupervised settings, like personal residences, because conversations may be overheard. Work with clients to identify secure spaces to engage in telehealth during the client pre-work.
- **Secure data on devices** – Use encryption and two-factor authentication on communication devices.[23] Ensure that any time personal or health information is shared, such as signed assessment forms or treatment documentation, it is encrypted and securely sent.
- **Provide education and technical assistance for providers on privacy, security, and confidentiality** – Telehealth carries risks for breaches of protected health information (PHI), and yet most providers are not adequately trained in protecting client privacy while using telehealth. Providing training and support for providers can decrease discomfort around privacy and technological issues.[13]
  - Training topics include: defining telehealth and telehealth etiquette, regulations and reimbursement, HIPAA and privacy concerns, ethical practice, and efficacy of telehealth.[45]
  - Bolstering education and training programs and providing technical assistance support is key to mitigating the risk for breaches of PHI when using telehealth.[23]

Regulatory and Reimbursement Environment

Before initiating a telehealth program, practitioners should consider regulatory issues, including licensing, prescribing laws, and reimbursement policies. Health systems implementing telehealth find reimbursement to be one of the biggest challenges.[38] Many of these regulations vary by state; treatment programs should consult state guidelines.

Regulatory and reimbursement environments are constantly changing, especially throughout the COVID-19 pandemic. Regulations and reimbursement guidance may also vary state-to-state. Consult the links shared in this section for the most up-to-date guidance.

Workforce-related licensure regulations

Each mental health and SUD treatment provider type must abide by state-level requirements. Psychologists, clinical social workers, licensed professional counselors, licensed chemical dependency counselors, licensed marriage and family therapists, and prescribing providers (e.g., medical doctors, doctors of osteopathy, nurse practitioners, and physician assistants) should consult their licensing boards for updated guidance related to providing care using telehealth.

For example, most state medical boards require that physicians engaging in telehealth be licensed in the state in which the client is located, which creates a significant barrier to widespread implementation of telehealth. Some states issue a special purpose license, telehealth license, or license to practice medicine across state lines to allow for the practice of telehealth;[46] however, these requirements for special licensure have been shown to be a barrier to telehealth adoption.[47] Some boards require additional requirements for telehealth visits, such as confirming the patient is who they say they are, prior to treatment. In addition, a provider's malpractice insurance carrier may not be willing or able to provide coverage across state lines.[48] An American Medical Association (AMA) study found that malpractice coverage was a necessity for physicians considering the adoption of digital tools.[49]

Medication-Assisted Treatment Prescribing Regulations

Strict virtual prescribing regulations at the federal and state levels impact delivery of telehealth services, especially for medication-assisted treatment (MAT). Prior to the COVID-19 pandemic, the Ryan Haight Online Pharmacy Consumer Protection Act of 2008 required providers to always conduct an in-person examination prior to prescribing controlled substances, such as buprenorphine, with certain flexibilities.[50]

Substance Abuse and Mental Health Services Administration (SAMHSA)

- Federal statutes, regulations, and guidelines that apply to MAT for practitioners and opioid treatment programs (OTPs): https://www.samhsa.gov/medication-assisted-treatment/statutes-regulations-guidelines

The Drug Enforcement Administration (DEA)

- The DEA has responded to public health emergencies by revising policies to allow for prescribing some controlled substances via telehealth without an in-person visit.[51] In the absence of a public health emergency, the Ryan Haight Act allows for prescribing via telehealth if the client is located in a DEA-registered hospital and the prescribing physician is communicating with the client via video.[52]

This chart reflects current prescribing guidelines for controlled substances as of March 2020: https://www.deadiversion.usdoj.gov/GDP/(DEA-DC-023)(DEA075)Decision_Tree_(Final)_33120_2007.pdf

Reimbursement

Federal **Medicaid** law and regulations do not specifically address telehealth delivery methods or the criteria for implementation, leaving states flexibility to design programs.[53] All 50 states and Washington, DC, have some form of Medicaid reimbursement for telehealth, but these programs vary. Treatment programs and organizations should consult their state Medicaid

regulations before launching a telehealth program. Live video is reimbursed in all states; however, some asynchronous telehealth modalities (e.g., store-and-forward services) are only defined and reimbursed by some state Medicaid programs. Geographic restrictions also exist in some states.

The 2018 SUPPORT Act loosened some reimbursement restrictions for treating individuals with SUD or COD. Under the 2018 SUPPORT Act, the Centers for Medicare and Medicaid Services (CMS) issued guidance on state options for Medicaid reimbursement of telehealth-delivered services and treatment for SUD.[53]

Medicare only reimburses for limited telehealth services where certain parameters are met. There are limits on the type of professional who can provide services, and services must be delivered via live video. Eligible Medicare-reimbursed telehealth services related to treatment of SMI and SUD include:[54]

- Individual and family psychotherapy
- Alcohol and/or substance (other than tobacco) use structured assessment and intervention services
- Face-to-face behavioral counseling for alcohol misuse
- Annual alcohol misuse screening
- Annual depression screening
- Smoking cessation services

Based on the client's location, Medicare also has limits on telehealth provided by certain facilities and in certain geographic locations. Telehealth services have been restricted to clients located in a Health Professional Shortage Area (HPSA) or in a county that is outside any Metropolitan Statistical Area (MSA). As of 2020, CMS removed the geographic requirements for telehealth services for treating individuals with SUD or COD, as well as specified the home as an eligible facility for purposes of treating these individuals.[54] The Health Resources and Services Administration (HRSA) maintains a tool for providers to determine if a location is eligible for Medicare telehealth reimbursement.[54]

Forty-three states and DC have laws that regulate **private payer** telehealth reimbursement policies.[55]

State policies requiring private payers to reimburse for telehealth services to the same extent as face-to-face services have been associated with greater adoption of telehealth.[47]

Resources for tracking current regulations and policies at the federal and state levels

- **Center for Connected Health Policy: The National Telehealth Policy Resource Center** maintains a map of telehealth-related laws, regulations, and reimbursement policies for all 50 states and the District of Columbia. They have also developed a report of state telehealth laws and reimbursement policies.[35, 55]
  - Current State Laws and Reimbursement Policies, an interactive policy map
  - Telehealth Legislation and Regulation, an interactive map
  - Changes in national policy related to telehealth and Medicare, a website
- The **American Medical Association** provides a quick guide with resources on licensure and payment policies to assist providers in implementing telehealth programs.[56, 57]
- In 2018, the **Department of Veterans Affairs (VA)** published a final rule allowing VA providers to provide telehealth services to VA beneficiaries, regardless of the physical location of the healthcare provider or the beneficiary.[58]
- State-level licensure and prescribing requirements
  - The Federation of State Medical Boards
  - The American Counseling Association
  - Association of Social Work Boards
  - American Association of Marriage and Family Therapy
  - Substance use disorder counseling
- Interstate Medical Licensure Compact is an agreement across participating states to simplify licensing across state lines; Psychology Interjurisdictional Compact (PSYPACT) allows psychologists in PSYPACT states to practices telepsychology in other PSYPACT states.[58]
- The **Centers for Medicare and Medicaid Services (CMS)** maintains a website that lists waivers and flexibilities due to COVID-19.

