Washington State

Telehealth Implementation Guidebook

Washington State
Department of Social & Health Services

Transforming lives

This guidebook was written and prepared by:

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1. Introduction

1.1 Purpose of the Guidebook

The purpose of this guidebook is to provide the Department of Social and Health Services (DSHS) and other state agencies in Washington with telehealth implementation guidance (i.e., policy, technical requirements, and clinical best-practices). This resource is intended for administrative, technical, and professional staff across healthcare and support service disciplines.

The guidebook primarily focuses on videoconferencing-based behavioral health services but also includes general information applicable to medical telehealth applications. This guidebook is informed by national guidelines (e.g., those published by the American Telemedicine Association) and the current best-practices literature. The guidebook, while providing an overview of key steps and requirements, does not address all of the required steps or recommendations in detail. Review of the aforementioned resources as well as applicable laws, policies, and ethical guidelines are recommended.

1.2 Benefits of Telehealth

Telehealth is a rapidly expanding mode of health care service delivery in the United States including here in Washington. Telehealth capabilities, such as videoconferencing, can expand the reach of services and improve efficiency of healthcare and related support services by shortening delays in services and eliminating or reducing travel time and associated costs. Telehealth-based services can be particularly beneficial for clients/patients that live in geographically remote or underserved areas, including urban areas.

According to the Health Resources and Services Administration (2014), approximately 80 million Americans live in a health professional shortage area (HPSA). Service access gaps have persevered or worsened in many rural communities nationwide due to weakening economies and higher rates of poverty, as well as delays to treatment and limited transportation options (Luxton, Nelson & Maheu, 2016). Telehealth can play an important role in meeting service gaps in Washington communities by facilitating integrated care of physical and behavioral health across the continuum of care.

Examples of specific benefits of telehealth that are relevant to state agencies here in Washington include:

- Telehealth-based consults at the State hospitals that improve the efficiency of discharge to the community
- Triage consults and in-jail competency evaluations that reduce competency evaluation or treatment wait-time for defendants
- Videoconferencing visitation between children and parents who are receiving support services
- Provider-to-provider videoconferencing consultation services
- Supporting continuity of services following natural disasters or other disruptions to services

While telehealth may help to reduce the costs of care, a possible downside is the initial cost of service set-up and sustainment. Costs include telehealth equipment (e.g., hardware and software), network access, technical installation and support, and sometimes configuration of telehealth room space. The need for technical training for staff, as well as onsite telehealth coordinators, are other costs. All of these costs must be evaluated during the planning phase and weighed against the potential cost savings afforded by telehealth services.

1.3 Definitions

1.3.1 Telehealth/Telemedicine

The U.S. Department of Health and Human Services Health Resources and Services Administration defines telehealth as "the use of electronic information and telecommunication technologies to support long-distance clinical health care, patient and professional health-related education, public health and health administration."

There are in fact many terms used to describe health-related services delivered via telecommunications technology. The term that is used may have to do with the specific type of service provided (e.g., telepharmacy, teledermatology, telerehabilitation) and/or the name adopted by the profession (e.g., telepsychiatry, telepsychology, teledentistry). Examples of other related terms are eHealth and health informatics.

For the purposes of this guidebook, the term "telehealth" is used instead of alternative terms such as "telemedicine" because the term better represents diverse health related services including behavioral health, substance use treatment, counseling, medicine, and more.

1.3.2 Originating Site

The term "originating site" refers to the location of the person(s) other than where the provider is located. See the Settings section of this manual for examples of originating sites.

1.3.3 Distant Site

A distant site is the physical location of the health care professional providing the health care service.

1.3.4 Synchronous vs. Asynchronous

Synchronous communications refers two two-way real-time communications, such as traditional video-teleconferences and telephone.

Asynchronous communications refer to one-way at a time communication, such as fax, email, SMS texting, or the electronic transfer of digital image.

