



NAP Telepractice Toolkit:

A Resource for Interprofessional Collaborative Practice

**Telehealth Research Subcommittee,
Public Policy Committee**

**National Academies of Practice
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Forward

Richard E. Weisbarth, OD, FAAO, FNAP
NAP President, 2021-2023 (Editor)

As the alliance of professionals from among the nation's most diverse healthcare practice and education environments, collaborating to transform health and wellbeing through interprofessional collaborative practice (IPCP), the National Academies of Practice (NAP) represents 15 healthcare professions: Allopathic and Osteopathic Medicine, Athletic Training, Audiology, Dentistry, Nursing, Occupational Therapy, Optometry, Pharmacy, Physical Therapy, Podiatry, Psychology, Respiratory Care, Social Work, Speech-Language Pathology, and Veterinary Medicine.

The National Academies of Practice advances interprofessional education, scholarship, research, practice, and public policy by educating and informing our members and others, facilitating collaborative scholarship and research opportunities, and advocating the value of interprofessional practice to improve healthcare and policy for all. We aspire to transform health and well-being through our core values of person-centeredness, inclusivity, collaboration, and interconnectedness.

Telepractice is a prime example of IPCP and can be used as a valuable, inclusive, cost-effective means of providing holistic healthcare with the diversity of expertise singularly focused on person- and family-centered care. Collaboration, inclusivity, and interconnectedness of IPCP builds a stronger foundation for sustainability and continuity of care. Throughout the COVID-19 public health emergency, telepractice successfully demonstrated, with much success, an integrated interprofessional team-based approach with in-person primary care, home care, early intervention, rehabilitation, and chronic disease management. The National Academies of Practice recognized successful outcomes using this IPCP approach along with the fact that telepractice represents a natural evolution in health care.

We are proud to provide this *NAP Telepractice Toolkit* to serve as an invaluable resource for all. It is our sincere hope that this resource will facilitate education, support, advancement, and advocacy for the ongoing integration of telepractice and the advancement of interprofessional collaborative health care.

Introduction

Teri Kennedy, PhD, MSW, ACSW, FGSA, FNAP
Chair, NAP Telehealth Research Subcommittee (Editor)

Telehealth, the use of electronic information and telecommunication technologies to support person-centered and client-facing virtual clinical care, or non-client-specific advice, for people and animals has been linked to improved access to care, quality of care, and health outcomes, and reduced cost of care. Traditionally viewed as a tool to improve access to care for individuals and families living in rural and frontier communities, COVID-19 and temporary pandemic-era policies facilitated the reach of telehealth to new people/animals, families, caregivers, and communities through expanded provider eligibility and inspired novel applications, care delivery models, and team-based approaches to care.

A 2020 position statement by the National Academies of Practice (NAP) supports expansion of telehealth provisions among the acceptable and clinically appropriate services offered by all healthcare providers to support the wellbeing of patients/clients, families, and caregivers. The National Association for the Support of Long Term Care (NASL) and National Association of Rehabilitation Providers and Agencies (NARA), in partnership with other professional associations, supports telehealth as a way to assure universal access to health care. Advocacy efforts are currently underway to promote continuation of pandemic-era coverage and practice models, expansion to new providers, and adoption of universal broadband access.

While advocacy efforts continue, the burgeoning use of telehealth services has intensified the need for the dissemination of best practices, development of competencies, and diffusion of knowledge regarding current telehealth reimbursement, regulation, and related policies. There is also an opportunity to explore team-based models of telehealth and related policies to advance the science of interdisciplinary collaboration and interprofessional collaborative practice. In response to this need, the Telehealth Research Subcommittee of the NAP Public Policy Committee has developed the *NAP Telepractice Toolkit*.

Just as telehealth practice has undergone change, the language pertaining to telehealth has evolved. In 2022, NAP adopted the more generic term telepractice, which includes telehealth, teletherapy, teledentistry, telemedicine, telenursing, and telecare. The authors have adopted terminology in the [NAP Lexicon 2.0](#), as approved by the NAP Council on October 25, 2022, and have noted where terminology may differ by profession or where language may vary specific to reimbursement, regulation, and related policies. As stated in the lexicon:

For the purposes of NAP academies seeking transparency, inclusivity, and full representation, including communication with accrediting bodies for academic and healthcare clinical programs, the following terms are defined:

- Those for whom we are providing care may be referred to as "consumer," "patient," "client," "service user," and/or "resident."
- Those for whom we are providing education may be referred to as "student" and/or "learner."
- Those providing care for a patient and/or client may be referred to as "carer," "caregiver," "family," "friend," and/or "service provider."

- Actions involved in caring for a patient and/or client may be referred to as “care” or “service.”
- The following terms may be used for a variety of reasons by different disciplines or professions or in different contexts.
 - consumer (is) (used in many settings including mental health)
 - healthcare provider(s); healthcare worker(s); healthcare workforce; health professional(s); health workers
 - individuals; people; person(s)
 - practitioner(s); social care provider(s)
- Healthcare is an element of social determinants of health as defined by Healthy People 2030. Social determinants of health (SDOH) are the conditions in the environments where people are born, live, work, play, worship, and age that affect a wide range of health, functioning, and quality-of-life outcomes and risks.
- Definitions with a term followed by another term in parentheses are intended to show more inclusive (common, less inclusive) use.² (p. 3)

Please note that in veterinary telehealth, the *client* is the pet parent or animal owner, while the *patient* is the animal being treated by the veterinarian. The relationship is referred to as the Veterinarian-Client-Patient Relationship (VCPR).³

Each chapter in this toolkit addresses a specific aspect of telepractice with a focus on sharing resources. Other than Chapter 1: Telepractice Types and Terminology, readers may access the chapters in any order based upon their needs. Chapter topics and content are understandably interrelated, therefore there will be areas of overlap and some duplication to preserve the author’s intent. While the information presented does not address every aspect of telepractice (for example, we addressed the uses of various technologies, not the technology itself), it points readers to information useful to practice.

Given the fast-paced development of telepractice and the policy landscape, this toolkit captures a snapshot in time. Readers are urged to remain cognizant of continuing developments in telepractice and use available professional and state resources to stay knowledgeable about telehealth laws and regulations specific to their discipline and the states in which they practice. It is hoped that pandemic-era innovations in interprofessional collaborative practice will continue. In the meantime, “It is the position of NAP that expanding telehealth services supports the wellbeing of patients/clients, families, and caregivers and should be available for services provided by all healthcare providers.”¹

References

1. National Academies of Practice. NAP Position Statement on the Provision of Telehealth Services. Lexington, KY: June 29, 2020. [tinyurl.com/2p9tdacj](https://www.nappractice.org/assets/docs/NAP%20Lexicon%202.0.pdf)
2. National Academies of Practice. NAP Interprofessional Practice and Education Lexicon 2.0. Lexington, KY: October 25, 2022. <https://www.nappractice.org/assets/docs/NAP%20Lexicon%202.0.pdf>
3. American Veterinary Medical Association. Veterinary Telehealth: The Basics. 2023. <https://www.avma.org/resources-tools/animal-health-and-welfare/telehealth-telemedicine-veterinary-practice/veterinary-telehealth-basics>

Chapter 1: Telepractice Types and Terminology

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Language in the world of telehealth is evolving, with various terms referring to the same practice and the same terms defining a variety of practices. Inconsistent terminology is problematic because it perpetuates professional silos, is awkward when advocating for reimbursement, and can adversely affect grant proposals and research projects.

In recognition of the crucial need for consistent and accurate use of terminology to support understanding of interprofessional collaboration, the National Academies of Practice (NAP) has adopted the inclusive term *telepractice*, defined as the “provision of professional service over geographical distances by means of modern telecommunication technology”.¹ This generic term is an umbrella term that includes telehealth, teletherapy, teledentistry, telemedicine, telenursing, and telecare, as well as veterinary telehealth, tele-optometry, telepharmacy, and telerehabilitation. It is important to note that telehealth is sometimes used interchangeably with telemedicine, although the two are not the same.

Telepractice

The provision of professional service over geographical distances by means of modern telecommunications technology. This generic term includes, for example, telehealth, teletherapy, teledentistry, telemedicine, telenursing, and telecare.

Telehealth utilizes telecommunication, digital technologies, and electronic information to deliver health information, education, or remote care. There are four applications of telehealth: live audio-video (synchronous), store-and-forward (asynchronous), remote patient monitoring (RPM), and mobile health (mHealth).² The practice can be synchronous, asynchronous, or hybrid. Synchronous telepractice takes place via live telecommunication interaction between a health care provider and a client in real time. With asynchronous telepractice, the interaction between the health care professional and client does not take place in real-time, and instead involves digitally stored forms of communication, review of health related data and imaging, and/or coordination of care involves digitally stored forms of communication, review of medical data and imaging, or coordination of care.

NAP has adopted the following language referencing those for whom care is provided and those providing care, as terminology varies by discipline:

- Those for whom we are providing care may be referred to as “consumer,” “patient,” “client,” “service user” and/or “resident.”
- Those providing care for a patient and/or client may be referred to as “carer,” “caregiver,” “family,” “friend” and/or “service provider.”¹

It is important to note that in veterinary telehealth, the *client* is the pet parent or animal owner, while the *patient* is the animal being treated by the veterinarian. The relationship is referred to as the Veterinarian-Client-Patient Relationship (VCPR).³

Terminology is also specific to the locations for service delivery. Healthcare professionals engage in telepractice in home, school, workplace, and community settings for the purpose of

assessment, intervention, and consultation. The benefits of telepractice include improved access to health care professionals, ongoing professional support, and reduced travel time for families, caregivers, and medical personnel. Tele-settings include anywhere a mobile device can be used. The list includes in-home, private practices, schools, hospitals (acute and rehabilitation), hospices, community clinics, universities, rehabilitation centers, military sites, correctional facilities, kiosks, pharmacies, “big box” stores, and transportation (planes, ships, submarines, in orbit, celebrity tour buses. (See Chapter 7. *Reimbursement, Regulation, and Related Policies* for information and resources.)

Telehealth can be further sub-divided depending upon who is participating in the communication. Activities under the broader concept of telehealth include the following activities for patients, whether human or animal, and clients, whether the person, caregiver, or animal owner, as seen in Table 1.1. *Telehealth Activity by Who is Involved in Communication*.

Table 1.1. Telehealth Activity by Who is Involved in Communication

Activity	Who is Involved
Tele (insert profession) See Table 2. <i>Telepractice Terms and Definitions</i>	Patient (Person, Animal), Client (Caregiver/Pet Parent or Animal Owner)
Teleconsulting	Specialist, Consultant
Telecommunication	Healthcare Team
Telesupervision	Healthcare Team
Telemonitoring	Patient (Person/Animal)
Teletriage	Person, Client (Caregiver/Pet Parent or Animal Owner)
Teleadvice	Non-Client Specific
E-prescribing (or Electronic Prescribing)	Pharmacy, Medicated Feed Distributor
mHealth (or Mobile Health) apps and wearables	Patient (Person, Animal)

(Adapted from the American Veterinary Medical Association)²

A review of terms and definitions was conducted from three sources of bibliographic data and gray literature: GovHawk.com, PubMed, and websites for organizations, federal, and international agencies with a significant interest in telehealth (e.g., the American Telemedicine Association [ATA] and World Health Organization [WHO]). A majority of organizations use either the term telehealth or telemedicine. When comparing the occurrences of the terms used in the review (i.e., telehealth, telemedicine, virtual care, and digital health), the term telehealth was the most frequently used. The key terms may then be divided into profession-specific terms such as telepharmacy, tele-optometry, and teledentistry.

Telehealth is the term used by the American Occupational Therapy Association/AOTA, the American Physical Therapy Association, the American Association for Respiratory Care (AARC), and the American Psychological Association (APA). The term *telemedicine* was coined by the American Telemedicine Association (ATA), which uses the following sub-categories and terms: tele-dermatology, tele-radiology, tele-ICU, tele-neurology, tele-psychiatry, tele-pediatrics, tele-primary care, tele-nursing, tele-dentistry, tele-optometry, tele-pharmacy, and tele-rehabilitation. *Telemedicine in optometry* is the term accepted by the American Optometric Association (AOA). *Telerehabilitation* is used by Physical Therapy, Occupational Therapy, and other rehabilitation professions to include both habilitation and rehabilitation, while *teletherapy* is utilized by Special Education.

To clarify the different terminology and definitions used by the professions, please refer to Table 1.2. *Telepractice Terms and Definitions*. Terms and definitions are listed in blue with related references and resources below each definition in white.