Resources

Several resources are available to help practitioners and organizations implement telehealth-delivered services.

- Telehealth Implementation Playbook, American Medical Association: Guidebook for practices to implement new digital solutions.
- AMA also has a learning module on telehealth.
- California Telehealth Resource Center has developed a Telehealth Program Developer Kit, a comprehensive overview of how to develop and implement a telehealth program.
- ProviderBridge.org assists in mobilizing volunteer healthcare professionals to treat patients during public health emergencies. The site supports medical license portability to connect healthcare professionals with state agencies and healthcare entities to increase access to care for patients in rural and underserved communities. The site also provides state-by-state telehealth information and resources to assist providers with telehealth licensure questions.
- Licensureproject.org provides up-to-date information on emergency regulation and licensing for psychologists, occupational therapists, physician assistants, and social workers. Resources include state-specific tools related to licensure and telehealth, as well as online and phone support.
- In Brief: Rural Behavioral Health: Telehealth Challenges and Opportunities This SAMHSA guide explores barriers to accessing substance use disorder and mental health treatment services in rural communities, and the benefits of telehealth for these communities. It assists practitioners with implementing telehealth technologies as a means to increase access to services.
- Supporting Access to Telehealth for Addiction Services: Regulatory Overview and General Practice Considerations, American Society of Addiction Medicine provides guidance for clinicians and programs on regulatory and practice issues related to using telehealth to provide substance use treatment during COVID-19.
- TIP 60: Using Technology-Based Therapeutic Tools in Behavioral Health Services: This SAMHSA manual assists clinicians with implementing technology-assisted care. It highlights the importance of using technology-based assessments and interventions in behavioral health treatment services. The manual also discusses how technology reduces barriers to accessing care.
- The Providers Clinical Support System and Opioid Response Network developed a Telehealth Tipsheet for treating opioid use disorder over telehealth.

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CHAPTER

4

Examples of Telehealth Implementation in Treatment Programs

This chapter provides three examples of organizations that provide the telehealth-delivered practices discussed in Chapter 2 to treat serious mental illness (SMI) and substance use disorder (SUD):

- Eastern Shore Mobile Care Collaborative (ESMCC) at the Caroline County Health Department in partnership with the University of Maryland School of Medicine, Division of Addiction Research and Treatment
- Citywide Case Management Program at the University of California San Francisco (UCSF)/ Zuckerberg San Francisco General (ZSFG) Department of Psychiatry
- Respectful, Equitable Access to Compassionate Healthcare (REACH) Project in Ithaca, NY

The three programs highlighted in this chapter are diverse examples of programs and settings that are effectively treating individuals with SMI and SUD using telehealth modalities. The programs highlighted key themes:

- Telephones are the least expensive and most accessible form of communication for populations experiencing SMI and SUD, especially Black, Indigenous, and people of color (BIPOC) and low-income populations. Telephone use should be encouraged, as it reduces prior structural and institutional barriers that have made contacting these groups difficult.
- Clients need training and assistance with technology literacy, as do providers.
- The use of technology is much more client-centered than many traditional approaches and can allow for creative ways to meet clients' needs efficiently and effectively.
- Telehealth approaches should be maintained long term and integrated into the available treatment choices.

The examples detailed in this chapter:

- Include one or more of the treatment interventions identified in Chapter 2
- Have research to support their impact on SMI or SUD, or are identified as a promising practice
- Are appropriate and effective for varied geographic areas, practice settings, and populations

Treatment programs should implement telehealth-delivered practices with fidelity to evaluated models. Fidelity is the degree to which a program delivers a practice as intended and must be maintained for desired therapy outcomes. Regardless of whether a practice is delivered in person, using telehealth modalities, or through a combination of in-person and virtual modalities, clinicians must ensure treatment services maintain fidelity to the original practice. As practitioners modify practices to use telehealth modalities and address the needs and constraints of their population, budget, setting, and other local factors, they should strive to adhere to the practice's foundational principles and document any adaptations so they can be evaluated.

Eastern Shore Mobile Care Collaborative (ESMCC)

Caroline County, MD

The Eastern Shore Mobile Care Collaborative (ESMCC) at Caroline County Health Department is a Mobile Treatment Unit (a van referred to as the Unit) that aims to increase access to care in Caroline County on the Eastern Shore of Maryland by providing medication-based treatment for individuals with opioid use disorders (OUD) in underserved rural communities through hybrid in-person and telehealth services.

The ESMCC is a partnership between the Caroline County Health Department and the University of Maryland School of Medicine (UMSOM) Division of Addiction Research and Treatment. This program is funded through the Health Resources and Services Administration's Federal Office of Rural Health Policy, the University of Maryland School of Medicine, the Maryland Department of Health and Behavioral Health Administration, and the Caroline County Health Department. The ESMCC began in 2015 as a response to surging client need for OUD treatment and a lack of providers approved by the Drug Enforcement Administration (DEA) to prescribe OUD medications in rural Maryland (also referred to as "waivered providers").

A mobile van addresses the challenge posed by lack of access to technology and waivered medication-assisted treatment (MAT) prescribers in rural areas, bringing OUD services delivered through both in-person and telehealth appointments.

Treatment Offered

Medication-Assisted Treatment (MAT)

Population of Focus

People experiencing opioid use disorder

Related Resources

- Project website
- Introduction to ESMCC video
- University of Maryland Division of Addiction Research and Treatment website
- Telemedicine's Role in Addressing the Opioid Epidemic article
- Expanding Access to Buprenorphine Treatment in Rural Areas with the Use of Telemedicine study

The Unit travels to three townships in Caroline County four days a week, parking at community centers, churches, and health department parking lots. Whereas traditional telehealth programs rely on client access to and proficiency with technology, the Unit brings the technology and wraparound services directly to the clients.

Client Population

Approximately 125 clients receive treatment through the Unit. These clients have an average age of 37, and are primarily White (76.3 percent White, 17.5 percent

Black, 6.2 percent unknown, and 3.1 percent Hispanic). In addition to experiencing OUD, clients may experience anxiety, depression, mood disorders, attention-deficit/hyperactivity disorder, and/or tobacco, alcohol, or stimulant use disorder. The majority of clients have low income and are Medicaid recipients. Some clients previously started medications for OUD treatment through in-patient or out-patient settings, have undergone medically managed withdrawal, or are currently using opioids.

Form(s) of Telehealth

At this time, the ESMCC only uses synchronous forms of telehealth, but is exploring ways to expand and integrate asynchronous platforms.

Services Offered Through Telehealth Modalities

The Mobile Treatment Unit is outfitted with encrypted, HIPAA (Health Insurance Portability and Accountability Act)-compliant videoconferencing technology and an in-person team of treatment staff that provide SUD care.