1.3.5 Store-and-forward

Store-and-forward refers to the asynchronous transmission (one-way at a time) of clinical information from one site (e.g., a patient's home) to another site (e.g., a clinic). Examples of store-and-forward technologies include fax and email.
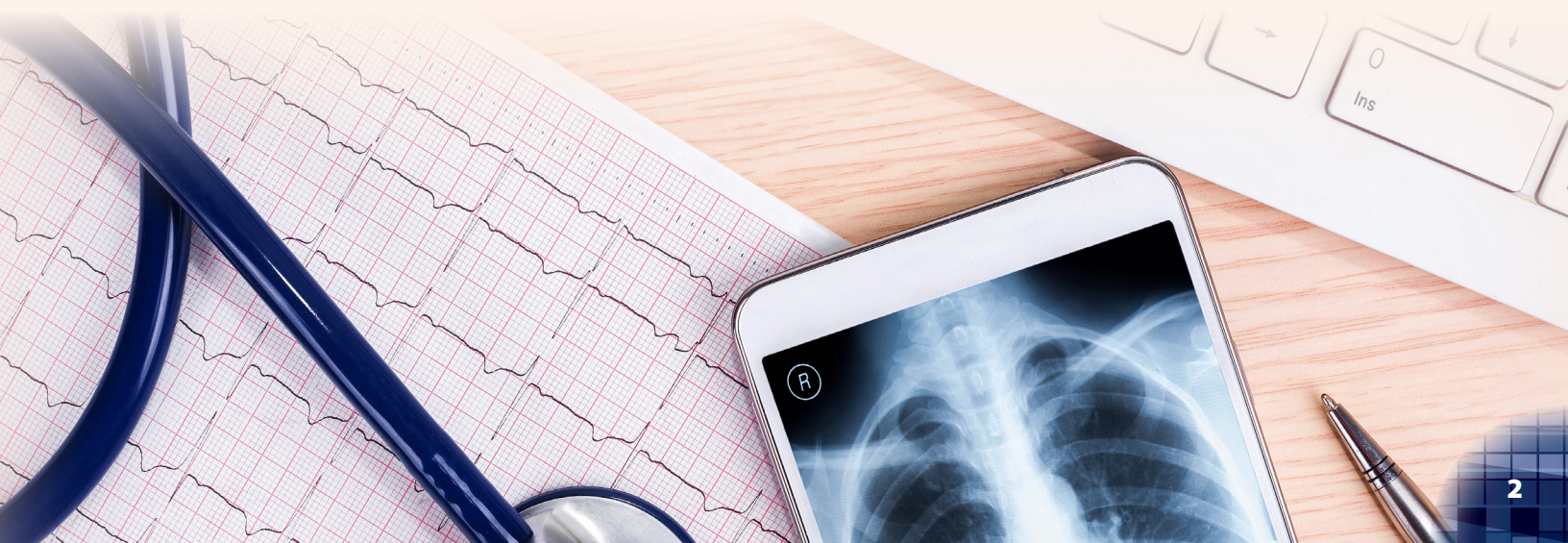
2. Applications

2.1 Clinical vs. Nonclinical

Telehealth applications are typically divided into two broad categories: clinical versus non-clinical.

Clinical applications include:

- Clinical treatments (medical, behavioral health, etc.)
- Clinical assessments and testing, including interpretation of results, and treatment recommendations
- Transmission of health data/assessment data (i.e., remote monitoring)
- Clinical consultation with other professionals
- Case management with interdisciplinary teams
- Clinical supervision of professional supervisees and trainees

Non-clinical applications include:

- Training (distance learning, continuing education, etc.)
- Administrative collaboration between providers, such as meetings and presentations
- Research and quality improvement activities

2.2 Settings

Telehealth can be used in just about any setting as long as the technology is available (network connectivity and necessary hardware) and that applicable legal and policy requirements are met (see the Law, Policy, and Ethics Requirement Review section of this guidebook). Approved originating sites in the State of Washington are (see WAC 182-531-1730):

- Clinics
- Community mental health/chemical dependency settings
- Dental offices
- Federally qualified health centers
- Home or any location determined appropriate by the individual receiving the service
- Hospitals - Inpatient and outpatient
- Neurodevelopmental centers
- Physician or other health professional's office
- Rural health clinics
- Schools
- Skilled nursing facilities

Telehealth-based services can also be combined with in-person services. For example, a psychiatrist may initially visit with a patient in her/his office then continue with follow-up care via video-conferencing.

See the Telehealth Service Setup section for more information about service set-up in various settings.

3. Needs and Readiness Assessment

A formal needs and readiness assessment is a logical first step in determining the need for telehealth services. The Department of Social and Health Services (DSHS) Telehealth Implementation Workgroup was chartered in 2016 to conduct a comprehensive system-wide telehealth needs and readiness assessment in order to inform decisions on how to proceed with telehealth implementation within DSHS administrations. The results of the 2016 assessment showed examples of successful telehealth implementation in specialized applications in six of DSHS's administrations as well as opportunities to address current and future service gaps.

A basic needs and readiness assessment may include: the evaluation of current telehealth services, capabilities, demand for services, and service gaps (unmet service needs that could be addressed by telehealth capabilities) as well as review of regulatory requirements, policies, reimbursement processes, stakeholder impact (e.g., community partners) and standardized data collection needs. For more information on needs and readiness assessments, see DeGaetano and Shore (2015). The Telehealth Resource Centers also provide excellent information (http://www.telehealthresourcecenter.org/toolbox-module/getting-started).

4. Law, Policy, and Ethics Requirements Review

4.1 Legal Requirements

It is important to become familiar with applicable federal and state law as well as your agency's local policies regarding telehealth. As noted earlier, WAC 182-531-1730 provides general guidance of what services are covered and what constitutes the originating site and distant site. However, your agency may limit telehealth to only certain approved locations and services. It is the professional's and agency's responsibility to adhere to all applicable mandates and best practices, regardless of the technology that is used (Luxton, Nelson & Maheu, 2016).

The American Telemedicine Association's State Telemedicine Policy Center (available at http://www. americantelemed.org/) provides more information concerning laws associated with telehealth. The American Psychological Association's (2013b) Telepsychology 50-State Review and the Federation of State Medical Board's (2013) Telemedicine Overview: Board-by-Board Approach are also useful resources.

4.2 Licensure Requirements

Health care professionals who use telehealth must adhere to the requirements and restrictions of their applicable licensure. This requires consideration of scope of practice specific to their license, as well as training and experience (Luxton, Nelson, & Maheu, 2016). Providers must also follow requirements when providing services across different jurisdictions (e.g., State lines). In Washington State, licensure, as well as some professional certifications, is regulated by the Department of Health (www.doh.wa.gov).

NOTE: Several federal government agencies (e.g., U.S. Department of Defense, Department of Veterans Affairs, Indian Health Services,) allow some categories of health care providers that are licensed in one U.S. state to practice in any state within their federal duties, and, in the case of the military, across international borders (Kramer, Mishkind, Luxton, & Shore, 2013).