Table 1.2. Telepractice Terms and Definitions

Terms & Definitions
Telepractice
The provision of professional service over geographical distances by means of modern telecommunications technology. This generic term includes, for example, telehealth, teletherapy, teledentistry, telemedicine, telenursing, and telecare.
<ul style="list-style-type: none"> National Academies of Practice Interprofessional Practice & Education Lexicon 2.0. October 25, 2022. https://www.napractice.org/assets/docs/NAP%20Lexicon%202.0.pdf
Telehealth
The use of electronic information and telecommunications technologies such as video-conferencing, the internet, and store-and-forward to support long-distance clinical health care, patient and professional health related education, public health, and health administration.
<ul style="list-style-type: none"> Telemedicine and Telehealth HealthIT.gov. www.healthit.gov. https://www.healthit.gov/topic/health-it-health-care-settings/telemedicine-and-telehealth Trifonova, Slaveykov K, Despotova L, Trifonov Z. Interprofessional Collaboration in e-Health Environment. <i>Science & Technologies</i>. 2014;IV(1). http://www.sustz.com/journal/VolumeIV/Number1/Papers/KTrifonova1.pdf National Consortium of Telehealth Resource Centers Home. National Consortium of Telehealth Resource Centers. https://telehealthresourcecenter.org/ Telehealth in Practice. APTA. https://www.apta.org/your-practice/practice-models-and-settings/telehealth-practice
Telecare
Care offered to patients remotely via telecommunications technology, either through synchronous (live video) or asynchronous means (store-and-forward, remote patient monitoring). Telecare is often used to expand patient access to care, help patients manage recovery and well-being at home, and remotely monitor risks or early warning signs of health conditions. The care may be provided through a range of technology – from telephones to online virtual visits to remote patient monitoring centers.
<ul style="list-style-type: none"> What is Telecare? A Definition of Services, Technologies & Equipment. eVisit. https://evisit.com/resources/what-is-telecare
Teleaudiology
May be the primary mode of service delivery or may supplement in-person services (hybrid service delivery).
<ul style="list-style-type: none"> Telepractice. https://www.asha.org/practice-portal/professional-issues/telepractice/
Teledentistry
The use of electronic information, imaging and communication technologies, including interactive audio, video, data communications, and store and forward technologies, to provide and support dental care delivery, diagnosis, consultation, treatment, transfer of dental information, and education. It can include virtual consultations and high-tech monitoring of patients which offer less expensive and more convenient care options for patients.
<ul style="list-style-type: none"> Sanchez Dils E, Lefebvre C, Abeyta K. Teledentistry in the United States: a new horizon of dental care. <i>International Journal of Dental Hygiene</i>. 2004;2(4):161-164. doi:10.1111/j.1601-5037.2004.00093.x

- Khan SA, Omar H. Teledentistry in Practice: Literature Review. *Telemedicine and e-Health*. 2013;19(7):565-567. doi:10.1089/tmj.2012.0200
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- Golder DT, Brennan KA. Practicing Dentistry in the Age of Telemedicine. *The Journal of the American Dental Association*. 2000;131(6):734-744. doi:10.14219/jada.archive.2000.027 2

Telemedicine

Healing at a distance that involves the use of information and communication technologies to improve patient outcomes by increasing access to care and medical information.

- WHO Global Observatory for eHealth. *Telemedicine: opportunities and developments in Member States: report on the second global survey on eHealth*. Published online 2010. <https://apps.who.int/iris/handle/10665/44497>
- Roine R, Ohinmaa A, Hailey D. Assessing telemedicine: a systematic review of the literature. *CMAJ*. 2001 Sep 18;165(6):765-71. PMID: 11584564; PMCID: PMC81454. <https://www.cmaj.ca/content/cmaj/165/6/765.full.pdf>

Telenursing

The use of technology to provide nursing services through computers and mobile devices that allows patients to connect with their nurses through mobile devices, computers, mobile apps, video technology, and remote patient monitoring. The benefits include remote service delivery, financial savings, improved bed allocation, patient comfort, increased healthcare employment opportunities, and accessibility by patients in remote areas.

- What is Telehealth Nursing? Remote Nursing Practice. eVisit. <https://evisit.com/resources/what-is-telehealth-nursing>
- Patient and Clinician Experiences With Telehealth for Patient Follow-up Care. *AJMC*. <https://www.ajmc.com/view/patient-and-clinician-experiences-with-telehealth-for-patient-followup-care>
- Shelagh Dolan. Telehealth Services Explained: Benefits, Examples & Tech in 2019 - Business Insider. *Business Insider*. Published May 2019. <https://www.businessinsider.com/telehealth-industry-explained>

Telemedicine in Optometry

The remote provision of eye, adnexa, visual system and related systemic health care services (collectively eye, health, and vision services). Asynchronous and synchronous technologies can be used to provide this type of care including videoconferencing, internet-based services, store-and-forward imaging, streaming media, and terrestrial and wireless communications.

- Position Statement Regarding Telemedicine in Optometry. AOA. October 2022. https://www.aoa.org/AOA/Documents/Advocacy/position%20statements/AOA_Policy_Telehealth.pdf

Telepharmacy

A form of pharmaceutical care in which pharmacists and patients interact using information and communication technology (ICT) facilities. Telepharmacy has been adopted to provide pharmaceutical services to underserved areas and to address the problem of pharmacist shortage. It is divided into three categories of pharmacy practice: (1) support to clinical services, (2) remote education and handling of "special pharmacies", and (3) prescription and reconciliation of drug therapies.

- Dat TV, Tu VL, Quan NK, et al. Telepharmacy: A Systematic Review of Field Application, Benefits, Limitations, and Applicability During the COVID-19 Pandemic. *Telemedicine Journal and E-Health: The Official Journal of the American Telemedicine Association*. Published online June 27, 2022. doi:10.1089/tmj.2021.0575
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- Baldoni, Amenta, Ricci. Telepharmacy Services: Present Status and Future Perspectives: A Review. *Medicina*. 2019;55(7):327. doi:10.3390/medicina55070327

Telerehabilitation

The delivery of medical or rehabilitative care to persons with rehabilitation needs via telecommunication or the internet... It is especially beneficial for people with disabilities who may live with mobility impairments, impairments in activities of daily living, sensory, motor and cognitive dysfunctions, and have the most difficulty traveling to appointments.

- Alexander M. Introduction. *Telerehabilitation*. Published online 2022:1-3. doi:10.1016/b978-0-323-82486-6.00001-0

Telespeech or Speech teletherapy

May be the primary mode of service delivery or may supplement in-person services (hybrid service delivery).

- Telepractice. <https://www.asha.org/practice-portal/professional-issues/telepractice/>

Teletherapy

Any remote therapy that uses technology to help the therapist and client communicate. Examples include doing therapy sessions over the phone, having a group chat for group therapy, using videoconferencing for individual, couples, or group therapy, receiving therapy via email or instant messenger, and using apps that connect clients to therapists and offer therapy within the app.

- Teletherapy: What it is, benefits, and uses. www.medicalnewstoday.com. Published April 20, 2020. <https://www.medicalnewstoday.com/articles/teletherapy#benefits>

Veterinary telehealth

The use of telecommunication and digital technologies to deliver and enhance veterinary services, including veterinary health information, medical care, and veterinary and client education. The earliest uses of telehealth likely involved transmission of veterinary health information via telegraph, and later over the telephone. E-mail and text messaging, live audio and audio/video conferencing, store-and-forward electronic transmission of a variety of types of data, remote patient monitoring, electronic medical records, and artificial intelligence (AI)-assisted diagnostics are examples of modern technologies currently used in veterinary telehealth. Telehealth is a tool of practice, not a separate discipline within the profession.

- Veterinary telehealth: The basics. American Veterinary Medical Association. <https://www.avma.org/resources-tools/animal-health-and-welfare/telehealth-telemedicine-veterinary-practice/veterinary-telehealth-basics>
- AAVSB Recommended Guidelines for the Appropriate Use of Telehealth Technologies in the Practice of Veterinary Medicine. https://vvca.org/wp-content/uploads/2020/08/Guidelines-for-TelehealthAAVSB2020_4_10_min.pdf

The definition of *virtual care*, “commonly defined as medical care delivered at a distance by means of technology”, is synonymous with telemedicine.⁴ It’s usage as a broader term encompassing both telehealth and telemedicine gradually evolved from its inception in the 1970s to the COVID-19 pandemic to include asynchronous, chat, phone, and video visits.

The term *digital health* describes a broad category encompassing electronic health, mobile health (mHealth), telehealth, and health data.⁵ The phrase *digital health technologies* is interpreted broadly as “any tool or set of tools that improve health or enable better healthcare delivery by connecting people with other people, with data, or with health information”.⁶ Examples of this include, but are not limited to, telehealth, remote patient monitoring devices, health trackers, mobile devices (e.g., smartphones, tablets), mobile health apps, and technologies for managing health information, including electronic health records. The National Academy of Medicine (NAM) and the Food and Drug Administration (FDA) are increasingly using the term *digital health*, behooving stakeholders and policy makers to have a shared definition.

In providing virtual visits through telehealth, providers can use a variety of techniques and technologies including telemedicine in real-time, remote patient monitoring and management, health professional collaboration, store-and-forward, and medical imaging analysis. Telemedicine allows the provider to converse with patients, caregivers, and/or other service providers in real time, typically for medical history reviews, check-ups, evaluations, and some types of treatment. Remote monitoring allows the provider to review patient progress without encountering the patient face-to-face. Use of these technologies allows providers to communicate with each other quickly and efficiently, thereby improving the timeliness of the quality of care provided.

Store-and-forward is the storage of images, test data, lab reports, and medical documentation, all of which can be shared with the appropriate individuals (e.g., providers, health care personnel, patients), without requiring individuals to be available at the same time. Telehealth

solutions expedite the sharing of x-rays; CT, MRI, MRA, and PET scans; and other imaging modalities between treatment teams and external consultants.

Telepractice is an appropriate model of service delivery for health-related professions and may be used to overcome barriers of access to services caused by distance, unavailability of specialists and/or subspecialties, and impaired mobility. Telepractice offers the potential to extend clinical services to remote, rural, and underserved populations, and to culturally and linguistically diverse populations. International telepractice considerations include confirming requirements, if they exist, for the practice of delivery of services, as well as consulting additional resources on providing services with cultural and linguistic sensitivity and collaborating with professional interpreters as needed.

The use of telepractice does not remove existing responsibilities in delivering services, including adherence to codes of ethics, scope of practice, and state and federal laws. The quality of services delivered via telepractice must be consistent with the quality of services delivered face-to-face.

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Chapter 2: People, Animals, and Populations – Health and Healthcare Equity

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People and Population Characteristics

The utilization of telehealth services by individuals and families from a variety of populations exponentially increased during the COVID-19 pandemic. In a 2022 study, telehealth visits conducted via video were highest among young adult populations ages 18 to 24 years, people with above average socioeconomic status, individuals with private health insurance benefits, and persons who identified as White. However, individuals and families who were uninsured, had less than a high school diploma, or identified as members of ethnic/racial minority groups (i.e., Black, Asian, and Latinx), and adults 65 years and older were less likely to utilize telehealth visits via video technology.¹ Rural counties had a disproportionately lower supply of health care providers and broadband internet access,² which limited telehealth services to these areas. Demographic groups that had the lowest telehealth utilization rates often resided in the Midwestern, Northwestern, and Southern regions of the United States.¹

Telehealth utilization among persons with disabilities (PWDs) varied by disability type. According to a 2021 study assessing telehealth utilization, 43.3% of individuals with mobility disabilities, 42.1% of individuals with cognitive disabilities, 36.8% of individuals with visual disabilities, and 34.5% of persons with hearing disabilities used telehealth during the pandemic.⁴

Telehealth Across the Lifespan

People of all ages accessed telehealth services, with higher rates for young adults. The US Office of Health Policy reported that in 2021, 23.1% of adults accessed telehealth services within the previous four weeks. Similarly, 19.7% of households had children accessing telehealth services within the previous four weeks.¹ In the early COVID-19 pandemic, a 2022 CDC study found that 14.1% of children received telehealth services.⁵ Studies highlight that telehealth has been used across the lifespan, from prenatal and neonatal care to end-of-life care.

Telehealth has been used for prenatal counseling, genetic counseling, and maternal-fetal medicine specialty care.⁶ Prenatal telehealth visits included activities such as history-taking, genetic screening and consultations, and counseling on nutrition, weight gain, and gestational diabetes, among other topics.⁷ A systematic review showed that telehealth allowed high-risk obstetric patients to reduce the number of in-person visits without compromising fetal outcomes. In addition to synchronous telehealth visits with providers, other telehealth modalities in prenatal care included programs such as Text4Baby from the National Healthy Mothers, Healthy Babies Coalition, which sends text messages with health education information to pregnant individuals, and new parents.⁸

In neonatal care, telehealth has served a variety of needs, including subspecialist screenings, parental remote visits in the neonatal intensive care unit (NICU), parental education and support, and provider-to-provider consultations. In particular, there was often a need in neonatology for telehealth consultations with ophthalmologist subspecialists trained in

assessment of retinopathy of prematurity. Consultations with neurologist and geneticist subspecialists, as well as remote echocardiograms, are other areas where telehealth has been used in neonatology. Telehealth visits between parents and providers also provided support for parental education and caring for newborns, including those with medical complexity, as well as lactation consultations.⁹

Telehealth has also supported screening and early intervention services. In a pre-pandemic nationwide study, 30% of 26 states responding were either using telehealth for early intervention services or planning to use telehealth within the next two years.¹⁰ Telehealth has been used for screening for developmental disabilities, genetic syndromes, feeding assessments, and audiology assessments,¹¹ and telehealth assessments have resulted in diagnoses of autism spectrum disorder, developmental delays, intellectual disabilities, and fetal alcohol syndrome.^{11, 12}

In vision care, telehealth technologies provide a variety of eye health and vision services¹³ and expand access to care for visually impaired persons.^{14,15} Digital retinal imaging for diabetic retinopathy screening and monitoring facilitates early intervention and reduces vision loss.¹⁶ Remote monitoring of age-related macular degeneration and glaucoma may result in earlier detection of disease progression, improve treatment outcomes, and reduce the travel burden for patients,^{17,18,19} which is particularly important for those with impaired vision.