Becoming a client of the Unit:

There are multiple pathways for becoming a client of the Unit. Clients can be connected through providers, the health department, or word of mouth (from individuals in the community) and can self-refer. Contact information is clearly stated on the side of the Unit, so many call to make appointments or walk up to receive services.

In-person services:

Once a client arrives at the Unit, they are met by the nurse who tracks all client appointments and activities and conducts intake and nursing assessments (e.g., vital signs, urine drug screens, medical history). In addition to the nurse, the Unit is staffed by a peer recovery specialist and counselor who provide in-person support and counseling. Individual counseling is offered on the Unit and the team has partnered with local community-based organizations and churches to provide both a place to park the Unit and provide in-person group counseling. If a client needs additional or different treatment than what is available on the Unit, the mobile team refers them to the appropriate level and type of care.

Telehealth-delivered services:

The back of the Unit has a private room with a computer that has secure, interactive videoconferencing software. Clients are connected virtually to an addiction medicine specialist at the University of Maryland, School of Medicine in Baltimore who provides assessment and diagnosis at the initial visit and monitoring (including medication management and monitoring) during follow-up visits. The Unit does not carry medication, but has partnered with local pharmacies to ensure consistent access to medications for OUD (e.g., buprenorphine).

By using a hybrid approach, the Unit has removed the need to provide client coaching on how to use the technology. A staff member is always available to answer questions and troubleshoot.

Findings and Outcomes

- Clients have the option to participate in a six-month evaluation, consisting of a baseline visit and four subsequent visits 30, 60, 90, and 180 days following the start of treatment. The evaluation collects client information using the PHQ9, GAD-7, Promis, and DUDIT-C to assess changes in depression, anxiety, substance use, and overall health. Clients who participate in the monthly surveys reported decreased depression, anxiety, and overall drug use since starting treatment.
- An analysis of client records for those served between August 2015 and April 2019 found that retention rates and toxicology results (e.g., urine drug screenings) were comparable to services delivered solely in-person.[1]
- Clients have saved an average of 9.93 travel miles by receiving treatment on the mobile treatment unit instead of traveling to their nearest clinic.

Lessons Learned

- **Partnerships with regulatory bodies can facilitate implementation of innovative ideas.** Medications for OUD are heavily regulated by the Drug Enforcement Administration (DEA). The UMSOM team consulted with the DEA throughout program design and early implementation to launch the Unit successfully and safely.
- **Implementation will involve trial and error – be flexible to trying different approaches and look for creative solutions.** For example, the

Unit had unreliable Internet connections in one township. The team found that certain wireless providers had better coverage in that area and changed carriers to secure consistent high-speed wireless Internet in the Unit.

- **IT staff are key for troubleshooting**. The UMSOM team relied on the UMSOM IT department and resources to build the Unit, maintain and update the technology, and troubleshoot any technical challenges. UMSOM IT has been able to quickly respond to IT needs while the Unit is in the field, ensuring continuity of service delivery.
- **Listen to on-the-ground partners.** The UMSOM team has developed strong relationships with local community organizations, health departments, and pharmacies to increase access and break down stigma related to SUD and medications to treat OUD.
- **Engage newer providers to create a unique training opportunity.** Medical students, residents, and addiction medicine fellows are able to train in both addiction medicine and telehealth through participation in this program.
- **Telehealth may not be appropriate for all clients all the time.** Providers have found that some individuals with SUD or SMI may need more intensive mental health treatment than the Unit is able to provide. These clients are referred to more intensive services to meet their needs.

Citywide Case Management Program

San Francisco, CA

The Citywide Case Management Program (Citywide) is a division of the University of California San Francisco's (UCSF) Department of Psychiatry and operates under direction of Zuckerberg San Francisco General Hospital (ZSFG). Citywide has been in operation since 1981 and became part of ZSFG in 1983.

Citywide has 170 staff and is the largest provider of intensive case management (ICM) services in San Francisco. Citywide's mission is to support the recovery of adults with SMI in San Francisco, reduce their use of institutional and acute care (e.g., psychiatric emergency services, hospital care, jails), and help maximize their ability to maintain stable, productive, and fulfilling lives in the community.

Citywide is located outside the academic medical setting in the community it serves and engages individuals who receive regular care from the medical system. Citywide programs are funded through the San Francisco Department of Public Health and other governmental resources.

Citywide ICM teams are interdisciplinary teams of social workers, nurses, psychiatrists, employment specialists, and peer counselors, providing services to around 100 to 200 clients per team.

To appropriately meet the clients' needs, Citywide has four culturally and linguistically focused ICM teams:

- Hong Ling Team (Chinese)
- Cross Currents Team (LGBTQ and women)
- Kujichagulia Team (African-American and European-American)
- Senderos Team (Latino and Korean)

In addition, Citywide has teams that specialize in working with justice-involved individuals.

In addition to ICM, Citywide provides psychosocial treatment, medication-assisted treatment (MAT), substance use treatment groups, and socialization groups, and utilizes a combination of behavioral therapies, including cognitive behavioral therapy (CBT), CBT for psychosis, Behavioral Activation (BA) Therapy, Cognitive processing therapy (CPT), Dialectical Behavior Therapy (DBT), and Acceptance and Commitment Therapy (ACT). Due to the COVID-19 pandemic, Citywide shifted some of its services to telehealth, including case management and care coordination by phone and "Para-Telehealth" video sessions (further described below), while maintaining outreach-based care to those unable to participate in telehealth.

A division of the UCSF Department of Psychiatry that provides case management and behavioral health treatments to some of San Francisco's most vulnerable populations, including those who are experiencing unstable housing.

Treatment Offered

Behavioral Therapies, Medication-Assisted Treatment (MAT), and Case Management

Population of Focus

Adults with serious mental illness (SMI) who are experiencing unstable housing or homelessnes

Related Resources

- Project website
- Introduction to Citywide's "Para-TeleHealth" Approach
- Profile on Citywide's Telehealth Services during COVID-19

Client Population

Citywide serves approximately 1,500 clients at any given time. Citywide clients primarily experience SMI (e.g., schizophrenia, schizoaffective disorder, and bipolar disorder), co-occurring SUD, and significant psychosocial challenges.

Most clients experience poverty, with approximately 90 percent of clients subsisting on social security or county general assistance. Most clients also experience unstable housing and cycle in and out of homelessness, living in single-room occupancy hotels or shelters. Many clients have experienced extensive trauma from their housing instability and often persistent and lifelong encounters with child welfare and justice system institutions.

Citywide clients are disproportionately racial minorities; for instance, while San Francisco's Black or African American population is below 5 percent, Citywide's client population is 30 percent Black or African American.

Form(s) of Telehealth

Citywide uses synchronous forms of telehealth, including phone and video calls between clients and providers.