4.3 Privacy and Data Security

Health Insurance Portability and Accountability Act (HIPAA) compliance is required when electronic health data is transmitted and stored by a HIPAA covered entity. It is therefore a necessity to assure that the telehealth equipment, software, and network infrastructure meets HIPAA requirements. Even when videoconferencing software may meet basic encryption requirements, it does not mean that the software is HIPAA compliant. See the Technologies Overview section for more information on applicable technologies.

A Business Associate Agreement (BAA) is a contract between a HIPAA-covered entity (e.g., hospitals, clinics, health insurance providers) and a HIPAA business associate (any organization or person working in association with or providing services to a covered entity).

NOTE: The use of telehealth technologies can present liability for individual health care providers and organizations. For example, even brief contact with a client/patient via e-mail or a text message may violate applicable HIPAA requirements (Luxton, Nelson, & Maheu, 2016).

4.4 Informed Consent

Informed consent is the process by which a health care service provider discloses appropriate information (i.e., procedures, risks, benefits, etc.) to a client/patient so that the client/patient may make a voluntary choice to accept or refuse participation in the treatment or service. All of the standard components of informed consent that are used in traditional care services should be included when conducting telehealth-based services. In addition, informed consent procedures should consider the following risks associated with technology, privacy, and managing emergencies (Luxton, Nelson, & Maheu, 2016; Turvey et al., 2013):

- Potential risks and limits to confidentiality and encryption methods to secure communication
- Process for documentation and storage of information including how electronic information is stored, accessed, and disposed of
- Possibility of interruption caused by technology failure
- Methods of alternative communication if technology fails
- Methods, expectations, and frequency of contact and protocol for contact between sessions

- Emergency contact information and plan
- Involvement of third parties and procedures for coordination of care with other professionals
- Conditions under which telehealth services are terminated and a referral for face-to-face care are made

It is important to describe the technology to be used and what its use entails. It is also important to disclose the legal and ethical requirements associated with disclosure of information (e.g., sexual activity, substance use/abuse) to parents and guardians of adolescent patients. The client/patient, and when applicable, families/legal guardians, should be reminded of these requirements during the informed consent process.

4.5 Duty to Report and Civil Commitment

Just as with in-person services, practitioners of telehealth must be knowledgeable of duty-to-report and duty-to-warn/protect (both statutory and applicable case law requirements), as well as with civil commitment requirements (Luxton, Nelson, & Maheu, 2016; Shore, Bloom, Manson, & Whitener, 2008). Healthcare professionals who are providing services via telehealth also have responsibilities as mandated reporters and must be aware of their jurisdiction's requirements regarding vulnerable populations (e.g., children, elders). Telehealth professionals should also be aware of pertinent institutional level requirements and guidance, including client/patient safety associated with these issues (also see the section on Safety Planning in this guide).

4.6 Practice Guidelines

Review of national best practice guidelines that are specific to telehealth, such as those published by the American Telemedicine Association (ATA) and the American Psychological Association (APA), are recommended. The ATA website, for example, provides access to numerous resources including standards, guidelines, a learning center, telemedicine buyer's guide, liability insurance, videos and the latest telemedicine news.

See the Additional Resources section of this guidebook for more information on available resources.

5. Reimbursement

Reimbursement has been is one of the most significant barriers to the implementation of telehealth nationwide (Health Affairs, 2016). However, over the last several years there have significant advancements in policy allowing certain types of services provided via telehealth to be reimbursable. As of 2017, 48 state Medicaid programs are reimbursing for synchronous video-based telehealth. Fortunately, the passage of telemedicine legislation in Washington in 2015 (WAC 182-531-1730) has provided a pathway for state agencies to reimburse for telehealth services and implement local policies, thereby more broadly expanding telehealth-based services in our state.

The Department of Health and Human Services Centers for Medicare & Medicaid Services provides information specific to services reimbursed by Medicare/Medicaid. The Medicare Fee Schedule (2016) lists 83 specific telehealth reimbursable service codes ranging from psychiatric diagnostic evaluation, psychiatric treatment neurobehavioral status exam, nursing facility care, and alcohol/substance intervention (for full list, visit https://www.cms.gov/Medicare/Medicare-General-Information/Telehealth/Telehealth-Codes.html).

As specified in WAC 182-531-1730, the Medicaid agency does not cover the following services as telemedicine:

(a) E-mail, audio only telephone, and facsimile transmissions

(b) Installation or maintenance of any telecommunication devices or systems

(c) Purchase, rental, or repair of telemedicine equipment

NOTE: Washington's parity law was enacted in 2015 and provides coverage for all essential health benefits offered by private insurance, state employee health plans, and Medicaid managed care. The new parity law which goes into effect 2017 will impact Medicaid managed care and not FFS plan offerings.

For more information of state telehealth laws and reimbursement policies, visit the Center for Connected Health Policy site at: http://www.cchpca.org/state-telehealth-laws-and-reimbursement-policies-report

6. Technologies Overview

6.1 Synchronous Video Software (Videoconferencing):

Videoconferencing can be accomplished with fixed camera and video systems (such as those installed in a conference room) or mobile telehealth stations (typically a camera and lap-top system that can be moved from room to room, or on a personal desktop computer). Desktop videoconferencing systems use software on a personal computer (PC) along with a webcam, microphone and speakers or a headset. Mobile devices, such as tablet computers and mobile phones are also increasingly being used for videoconferencing-based telehealth.