Telehealth early intervention (EI) services provided by physical therapists, occupational therapists, and speech-language pathologists increased during the pandemic. Implementation of a 9-week telehealth coaching program by community EI providers reported greater benefits for children and their caregiver compared to families receiving telehealth without coaching.²⁰ A 2022 study of 73 physical therapist early intervention providers reported therapists found telehealth effective and easy to incorporate. Aspects of telehealth delivery impacting success included the level of caregiver involvement, access to a telehealth toolbox including intervention management tools and therapist-patient collaboration tools, and characteristics of the provider and patient.²¹ In a systematic review of 34 studies comparing health outcomes of adults with rheumatic diseases receiving face-to-face care versus telehealth, telehealth led to similar or superior outcomes compared to in-person care.²²

During the pandemic, athletic trainers (AT) used both synchronous and asynchronous telehealth for screenings of students & student-athletes at colleges and universities, and some secondary schools. A survey of 611 ATs found that more than 40% engaged in some form of telehealth delivery during the early stages of the pandemic.²³

The transition from childhood to adulthood often means a new cohort of medical providers for young adults. Access barriers during the transition period can delay needed care, particularly for medically complex individuals. Telehealth can support transition planning for adolescents, including adolescents with developmental disabilities, chronic conditions, and/or medical complexities, as well as those needing mental health and social support services.^{24,25,26}

Use of telehealth services for adults varies by age. Young adults are the most likely to access telehealth services, with adults aged 18-24 more likely to access telehealth services than older adults aged 65 and over.¹ A 2022 qualitative study found that physicians perceived multiple potential benefits for telehealth for older adults, including timely access to care, reducing travel burdens and increasing opportunities for health education.²⁷

A pre-pandemic review of telehealth in the UK found that telehealth was being used in palliative care in many settings including hospices, nursing homes, primary care settings, and patient homes. Palliative care telehealth applications included provider-to-provider consultations and advice for patients and their caregivers.²⁸ A systematic review of physical therapist-led telehealth exercise sessions for recently hospitalized older adults with CHF or COPD found telehealth effective and well received by patients.²⁹

Telemedicine was also found to be effective in the treatment of people living with substance use disorders (SUDs). The pandemic required transition to a virtual environment with a population for which group therapy is an established treatment modality. This most commonly took the form of computerized assessments, telephone-based recovery support, telephone-based therapy, and video-based therapy, and less frequently involved texting, smartphone apps, and virtual reality interventions.³⁰ Telemedicine-delivered medications for opioid use disorders (tMOUD) was found to be a feasible modality for persons living in rural areas, addressing lack of access to MOUDs, and reducing stigma and anxiety.³¹

Despite most individuals preferring in-person visits instead of video visits, telehealth has improved the lives of families. The Family Check-Up (FCU) is an interventional tool used by therapists to improve parenting skills. The FCU Online was developed to improve the parenting skills and family dynamics between parents who abuse opioids and their children. The convenience of the FCU Online allows parents to attend visits with their children even during school hours due to telehealth modalities. The FCU Online has five content modules which include the following: Parent Wellness and Self-Care, Substance Use and Parenting, Positive Parenting, Proactive Parenting, and Rules and Consequences.³²

Animals and Animal Parents/Owners

The pandemic also had an impact on veterinary medicine, spurring the development of veterinary telehealth. *Patients* in this context are small and large animals, and *clients* are the animal parent or owner. The client must enter into an agreement and provide informed consent to receive veterinary services for the patient whether in-person or through virtual communication.³³

Person- and Family-Centered Considerations

Patient-centered care is based on the role played by a person when seeking medical or other forms of health or behavioral health care.³⁴ Similarly, family-centered care is care that meets the needs and expectations of patients, including children and those with special health care needs, and their families. In 2001, the first of a suite of Institute of Medicine reports advancing interprofessional, team-based care suggested that health care should be “[p]atient-centered – providing care that is respectful and responsive to individual patient preferences, needs, and values.”³⁵ The 2010 Affordable Care Act mandated quality measures in the form of patient-centered assessment and a focus on patient satisfaction, experience of care, engagement, and shared decision-making.³⁶

In 2011, Starfield argued for a shift to care that focuses on the whole person and the interrelationships between the person and provider over time. *Person-centered care* operates from the premise that a person’s role as a patient is just one of many roles. It places the whole person as primary, focuses on the interrelationships between the person and provider over time, and the individual’s lived experience of health and its evolution over their lifetime. Finally, it

considers the individual’s health concerns, including social determinants of health, and addresses expectations regarding the delivery and coordination of health and social care services^{37,38} In 2019, the National Academies of Sciences, Engineering, and Medicine promoted the value of incorporating the potential “disruption of patient and family voices and perspectives” to advance innovation and improvements in care delivery³⁹ “The transition to person-centered care has already led to two powerful, yet exquisitely simple, guiding principles: *ask what matters and nothing about me without me.*”³⁷

For a comparison of these approaches, see Table 2.1. *Patient-Centered versus Person-Centered Care.*

Table 2.1. Patient-Centered versus Person-Centered Care

Patient-Centered	Person-Centered
Interactions during visits	Interrelationships over time
Episode-oriented experience with health	Episodes as part of life-course experiences
Management of diseases	Diseases as interrelated phenomenon
Comorbidity (number of chronic diseases)	Multimorbidity (combination of illnesses)
Body systems: distinct	Body systems: interrelated
Coding systems: professionally defined conditions	Coding systems: people’s health concerns; social determinants of health
Evolution of patient’s diseases	Evolution of people’s experienced health problems and diseases

(Kennedy³⁷, adapted from Starfield³⁸)

Unfortunately, health care often falls short in delivering on the promise of person-centered and family-centered care. Telehealth can help address some of these short-comings, while presenting some barriers to person-centered care of its own. For example, telehealth offers the potential for enhanced patient engagement when supplementing in-person care. However, some patients may find video-based visits or mHealth more impersonal. Telehealth may be utilized to help patients navigate complex health care systems in some instances, while it can exacerbate the complexity of the health care system in other cases.

The experience of telehealth can vary in terms of perceived convenience. For many, telehealth is a convenient way to engage with health care professionals without the disruption of traveling to and from a healthcare facility as required for in-person care. However, for individuals with lower digital literacy and comfort with technology, telehealth may make accessing health care feel more difficult.⁴⁰ Similarly, telehealth can address privacy concerns for some and exacerbate privacy concerns for others. Person-centered care in telehealth should take into account patient preferences, including the preference for in-person, video-based telehealth, or phone-based telehealth.⁴¹

*The transition to person-centered care has already led to two powerful, yet exquisitely simple, guiding principles: ask what matters and do nothing about me without me.*³⁷

Location

Telehealth has been used to provide care for human and animal patients living in both rural and urban areas. The major difference is that urban areas have better health information technology system capabilities and infrastructure than rural areas. A systematic review found high levels of satisfaction among rural clients receiving physical therapy, occupational therapy, and speech-language pathology.⁴² A 2022 study found that younger patients from rural communities with limited access to care reported greater satisfaction with telehealth.⁴³

Healthcare organizations in metropolitan areas are more likely to have greater telehealth system interoperability thus increasing patient engagement with various telehealth platforms when compared to healthcare organizations in rural areas. A 2021 study found that telehealth services such as consultation, office visits, stroke care, psychiatric care and addiction treatment via remote patient monitoring were more likely to be utilized in metropolitan hospitals than rural hospitals.⁴⁴

It has been well documented that telehealth utilization increased during the height of the COVID-19 pandemic, with a substantial surge in telemedicine visit rates among patients living in both rural and urban communities after the pandemic began. A cross-sectional study discovered that telemedicine visit rates actually increased among patients living in rural areas versus patients living in urban areas. In December 2019, telehealth encounters skyrocketed from 11 visits per 1000 patients to 147 visits per 1000 patients in June 2020 among individuals residing within rural areas. During this same timeframe, there were 7 visits per 1000 patients with an increase to 220 visits per patients among those living in urban areas.⁴⁵

Health and Healthcare Equity

In the US, approximately 1 in 5 individuals live in a rural area.⁴⁶ Individuals and families residing in urban and suburban areas, those who have at least a high school diploma, have higher socioeconomic levels, and are young-to-middle-aged adults are more likely to utilize telehealth services simply because they have the resources needed to access providers within the healthcare system. Telehealth has bridged the gap of equity to healthcare access. However, limited broadband access, lack of video sharing technology and appropriate technological devices, lack of space to maintain privacy during patient-provider encounters, language (oral, written, signed) and literacy barriers continue to impede progress towards real healthcare equity.⁴ A 2021 National Institutes of Health panel, among its recommendations to improve rural health outcomes, urged participation of patients and providers in the development and evaluation of rural telehealth services, and suggested that research “capture context.”⁴⁶

Veterinarians serving animals in barns and farms often practice in remote areas, which experience a higher need for veterinary telehealth. Lack of internet access or poor service is challenging and poses significant inequities over veterinary telehealth options in urban and metropolitan communities. The sharp increase in pet ownership during the pandemic led veterinarians to join companion animal practices, leading to a shortage in the farm sector.⁴⁷

Age-Related Inequities

Telehealth could help alleviate barriers to in-person care for children and youth with special healthcare needs (CYSHCN) including those living in rural areas, lacking reliable transportation, and whose caregivers are in jobs with few workplace protections.⁴⁸ In multiple studies, younger adults were more likely to access video-based telehealth services than older adults.^{1,49,50} In a

study of an urban safety-net system, younger patients were more likely to prefer telehealth visits than older patients.⁵¹

Barriers for older adults include access to and comfort with technology, cognitive or sensory impairment,⁵² and suboptimal vision to operate a smartphone with small buttons and icons. Medicare beneficiaries residing in metropolitan areas are more likely to have access to telehealth services than those residing in non-metropolitan areas.⁵³

Inequities by Health/Disability Status

Individuals living with disabilities and chronic conditions often face significant barriers accessing in-person care, including specialty care at distant locations from individuals' homes. Research shows that telehealth platform developers in academia, government, and private sectors have failed to consider the needs and accessibility issues of persons with disabilities. Digital exclusion due to vision impairment also presents a key barrier to telehealth uptake and engagement.⁵⁴

Access to telehealth for people with disabilities has been variable across studies. A study of Medicaid beneficiaries found that older adults with two to three comorbidities were offered telehealth services more often than those without comorbidities,⁵³ Another study of Medicare beneficiaries found that most health conditions decreased patients' access to telehealth services, with the exception of osteoporosis, asthma, and non-skin cancers.⁵⁵ A third study found increased rates of access to telehealth services for those with cardiac and pulmonary conditions.⁵⁶

Telehealth can serve as an opportunity to provide enhanced access to care for people with disabilities and chronic conditions. The incorporation of closed captioning, ease of navigation, low literacy/low technology literacy capabilities, screen readers, and speech recognition are essential for all telehealth platforms to achieve equitable access for all including those with disabilities.⁴ Telehealth equity can also be achieved by staff training, reimbursement, patient education, and continuous technical support teams.⁵⁷

Race/Ethnicity-Related Inequities

Utilization of telehealth varies across different racial/ethnic populations. The US Office of Health Policy reported differences in video telehealth utilization in 2021. White individuals were most likely to access video-based telehealth (61.9%). The proportion of video visits for multiracial individuals was 58.9%, for Black individuals 53.6%, for Asian individuals 51.3% and for Latinx individuals 50.7%.¹ Another study found that patients who were White were more likely to have used video visits while patients who were Black were more likely to have used telephone visits.⁴⁹ A 2021 HHS report found that when audio-only telehealth services were included in the measure Black respondents were among the highest users (26.8%).¹ Latinx and Asian populations were less likely to utilize telehealth.⁴⁹

A 2021 study during the acute phase of the pandemic in NYC found that of individuals who sought care, Blacks were less likely to access care via telehealth than Whites. Additionally, Black individuals sought urgent care services via telehealth at an increased rate during the study period, from 8.7% to 13.3%.⁵⁶ Among publicly insured children, Black and Latinx populations were less likely to utilize telehealth than White populations.⁵⁸

A study of Medicare beneficiaries found that Non-Hispanic Black individuals were more likely than White individuals to have been given the option to replace in-person visits with a telehealth visit.⁵³ Another study found that Black and Latinx children were more likely to live in

areas where access to psychiatric services, either in person or via telehealth, were more readily available. The authors posited that this may have been due to higher density of these populations in urban areas.⁵⁹

The 2021 HHS report concluded that “considerations for the equitable future use of telehealth as a supplement or replacement for some in-person care need to consider patient-centered outcomes including patient preferences, content of services and frequency of visits, technology access, and quality of care.”¹ Policy-makers and practitioners need to be mindful of research demonstrating disparities in audio versus video telehealth by race and ethnicity, age, education, income, and health insurance.

Inequities by Geographic Location

Access to telehealth services varies by geographic location. The lowest telehealth utilization in the United States was seen in individuals residing in the Midwestern, Northwestern, and Southern regions of the United States.¹ Rural areas have fewer health care providers and less reliable broadband internet access,^{2,3} creating inequities for human and animal patients.