Services Offered Through Telehealth Modalities

The COVID-19 pandemic was the catalyst for Citywide to offer telehealth-delivered services. Prior to the pandemic, Citywide staff occasionally had synchronous phone visits for care coordination and case management but did not have video appointments with clients.

Case Management and Care Coordination:

At the beginning of the pandemic, Citywide conducted a survey of clients about their technology use and found that only about one-third of their 1,500 clients owned a cellphone. With a donation to UCSF, Citywide purchased and distributed 250 flip-phones to clients (including data plans). When the pandemic forced Citywide's clinic to close for indoor face-to-face contact, the phones allowed clinicians to reach out and mitigate isolation for clients sheltering in place and enabled staff to coordinate street outreach to clients experiencing homelessness who, without a phone, would have been very difficult to find in the community. Using these phones, Citywide also continued the evidence-based behavioral therapies provided before the pandemic, such as CBT and BA, to keep clients engaged in treatment (e.g., medication adherence, symptom management, etc.) and support clients in their recovery process.

"Para-Telehealth" Program:

Despite the usefulness of phone contacts, it became clear a few months into the pandemic that some clients found phone contact to be insufficient. While clinicians were also meeting with clients outdoors (e.g., on busy urban sidewalks) while wearing N-95 masks and face shields for short fifteen-minute appointments, clients were often unable to remain masked due to existing cognitive or behavioral issues and the encounters were not therapeutic or private. As such, Citywide developed a new appointment type called "Para-Telehealth."

Through "Para-Telehealth," Citywide reopened its physical clinic site using video-based technology to connect providers and clients who sat in separate interview rooms. This hybrid model allowed lengthier sessions without the barriers of personal protective equipment, while ensuring a safer interaction from COVID-19 transmission. To train staff on how to conduct "Para-Telehealth" visits in a safe and effective manner, Citywide developed a "Para-Telehealth" video tutorial, protocol, and online walkthrough. The "Para-Telehealth" appointment modality has been extended to conduct CBT groups, allowing the inclusion of clients with technological limitations, whether it be due to equipment, connectivity, or literacy.

Findings and Outcomes

During the early part of the COVID-19 pandemic (April 2020), Citywide conducted two clinician-facing surveys to characterize clients' access to technology, their ability to retain these devices, and the impact of distributing flip-phones to them. Citywide observed the following results:

- Citywide's purchase and distribution of 250 flip-phones to clients increased cellular telephonic access to clients by nearly 40 percent.
- More than 50 percent of clients used the donor phones to contact other healthcare providers, and approximately 66 percent of clients used the donated phones to contact their support systems.
- Citywide was able to reach a client through one of the donated flip-phones the day after he experienced an overdose on fentanyl. Case managers were able to speak with the client, coach him on accessing Narcan, and enroll him

in a Substance Treatment Outpatient Program (STOP) group at Citywide.

- Citywide was able to notify a client of his exposure to COVID-19 via the donated phone. Contact tracers were unable to locate the client since they did not have a number on record for him, so they contacted Citywide case managers who were able to notify the client using the donated phone.

Lessons Learned

- **The pandemic has reinforced the importance of an individual approach to treatment for engaging some of the hardest to reach populations in care.** Citywide uses a client-centered approach with treatment plans tailored to each client. This approach of meeting clients "where they are," both physically and in therapeutic orientation, is critical to engaging those who carry significant societal trauma (e.g., from institutionalization, racism, poverty) and are thus hesitant to engage in care.
- **Sustainable telehealth requires an assessment of client's technology context.** Distributing phones to clients at the beginning of the pandemic was an effective way to initially maintain contact with clients. However, phone attrition was significant over time due to factors such as the utility of the phones (e.g., some clients did not know how to use the phones), challenges to maintain data or operate the phones (e.g., difficulty keeping phones charged while experiencing homelessness), lack of motivation to keep the phones, and theft. Additional challenges included client interest and ability to maintain equipment and connectivity, existing physical and behavioral challenges, and baseline literacy. Knowing these factors allowed staff to match clients to the right equipment and connectivity plan.
- **Clients need additional assistance to succeed in telehealth, telehealth needs to be adapted for clients, and telehealth may not work for all clients.** Citywide clients require assistance in setting up technology and using it. Since clients have difficulty using and maintaining possession of phones and other technology (e.g., laptops, computers), Citywide staff used a contingency management approach to provide incentives to clients to not lose them. Also, clients need reliable Wi-Fi access, as the cell phone data plans alone were insufficient for video-based telehealth sessions. However, access to technology does not replace the need for in-person services. By providing "Para-Telehealth," Citywide can reach clients who do not have technology tools while also providing technology literacy training. Additionally, Citywide found that some clients with psychosis felt more suspicious of video sessions with clinicians.
- **Programs need additional resources to create a telehealth program.** Though COVID-19 has forced programs to implement telehealth-delivered services, a sustainable telehealth program is a new service type, not a temporary adaptation or addition to an existing program. As such, additional resources are needed to not only purchase the equipment and data plans, but also build the administrative capacity to operationalize every aspect of the new program (e.g., negotiating the appropriate data plan, creating dashboards for continuous improvement). Clinicians benefit from training on how to conduct telehealth sessions and how to best engage clients using technology. Programs can employ a technical peer navigator to assess clients' technological needs, enhance technology literacy with in-home assessment of connectivity, and provide individual or group-based technology training.
- **Technology equity is a social justice issue.** As telehealth technology becomes more prominent in health care, disparities in technology access and literacy among clients with SMI will widen existing health disparities. Therefore, technology access and literacy are social determinants of health to be included in treatment plans. In addition, prioritizing this issue will not only improve health but also social supports and conditions. Comfort and ability to participate in technology is fundamental to maintaining connections, obtaining and maintaining a job, and accessing basic needs. These broaden its benefits for the client.

THE REACH PROJECT, INC.

Ithaca, NY

The REACH (Respectful, Equitable Access to Compassionate Healthcare) Project, Inc., is a harm reduction focused clinic in Ithaca, NY that provides low-threshold access to care, including SUD treatment. Started in 2018, the clinic uses a health equity framework to guide service access, delivery, and treatment. Medication-assisted treatment (MAT) is the core SUD treatment. In addition to MAT, REACH offers a holistic, integrated primary care model, including HIV screening and treatment, Pre-Exposure Prophylaxis (PrEP) and Post-Exposure Prophylaxis (PEP), viral hepatitis testing and treatment, and mental health treatment.

The clinic uses a chronic disease management model of care, in which a medical provider prescribes MAT and conducts follow-up, while a community health worker and social workers provide additional case management and referral services. The clinic also offers case management services through partnerships with two community-based organizations who conduct outreach and engagement with individuals experiencing homelessness and other needs related to social determinants of health.

REACH uses a team-based, non-hierarchal model, which involves collaborative teams of medical providers, social workers, and administrative staff to engage with and care for clients.