There are several videoconferencing software applications available on the market today. Staff and organizations should contact their agency IT support for review and approval of proposed software prior to initiating a telehealth service program. The following are videoconferencing software that is presently in use by DSHS.

- Cisco Telepresence
- Cisco JABBER
- Polycom
- Skype for Business
- WebEx

NOTE: Skype (not Skype for Business) does not presently meet HIPAA compliance. Skype may be approved for non-clinical services without transfer of protected health information if approved by your agency.

Features that are available with many videoconferencing systems include (e.g., recording capabilities, a camera that can pan, tilt, and zoom, and picture-in-picture functionality to simultaneously view both the patient's and the medical provider's image. Some videoconferencing software packages also allow for the simultaneous display of computer files and programs, which can be useful for sharing documents with clients/patients during sessions. Other systems allow for access to electronic health records (EHRs). Agencies and individuals should consider which features are most suitable based on costs and needs.

6.2 Hardware

General hardware requirements include a desktop computer (or lap-top or tablet computer), high definition video camera, and audio system (headphones and/or external speakers). Existing laptop or desktop can serve as the foundation of a simple system suitable for most videoconferencing sessions by simply adding a USB webcam and a USB desktop microphone to the computer.

Regardless of the manufacturer, videoconferencing equipment should meet patient privacy and data security requirements consistent with applicable local guidelines as well as the requirements specified under HIPAA.

6.3 Installation Requirements

Bandwidth is the rate of data transfer (typically measured in bits per second) that can occur during a connection. The American Telemedicine Association Practice Guidelines for Videoconferencing-Based Telemental Health recommends adequate transmission speed to ensure "…the smooth and natural communication pace necessary for clinical encounters." A minimum bandwidth of 384 Kbps or higher is suggested when conducting telehealth services, however, modern videoconferencing software may use advanced data compression technologies that allow connections to be maintained at reduced bit rates.

6.4 Mobile Technologies

Mobile devices (i.e., smartphones and tablets) provide capabilities for both synchronous and asynchronous telehealth. A principal benefit of mobile technology is that it provides a cost effective way to increase the potential sites of service for both the client/patient and health care service provider. Smartphone and tablet devices that have video camera capabilities may be used as a mobile videoconferencing device if electronic data security requirements are met (Luxton, McCann, Bush, Mishkind, & Reger, 2011; Luxton, Mishkind, Crumpton, et al., 2012). Some mobile devices can also be used to connect to external hardware devices such as biofeedback or health monitoring sensors.

NOTE: The videoconferencing app (software application) must be HIPAA compliant if being used by a covered entity.

6.5 Selecting Appropriate Technologies

Luxton, Nelson and Maheu (2016) recommend the following general steps for selecting telehealth technology:

- Identify and match appropriate technology for the objective/task. For example, videoconferencing may be the optimal technology for providing the service although phone calls may be appropriate for short follow-ups with clients/patients.
- Determine whether the medium meets approved technical/privacy standards. The technology must meet basic privacy requirements (if applicable), such as HIPAA. The technology must also be feasible for use, such as required network bandwidth.
- Assess whether feasible and acceptable for the telehealth purpose (both from practitioner and client perspectives).
- Consider the ability and need of the technology to support evidence-based protocols.
- Understand reimbursement relevant to the context and the technology.

NOTE: Videoconferencing typically prevents full-body view of a client/patient and therefore may limit what nonverbal information is available. For example, body movement (e.g., tics, Parkinson's symptoms, anxious foot tapping) or lack thereof may be important for assessment and diagnosis as well as therapeutic focus. Some videoconferencing equipment allows the clinician to pan and zoom, thereby facilitating the observation of some behaviors. Given privacy implications, clients/patients should be informed ahead of time when such equipment is to be used.

7. Telehealth Service Set-Up

7.1 Matching to Needs

Any telehealth service should be matched to the needs of the client/patient population and individuals to be served. Not all potential clients/patients may be appropriate candidates for telehealth services. For example, some cognitive or physical deficits (e.g., vision problems, loss of use of limbs or fingers) may impair operation of the technology (e.g., seeing a screen, touching small buttons). However, assistance by family members or other assistive technologies may enable participation.

Possible clinical contraindications are also important to consider. For example, a patient with psychotic symptoms associated with technology, such as perceiving voices through televisions sets, might not be an ideal candidate for clinically unsupervised videoconferencing-based telehealth.

It is good practice to assess technology experience prior to initiating telehealth services with a client/patient. Persons who have little or no previous experience may be more apprehensive to participate at first and may require extra orientation. However, lack of experience is not necessarily a prohibiting factor.

The availability of on-site resources (e.g., family members and other support) is important assess. Questions to ask are: Does the distant site have clinical recourses available is case of an emergency? Is there technical support at the distant site? If a home-based service, are there family members or someone else who can assist when help is needed? The lack of resources may not be an inhibiting factor as long as procedures are put into place to address the needs for such resources.

7.2 Policy Development

The following are key considerations when developing local policy for telehealth-based services:

- Specify what services are approved
- Specify approved originating and distant sites
- Identify informed consent procedures
- Specify emergency and safety protocols
- Describe reimbursement procedures
- Define training/competencies requirements
- Identify staff responsibilities for telehealth services operations and support

This guidebook, as well as many other available resources (see the Resources lists) can be useful for informing local policies and procedures.