While some research on telehealth has focused on increasing access to care for individuals in rural areas, during the COVID-19 pandemic, there was considerable growth of telehealth services in urban locations. Rural counties are much more likely to lack access to in-person care and care via telehealth. For psychiatric care for children, whether via telehealth or in-person, 51% of rural counties lack access compared to 3% of urban counties.⁵⁹

Globally, developing regions face significant access barriers to telehealth. Applications of telehealth in these regions have been reported in the areas of malnutrition monitoring and prevention, specialist consultations in clinical settings, support of community health workers who must take on responsibilities during health care worker shortages, and support to areas experiencing humanitarian disasters.⁶⁰

Socioeconomic Inequities

Variation in access to telehealth services has been seen for both income and education. Individuals earning over \$100,000 are more likely to access telehealth via video than individuals earning less than \$25,000.¹ Approximately 45% of low-income counties lack adequate access to pediatric psychiatry services, either in person or via telehealth, compared to just 3% of high-income counties.⁶⁰ Disparities by income are also seen for Medicare beneficiaries.⁵³ Individuals with less education are also less likely to access or be willing to access telehealth video services.^{1,50,49}

Insurance Inequities

Access to care for both in-person and telehealth visits varies by insurance type. Studies found that individuals who had private insurance were more likely to access telehealth video services.^{1,49} Still, telehealth has the ability to improve access to health care for uninsured populations. For example, a study in rural Texas found that implementation of telehealth consultations increased the number of uninsured patients completing a specialty consultation from 23% to 62% and decreased wait times from 54 to 7 days.⁶¹

Health Literacy, Digital Literacy, and the Digital Divide

Health literacy is “the degree to which individuals have the capacity to obtain, process, and understand basic health information and services needed to make appropriate health

decisions.”⁶² A 2004 Institute of Medicine report found that nearly half of all US adults find it difficult to understand or act upon health information.⁶²

Racial and ethnic minorities; individuals with less education, lower socioeconomic status, or for whom English is not their primary language; and older adults are disproportionately impacted by high levels of chronic disease, lower health literacy, and digital health disparities. People living in lower income communities lack not just internet access, but have less reliable telephone service, resulting in widened health disparities.⁴⁰

Language is another important consideration for policy makers and providers seeking to advance telehealth access and health equity and reduce the digital divide. In a California study, individuals with limited English proficiency experienced lower rates of telehealth use by half compared to those proficient in English. Unexpectedly, the use of telehealth by individuals with limited English proficiency actually increased visits to emergency departments.⁶³

Digital literacy “describes the skills necessary to successfully navigate and use digital or electronic health information and patient resources.”⁶⁴ Health and social care providers and systems are increasingly leveraging technology including telehealth and electronic patient portals. The need for consumers to have access to and use of computers, telephones, and mobile devices to receive services increases digital barriers and widens the digital divide for individuals living in rural, remote, and under-resourced communities lacking or unable to afford the high cost of access to broadband internet.

Health literacy is “the degree to which individuals have the capacity to obtain, process, and understand basic health information and services needed to make appropriate health decisions.”⁶²

Digital literacy “describes the skills necessary to successfully navigate and use digital or electronic health information and patient resources.”⁶⁴

A study of Medicare beneficiaries found that those who had internet access were more likely to participate in telehealth.⁵³ Among individuals not participating in telehealth services, almost all reported at least one barrier to accessing telehealth services, including not having a device, hesitancy in using technology, or data/internet issues.⁵¹ Experience with technology also plays a role in utilization of telehealth services. Individuals who have experience with smartphones or participating in internet-based calls were more interested in using telehealth services,^{51,53, 55}

While telehealth has the potential to bridge the gap of equity to healthcare access, lack of broadband access, technology, and technological devices create significant barriers. Physicians felt that the top three barriers to access to telehealth for their patients were limited broadband coverage (49.4%), limited digital literacy (54.1%), and limited access to technology devices (62.3%).⁶⁵ Geographic location affected the ability to receive telehealth services, primarily based on access to broadband internet services.

Policy recommendations include payment parity across in-person, video, and telephone modalities and a comprehensive approach to telehealth infrastructure, broadband and device access, and digital literacy programs⁶³ in social service organizations, community health centers such as Federally Qualified Health Centers (FQHCs), Rural Health Clinics (RHCs), and safety-net clinics serving rural and urban communities.

Promoting Health Equity

A 2021 HHS report concluded that “considerations for the equitable future use of telehealth as a supplement or replacement for some in-person care need to consider patient-centered outcomes including patient preferences, content of services and frequency of visits, technology access, and quality of care.”⁶⁷ See Table 2.3. *Promoting Telehealth Equity*, for a summary of recommendations for health care providers and organizations to promote telehealth equity and health equity.

Table 2.2. Promoting Telehealth Equity

Recommendations	Description
Set priorities	Make health equity in telehealth a priority for health care organizations.
Identify and address digital disparities	Collect data about patients’ access to broadband internet, access to needed technology, and identify disparities in the organization’s patient populations regarding access to needed technology. Explore ways to support populations at risk of digital disparities, including older adults, people with low socioeconomic status, individuals with limited health literacy or limited English proficiency and racial and ethnic minorities.
Provide outreach	Address digital determinants of health including device ownership, broadband availability, and data plans. Target outreach to patients who could benefit from broadband and device subsidy programs.
Promote digital literacy and health literacy	Create programs to support patients learning how to access telehealth technology, including video visits. Advocate for and support programs that address digital literacy beyond the health care setting.
Address bias in online platforms	Current patient portals and telehealth platforms are challenging to navigate, written with medical jargon, at a high readability level, and not available in the languages of the populations served by health and social care providers. Inclusive products and platforms must be developed that are accessible to patients.
Remove health-system barriers	Offer video visits to all patient populations. Screen for patients at high risk of telehealth barriers (lack of privacy, technological barriers) and work to support their needs. Advocate for and use online platforms that are accessible to individuals with disabilities (e.g., low vision impairment, hearing loss). Seek out platforms that are available in multiple languages, are easy to navigate, and have an accessible reading level. Communicate that access to interpreters is available via telehealth.
Advocate for policies that support access	Advocate for policies that support access to low-cost broadband internet, permanent insurance coverage of telehealth, and pay parity for phone vs video visits.

(Lyles, 2022; Nouri, 2020; Rodrigues, 2022)

Applicability

Telehealth is applicable for most patient populations regardless of their geographical location and for most primary and specialty healthcare services. It works best for patients who live in urban areas with widespread broadband internet connectivity, have higher levels of digital literacy, and are more technologically savvy. Patients experiencing minor to moderate episodic illnesses, exacerbations of some chronic diseases, or management/maintenance of controlled chronic disease processes are ideal candidates for telehealth visits.

Individuals with the following conditions may not be appropriate candidates for telehealth services and should be evaluated for fit. This includes individuals unable to set up the necessary equipment or computer settings, without a private and safe space, lacking cognitive capacity, or evidencing paranoia or dysregulation such as severe aggression or oppositional behaviors.⁶⁶ Additionally, telehealth may not be appropriate for individuals living with severe mental illness or who may be a danger to self or others.⁶⁸ If a patient is experiencing severe symptoms such as difficulty breathing, chest pain, or complex comorbidities, they would not be candidates for telehealth visits. In-person or face-to-face encounters would be required for proper evaluation and treatment.⁶⁹

While telehealth has been found to be as appropriate as in-person care for a range of healthcare issues, comparing the two and concluding that they aren't the "same," implies that telehealth is "not as good" as in-person.⁷⁰ Just as educators experienced the comparisons between in-person and online education for learners as "different," implying "not as good," the difference between in-person and telehealth isn't always about quality, but rather it's about evaluating and considering the needs of the end-user and tailoring approaches while keeping inclusion and accessibility paramount.

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Chapter 3: Telepractice Visits

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Visit Settings

Telehealth visits can be characterized based on the participants involved. Provider-to-Provider visits often occur within healthcare facilities and include e-consults and Extension for Community Healthcare Outcomes (Project ECHO), the latter of which involves a group of clinicians using a case-based consulting format similar to grand rounds.¹ Veterinary telehealth conducts Specialist-to-Consultant visits, referred to as teleconsulting, in which a primary care veterinarian consults electronically with a veterinary specialist (e.g., veterinary orthopedic surgeon for an equine patient).²

Provider-to-Patient telehealth visits most often occur between a provider in a healthcare facility and a patient at home. These visits may include use of video, telephone, secure messaging via patient portal, and/or remote patient monitoring.¹ This would also be true for veterinary telehealth with companion animals (pets), but not for larger animals where the patient will often be on a farm or in a barn. In veterinary medicine, the patient is the animal being treated by the veterinarian, whereas the client is the pet parent or animal owner.²

It's important that patients (people) and clients (people; caregiver/pet parents or animal owners) are informed about how to structure their environment for an effective telehealth session. This can be particularly challenging in low resourced settings. Regardless of location, it is important that the provider's environment be appropriate through use of optimal lighting, acoustics, camera angle, and a neutral background.³ Further considerations include a separate space to provide privacy. Further, it is necessary to confirm who is present for the visit as well as emergency contact information. See also Chapter 5. *Best and Promising Practices*.

While many veterinarians work in private practices or small animal hospitals, large animal veterinarians work in a variety of locations requiring travel at all times of day and night and in all kinds of weather. These vets may treat animals in barns and on farms in rural and remote areas, or spend their time at a stable, ranch, or racetrack, while others may work at a zoo.⁴ Veterinary telehealth for large animals is challenging when the site is a farm or a barn that may have poor lighting and internet connectivity, and distracting noise from other animals (e.g., squealing pigs). In farm or barn settings, high resolution zoom capabilities should be considered.

Within the acute care environment, tele-intensive care units are used to provide expert care across geographic areas, largely benefitting rural hospitals that may not have the staffing resources to provide the necessary expertise for optimal patient care.⁵ The approach is also beneficial to support care of infants at lower level neo-natal intensive care units (NICUs). A recent study documented feasibility of this model, which eliminates the need to transfer the infant and separate the family.⁶

For emergency services, telehealth is used to provide a televisit to less acute patients who present for care. This improves emergency department throughput and provides patients with

an appropriate level of care.⁷ For long-term care settings, use of telehealth was found to reduce the number of emergency department (ED) visits and enhanced care coordination.⁸

There are a variety of settings outside the walls of a hospital in which active telehealth practices occur. One notable location is ambulatory care clinics and community health centers such as Federally Qualified Health Centers (FQHCs) and Rural Health Clinics (RHCs). Telehealth is used for physical health assessments and check-ins, behavioral health, pharmacy, physical therapy, and occupational therapy visits. OBNest is an innovative telehealth application to support prenatal care.⁹

Another community setting in which telehealth is used frequently is schools. Common services provided are speech-language and mental health. One of the nuances of speech-language service provision in schools is the need for trained facilitators to assist the client.^{10,11}

A more unique community setting in which telehealth is used is with Syringe Service Programs (SSP). SSP participants with an Opioid Use Disorder (OUD) were offered appointments with medical providers via two-way video connections during the SSPs' operating hours, with buprenorphine tablets provided by the SSP.¹² Another method to reach OUD patients is through use of a mobile service. In one example, program staff traveled to rural areas in a modified recreational vehicle equipped with medical, videoconferencing, and data collection devices. Patients were virtually connected with physicians based more than 70 miles away.¹³

Virtual tours are used to facilitate planning outside of a healthcare facility. Occupational therapists have used telehealth for a virtual tour of the home when engaged in discharge planning with patients.¹⁴

Virtual medication tours with a pharmacist occurred as part of a cystic fibrosis telehealth visit.¹⁵ A novel community-based approach to eliminate the need for a personal electronic device is the use of kiosks within pharmacies.¹⁶

Health plans offer healthcare-specialized call centers for patients and caregivers as a form of virtual services. These can serve to answer questions, transmit information between patient/caregiver and provider, or offer triage for needed care. Pharmacies offer call centers to assist patients with chronic illness in managing medications, or automated phone numbers to refill prescriptions with an option to connect with a pharmacist when questions arise. Call centers can offer increased satisfaction with services and an improved consumer experience.

Call centers and telephone outreach services have long been used in behavioral health and social services, from call-in suicide prevention hotlines to telephone reassurance centers who place periodic calls to older adults or adults living with disabilities to check on their well-being or offer emotional support.

During the pandemic, a call center program was developed to provide outreach and emotional support to health care workers (HCWs) who tested positive for COVID-19 or requested emotional support when contacting the institution's for symptom monitoring. The call center was supervised by faculty and staffed by psychology and psychiatry residents and fellows, who received training in emotional first aid. The model offered a proactive, supportive resource to support the emotional and mental health needs of HCWs during a public health crisis.¹⁷

Visit Rationale

Conditions and encounters that work well in the telehealth environment include:

- Behavioral health follow-ups and medication adjustments
- Conditions where treatment is heavily weighted toward a visual exam that easily can be conducted on camera (e.g., acne)
- Triage questions
- Chronic disease management that requires frequent check-ins, prescription refills, or exercise progression ¹

Additional toolkits are available for a variety of specialties. Providers are encouraged to consult with their professional associations for specific guidance.

As with care for people, the suitability of veterinary telecare for small or large animals requires professional judgment. Treatment or medical advice should be provided when determined to be medically appropriate.¹⁸

For additional information on this topic, see Chapter 2. *People, Animals, and Populations – Health and Healthcare Equity* (Applicability).