In March 2020, in response to the COVID-19 pandemic, REACH shifted its programming entirely from in-person services to telehealth-delivered treatment. Regulatory changes, such as the ability to initiate buprenorphine without an in-person visit, allowed REACH to use telehealth to provide MAT to their clients.

Providers now conduct visits virtually, via audio-video technology on tablets, computers, and smartphones. Some of REACH's clients are rural and do not have access to broadband, so the clinic also conducts telehealth visits via landline phone. Besides computer and landline phone, REACH is also able to communicate with clients via text, using a HIPAA-compliant platform with a text messaging component. As COVID-19 restrictions have lifted, some in-office care has resumed.

Harm-reduction healthcare clinic in rural upstate New York that provides medication-assisted treatment (MAT) to people with substance use disorder (SUD).

Treatment Offered

Medication-Assisted Treatment (MAT), Primary Care, and Case Management

Population of Focus

People with SUD, co-occurring mental disorders, and other complex needs

Related Resources

- Project website
- A Harm Reduction Approach to Treating Opioid Use Disorder in an Independent Primary Care Practice: A Qualitative Study
- Telemedicine Increases Access to Buprenorphine Initiation During the COVID-19 Pandemic

Client Population

REACH serves several rural and urban communities across 32 counties in upstate New York. Over 90 percent of clients experience SUD. About 75 percent of REACH's clients are White, though a major focus of REACH has been engaging BIPOC populations in care. The clinic estimates its BIPOC clients are overrepresented at the clinic relative to the local population as a whole. Most REACH clients have low income, with approximately 80 percent being Medicaid recipients. REACH also conducts outreach to homeless encampments and homeless shelters to provide healthcare services to individuals experiencing housing instability.

Form(s) of Telehealth

REACH uses synchronous forms of telehealth, including phone (cellphone or landline) and video calls between clients and providers. REACH uses asynchronous secure text messaging and messaging through the electronic medical record system to complement synchronous connections.

REACH uses a telehealth platform that does not require clients to have an email address; instead, providers were able to send clients invitations to the platform via text message. This ultimately reduces barriers for REACH's clients, who might lack email addresses or consistent access to email. All staff are able to share their virtual "waiting rooms" with each other, so there is a seamless transition for the client if they are seeing multiple providers during one encounter. For example, a client meeting with a physician virtually for buprenorphine follow-up can remain on the line and be immediately connected to a social worker for further services.

Services Offered Through Telehealth Modalities

The COVID-19 pandemic was the catalyst for REACH to provide telehealth-delivered services, and telehealth is used across the offered services.

Preparing to Participate in Telehealth:

REACH has administrative staffers (mainly front desk staff), whom the clinic calls "guardians," as key team members who often develop trusting relationships with the clients. In addition to acting as a primary engager, the guardian is also able to provide technical assistance to both clients and providers if there are problems with the telehealth software or equipment.

MAT Treatment Initiation, Stabilization, and Wrap-Around Services:

At the time of the appointment, the guardian will send the videoconferencing link to the client and provider to join. If the clinician cannot get in touch with the client, the guardian on the care team is notified. The guardian provides outreach to reduce the likelihood the client is reengaged in services.

Treatment initiation and medication monitoring appointments for telehealth follow the same steps that are taken for in-person visits (for example, nurses conduct initial screening and information gathering). Urine drug screens are not routinely done; prior to COVID-19, urine screens were done upon initiation to buprenorphine and afterwards at the provider's discretion.

Treatment stabilization (i.e., follow-up appointments with providers once a client has initiated MAT) is done by medical providers, and the timing of these visits varies by clients' individual needs. Typically, newer clients check-in with a medical provider via a real-time, synchronous video connection every one to two weeks, while a client who is further stabilized on the medication will check in every 4 to 12 weeks.

Additional services, including case management, recovery coaching, and support groups, are voluntary, and a client's access to MAT is not linked to their willingness to receive additional services. If a client has needs related to mental health treatment or social determinants of health (e.g., income or housing supports), REACH tries to engage them and link them to the needed services. A visit with a social worker or community health worker can be made at the same time as a check-in with a medical provider, thus providing a handoff to non-medical services for further engagement.

Findings and Outcomes

Client engagement in care decreased at the start of the COVID-19 pandemic, signaling the need to expand methods for service delivery. When REACH expanded its offerings via telehealth modalities in March 2020, client engagement in telehealth appointments steadily increased. By shifting to telehealth, REACH initiated 407 new clients on MAT and has continued to provide necessary healthcare services to people with SUD. The clinic reports high client satisfaction with telehealth, as it increases access to individuals who would otherwise be unable to attend the clinic in-person, whether due to work demands, transportation difficulties, or the stigma of seeking support for substance use.

Lessons Learned

- **Telehealth responds to the changing landscape of care for mental illness and SUD.** Prior to the pandemic, REACH adapted to clients' varied and evolving needs; thus, flexibility is a large part of the clinic's foundation. In the switch to telehealth, REACH relied on its strong commitment to avoiding any interruption of care to their clients, who depend on access to care. Sudden shutdowns of in-person care during COVID-19 required the program to transition quickly to providing telehealth; therefore, services were not implemented in planned stages. Some clinicians initially stopped providing services but transitioned to telehealth as they were brought back on board to see patients. Eventually all providers were able to switch to telehealth.
- **Telehealth responds to changing client needs.** REACH's model emphasizes providing real-time services for clients at the moment they express need. Using telehealth to deliver care has allowed REACH to continue to provide low-threshold, accessible services to clients throughout New York State despite COVID-19 pandemic restrictions.
- **Communication channels are key to providing effective care.** A core component of REACH's care model is being easily reachable and accessible to clients by providing multiple modes of communication. Telehealth has been central to expanding mechanisms for continuous communication between client and provider.
- **Supporting providers is key to successfully implementing telehealth.** REACH built off its existing commitment to professional development and team collaboration by providing specific trainings on adapting to changing technology. The trainings were led by REACH's Director of Operations, who serves as the clinic's IT point-person and technical support. The Director of Operations was available in real time to troubleshoot as front desk staff (guardians) and providers (both medical and non-medical) switched to telehealth. Through this process, the guardians learned to support providers and clients with technology needs during telehealth appointments.
- **Diverse funding sources can support telehealth implementation.** A large portion of telehealth equipment needs were covered by community partner Care Compass Network, and REACH provided additional funds. Diverse funding sources helped to facilitate implementation and will support long-term sustainability.

"It is not about how do you [as a provider] reach your clients, but how do your clients reach you."

Judy Griffin, MD
Director of Research and Physician, REACH

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CHAPTER

5

Resources for Evaluation and Quality Improvement

Evaluating an intervention can answer critical questions about how well a practice has been implemented and determine what may or may not be working. Evaluation can also show how clients benefit from a practice. This information can be helpful in making practice adjustments, if necessary, and demonstrating the value of a practice or program to justify its continuation and secure additional funding. In addition, stakeholders can use information gathered through evaluation to encourage implementation of that practice in other settings or communities.