7.3 Set-Up of the Telehealth Space and Equipment

7.3.1 Telehealth Room Space

The physical space that is used for telehealth services does not need to specialized as long as basic requirements are met. When using videoconferencing equipment to provide services, the spaces at both the originating and distant sites should be adequately lit. The lighting may need to be adjusted to ensure that the client/patient's face and that of the service provider is sufficiently illuminated. Keep in mind that how the camera picks up the image may be different (washed out, too much contrast, too dark, etc.) than how it appears when in-person. It is therefore important to test the image quality and to make sure that it is adequate at both ends of the connection.

The space should also provide adequate acoustic isolation to assure privacy and to limit distracting noise from the outside. Acoustic treatments (sound barriers/absorbers, etc.) may be helpful. A white noise sound generator placed on the outside of the room may also be helpful to mask voices inside of the space (for privacy). Discussion regarding how to schedule the space to reduce the risk for disruptions is also recommended. This may be especially a concern in home-based care services whereby family members, roommates, pets, or other disruptions may impact sessions.

The security of the telehealth space and equipment should also be a consideration. In some inpatient and correctional settings, for example, the equipment could be vandalized or potentially used as a weapon or self-harm device (e.g., a power cord). Hardening of the telehealth equipment, such as placing the monitor, camera and cords within an acrylic glass case, may be a solution.

7.3.2 Cameras and Monitors

Video cameras at both the originating and distant sites should be of sufficient resolution to capture detailed images. Most cameras available today offer high-definition (high resolution) capability, however, available network bandwidth may limit the quality of the video image. Cameras with pan, tilt, and zoom capabilities may help to view the client/patient's location during sessions. As noted earlier, the use of such features should be disclosed to clients/patients.

Camera placement is another important consideration. Smaller screens with cameras affixed on the top of the screen may result in the client/patient gazing downward to view the clinician during the interaction, thus making it more difficult to observe facial expressions. It can also be distracting for clients/patients when the clinician is not consistently maintaining eye contact because they are looking at another screen or taking notes. It is therefore good practice to remain mindful of this and explain to clients/patients when looking away may be necessary.

Although minimum screen sizes do not seem to inhibit videoconferencing-based telehealth, some organizations may specify minimum screen sizes. Nonetheless, the client/patient site should have a video monitor with an adequate size to assure viewer comfort and because smaller screens may force the patient to gaze downward, thus making it more difficult to interpret facial expressions.

Clinicians will have less control of a camera's features when the client/patient is using his or her own equipment (i.e., personal laptops or computers). Thus, it is important to test the connection and quality of the connection before initiating the clinical session.

7.3.3 Microphones

Microphones should be placed close enough to the person(s) speaking during the telehealth encounter to accurately capture voice sounds. Noise cancellation software can be helpful in noisy environments. When microphones fail, the clinician may consider muting sound that comes from the videoconferencing equipment and instead call the client/patient by telephone. Just as with testing the video image quality, it is good practice to test the audio connection when initiating a teleheath session.

8. Safety and Emergency Plans

8.1 Safety Risks

The primary safety issues that may be encountered during clinical telehealth sessions are generally the same as those experienced in office settings. These risks may include client/patient harm to self or others, worsening of symptoms that may contribute to heightened risk (e.g., suicidal ideation), access to firearms (especially a concern for home-based telehealth), and medical emergencies that could occur during a session. For example, a client/patient could suffer cardiac arrest during a session and require notification of emergency services at his or her location. Similarly, a client/patient may disclose to the professional that he or she has recently experienced a fall or other injury but had not pursued medical attention (Luxton, Nelson, & Maheu, 2016). Medical emergencies may pose particular risk in settings where clinical staff are not present (e.g., the home of clients/patients).

Access to firearms should be considered when assessing the appropriateness of home-based telehealth. The ATA (Grady et al., 2011; Turvey et al., 2013) and APA (2013) telemental health (THM) guidelines state that clinicians shall discuss firearm ownership, safety, and the culture of firearms in rural areas. Access to firearms may be especially important to assess during home-based services and is a particular risk if a client/patient is known to have history of violent behavior towards self or others.

Telehealth professionals should take additional safety precautions when working with victims of domestic violence in the home setting by asking the client/patient if the abuser is on-site and possibly lurking out of the camera view (Luxton, Nelson, & Maheu, 2016).

It should be noted that when conducted in accordance with evidence-based protocols, there is not any evidence that telehealth, including home-based telebehavioral health, is less safe than traditional in-office services (Luxton, Sirotin, & Mishkind, 2010).

8.2 Safety Planning

Safety planning is an essential component of competent and ethical telehealth practice. Safety planning involves identifying steps and procedures for addressing situations that present a risk to the safety of clients/patients and other persons, such as family members or clinical staff members during the course of telehealth services (Knapp, Younggren, VandeCreek, Harris, & Martin, 2013; Luxton, O'Brien, McCann, & Mishkind, 2012).

Safety plans are the written steps for carrying out safety procedures and emergency protocols define the specific steps to be followed during emergency situations. Emergency protocols should clearly define how the originating and distant sites will collaborate in technical, clinical/psychiatric, and medical emergencies (Kramer, Mishkind, Luxton, & Shore, 2013).