Visit Utilization

When determining the right number of visits appropriate for telehealth, a paucity of literature exists. A survey of outpatient providers found that a majority of respondents thought a portion of their visits could be conducted via telehealth, but that telehealth does not replace in-person care especially related to procedures.¹⁹

Most of the literature concerning visit numbers has been in obstetrics. A scoping review regarding prenatal care found that the majority of the protocols were developed based on expert opinions, literature reviews, or recommendations by scientific societies. Recommendations included providing an initial prenatal visit via telehealth followed by a second, in-person visit. Protocols recommended fewer than seven face-to-face visits and between 2 and 8 prenatal telehealth visits, with the majority proposing more frequent in-person visits than telehealth visits.²⁰

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Chapter 4: Telepractice Providers

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Individual Providers

Although telehealth has been an option in healthcare for many years, utilization across many of the professions has been limited. This has been somewhat dictated by reimbursement policies, such as Medicare, that before the COVID-19 pandemic recognized only select healthcare providers as qualified to deliver telehealth services and the acceptable provision of services was typically restricted. This group included physicians, dentists, podiatrists, optometrists, physician assistants, nurse practitioners, clinical nurse specialists, nurse-midwives, clinical psychologists, clinical social workers, registered dietitians or nutrition professionals, and certified registered nurse anesthetists.

The public health emergency caused by the COVID-19 pandemic provided access to other healthcare professionals including occupational therapists, physical therapists, and speech-language pathologists, and lifted many of the restrictions on provision of services through telehealth for those previously recognized.¹ Use of telehealth increased dramatically, and surveys suggest that benefits of telehealth were recognized by both patients and providers.^{2,3}

It remains to be seen how many healthcare professions will continue to be recognized as telehealth providers when the Public Health Emergency ends. Healthcare providers will need to continue to monitor evolving state and federal telehealth information specific to their profession and state.⁴

For new providers of telehealth services as well as those who have been offering telehealth services, there are resources available to provide guidance on remote care delivery skill development and ethical considerations to enhance patient and provider experience. As many current providers of telehealth services may have rapidly adopted protocols during the pandemic, review of recommended practices may be useful in ensuring care delivery is not compromised.⁵

Table 4.1. *Discipline-Specific Telehealth Resources* includes only open access resources. Members of professional organizations may have access to additional resources not listed here. See also Chapter 7. *Reimbursement, Regulation, and Related Policies* for additional information and resources.

Table 4.1. Discipline-Specific Telehealth Resources

Professions and Open Access Telehealth Resources
Allopathic & Osteopathic Medicine
<ul style="list-style-type: none">• AMA. 2021, November 5. AMA Telehealth Quick Guide• AMA STEPS Forward. Telemedicine: Facilitate Access to Care for Your Patients.• AOA. Telemedicine Resources
Athletic Training
<ul style="list-style-type: none">• NATA. Telemedicine Resources• NATA. Telemedicine Implementation Checklist
Audiology

<ul style="list-style-type: none"> • American Academy of Audiology, 2021. The Use of Telehealth for the Delivery of Audiology Services • American Speech-Language-Hearing Association (ASHA). Telepractice • ASHA. Telepractice Resource Sheet
Dentistry
<ul style="list-style-type: none"> • American Dental Association. ADA Policy on Teledentistry • American Academy of Pediatric Dentistry (AAPD). Policy on Teledentistry • Association of State and Territorial Dental Directors (ASTDD). Best Practice Approach Teledentistry: Opportunities for Expanding the Capacity and Reach of the Oral Healthcare System • National Network for Oral Health Access (NNOHA). Teledentistry Resources
Nursing
<ul style="list-style-type: none"> • ANA. Telehealth Resources • ANA. Core Principles on Connected Health
Occupational Therapy
<ul style="list-style-type: none"> • AOTA. Telehealth Resources • AOTA. Occupational Therapy Telehealth Decision Guide
Optometry
<ul style="list-style-type: none"> • American Optometric Association (AOA). 2022. Position Statement Regarding Telemedicine in Optometry
Pharmacy
<ul style="list-style-type: none"> • American Pharmacists Association (APhA). Telehealth • American Society of Health-System Pharmacists (ASHP). Telehealth Resource Center
Physical Therapy
<ul style="list-style-type: none"> • American Physical Therapy Association (APTA). Telehealth in Practice • APTA. 2021. Position Paper: Expanded Telehealth Access Act of 2021 • APTA. 6 Reasons to Consider Telehealth Physical Therapy • APTA. Telehealth for PT: Why Now More Than Ever? • APTA. Using Telehealth to Help Patients with Advanced Cancer Improve Quality of Life • APTA. Pediatrics Telehealth: Kids & Families • APTA. Impact of COVID-19 on the Physical Therapy Profession Over One Year- A Report From the American Physical Therapy Association
Podiatric Medicine
<ul style="list-style-type: none"> • American Podiatric Medical Association (APMA). Telemedicine
Psychology
<ul style="list-style-type: none"> • American Psychological Association (APA). Guidelines for the Practice of Telepsychology • APA. Guidelines for Psychological Practice in Health Care Delivery Systems • APA. Telehealth is Here to Stay: Psychologist Should Equip Themselves to Offer It
Respiratory Therapy
<ul style="list-style-type: none"> • American Association for Respiratory Care (AARC). Position Statement: Telehealth and Respiratory Care • AARC. The Future of Telehealth • AARC. Tech Trends: Telehealth Advances
Social Work
<ul style="list-style-type: none"> • National Association of Social Workers (NASW). Telehealth
Speech-Language Pathology
<ul style="list-style-type: none"> • American Speech-Language-Hearing Association (ASHA). Telepractice • ASHA. Telepractice Resource Sheet
Veterinary Medicine
<ul style="list-style-type: none"> • American Veterinary Medical Association (AVMA). Veterinary Telehealth: The Basics • AVMA. Talking About Telehealth • Veterinary Virtual Care Association (VVCA). Virtual Care Resources

Team-Based Care

Much of the literature on team-based care with telehealth focuses on models patterned after in-room team-based care utilizing collaborative nurse, physician, and support staff teams to

increase efficiency during medical visits.⁶ The experiences and gained knowledge of broader interprofessional teams in care delivery has also been described.⁷

The pandemic saw pilots and innovative models of team-based interprofessional collaborations in telehealth education to practice including the adoption of telehealth at interprofessional student-run free clinics.⁸ The 2021 Nexus Summit, the annual conference of the National Center for Interprofessional Practice and Education, offered 21 brief presentations (lightning talks) and 4 seminars addressing pandemic-era “Build it while we fly it” programs.⁹ As these novel programs are researched and reported in the literature, evidence can be compiled to support interprofessional collaborative approaches to telepractice.

See also Interprofessional Competencies – Opportunities for Co-Creation and Harmonization in Chapter 6. *Telepractice Competencies*.

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Chapter 5: Telepractice Best and Promising Practices

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Best Practices

Telehealth has been used among health professions for decades¹ even prior to the SARS CoV2 pandemic. However, the US Public Health Emergency enacted during the pandemic waived some restrictions that allowed even more pervasive use in additional settings, namely patients' homes.² Similarly, the Food and Drug Administration permitted veterinary telehealth to conduct remote examination and diagnosis disease in specific food-producing large animals, and subsequently authorize an appropriate medication.³

Among the various toolkits that have been published to facilitate telehealth use, there remains a core group of best practice recommendations designed to provide meaningful, safe, and high-quality visits. Best practice guidelines "provide the instruction providers need to develop competence and skill with this mode of health care delivery, thereby addressing a commonly identified barrier to the successful adoption of telehealth."⁴

In a review of literature regarding telehealth for persons living with behavioral health and/or substance use disorders, the following best practices emerged,⁵ which are applicable to telehealth practice in general:

Best Provider Practices for Telehealth Visits⁵

- Establish a clean and professional-looking office space
- Reliable internet
- Camera positioned at eye level
- Try to maintain a positive attitude
- Ensure patient is in a private setting
- Establish an alternative way to connect if service is disrupted (e.g., phone)

Important to interprofessional telehealth, hospice and palliative care providers (i.e., nursing, medicine, social work, chaplains, and music therapists, proposed six principles to guide the development of best practices. While telehealth for this population was primarily provided by advanced practice nurses and registered nurses, telehealth visits had been conducted by all members of the interdisciplinary team.⁴ Again, these guiding principles are applicable to other areas of practice and are summarized here:

Six Principles for Development of Telehealth Best Practices⁴

- Benchmark the work of experienced telehealth providers
- Develop best practices that integrate clinical expertise, patient values, and the best evidence
- Develop best practices for each virtual service (i.e., virtual visit, phone call, remote patient monitoring)
- Organize best practice interventions for before, during, and after the telehealth intervention
- Include best practice guidance for telehealth task and process functions
- Incorporate principles of person-centered care

See Chapter 2. *People, Animals, and Populations - Health and Healthcare Equity* for a discussion regarding person-centered care.

Health Resources and Services Administration has developed recommendations for creating an emergency plan for telebehavioral health. It is suggested that the plan be discussed in advance of scheduled visits, including possible scenarios when the plan may be implemented. Again, these principles can serve as a guide to planning related to other telehealth visits.⁶

Creating an Emergency Plan⁶

- The patient's location
- Emergency numbers for that location
- A local emergency contact or support person
- The contact information for other health care professional(s)
- A plan if the telehealth visit is disconnected during an emergency

Companion checklists were developed for conducting an addiction-focused telehealth visit and a buprenorphine home induction.¹ A quick reference tool was developed for hospice and palliative telehealth including recommended pre-visit, visit (beginning, middle, and end), and post-visit considerations.⁴ This tool is copyrighted, but available in the literature.

Additionally, two tools were provided, one to recognize and respond to emotion for audio-only visits and another to conduct virtual visits with compassion and caring⁴. Again, this tool is copyrighted, but available in the literature (see *References* below).

Elements of the Visit

The client is greeted in a similar manner to an in-person visit. The provider offers a self introduction and asks by what name the patient would like to be referred, including any honorific (Mr., Mrs., Ms.) or professional (Dr.) titles. It is important to confirm the patient's identity with a photo identification, if possible. The provider may show a badge, while a patient and/or guardian may show a driver's license or other photo identification. This is consistent with practice for an in-person visit and may be waived if the patient is known to the provider.

A contingency plan is essential to set up early in the visit as the purpose is to provide a secondary means of communication in case of technical failure. Likely, the provider has a telephone number for the patient, and this simply needs to be confirmed and identified as the back-up communication method, if needed.⁷

The patient's or client's location must be confirmed for the visit to be reimbursed by a third-party payer. While veterinary telehealth is not reimbursed, knowledge of location is still important to practice laws. Delivery of telehealth is governed by evolving state and federal laws, some of which are temporary. Pre-pandemic reimbursement for telehealth visits required the provider be licensed in the state where the patient is located. The Public Health Emergency (PHE) waivers allowed for flexibility and broader use of compact licensure initiatives. The sustainability of these waivers remains in question. Nevertheless, the practice of documenting the patient's state and exact location (e.g., home, work, car) provides ample evidence for reimbursement.

A telehealth visit is subject to the Health Insurance Portability and Accountability Act of 1996 (HIPAA).⁸ Just as for an in-person visit, the provider is responsible for ensuring privacy and protecting the patient's protected health information (PHI). During a telehealth visit, the provider confirms that the patient and/or caregiver are in a private area beyond a range where others

could overhear the conversation. If others are near the location of the provider, it is important to speak in a quiet voice and avoid use of a speakerphone. While HIPAA does not apply to veterinary telehealth, confidentiality is still important.

The safety of the patient is equally important during a telehealth visit. It is incumbent upon the provider to ascertain the exact location – room in the home, location of the car, or workspace – should an adverse event such as a seizure, fall, or syncopal episode occur during the visit, or in the event of a behavioral health, domestic violence, or other emergency situation in which the client may be at risk. Knowing the exact location ensures the provider can direct others to assist the patient⁷ See *Creating an Emergency Plan*.

Consent must be obtained before the visit continues. Pre-pandemic consent was obtained in writing at every visit. The PHE waivers allow verbal consent, and thus best practice is for the provider to document that the patient or caregiver verbally consented to proceed with the visit.

Best Practice Etiquette

Professional standards of behavior translate to telehealth visits, albeit a bit differently. The patient or caregiver will not only see the provider's face but their background space as well. The space behind the provider should be as clean and professional as possible and free from clutter including distracting pictures, mirrors, people, and animals. The provider should check their camera image in advance to make sure that wall hangings do not frame their head in a distracting manner and that any plants are off to the side. Green screens are not recommended due to potential distortion. Any doors behind the provider should be closed, even doors to a closet or bathroom. The background space needs to portray privacy.

Maintain a positive, respectful tone and culturally appropriate eye contact. For patients where eye contact is essential, place the camera at eye level and look at the camera, so it appears the provider is maintaining eye contact. Alternatively, find the place on the monitor whereby when you look at that place, it most resembles eye contact, mark it and look at that spot during visits. This requires another person standing behind you to locate the best area on your monitor in advance of scheduled visits. As the provider, you may need to look away from time to time to take notes or refer to the patient's medical record. Best practice is to let the patient know what is happening when you break eye contact with statements such as, *'I am taking notes, so you might see me look down from time to time'*, or *'I have your chart pulled up over here so I am going to look over here a minute'*.