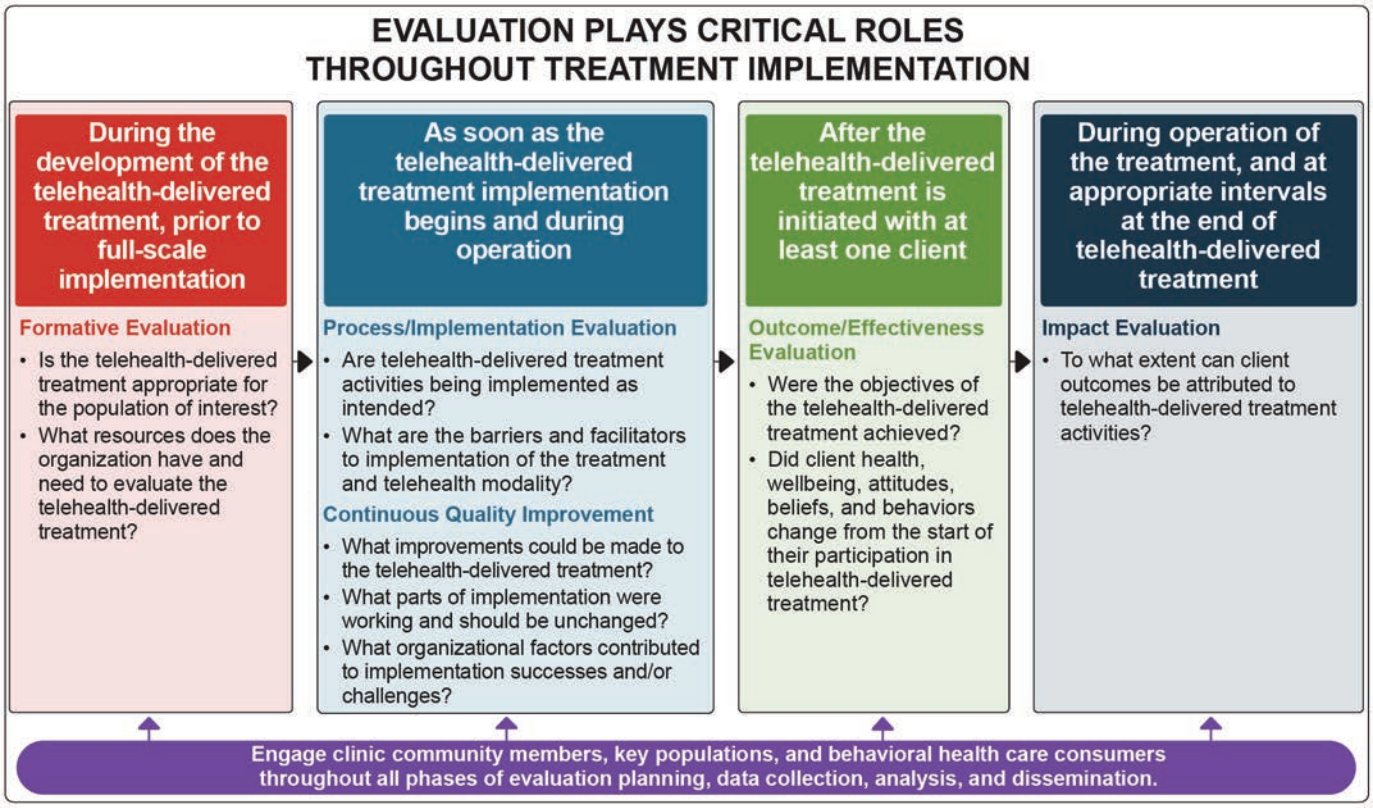
This chapter provides an overview of approaches to evaluate implementation of and results from treatments for clients with serious mental illness (SMI) and substance use disorder (SUD) delivered using telehealth modalities. People with SMI and SUD have often been excluded from telehealth research studies, but, as demonstrated in Chapters 1 through 4 of this guide, telehealth is effective for people with SMI and SUD.

To evaluate telehealth-delivered practices and programs, both the treatment (e.g., cognitive behavioral therapy) and the modality (e.g., synchronous telehealth videoconference) need to be evaluated. Ideally, patients would see a reduction in symptomology because of the practice, and a high level of retention, acceptability, or satisfaction with the modality. Additionally, both treatment providers and clients should be engaged in the generation of evaluation tools and plans to ensure data collection tools are appropriate for the evaluated communities and to secure buy-in. Reporting findings back to providers and clients should be prioritized to promote transparency and inform care choices.

This chapter focuses on evaluation strategies for treatments offered via telehealth modalities discussed in Chapter 2. The chapter also includes information on implementing a continuous quality improvement (CQI) process and an outcome-focused evaluation. Further, it provides specific evaluation resources, including potential outcomes to track.

Types of Evaluations

Researchers typically conduct evaluation before a treatment is implemented to determine its feasibility (***formative evaluation***), during implementation (***process evaluation*** and ***CQI***), and after the treatment has been delivered to at least one client (***outcome and impact evaluations***). All four types of evaluation are necessary to assess a treatment's effectiveness.



Preparing to Collect Data

The following steps can help clinics and practitioners prepare to collect and analyze data:

1. **Determine if the purpose of the data collection is evaluation or research.**

   Qualitative and quantitative evaluation and research enable managers and clinicians to learn from clients and obtain the perspective of those with lived experiences. Both evaluation and research can also involve collecting data from staff who deliver the treatment via telehealth to obtain their perspectives on facilitators and challenges to telehealth implementation.

   Where program evaluation supports program improvement, research systematically follows study protocols to develop generalizable knowledge. Research requires protocol and procedure approval by an Institutional Review Board (IRB) to adhere to human subject research protections. Most evaluations and quality improvement projects do not require IRB approval, but researchers should consult with their institutions during evaluation design to ensure they are following appropriate data collection procedures.

Qualitative and quantitative data are complementary. Each provides critical insight into if and how the intervention is operating and achieving the intended objectives.

Qualitative data include any non-numeric, text-based information, such as verbal, visual, or written data. Qualitative data collection methods include interviews, focus groups, clinical observations, gathering data from documents and images, and open-ended survey questions and polling responses.

Quantitative data are any numeric data that can be processed by mathematical or statistical analysis. Quantitative data collection includes close-ended survey questions and polling responses, services and utilization data, and claims and encounter data

2. **Determine outcomes of interest.**

   A challenging step in the process of implementing new practices is to determine whether they have yielded desired outcomes. An outcome is the change a program plans to accomplish through the implementation of a practice. Evaluations exist across a continuum,

from tracking staff activities, numbers, client no-shows, and payments to conducting client satisfaction surveys to comparing results between clients receiving different treatment options. Engage stakeholders (within the clinic and the community) to identify both appropriate outcomes and the metrics used to assess outcomes.