The key things to include and steps to take when developing a safety plan are:
- Procedures for screening/assessing clients/patients before initiating telehealth
  - Talk with referring provider/on-site staff (if applicable)
  - Assess client/patient history if available (e.g., patient with history of violence towards staff or family members at home may not be a good candidate)
  - Firearms safety (Discuss presence of firearms in home-based behavioral health care)
- Establish back-up communication (landline/cell phone) in case connection is lost.

- Review Safety Plans and expectations with clients/patients.
- Identify and document local resources. These should include collateral support, such as family members and contact information for local emergency response.
- Ask for client/patient's physical location (if home-based). This information will be required if emergency services or referrals are needed.

NOTE: Safety planning needs to be an on-going process with risk assessments in every session.

9. Telehealth Program Evaluation

Successful telehealth program implementation requires careful planning and assessment of what works and what doesn't work. A pilot evaluation of the telehealth service can test the waters before full adoption (Shore & Manson, 2005). A pilot typically entails a limited number of visits (sessions) for a specified period of time in order to evaluate what worked and what did not with the goal of informing decisions regarding expansion of telehealth services. For example, a pilot can be useful for testing technical procedures, refining the scheduling and referral processes, and collecting initial client/patient satisfaction data. Protocols and processes can be refined based on feedback from staff, technical personnel, and participating clients/patients.

It is important to carefully consider what data should be collected before an evaluation, whether it is an initial pilot study or larger program evaluation. Things to consider include:

- Type of visits (service, such as Current Procedural Terminology (CPT) code, etc.)
- Number of visits
- Technical issues observed
- Cost data
- Clinical outcomes
- Client/Patient satisfaction
- Care Provider/staff satisfaction

Data should be collected on an ongoing basis and in standardized form. Data capture and integration with electronic medical records and other health information technology should be pursued when possible. For more information on standardized data capture for telehealth, see Shore et al., (2014)

10. Training and Support

10.1 Training Requirements

The successful implementation of telehealth-based services requires appropriate training and competencies that are specific to the service to be delivered. Many of the issues associated with competent telehealth practice parallel those of conventional in-office services. However, professionals must expand their competencies and also develop new skills needed to successfully provide services via telehealth technologies.

There are various ways to seek training. Anyone interested in providing telehealth services should become familiar with the guidelines published by reputable professional organizations (see list in the Resources section). There are also numerous reference books available. If you are interested in training opportunities within DSHS/BHA, contact David D. Luxton PhD., david.luxton@dshs.wa.gov

10.2 Telehealth Champions

A telehealth champion is a trusted leader within the organization and someone with telehealth experiences (Luxton, Nelson, & Maheu, 2016). This "point person's" enthusiastic support lends credibility at the local level and can often be persuasive in convincing other local providers and agencies of the value of new telehealth services. The champion helps to gain buy-in both from the organization's leadership and administration and from clinic personnel who may be asked to expand their duties in support of the telepractice clinic.

The Northwest Regional Telehealth Resource Center provides some helpful information on finding and developing telehealth champions (visit https://www.nrtrc.org/content/article-files/White%20Papers/Developing%20a%20Telehealth%20ChampionB.pdf)

Checklist for implementing a new telehealth service	
1. **Needs and Readiness Assessment**	• Assess current gaps in services • Assess current telehealth use • Determine short/long-term service budget
2. **Laws & Policy Requirements Review**	• Review federal, state, and local laws and policies
3. **Policy and Protocol Development**	• Develop local policies/integrate into standard care processes • Develop safety and emergency protocols
4. **Training**	• Assess training needs and provide service specific training • Review national best-practice guidelines • Identify local telehealth "champions"
5. **Service Set-up**	• Develop project plan • Select technology to be used • Test technology and infrastructure • Develop marketing/service awareness

6. **Program Evaluation**	• Plan program evaluation
	  o Pilot programs
	  o Ongoing program evaluation

Resources

American Psychological Association: Guidelines for the Practice of Telepsychology
http://www.apa.org/practice/guidelines/telepsychology.aspx

American Telemedicine Association
http://www.americantelemed.org/home

Northwest Regional Telehealth Resource Center
https://www.nrtrc.org/

National Telehealth Policy Resource Center
http://www.telehealthpolicy.us

National Telehealth Technology Assessment Resource Center
http://www.telehealthtechnology.org

Telemedicine Information Exchange
http://www.tmhguide.org/site/epage/93994 871.htm

Telehealth Resource Centers
http://www.telehealthresourcecenter.org/

VA Telehealth Services
http://www.telehealth.va.gov/

Glossary

ADSL (Asymmetrical Digital Subscriber Line): A type of digital subscriber line that uses a higher-bandwidth access option (asymmetrical transmission of data at up to 6Mbps downstream, with lower speeds upstream).

Apps: Short for "applications," refers to the software programs that operate on mobile devices such as smartphones and tablet computers.

Analog: A continuous signal where the time varying variable is represented by another time varying quantity (e.g., voltage). It differs from a digital signal where a continuous quantity is represented by a discrete function that only takes on one of a finite number of values.

Asynchronous: Term describing store and forward transmission of medical images and/or data because the data transfer takes place over a period of time, and typically in separate time frames. The transmission typically does not take place simultaneously.

Asynchronous: Term describing store and forward transmission of medical images and/or data because the data transfer takes place over a period of time, and typically in separate time frames. The transmission typically does not take place simultaneously.