Professional dress with quiet colors and patterns is best practice. Avoid noisy bracelets or earrings that make distracting sounds with movement. These could easily interfere with the patient hearing the provider clearly.

Lastly, the provider should close the visit with a wrap-up similar to what they would use for an in-person session. For example, ask if there are questions and confirm the plan and timeframe for the next visit. Best practice for telehealth is to stay present and let the patient or caregiver (client in veterinary telehealth) sign off before the provider to be sure there is nothing further that they wish to say and that they remain safe until the visit is over.⁷ This can be done by simply saying, *'I will sign off after you.'*

In general, let usual courtesy and professional behavior guide telehealth best practice etiquette.

Promising Practices

The shortage of health care workers of all types has generated innovative telehealth practices. In the in-patient arena these include telenursing and telesitting, where nurses and sitters are in a different location but can remotely see and hear the patient and alert those on site as needed. Pharmacy techs interact with patients in rural areas, and through a series of checks and balances with a licensed pharmacist, can fill and dispense prescriptions. The pandemic has shown that rehabilitation professionals including occupational therapists, physical therapists, and speech language pathologists can effectively provide services in the clients' home via telehealth services. The initiation of a telemedicine respiratory therapist (eRT) service provided effective urgent and emergent interventions in intensive care.^{9,10}

There is much in the literature about educational programs with an interprofessional telehealth practice component, but less reported in the real world.^{11,12,13,14,15} Interprofessional team visits using a telepresenter have been documented,⁴ however there is a need for more evidence, especially related to how this model of care affects patient outcomes.^{16,17}

The challenge of collecting practice-based evidence, translating the evidence into practice, educating the current and future workforce on competencies and best practices, and advocating for expansion of telepractice services and development of broadband infrastructure is the work of interprofessional collaboration. May the work commence!

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Chapter 6: Telepractice Competencies

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Discipline-Specific Competencies

Each discipline represented in the National Academies of Practice is moving through the process of defining competencies for telehealth at a unique pace. Some, like psychology and the practice of telepsychology, have been heavy users of telehealth with published competencies since 2013. Many disciplines experienced a rapid uptick in the demand and use of telehealth during the COVID-19 pandemic and developed and published competencies between 2020 and 2022. Others have encountered ongoing barriers to widespread use or reimbursement of telehealth and are still in the process of developing competencies.

Each discipline and literature identifying their competencies, where available, are listed in Table 6.1. *Discipline-Specific Telepractice Competencies*. For those currently without established telepractice competencies, the provision of services can be guided by professional ethics, clinical proficiencies, evidence-based practices, facilitator checklists, person-/animal-centered principles, and federal and state licensure and regulations.

Table 6.1. Discipline-Specific Telepractice Competencies

Discipline and Related Competencies
<p>Allopathic & Osteopathic Medicine</p> <p>The Association of American Medical Colleges have outlined telehealth competencies across the learning continuum:</p> <ul style="list-style-type: none"> AAMC. Telehealth Competencies Across the Learning Continuum. AAMC New and Emerging Areas in Medicine Series. Washington, DC: AAMC; 2021. https://store.aamc.org/downloadable/download/sample/sample_id/412/ <p>Sharma et al. have proposed core competencies for the medical virtualist.</p> <ul style="list-style-type: none"> Sharma R, Nachum S, Davidson KW, Nochomovitz M. It's not just FaceTime: core competencies for the Medical Virtualist. International Journal of Emergency Medicine. 2019;12(1). doi:10.1186/s12245-019-0226-y
<p>Athletic Training</p> <p>While no competencies specific to telehealth are currently in place, athletic training competencies promote clinical integration proficiencies (CIP) and the incorporation of evidence-based practice principles into care as central to optimizing outcomes.</p> <ul style="list-style-type: none"> National Athletic Trainers' Association. ATHLETIC TRAINING EDUCATION COMPETENCIES.; 2011. https://www.nata.org/sites/default/files/competencies_5th_edition.pdf
<p>Audiology</p> <p>This checklist includes some items that address competency.</p> <ul style="list-style-type: none"> American Speech-Language-Hearing Association www.asha.org ASHA Facilitator Checklist for Telepractice Services in Audiology and Speech-Language Pathology. https://www.asha.org/siteassets/uploadedfiles/asha-facilitator-checklist-for-telepractice.pdf
<p>Dentistry</p> <p>While no competencies specific to teledentistry are currently in place, the American Dental Association states, "Services delivered via teledentistry should be consistent with in-person services..."</p>

- ADA Policy on Teledentistry | American Dental Association. Ada.org. Published 2020. <https://www.ada.org/about/governance/current-policies/ada-policy-on-teledentistry>

Nursing

At least three sets of authors have proposed, validated, and published proposed competencies for nurses:
Generalist nurses:

- van Houwelingen CTM, Moerman AH, Ettema RGA, Kort HSM, ten Cate O. Competencies required for nursing telehealth activities: A Delphi-study. *Nurse Education Today*. 2016;39:50-62. doi:10.1016/j.nedt.2015.12.025

Advanced practice nurses:

- Rutledge CM, O'Rourke J, Mason AM, et al. Telehealth competencies for nursing education and practice. *Nurse Educator*. 2021;46(5). doi:10.1097/nne.0000000000000988
- Dzioba C, LaManna J, Perry CK, et al. Telehealth Competencies. *Nurse Educator*. 2022; Publish Ahead of Print. doi:10.1097/nne.0000000000001196

Occupational Therapy

While not defining competencies, the American Occupational Therapy Association (AOTA) and American Journal of Occupational Therapy have published practice resources and a checklist to inform practice. Jacobs et al. presents a World Federation of Occupational Therapists (WFOT) position statement that includes the need for provider competencies.

- AOTA.org. Published 2022. <https://www.aota.org/practice/practice-essentials/telehealth-resources> (members only)
- Jacobs, K., Cason, J., & McCullough, A. (2015). The process for the formulation of the international telehealth position statement for occupational therapy. *International Journal of Telerehabilitation*, 7(1), 21. doi: [10.5195/ijt.2015.6163](https://doi.org/10.5195/ijt.2015.6163)
- Occupational Therapy Telehealth Decision Guide Start Process. <https://www.aota.org/-/media/corporate/files/practice/occupational-therapy-telehealth-decision-guide-nov2021.pdf>

Optometry

The American Optometric Association published a [Position Statement Regarding Telemedicine in Optometry](#), which does not explicitly define competencies but does include criteria for ensuring high quality in telemedicine in Optometry.

- AOA. Position Statement Regarding Telemedicine in Optometry. October, 2020. Retrieved from: https://www.aoa.org/AOA/Documents/Advocacy/position%20statements/AOA_Policy_Telehealth.pdf

Pharmacy

The American Society of Health-System Pharmacists (ASHP) publishes [accreditation standards for telehealth pharmacy practice](#). Standard 2 addresses patient care services.

- ASHP. Accreditation Standards for Telehealth Pharmacy Practice. August 2020. Retrieved from: <https://www.ashp.org/-/media/assets/products-services/ASHP-Accreditation-Programs/docs/ASHP-Accreditation-Standard-for-Telehealth-Pharmacy-Practice.pdf>

The American College of Clinical Pharmacy (ACCP) published a white paper, [Implementation and evaluation of comprehensive medication management in telehealth practices](#), which outlines qualifications, technological requirements, and competencies for telehealth.

- Badowski, M. E., Walker, S., Bacchus, S., Bartlett, S., Chan, J., Cochran, K. A., Coon, S., Liedtke, M., Phillips, B. G., & White, T. (2018). Providing Comprehensive Medication Management in Telehealth. *Pharmacotherapy*, 38(2), e7–e16. <https://doi.org/10.1002/phar.2071>

Physical Therapy

A [set of core capabilities](#) were drafted, considered by consensus, and published by Davies and colleagues.

- Davies, L., Hinman, R. S., Russell, T., Lawford, B., Bennell, K., Billings, M., ... & Roots, R. (2021). An international core capability framework for physiotherapists to deliver quality care via videoconferencing: a Delphi study. *Journal of Physiotherapy*, 67(4), 291-297.

Podiatric Medicine

While no telepractice competencies were identified, a scoping review of foot and ankle telemedicine guidelines may inform the development of recommendations.

- Stojmanovski Mercieca LA, Formosa C, Chockalingam N. A scoping review of foot and ankle telemedicine guidelines. *Health Science Reports*. 2023;6(1). doi:10.1002/hsr2.1076

Psychology

The American Psychological Association (APA) has published [Guidelines for the Practice of Telepsychology](#) which includes psychologist competencies for telehealth.

- APA. Guidelines for the Practice of Telepsychology. 2013. Retrieved from: <https://www.apa.org/pubs/journals/features/amp-a0035001.pdf>

Respiratory Therapy

While no telepractice competencies were identified, respiratory therapists' skills in disease management and pandemic-era innovations may inform the development of RT competencies for telepractice.

- Laudanski K, Scott M, Huffenberger AM, Wain J, Hanson CW. Deployment of Tele-ICU Respiratory Therapy and the Creation of an eRT Service Line. *NEJM Catalyst*. 2022;3(6). doi:10.1056/cat.21.0239
- What is Telehealth and Why Should Respiratory Therapists Care? AARC. Published March 15, 2017. <https://www.aarc.org/what-is-telehealth/>

Social Work

The Coalition for Technology in Behavioral Science (CTiBS) has published [Telebehavioral Health Competencies for LCSWs in the Age of COVID-19](#).

- Merrill, C. A., Maheu, M. M., Drude, K. P., Groshong, L. W., Coleman, M., & Hilty, D. M. (2022). CTiBS and Clinical Social Work: Telebehavioral Health Competencies for LCSWs in the Age of COVID-19. *Clinical Social Work Journal*, 50(2), 115-123.

Speech-Language Pathology

The [American Speech-Language-Hearing Association \(ASHA\) Facilitator Checklist for Telepractice Services in Audiology and Speech-Language Pathology](#) includes some items that address competency.

- ASHA. Facilitator Checklist for Telepractice Services in Audiology and Speech-Language Pathology. nd. Retrieved from: <https://www.asha.org/siteassets/uploadedfiles/asha-facilitator-checklist-for-telepractice.pdf>

A set of [core competencies for school-based telefacilitators](#) was proposed, validated, and published by Douglass and colleagues.

- Douglass, H., Lowman, J. J., & Angadi, V. (2021). Defining roles and responsibilities for school-based tele-facilitators: Intraclass correlation coefficient (ICC) ratings of proposed competencies. *International Journal of Telerehabilitation*, 13(1).

Veterinary Medicine

While no competencies specific to veterinary medicine are currently in place, the American Veterinary Medical Association states that "veterinary telemedicine should only be conducted within an existing [veterinary-client-patient relationship] VCPR. An exception may be made for advice given in an emergency until a patient can be seen by a veterinarian."

- AVMA Guidelines for the Use of Telehealth in Veterinary Practice IMPLEMENTING CONNECTED CARE. <https://www.avma.org/sites/default/files/2021-01/AVMA-Veterinary-Telehealth-Guidelines.pdf>

Interprofessional Competencies – Opportunities for Co-Creation and Harmonization

Thus far, individual professions and associations are typically defining telehealth competencies through profession-centric lenses rather than identifying the commonalities within competencies that should be demonstrated across professions.¹ Yet, these same professionals practice in teams and must respond to the needs of persons/patients in telepractice environments collaboratively. A recent review of the evidence for healthcare professions observed that telehealth content, competencies, and curricula lacked consistency with respect to content, scope, and sustainability.²

During the pandemic, team-based approaches and interprofessional care delivery models surfaced in conference abstracts and presentations, the gray literature, and health system marketing and outreach efforts (e.g., virtual team-based consultation for individuals diagnosed with cancer). As competencies and curricula are standardized to include proficiency levels, intensity models, and frameworks, their content and operationalization should be interprofessional and include input from all stakeholders.³ Interprofessional competencies should emphasize the provision of culturally competent care to promote high quality outcomes and health equity. Team members' expertise clinically, administratively, and in care coordination should be leveraged. After these core competencies are established, then the need for additional disciplinary competencies according to scope of practice can be explored.

Interprofessional telehealth competencies include knowledge and skills necessary for practice. As interprofessional standards are established, a transformation from competency to capability is essential. Capability encompasses competence and skills, and further expands to emphasize "adaptability to change, lifelong learning, and self-efficacy."⁴ Interprofessional telehealth competencies and capabilities should include continuous development rather than assessment at a single point in time. The use of capabilities reflects modern complex healthcare environments and will generate workforce-ready graduates who are prepared to engage in telehealth collaborative practice.

Interprofessional telehealth competencies should emphasize communication to facilitate interprofessional team performance, patient outcomes, and satisfaction. All professions should be able to demonstrate the basics of telehealth etiquette. Human factor science provides a basis for understanding how to engage in relationship with diverse individuals through the vehicle of telehealth. Both providers and persons cared for must be satisfied with outcomes from the encounters. The importance of effective verbal and nonverbal communication must be stressed, to include body positioning, eye contact, and facial expressions.⁵ Provider appearance is critical to the encounter and environmental distractors such as background noise must be eliminated. Privacy must be assured, and equipment must be HIPAA secure. During patient encounters digital trust and respect must be assured by establishing online presence, through active listening and communication that reflects digital empathy.⁶

Just as representatives of the professions came together through the Interprofessional Education Collaborative in 2011 and 2016 to identify and harmonize a common language, framework, and core competencies pertaining to in-person health and social care,⁷ the professions can likewise co-create and harmonize a shared language, framework, and interprofessional competencies to advance a team-based approach to telepractice.