3. **Identify team members to conduct evaluation activities and capacity to conduct evaluations.**

   Regardless of the type of evaluation conducted, collecting and analyzing data takes time. Programs need to identify team members who can conduct evaluation activities and secure funding for evaluation trainings, data collection, and data analysis.

Conducting Continuous Quality Improvement

Treatment of SMI and SUD using telehealth modalities may be new to an organization, and the landscape of telehealth and treatment is continually evolving. Continuous Quality Improvement (CQI) can be used to systematically identify, document, and analyze barriers and facilitators to implementation for the purposes of improving implementation.

CONTINUOUS QUALITY IMPROVEMENT (CQI)

What is CQI?

CQI involves a systematic process of assessing program or practice implementation and short-term outcomes and then involving program staff in identifying and implementing improvements in service delivery and organizational systems to achieve better treatment outcomes. CQI helps assess practice fidelity, the degree to which a program delivers a practice as intended. There are many potential CQI models and approaches (e.g., https://www.healthit.gov/faq/what-are-leading-continuous-quality-improvement-strategies-health-care-settings).

CQI differs from process evaluation in that it involves quick assessments of program performance, timely identification of problems and potential solutions, and implementation of small improvements to enhance treatment quality. CQI is usually conducted by internal staff. Process evaluation involves longer-term assessments and is best conducted by an external evaluator.

The Network for Improvement of Addiction Treatment (NIATx), a project originally funded by SAMHSA's Center for Substance Abuse Treatment, offers tools to conduct CQI and improve services in substance use disorder treatment settings. NIATx is based on the principle of program improvement through a series of small changes, tested and implemented one at a time, that in the end have a cumulative effect.

The Institute for Healthcare Improvement's PDSA Model for Improvement identifies a scientific method for testing small-scale changes in an action-oriented, cyclical manner. The stages are: planning it (Plan), trying it (Do), observing the results (Study), and acting on what is learned (Act).

Why use CQI?

CQI takes a broader look at the systems in which programs or practices operate. Because of the pivotal role it plays in performance management, organizations implementing telehealth-delivered services with people experiencing SMI and/or SUD are encouraged to implement CQI procedures.

What are the steps involved in CQI?

Although steps in the CQI process may vary based on objectives, typical CQI steps include:

- Identify a program or practice issue needing improvement and a target improvement goal
- Analyze the issue and its root causes
- Develop an action plan to correct the root causes of the problem, including specific actions to be taken
- Implement the actions in the action plan
- Review the results to confirm that the issue and its root causes have been addressed and short-term and long-term treatment outcomes have improved
- Repeat these steps to identify and address other issues as they arise

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Outcome Evaluations

The table below provides a list of potential outcomes, illustrative outcome indicators, and qualitative and quantitative data sources that program managers, clinicians, and others may use to evaluate practices identified in Chapter 2.

In Chapter 1, we introduced the Quadruple Aim Framework, which examines the impact of interventions with the goal of improving patient experience, improving provider experience, improving population health, and decreasing costs.[1] Using the Quadruple Aim Framework, we identified specific outcomes, illustrative indicators, and illustrative data sources.

Patient health outcomes may be tracked at baseline and throughout the program duration through standardized screening, or through interviews with staff and clients. Telehealth-related patient outcomes, such as engagement and retention in telehealth, or therapeutic alliance may be obtained through administrative data, surveys, or interviews. Provider outcomes may be captured through surveys or interviews. Population health outcomes may be tracked through administrative data and interviews. Finally, cost-related outcomes can be captured through administrative data.

Outcome	Illustrative Indicators	Illustrative Data Sources
Client Experience		
Clinical Outcomes		
Reduction in Depression Symptoms	• Days of symptoms in the prior 30 days • Severity of symptoms	• Structured scales and assessments (e.g., Beck Depression Inventory – 2nd Edition, Geriatric Depression Scale, Structured Clinical Interview for DSM-IV (MDD module), Hamilton Depression Rating Scale, Center for Epidemiological Studies - Depression Scale, Patient Health Questionnaire-9 (PHQ-9))
Reduction in PTSD Symptoms	• Days of symptoms in the prior 30 days • Severity of symptoms	• Medical records • Structured scales and assessments (e.g., PTSD Checklist - Specific (PCL-S), Clinician-Administered PTSD Scale (CAPS), PTSD Symptom Scale – Interview (PSS-I))
Reduction in Anxiety Symptoms	• Days of symptoms in the prior 30 days • Severity of symptoms	• Medical records • Structured scales and assessments (e.g., Beck Anxiety Inventory, Four Dimensional Anxiety Scale)
Substance Use Disorder	• Substance use • Days of substance use in the prior 30 days	• Qualitative interviews (client) • Urine drug screen • Structured scales and assessments (e.g., SCID-I/P Substance Use Disorder)
Client Experience with Telehealth		
Engagement and Retention in Telehealth Care	• Number of sessions attended • Completed therapeutic treatment	• Qualitative interviews (staff and clients) • Administrative data • Intake/enrollment data
Client Satisfaction	• Access to care • Acceptability of care • Self-efficacy	• Qualitative interviews (clients) • Structured scales and assessments (e.g., Client Satisfaction Questionnaire, Satisfaction with Therapy and Therapist Scale, Telehealth Usability Questionnaire, Telemedicine Satisfaction and Acceptance Scale, Helping Alliance Questionnaire II)
Therapeutic Alliance (Client)	• Client relationship with provider • Emotional safety	• Qualitative interviews (clients) • Structured scales and assessments (e.g., Working Alliance Inventory short form)

Outcome	Illustrative Indicators	Illustrative Data Sources
Provider Experience		
Provider Satisfaction	• Lack of burnout • Well-being at work	• Qualitative interviews (providers) • Structured scales and assessments (e.g., Telehealth Usability Questionnaire)
Therapeutic Alliance (Provider)	• Client relationship with provider • Emotional safety	• Qualitative interviews (providers) • Structured scales and assessments (e.g., Working Alliance Inventory short form)
Clinician Well-being	• Lack of burnout • Well-being at work	• Structured scales and assessments (The Mayo Clinic's Wellbeing Index, Mini-Z Survey)
Population Health		
Access	• Number of people using telehealth	• Administrative data • Intake/enrollment data • Qualitative interviews (clients)
Equity	• Percentage of clinical encounters delivered via telehealth in communities with low and high income, with different races and ethnicities, and across zip codes	• Administrative data
Costs		
Cost	• Patient miles saved • Cost per visit • Cost of technology/use/ upkeep	• Administrative data • Qualitative interviews (clients and staff)

Evaluation Resources

Evaluating Program Implementation

- A Framework for Program Evaluation, from the Program Performance and Evaluation Office at the Centers for Disease Control and Prevention, summarizes essential elements of program evaluation.
- The Community Toolbox, from the Center for Community Health and Development at the University of Kansas, includes a step-by-step guide to developing an evaluation of a community program, specific tools, and examples.