Bandwidth: The rate (and thus amount) of information transmitted across the transmission medium. The capacity of information increases relative to a higher megahertz (cycles per second) in an analog transmission, and in megabits/second (Mbps) for digital transmission.

BBS (Bulletin Board Service): A computer service that allows users in an isolated location to access a central host computer through a computer in order to read and send electronic messages.

Bridged encounters: Provides for multi-point connections.

Broadband Communications: (e.g., broadcast television, microwave, and satellite) capable of carrying a wide range of frequencies; refers to transmission of signals in a frequency-modulated fashion, over a segment of the total bandwidth available, thereby permitting simultaneous transmission of several messages.

Bits Per Second (bps): Number of electronic data bits conveyed or processed per unit of time.

Bluetooth: An industrial specification for wireless data transmission that provides a way to connect and exchange information between devices such as laptops, PCs, mobile phones, printers, digital cameras and video game consoles over a secure, short-range radio frequency.

Centers for Medicare & Medicaid Services (CMS): A federal agency in the United States Department of Health and Human Services (DHHS) that administers the Medicare program and works in partnership with state governments to administer Medicaid, the State Children's Health Insurance Program (SCHIP), and Health Insurance Portability and Accountability Act (HIPAA) standards.

Cloud computing: The use of computing resources (hardware and software) that are delivered as a service over a network (typically the Internet).

Codec (coder-decoder): A videoconferencing device that converts analog video and audio signals to digital video and audio code and vice versa. CODECs typically uses compression and decompression to conserve bandwidth on a telecommunications path.

Current Procedural Terminology (CPT) code: A medical code set (describes medical, surgical, and diagnostic services) maintained by the American Medical Association through the CPT Editorial Panel.

Data Compression: A method to reduce the volume of data using encoding that results in the data having fewer bits of information than the original dataset (either lossless or lossy) to reduce image processing, transmission times, bandwidth requirements, and storage requirements. Some compression techniques result in the loss of some information while others do not.

Digital: Data technology using discrete values as opposed to continuous or analog signals. Digital data streams are less susceptible to interference than analog data streams.

Distant Site: Site at which the licensed practitioner delivering the service is located at the time the service is provided via telecommunications system. Other common names for this term include hub site, specialty site, provider/physician site and referral site. The site may also be referred to as the consulting site.

DSHS: The Department of Social and Health Services oversees the social services provided to the citizens of Washington State.

eHealth: healthcare practice supported by electronic processes and communication.

Electronic whiteboard: Hardware device that is similar to a whiteboard found in schools and businesses that transmit information written on a whiteboard to a computer or multiple computers or allow live interaction with digital objects on the screen.

Electronic Health Record (EHR): A systematic collection of electronic health information about individual patients or populations that is recorded in digital format and capable of being shared across health care settings via network-connected enterprise-wide information systems and other information networks or exchanges. EHRs generally include patient demographics, medical history, medication, allergies, immunization status, laboratory test results, radiology and other medical images, vital signs, characteristics such as age and weight, and billing information.

Encryption: A system of encoding electronic data where the information can only be retrieved and decoded by the person or computer system authorized to access it.

Firewall: Computer hardware and software designed to prevent unauthorized communications between an institution's computer network and external networks.

Health Information Exchange (HIE): The sharing of healthcare information electronically across organizations within a region, community or hospital system.

HIPAA (Health Information Portability and Accountability Act): The HIPAA Privacy Rule protects the privacy of individually identifiable health information, the HIPAA Security Rule sets national standards for the security of electronic protected health information, and the confidentiality provisions of the Patient Safety Rule protect identifiable information being used to analyze patient safety events and improve patient safety. (http://www.hhs.gov/ocr/privacy/index.html).

HPSA: Health professional shortage area.

Integrated Services Digital Network (ISDN): A common digital transmission standard for voice, video and other data.

Internet Protocol (IP): Protocol by which data is sent from one computer or device to another on the Internet. Each computer on the Internet has at least one address that uniquely identifies it from all other computers on the Internet.

Informatics: The use of computer science and information technologies for the management and processing of data, information and knowledge.

Internet: the global system of inter-connected, IP-based (Internet Protocol) networks. It consists of private, public, business, academic, and government networks.

mHealth: The practice of healthcare and public health via mobile devices. The term is most commonly used in reference to mobile communication devices, such as mobile phones, tablet computers and PDAs, for health services and information.

Originating Site: The location of the person(s) other than where the provider is located. Other common names for this term include spoke site, patient site, remote site, and rural site.

Peripheral Devices: Any device attached externally to a computer (e.g., scanners, mouse pointers, printers, keyboards, and clinical monitors such as pulse oximeters, weight scales).

Picture-in-Picture (PIP): Feature of videoconferencing whereby one channel is displayed on the full screen at the same time as one or more other channels are displayed in inset windows. Sound is usually from the main program only.

POTS (Plain Old Telephone Service): The analog, public switched telephone network in common use throughout the world. Also known as Public Switched Telephone Network (PSTN). Enables voice phone calls and data transmission of up to 56 Kbps, as well as low bandwidth video videoconferencing.

Protected Health Information (PHI): Any information about health status, provision of health care, or payment for health care that is created or collected by a "Covered Entity" (or a Business Associate of a Covered Entity), that can be linked to a specific individual.

Synchronous: Interactive video connections that transmit information in both directions during the same time period.