References

1. Drude KP, Maheu MM. Telemental/Telebehavioral Health Competencies, Evaluation, and Outcomes Column. *Journal of Technology in Behavioral Science*. 2018;3(2):77-79. doi:10.1007/s41347-018-0043-9
2. Chike-Harris KE, Durham C, Logan A, Smith G, DuBose-Morris R. Integration of Telehealth Education into the Health Care Provider Curriculum: A Review. *Telemedicine and e-Health*. 2021;27(2):137-149. doi:10.1089/tmj.2019.0261
3. Hilty DM, Maheu MM, Drude KP, et al. Telebehavioral Health, Telemental Health, e-Therapy and e-Health Competencies: the Need for an Interprofessional Framework. *Journal of Technology in Behavioral Science*. 2017;2(3-4):171-189. doi:10.1007/s41347-017-0036-0

4. Brunner M, McGregor D, Keep M, et al. An eHealth Capabilities Framework for Graduates and Health Professionals: Mixed-Methods Study. *Journal of Medical Internet Research*. 2018;20(5):e10229. doi:10.2196/10229
5. Gustin TS, Kott K, Rutledge C. Telehealth Etiquette Training. *Nurse Educator*. 2019;45(2):1. doi:10.1097/nne.0000000000000680
6. Gupta A, Cuff P, Dotson-Blake K, Schwartzberg J, Sheperis C, Talib Z. Reimagining Patient-Centered Care During a Pandemic in a Digital World: A Focus on Building Trust for Healing. *NAM Perspectives*. Published online May 24, 2021. doi:10.31478/202105c
7. IPEC Core Competencies. www.ipeccollaborative.org. Published 2022. <https://www.ipeccollaborative.org/ipecc-core-competencies>

Chapter 7: Reimbursement, Regulation, and Related Polices

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This chapter provides basic information and resources for disciplines that are subject to laws, regulations, and/or payor rules governing the provision of and reimbursement for telehealth services. It summarizes useful content drawn from governmental and professional websites and resources, and offers convenient access to relevant sources, rather than footnoted references. Given the changing policy landscape, readers are advised to check for the most current telehealth laws and regulations related to their discipline and the states in which they practice.

Related Definitions

With telehealth regulation and reimbursement, it is important to understand related definitions in order to ensure compliance with regulatory and claim submission requirements. Other than the definition for “facilitator,” these are definitions that are not currently in the NAP Lexicon.

- **Asynchronous:** Use of technology to provide health care assessment, monitoring and/or consultation in non-real time. From American Medical Association <https://www.ama-assn.org/practice-management/digital/telehealth-resource-center-definitions>:
 - Store-and-forward technologies that collect images and data to be transmitted and interpreted later.
 - Online digital visits and/or brief check-in services furnished using communication technology that are employed to evaluate whether or not an office visit is warranted (via patient portal, smartphone).
 - Interprofessional internet consultations between physicians and/or other qualified health care professionals to improve care coordination for patients by sharing verbal or written reports for further assessment and/or care management.

Additional Resource: 42 CFR § 410.78 -- Telehealth services

<https://www.ecfr.gov/current/title-42/chapter-IV/subchapter-B/part-410/subpart-B/section-410.78>

- **CMS-1450 (UB-04) Claim Form:** Claim form typically used in electronic format for institutional and agency billing. *Resources:* Centers for Medicare and Medicaid Services (CMS) Pub. 100-04, Medicare Claims Processing Manual, Chapter 1: <https://www.cms.gov/regulations-and-guidance/guidance/manuals/downloads/clm104c01.pdf>; CMS Pub. 100-04, Medicare Claims Processing Manual, Chapter 25: <https://www.cms.gov/Regulations-and-Guidance/Guidance/Manuals/Downloads/clm104c25.pdf>
- **CMS-1500 Claim Form:** Claim form typically used in electronic format for private practice, group practice, and professional service billing. *Resources:* CMS Pub. 100-04, Medicare Claims Processing Manual, Chapter 1: <https://www.cms.gov/regulations-and-guidance/guidance/manuals/downloads/clm104c01.pdf>; CMS Pub. 100-04, Medicare Claims Processing Manual, Chapter 25: <https://www.cms.gov/Regulations-and-Guidance/Guidance/Manuals/Downloads/clm104c26pdf.pdf>
- **Co-treatment (may also be referred to as team treatment):** Treatment of one patient by two disciplines in the same time period. Billable time varies by payor. *Resources:* CMS Therapy Services webpage, 11 Part B Billing Scenarios for PTs and OTs: https://www.cms.gov/Medicare/Billing/TherapyServices/Downloads/11_Part_B_Billing_S

[cenarios for PTs and OTs.pdf](#); CMS Minimum Data Set (MDS) 3.0 Resident Assessment Instrument (RAI) Manual, Chapter 3, Section O: Retrieve latest version from <https://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/NursingHomeQualityInits/MDS30RAIManual>

- **Group therapy:** Treatment of more than one patient at the same time by one discipline. Payor rules about number of patients, about whether the patients must be doing the same or a different treatment activity, and billable time, vary by payor. *Resources:* CMS Therapy Services webpage, *11 Part B Billing Scenarios for PTs and OTs:* https://www.cms.gov/Medicare/Billing/TherapyServices/Downloads/11_Part_B_Billing_Scenarios_for_PTs_and_OTs.pdf; CMS Minimum Data Set (MDS) 3.0 Resident Assessment Instrument (RAI) Manual, Chapter 3, Section O: Retrieve latest version from <https://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/NursingHomeQualityInits/MDS30RAIManual>
- **Concurrent Therapy:** Treatment of two patients at one time by one practitioner, with the patients doing different treatment activities. Payor rules may or may not allow billing of concurrent services. *Resources:* CMS Therapy Services webpage, *11 Part B Billing Scenarios for PTs and OTs:* https://www.cms.gov/Medicare/Billing/TherapyServices/Downloads/11_Part_B_Billing_Scenarios_for_PTs_and_OTs.pdf; CMS Minimum Data Set (MDS) 3.0 Resident Assessment Instrument (RAI) Manual, Chapter 3, Section O: Retrieve latest version from <https://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/NursingHomeQualityInits/MDS30RAIManual>
- **Distant Site:** The location of the health care provider(s) during the telehealth services: *Resource:* 42 CFR § 410.78 -- Telehealth services <https://www.ecfr.gov/current/title-42/chapter-IV/subchapter-B/part-410/subpart-B/section-410.78>
- **Facilitator:** As defined in the [NAP Lexicon](#), a facilitator is a “person (often but not always an educator) who is skillful at eliciting engagement and/or action among participating learners for achieving a goal or educational outcome.” In the context of telehealth, a facilitator is typically a person who assists the patient with management of the technology and hardware. This person may be a healthcare provider, a service provider, a family member, caregiver, a companion or friend of the patient. A facilitator’s services are typically not billable.
- **Modifiers:** Modifiers are required on health care claims for various reasons to provide details about the service provided, to facilitate a required adjustment on claim payment, and/or to attest to compliance with certain payor rules. For telehealth services, most payors require either a -95 or GT modifier to identify that the services were provided via synchronous telehealth. GQ is for asynchronous telehealth services, FQ for audio-only services, and G0 for Telehealth services furnished for purposes of diagnosis, evaluation, or treatment of symptoms of an acute stroke. *Resources:* CMS Pub. 100-04, Medicare Claims Processing Manual, Chapter 25: <https://www.cms.gov/Regulations-and-Guidance/Guidance/Manuals/Downloads/clm104c25.pdf>; CMS Pub. 100-04, Medicare Claims Processing Manual, Chapter 25: <https://www.cms.gov/Regulations-and-Guidance/Guidance/Manuals/Downloads/clm104c26pdf.pdf>; Novitas website: <https://www.novitas-solutions.com/webcenter/portal/MedicareJH/pagebyid?contentId=00144501>
- **Originating Site:** The location of the patient during the telehealth services. *Resource:* 42 CFR § 410.78 -- Telehealth services <https://www.ecfr.gov/current/title-42/chapter-IV/subchapter-B/part-410/subpart-B/section-410.78>

- **Place of Service (POS) Code:** A code that is used on health care claims to identify where the originating site is. Typically, a 10 is used when the patient receives the telehealth services in their home, with 02 used when the patient is in a location other than their home. *Resources:* American Academy of Family Physicians (AAFP) https://www.aafp.org/pubs/fpm/blogs/gettingpaid/entry/telehealth_pos_change.html; CMS website https://www.cms.gov/Medicare/Coding/place-of-service-codes/Place_of_Service_Code_Set
- **Qualified Provider:** Laws, regulations, and payor rules define the types of providers that may provide and bill for telehealth services. *Resource:* 42 CFR § 410.78 -- Telehealth services <https://www.ecfr.gov/current/title-42/chapter-IV/subchapter-B/part-410/subpart-B/section-410.78>
- **Revenue Code:** A code used to identify the type of provider providing the service. Some payors require a 780 Revenue Code on telehealth services instead of a telehealth modifier. *Resources:* CMS Pub. 100-04, Medicare Claims Processing Manual, Chapter 25: <https://www.cms.gov/Regulations-and-Guidance/Guidance/Manuals/Downloads/clm104c25.pdf>; CMS Pub. 100-04, Medicare Claims Processing Manual, Chapter 25: <https://www.cms.gov/Regulations-and-Guidance/Guidance/Manuals/Downloads/clm104c26pdf.pdf>
- **Synchronous:** Real-time audiovisual or audio/telephone communications *Resources:* American Medical Association <https://www.ama-assn.org/practice-management/digital/telehealth-resource-center-definitions>; American Telemedicine Association <https://www.americantelemed.org/wp-content/uploads/2020/10/ATA-Medical-Practice-10-5-20.pdf>
- **Other Communication Technology Based Services (CTBS)**
 - **E-visits:** Online digital evaluation and management (e/m) service or online assessment and management, for an established patient, for up to seven days, cumulative time during the 7 days. *Resource:* <https://www.cms.gov/newsroom/fact-sheets/medicare-telemedicine-health-care-provider-fact-sheet>
 - **Remote Monitoring:** Use of technology “to gather and analyze health information without a face-to-face appointment or in-person testing.” *Resource:* <https://th-site-downloads.s3.us-east-2.amazonaws.com/Leveraging+Remote+Patient+Monitoring+In+Your+Practice.pdf>
 - **Virtual Check-ins:** Brief communication technology-based service, e.g., virtual check-in, or remote evaluation of recorded video and/or images submitted by an established patient (e.g., store and forward), including interpretation with follow-up with the patient within 24 business hours, not originating from a related e/m service provided within the previous 7 days nor leading to an e/m service or procedure within the next 24 hours or soonest available appointment. *Resource:* <https://www.cms.gov/newsroom/fact-sheets/medicare-telemedicine-health-care-provider-fact-sheet>

Payors

General Coverage Considerations

State and federal laws and regulations, as well as payor policies, determine what types of providers, settings, and services will be covered for telehealth and related virtual services (e.g.,

e-visits, virtual check-ins, audio-only services). Federal laws and regulations also address requirements for system security (e.g., software, hardware, transmission processes, consent) and protection of protected health information (i.e., HIPAA requirements). State laws and regulations may also address such issues as location of the practitioner (e.g., within or across state lines, in an adjacent state or non-adjacent states), licensing requirements, scope of practice, etc. Payor policies and claim filing processes provide payor-specific rules regarding claim-filing forms, covered HCPCS/CPT® service codes, ICD-10 codes, modifiers, place of service codes, frequency and duration of services, quality reporting, and documentation requirements.

As data and the work of interprofessional collaboration continues including advocacy, education, research, and practice around the use of telehealth evolves, the laws, regulations, and reimbursement rules may change. Such changes necessitate knowledge of resources that will enable practitioners to keep up with the most current requirements, allowances, and restrictions in regard to the provision of and payment for telehealth services.

COVID Exceptions

Prior to the COVID-19 Public Health Emergency (PHE), only certain disciplines (physicians, physician assistants, nurse practitioners, clinical nurse specialists, nurse-midwives, clinical psychologists, clinical social workers, registered dietitians or nutrition professionals, and certified registered nurse anesthetists) were considered to be qualified providers of telehealth by Medicare. Further, under Medicare coverage, telehealth was only covered on a limited basis in instances when the services were being received in designated rural areas and when the patient traveled to certain types of medical facilities. Other payors such as Medicaid, TRICARE, and various managed and commercial payors had varied policies prior to the COVID-19 PHE regarding the definition of a qualified telehealth provider, where those services may be provided, and how those services were billed.

With the COVID-19 PHE, the need for telehealth services was recognized in order to facilitate access to various health care services and minimize the spread of COVID-19. As such, Medicare and other payors expanded coverage of telehealth to include certain other disciplines and settings, and also put forth rules for claim coding and submission. In addition, certain PHE flexibilities reduced or waived cost-sharing for telehealth visits paid by federal healthcare programs and provided for HIPAA flexibilities.

Further, the Centers for Medicare and Medicaid Services (CMS) and other payors recognized and promoted other types of virtual/remote services. CMS also provided a clarification about instances when for infection control purposes, the distant site was another place within a health care facility or health care campus. CMS issued clarifications about such onsite and "window" services, indicating that they should be billed as in-person services rather than as telehealth services.