Evaluating Program Sustainability

- Center for Public Health Systems Science at the Brown School at the Washington University in St. Louis has developed a Program Sustainability Assessment Tool (PSAT) and a Clinical Sustainability Assessment Tool (CSAT) to measure progress towards sustaining new implementation efforts.

Quality Improvement and Continuous Performance Monitoring

- Institute for Healthcare Improvement's Quality Improvement Essentials Toolkit includes the tools and templates to launch a quality improvement project and manage performance improvement.

Evaluating Practices Using Telehealth for SMI, SUD, and COD

- The American Medical Association developed a Telehealth Implementation Playbook that includes tools for planning, implementation, evaluation, and scaling.
- Rural Health Information Hub (RHIhub) has created specific Evidence-Based Toolkits for Rural Community Health for evaluating Mental Health, Substance Use, and Telehealth interventions (that can be broadly applied to both rural and non-rural settings).

Reference List

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Appendix 1: Acknowledgments

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Appendix 2: Evidence Review Methodology

The authors followed a rigorous, systematic evidence review process in the development of this guide. This appendix provides an overview of the evidence review methodology used to identify the ratings for the treatments included in the guide: behavioral therapies (Behavioral Activation Therapy, Cognitive Behavioral Therapy, Cognitive Processing Therapy, Prolonged Exposure Therapy) and Medication-Assisted Treatment.

*Note: behavioral therapies and medication-assisted treatment are referred to as **treatments** throughout this appendix.*

Reviewers, in coordination with SAMHSA and experts, conducted a four-step process to select treatments, identify related studies, review and rate studies, and identify treatment ratings.

Step 1: Treatment Selection

The authors identified these treatments after a review of the literature and in consultation with experts. In an effort to include treatments offered through synchronous telehealth modalities that are most useful to addressing the needs of people living with SMI and/or SUD, eligible treatments were required to meet the following criteria for evidence review:

- Be clearly defined and replicable
- Address the target outcome of improving health outcomes for people living with SMI and SUD through telehealth modalities
- Be currently implemented in the field
- Have studies of their effectiveness
- Have accessible implementation and fidelity supports

At the conclusion of this step, SAMHSA and the guide's Expert Panel reviewed the proposed programs identified by the authors and agreed on four behavioral therapies and medication-assisted treatment for inclusion in the evidence review and rating process.

Step 2: Study **Identification**

Once the treatments were identified, the reviewers conducted a comprehensive review of published research on these treatments to identify relevant studies. This review only included studies from eligible sources (i.e., peer reviewed journals and government reports) that avoid clear conflicts of interest. The reviewers documented all potential studies identified through the literature search.

The studies identified in the literature search varied in type and rigor, so the reviewers assessed them further for inclusion in the evidence review. To be eligible for review and study rating, research studies had to:

- Employ a randomized or quasi-experimental design, or
- Be a single sample pre-post design or an epidemiological study with a strong counterfactual (i.e., a study that analyzes what would have happened in the absence of the intervention)

Literature reviews, descriptive articles, implementation studies, and meta-analyses were not included in the review, but were documented to provide context and identify implementation supports for the treatments.

Additionally, to be eligible for further review and rating, studies had to:

- Be published or prepared in or after 2010
- Be available publicly as a peer-reviewed or research report
- Be available in English
- Include at least one eligible outcome related to improvements in health outcomes for people living with SMI and/or SUD
- Have a comparison/control group that is treatment as usual or no/minimal intervention if using a randomized experimental or a quasi-experimental design

In some studies of telehealth treatments, the comparison/control group was not treatment as usual nor minimal/no intervention; rather, the design compared the telehealth approach to the same treatment delivered in-person. In these cases, these non-inferiority studies tested whether administering the treatment using a telehealth modality leads to outcomes that are ***comparable, or no worse***, than in-person treatment (which is known to be evidence-based).

Step 3: Study Review and Rating

Next, trained reviewers assessed each study to ensure the methodology was rigorous, and, therefore, could demonstrate causation between the treatment and the identified outcomes. Reviewers analyzed and documented each study to ensure:

1. Experimental and comparison groups were statistically equivalent, with the only difference being that participants in the experimental group received the intervention and those in the comparison group received treatment as usual or no/minimal intervention.
2. For randomized experiments with high attrition and for quasi-experimental designs, baseline equivalence was established between the treatment and comparison groups.
3. For randomized experiments, randomization was not compromised. For example, ensuring reassignment of treatment status (usually made to balance the distribution of background variables between treatment and control groups) did not occur.
4. Study did not have any confounding factors (i.e., those that affect the outcome but are not accounted for by the study).
5. Missing data were addressed appropriately, including:
   - Imputation based on surrounding cases was considered valid.
   - Complete case analysis was considered valid and accounted for as attrition.
   - Using model with dummy for missing as a covariate was considered valid.
   - Assuming all missing data points are either positive or negative was not considered valid.
   - Regression-based imputation was considered valid and mean imputation was not considered valid.
6. Outcome measures were reliable, valid, and collected consistently from all participants.
7. Valid statistical models were used to estimate impacts.
8. Treatment demonstrated improved outcomes related to SMI and/or SUD.

Based on the study design and these study characteristics, reviewers **gave each *study* a rating** for causal impact. Reviewers used the following scoring metric for each study based on the eight factors above:

- High support of causal evidence
- Moderate support of causal evidence
- Low support of causal evidence

Only randomized controlled trials, quasi-experimental designs, and epidemiological studies with a strong comparison were eligible to receive a high or moderate study rating.

Step 4: Treatment Rating

After all studies for a treatment were assessed for these criteria, the reviewers **gave each *treatment* a rating** based on the number of studies with strong, moderate, or emerging support of causal impact. Causal impact is evidence demonstrating that an intervention causes, or is responsible for, the outcome measured in the study's sample population.

The treatment was placed into one of the following categories based on the level of causal evidence of its studies:

1. **Strong Evidence**: Causal impact demonstrated by at least ***two*** randomized controlled trials, quasi-experimental designs, or epidemiological studies with a high or moderate rating.
2. **Moderate Evidence**: Causal impact demonstrated by at least ***one*** randomized controlled trial, quasi-experimental design, or epidemiological study with a high or moderate rating.

3. **Emerging Evidence**: No study received a high or a moderate rating. The treatment may have been evaluated with less rigorous studies (e.g., pre-post designs) that demonstrate an association between the treatment and positive outcomes, but additional studies are needed to establish causal impact.

The four-step process described above resulted in the identification and rating of four behavioral therapies and medication-assisted treatment, each provided to study samples using telehealth modalities. The rating given to each treatment is intended to inform decision making about adoption of new telehealth modalities that will improve outcomes for people with SMI and/or SUD.

Substance Abuse and Mental Health Services Administration (SAMHSA). Telehealth for the Treatment of Serious Mental Illness and Substance Use Disorders. SAMHSA Publication No. PEP21-06-02-001 Rockville, MD: National Mental Health and Substance Use Policy Laboratory. Substance Abuse and Mental Health Services Administration, 2021.

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