Teleconsultation: Consultation between healthcare providers at distance using either store-and forward-telehealth or real-time videoconferencing.

Telemental health: The provision of behavioral health services using telecommunication technologies.

Telemonitoring: The process of using audio, video, and other telecommunications and electronic information processing technologies to monitor the health status of a client/patient from a distance.

Transmission Control Protocol/Internet Protocol (TCP/IP): A set of communications rules and procedures that governs data exchanged on the Internet.

Transmission Rate: Speed at which data travels over a communications channel typically expressed in bits or bytes per second.

Videoconferencing: Real-time, generally two way transmission of video images between multiple locations.

Virtual Private Network (VPN): Method to carry private communications network traffic over the public Internet using tunneling or port forwarding (the transmission of private data over public lines in compressed form).

Wide Area Network (WAN): Network covering a wide geographic area, whether several company sites or services by a common Internet service provider.

WiFi: The underlying technology of wireless local area networks (WLAN) based on the IEEE 802.11 specifications. It is used for mobile computing devices, Internet and VoIP phone access, gaming, and basic connectivity of consumer electronics such as televisions and DVD players, or digital cameras.

References

American Psychological Association (2013). Guidelines for the Practice of Telepsychology. Available at: http://www.apa.org/practice/guidelines/telepsychology.aspx.

American Psychological Association's (2013b) Telepsychology 50-State Review.

Federation of State Medical Board's (2013) Telemedicine Overview: Board-by-Board Approach.

DeGaetano, N., & Shore, J., (2015). Conducting a Telehealth Needs Assessment. In P. W. Tuerk, P. Shore (eds.), Clinical Videoconferencing in Telehealth, Behavioral Telehealth, DOI 10.1007/978-3-319-08765-8_2.

Grady B. Myers, K.M., Nelson, EL., et al., (2011). Evidence-based practice for telemental health. Telemedicine & e-Health. 17(2):131-48. doi: 10.1089/tmj.2010.0158.

Health Policy Brief: Telehealth Parity Laws," Health Affairs, August 15, 2016. Available at: http://www.healthaffairs.org/healthpolicybriefs/brief.php?brief_id=162

Knapp, S., Younggren, J. N., VandeCreek, L., Harris, E., & Martin, J. N. (2013). Assessing and managing risk in psychological practice: An individualized approach (2nd ed.). Rockville, MD: The Trust.

Kramer, G. M. & Luxton, D. D. (2016). Telemental health for children and adolescents: An overview of legal, regulatory, and risk management issues. Journal of child and adolescent psychopharmacology. 26(3) 198-203. doi:10.1089/cap.2015.0018.

Luxton, D. D., McCann, R. A., Bush, N. E., Mishkind, M. C., & Reger, G. M. (2011). mHealth for Mental Health: Integrating Smartphone Technology in Behavioral Healthcare. Professional Psychology: Research & Practice, 42, 505-512.

Luxton, D. D., O'Brien, K., McCann, R. A., & Mishkind, M. C. (2012). Home-Based Telemental Healthcare Safety Planning: What You Need to Know. Telemedicine and e-Health. 18, 629-633. doi: 10.1089/tmj.2012.0004.

Luxton, D. D., O'Brien, K., Pruitt, L. D., Johnson, K. & Kramer, G. (2014). Managing Suicide Risk in Home-Based Telepractice. International Journal of Psychiatry in Medicine. 48(1), 19-31.

Luxton, D. D., Nelson, E. & Maheu, M. (2016). A Practitioner's Guide to Telemental Health, Washington DC: American Psychological Association Books.

Luxton, D. D., Pruitt, L. D. & Osenbach, J. E. (2014). Best Practices for Remote Psychological Assessment via Telehealth Technologies. Professional Psychology: Research & Practice. 45, 27-35. doi: 10.1037/a0034547.

Shore, J. H., Bloom, J. D., Manson, S. M., & Whitener, R. J. (2008). Telepsychiatry with rural American Indians: issues in civil commitments. Behav Sci Law. 26(3):287-300. doi: 10.1002/bsl.813.

Shore, J. H., Manson, S. M. (2005). A developmental model for rural telepsychiatry. Psychiatric Services. 56(8), 976-980.

Shore, J. H., Mishkind, M. C., Bernard, J., Doarn, C. R., Bell Jr, I., Bhatla, R., Brooks, E., Caudill, R., Cohn, E., Barthold, J., Eppolito, A., Fortney, J., Friedl, K., Hirsch, P., Jordan, P., Kim, T., Luxton, D. D., Lynch, M., Maheu, M., McVeigh, F., Nels. (2014). A Lexicon of Assessment and Outcome Measures for Telemental Health. Telemedicine and e-Health, 20.(3) 282 - 292. doi 10.1089/tmj.2013.0357.

Turvey, C., Coleman, M., Dennison, O., Drude, K., Goldenson, M., Hirsch, P., Jueneman, R., Kramer, G. M., Luxton, D.D., Maheu, M. M., Malik, T. S., Mishkind, M. C., Rabinowitz, T., Roberts, L. J., Sheeran, T, Shore, J. H., Shore, P., van Heeswyk, F., Wregglesworth, B., Yellowlees, P., Zucker, M. L., Krupinsk, E. A., & Bernard, J. (2013). ATA Practice Guidelines for Video-Based Online Mental Health Services. Telemedicine and e-Health, 19(9). DOI: 10.1089/tmj.2013.9989.

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