Related resources and web-links:

- Billing for Telehealth During COVID-19: <https://telehealth.hhs.gov/providers/billing-and-reimbursement>
- HIPAA Flexibility During COVID-19: <https://telehealth.hhs.gov/providers/policy-changes-during-the-covid-19-public-health-emergency/hipaa-flexibility-for-telehealth-technology/#hipaa-flexibilities-during-covid-19>
- COVID-19 Emergency Declaration Blanket Waivers for Health Care Providers <https://www.cms.gov/files/document/covid-19-emergency-declaration-waivers.pdf>

- Frequently Asked Questions to Assist Medicare Providers (Posted on CMS COVID -19 PHE Waiver webpage) (See section P for Medicare Telehealth, as well as related FAQs in other sections) <https://www.cms.gov/files/document/03092020-covid-19-faqs-508.pdf>

Traditional Medicare (Parts A and B)

Medicare regulations at 42 CFR § 410.78 allow for Medicare coverage of telehealth services provided by physicians, physician assistants, nurse practitioners, clinical nurse specialists, nurse-midwives, clinical psychologists, clinical social workers, registered dietitians or nutrition professionals, and certified registered nurse anesthetists for certain services when the Medicare beneficiary is located in designated rural areas and when the patient travels to certain types of medical facilities.

Under provisions of the Consolidated Appropriations Act of 2022, CMS acknowledged extended flexibilities for 151 days beyond the expiration of the COVID-19 PHE. After that 151-day period, new legislation would have been needed to designate other disciplines as qualified providers of telehealth services and other allowable originating sites. Then, under the provisions of the Consolidated Appropriations Act of 2023, Congress changed the timeline, indicating that in the event that the COVID-19 PHE ends before December 31, 2024, telehealth-related Medicare PHE flexibilities would expire on December 31, 2024, rather than 151 days after the declared end of the COVID-19 PHE.

The Consolidated Appropriations Act of 2023 also requires the Secretary of the U.S. Department of Health and Human Services (HHS) to conduct a study on telehealth and Medicare program integrity with an interim report due by October 1, 2024, and a final report by April 1, 2026.

Related resources and web-links:

- Centers for Medicare and Medicaid Services (CMS) Telehealth webpage: <https://www.cms.gov/Medicare/Medicare-General-Information/Telehealth>
 - 42 CFR § 410.78 -- Telehealth services <https://www.ecfr.gov/current/title-42/chapter-IV/subchapter-B/part-410/subpart-B/section-410.78>
 - Medicare Telemedicine Health Care Provider Fact Sheet <https://www.cms.gov/newsroom/fact-sheets/medicare-telemedicine-health-care-provider-fact-sheet>
 - CMS Telehealth Services Medicare Learning Network (MLN) Fact Sheet: <https://www.cms.gov/Outreach-and-Education/Medicare-Learning-Network-MLN/MLNProducts/Downloads/TelehealthSrvcsfctsh.pdf>
- Health and Human Services (HHS) Telehealth webpage: <https://telehealth.hhs.gov/>

Medicaid

Medicaid Services are overseen by the Centers for Medicare and Medicaid Services (CMS), but the actual services are implemented by state governments. As such, Medicaid plans vary from state to state with telehealth coverage also varying in regard to qualified providers, settings, and coding and claim submission rules. Therefore, providers need to access state-specific telehealth resources in order to assure compliance with state-specific telehealth policies, rules, and regulations.

Interprofessional Consultations:

Defined as “a situation in which the patient’s treating physician or other qualified health care practitioner requests the opinion and/or treatment advice of a physician or other qualified health care practitioner with specific specialty expertise to assist the treating practitioner with the patient’s care without face-to-face contact with the consulting practitioner.”

<https://www.medicaid.gov/federal-policy-guidance/downloads/sho23001.pdf>

- CMS Allows Interprofessional Consultations in Medicaid (January 5, 2023):
The letter opens the door for states to reimburse interprofessional consultations and provides flexibility for states to develop their own methodology to do so. This letter is a significant reversal from prior CMS policy and supersedes the policy communicated in the November 2018 letter to State Medicaid Directors which required the patient to be present for specialty consultations to be covered.

Related resources and web-links:

- Medicaid.gov Telemedicine webpage:
<https://www.medicaid.gov/medicaid/benefits/telemedicine/index.html>

Managed and Commercial Insurers, Medicare Advantage Plans, and Other Payor Sources

Throughout the country, managed and commercial payor plans, Medicare Advantage plans, and other payor sources vary in regard to telehealth coverage and also in regard to qualified providers, settings, and coding and claim submission rules. Therefore, for the insurances and other payor sources that they submit payment claims to, providers need to access payor-specific telehealth resources in order to assure compliance with payor-specific telehealth policies, rules, and regulations.

Coding (HCPCS, CPT, ICD-10, DSM-5, NCCI)

Health care claims provide information about the services provided using a language of codes. Electronic claim submission also allows for electronic claim editing and data collection/mining. Health care payor policies identify services that may be covered when provided via telehealth. These services must be services that can be sufficiently performed remotely, i.e., do not require the in-person presence of the patient and health care practitioner and service-related equipment. Healthcare payors also define coding and claim submission processes and requirements.

Healthcare Common Procedural Coding System (HCPCS) includes:

- Level I – CPT (AMA copyright)
 - Category I – Standard service codes (fees)
 - Category II – Tracking and data collection related to performance and quality (no fees)
 - Category III – Emerging technologies and techniques (may or may not have fee)
- HCPCS Level II (U.S. Government) – DMEPOS, temporary codes, special reporting (may or may not have fee)
- HCPCS Level III (Local Codes) – State Medicaid agencies, Medicare contractors, and private insurers for specific programs and jurisdictions

International Classification of Diseases-10-Clinical Modification (ICD-10-CM) Codes are codes that provide information about diseases, disorders, illnesses, injuries, conditions, complexities, comorbidities, signs, symptoms, external causes.

International Classification of Diseases-10-Procedural Coding System (ICD-10-PCS) Codes are codes used to classify various health care procedures.

Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition (DSM-5 Codes) are used by mental health professionals to classify and describe mental health disorders

National Correct Coding Initiative (NCCI) looks to promote correct coding. The NCCI includes specifications of comprehensive and component code pairings and mutually-exclusive code pairings aimed at preventing unbundling and separate billing of a service that is component of a more comprehensive service and billing of services that clinically cannot/should not be provided to a patient on the same day. The NCCI also includes Medically Unlikely Edits (MUES), which provide specifications for the maximum number of units that can be billed by a provider for a patient's services on given day and edits to flag gender-specific or age-related services that do not align with the gender or birthdate on a claim. Because telehealth services are billed using standard service codes, the NCCI edits apply to the billed HCPCS/CPT codes. For virtual service codes that have their own codes (e.g., e-visits, virtual check-ins, RTM codes), there may be specific NCCI edits.

Related resources and web-links:

- Centers for Medicare and Medicaid Services (CMS)
 - Medicare Physician Fee Schedule webpage: <https://www.cms.gov/Medicare/Medicare-Fee-for-Service-Payment/PhysicianFeeSched>
 - ICD-10 Webpages:
 - CMS: <https://www.cms.gov/Medicare/Coding/ICD10>
 - CDC: <https://www.cdc.gov/nchs/icd/Comprehensive-Listing-of-ICD-10-CM-Files.htm>
 - Diagnostic and Statistical Manual of Mental Disorders (DSM-5-TR): <https://psychiatry.org/psychiatrists/practice/dsm>
 - National Correct Coding Initiative (NCCI) Webpage: <https://www.cms.gov/Medicare/Coding/NCCI-Coding-Edits>
 - List of Telehealth Services webpage: <https://www.cms.gov/Medicare/Medicare-General-Information/Telehealth/Telehealth-Codes>

State Laws and Reimbursement Policies

State laws and regulations may provide general rules for:

- Where and by whom telehealth services can be provided
- Reimbursement for telehealth services under Medicaid
- Discipline licensing, practice, scope, supervision (where applicable)
- Any training requirements

In addition, practitioners must be aware of national or specialty certification requirements, as well as state practice regulations for their discipline. State practice regulations define scope of

practice and provide rules for licensed practice of various health care disciplines and may include specific rules about telehealth and interstate practice. The rules may include specific requirements for training prior to the provision of services by means of telehealth. Health care practitioners need to access state-specific practice resources in order to assure compliance with state laws and regulations applicable to their particular discipline. Practitioners must use available professional and state resources to stay knowledgeable of telehealth laws and regulations specific to their discipline and the states in which they practice.

Related resources and web-links:

- Current State Laws & Reimbursement Policies, National Policy Center, Center for Connected Health Policy: <https://www.cchpca.org/all-telehealth-policies/>
- The National Center for Interstate Compacts | The Council of State Governments: <https://compacts.csg.org/>
- Audiology & Speech-Language Pathology:
 - Compact: <https://aslpcompact.com/>
 - [State Laws and Regulations](#)
 - [State-by-State](#)
- Nursing Compact: <https://www.ncsbn.org/nurse-licensure-compact.htm>
- Occupational Therapy:
 - Compact: <https://otcompact.org/>
 - [OT and Telehealth: State Statutes, Regulations and Regulatory Board Statements](#)
- Optometry: [State Optometry Laws](#)
- Physical Therapy Compact: <https://ptcompact.org/>
- Psychology Interjurisdictional Compact: <https://psypact.site-ym.com/>
- Respiratory Care: <https://www.aarc.org/an22-payment-updates-impacting-respiratory-care/>
- Veterinary Medicine:
 - American Veterinary Medical Association: <https://www.avma.org/resources-tools/animal-health-and-welfare/telehealth-telemedicine-veterinary-practice/veterinary-telehealth-basics>
 - Veterinary Virtual Care Association:
 - <http://vvca.org/>
 - <http://vvca.org/telemedicine-map/>

Proposed and Pending Legislation and Advocacy

The COVID-19 PHE has served to promote telehealth services and allow for related data collection and analysis of its benefits and challenges in regard to health care service provision, impact on social determinants of health, cost, setting and geographical differences, etc. First and foremost, the place of telehealth in facilitating access to care has been brought to light. As noted above, outside of the COVID-19 PHE, laws, and regulations restrict access to covered telehealth services. Several bills have surfaced in both state and federal government to support continued and expanded access to covered telehealth services.

Advocacy efforts by professional and health care industry organizations have been ongoing. Practitioners may find the websites listed below to be helpful in keeping up-to-date on telehealth-related legislation. In addition, practitioners are encouraged to stay attuned to and to contribute to advocacy efforts through the NAP website, their professional association websites,

and various health care industry organization websites. See Addendum: *Additional Resources* for related resources and web-links.

Addendum: Additional Resources

National Academies of Practice

[NAP Lexicon 2.0](#)

The National Academies of Practice (NAP) Lexicon 2.0 was approved by the NAP Council on October 25, 2022.

[NAP Position Statement on the Provision of Telehealth Services](#)

NAP approved this statement, sent on June 29, 2020, to the Centers for Medicaid & Medicare Services.

Telehealth Resource Centers

[National Consortium of Telehealth Resource Centers](#)

Provides free telehealth consultation, resources, and news for providers. The center is dedicated to building sustainable telehealth programs and improving health outcomes for rural and underserved communities.

[National Telehealth Technology Assessment Resource Center \(TTAC\)](#)

Seeks to create better-informed consumers of telehealth technology through toolkits, resources, technology assessment services, and technical assistance to select appropriate technologies for your telehealth program. The center is based on of the Alaska Native Tribal Health Consortium (ANTHC) and builds upon the organization's telehealth expertise and experience.

Telehealth Policy

[Center for Connected Health Policy](#)

Get to know how the laws, regulations, and Medicaid programs work in your state. Find policies and regulations that impact you, including pending legislation and compare policies by state. The site also houses archived webinars. Scroll to the bottom to subscribe for telehealth policy news and updates.

[HHS Tips for Telehealth Success:](#)

Includes best practices for providing care through telehealth and stays up to date on recent billing and policy changes. (For consumers, see also Resources for Consumers)

Legislation

[GovTrack.us](#)

Tracks the status of federal legislation and publishes information about representatives and senators in Congress including voting records, and original research on legislation. Sign up for bill alerts on the home page.

[United States Pending Federal Legislation & Regulation](#)

The Center for Connected Health Policy site tracks telehealth legislation and regulation for the current legislative session.

[State Telehealth Legislation & Regulation](#)

The Center for Connected Health Policy has an interactive 50 state and Puerto Rico legislation and regulatory tracking tool to browse telehealth legislation for the current legislative session. Legislation for Puerto Rico is currently only available in Spanish.

Telehealth Advocacy

[American Telemedicine Association:](#)

An organization that advances industry adoption of telehealth, promotes policy, advocates for government and market normalization, and provides education and resources to integrate virtual care into emerging value-based delivery models. Membership includes healthcare delivery systems, academic institutions, technology solution providers and payers, and partner organizations and alliances.

Resources for Consumers

[HHS Tips for Telehealth Success](#)

Includes information for patients to make the most out of their telehealth experience including what telehealth is, telehealth and COVID-19, finding telehealth options, and preparing for a virtual visit. (For providers, see also Telehealth Policy)