Telemedicine: What it is and How it May Affect You
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What is Telemedicine—
And is it Different from Telehealth?

Telemedicine refers to the remote diagnosis and treatment of patients using a telecommunications technology. Common examples of telemedicine include remotely monitoring vital signs, diagnosing a condition by two-way video communication, and evaluating medical images that are transmitted electronically. Telemedicine traditionally has been used to deliver services to people who live in rural areas and have difficulty accessing health care, but more and more companies are expanding the types of telemedicine services available to the point that consumers now can request on-demand medical services with little more than a smartphone or Internet connection.

You also may have heard the word “telehealth” used to describe the use of technology in health care. Although some entities use the two terms interchangeably, telehealth is generally broader and refers not only to telemedicine, but also to the use of telecommunications technologies to deliver virtual health care services, education, and support to patients and providers.¹ While the definitions are similar, telehealth includes the use of technology to provide non-clinical services, like provider training and other educational activities.² In a sense, telemedicine is a subset of the broader term telehealth.

Because this publication primarily relates to the delivery of clinical services, the term “telemedicine” will be used throughout.

Investment in on-demand health services is expected to reach $1 billion in 2017, compared to $200 million in 2014 (a 400% increase).

A study of remote monitoring of implantable defibrillators found that it could save patients $190 and hospitals $51 per patient.
How is Telemedicine Used?

There are four main categories (modalities) of telemedicine services:

**Interactive audio-video:** Providers can interact with patients by videoconferencing in real time to provide diagnoses and treatment options. In addition to delivering primary care services to patients who live in rural areas, interactive video can connect providers with needed specialists who may not be available locally.

**Store-and-forward:** Digital medical information can be sent electronically from patients to providers, as well as between providers, for remote diagnosis and therapeutic recommendations. This medical information can include digital images of the patient (such as the image of a skin rash), clinical data (such as glucose levels and electrocardiogram measurements), and pre-recorded videos.

**Remote patient monitoring:** Providers can use telemedicine technology to collect medical data from patients while they are in their own homes, and then interpret and use that data to offer a diagnosis or deliver medical care. Remote monitoring includes technology that allows providers to monitor health indicators related to conditions such as diabetes, cardiac arrhythmias, and pulmonary diseases. Data that is generated by remote monitoring can be transmitted to health care professionals in real-time for analysis and follow-up care.

Over 15 million Americans received some sort of remote medical care in 2015, which is expected to grow by 30% in 2016.

**Mobile health (mHealth):** This term refers to the use of mobile devices, cell phones, tablets, apps, or wearable devices to manage and track health conditions or lifestyle trends. Examples include monitoring steps with a FitBit and using text messages to confirm a doctor’s appointment. Other examples of mHealth technologies include patient self-tracking tools, medication adherence apps, and “gamification” software to help patients better self-manage their own chronic diseases. For more information regarding mHealth, see AHLA’s resource entitled *How Does This Work? Using Mobile Health Technology While Protecting Your Privacy.*³
How Can Telemedicine Improve Health Care?

Accessing necessary health care services can often be difficult, inconvenient, and expensive. These burdens are only likely to grow in the coming years as the demand for health services outpaces the supply. In fact, by 2025, experts predict shortages of between 12,500 and 31,000 primary care physicians and between 28,200 and 63,700 specialists. Access issues are especially challenging for patients living in rural areas, where disproportionately few physicians practice. As a result, patients often must travel significant distances to get the health care they need.

Telemedicine technologies can lessen these burdens. Instead of having to take significant time off from work or travel long distances, patients can communicate directly with a doctor from their homes or workplaces. Telemedicine also can be used to expand access to specialist care. Patients either can interact with the specialist directly using technology from their home or from a convenient provider setting, or the specialist can consult with the patient’s physician about the patient’s condition.

Even though 20% of the American population lives in rural areas, only 11% of physicians practice there.

There are already indications that telemedicine services can lower some of the barriers to medical care. The U.S. Department of Veterans Affairs has been using telemedicine technology since the 1990s and, as a result, numerous studies have been conducted on its effectiveness and efficiency. Recently, researchers concluded that each telemedicine encounter results in an average travel savings of 145 miles and 142 minutes.
How Can I Access Telemedicine Services?

It is increasingly possible to obtain access to telemedicine services through your job. In 2016, over 70% of large employers offered telemedicine services as part of their employee health plans. The service usually takes the form of an interactive consultation by telephone or video, in which a doctor can diagnose the condition, prescribe medication if needed, or recommend additional follow-up care. Some employers are going further and installing telemedicine kiosks onsite, which allow employees to consult with providers through two-way video. The kiosks are also fitted with medical instruments, like stethoscopes, that allow the provider to perform the equivalent of a physical examination and deliver a wider scope of medical services.

Only 17% of the average travel and waiting time (20 minutes) is actually spent seeing a doctor.

Even if your employer does not offer on-site kiosks or make telemedicine consultations available through your health plan, there is a growing list of companies that will offer such services directly to patients, with or without insurance coverage. These services include consults with medical doctors, psychologists, and psychiatrists, as well as remote dermatological services in which the patient uploads digital pictures of the condition and then speaks with a physician who has reviewed the images. Charges for these services differ based on the company. Some offer a subscription-based service, while others charge a flat fee that varies based on the type of service. Flat fees are typically around $49 for a medical consultation and between $90-120 for a visit with a specialist.

Your own provider may already offer or be willing to explore telemedicine services. Speak with your doctor directly to see what he or she can offer.
Are Telemedicine Services Covered by Insurance Just Like Traditional In-office Visits or Services?

Health insurance coverage for telemedicine services varies based on the type of insurance benefit and state law, and states are continually passing new laws and regulations in this area. Therefore, although the information below provides an overview of trends in telemedicine reimbursement, it is important to talk to your insurance provider about what specific benefits are available to you.

Private insurance: The majority of states (31 states and the District of Columbia) have passed telemedicine commercial coverage laws that require commercial health insurers to cover certain telemedicine services to the same extent the services would be covered if delivered in-person. Because these laws are passed on a state-by-state basis, however, the telemedicine services covered and the amount insurers will pay for the services varies significantly. Only a portion of those states mandate payment parity, meaning that the plan must reimburse for telemedicine services at the same payment rate the plan reimburses for identical services provided in-person.

90% of employers are expected to offer telemedicine benefits by 2018.

Medicare: Medicare Part B, which covers outpatient services for adults over 65, will pay for certain services that are delivered by telemedicine, but under current Medicare laws, such coverage is quite limited. All telemedicine services, for example, must be performed while the patient is at an “originating site,” which is a health facility that is located in either (1) a federally-designated rural Health Professional Shortage Area or (2) a county outside of a Metropolitan
In addition, for the most part, Medicare will only reimburse for interactive audio-visual technology and only pays for a specific list of services. That said, if you have a Medicare Advantage plan, your insurance company may offer telemedicine benefits. In 2015, Anthem began paying for telemedicine visits with no copay in certain states; Humana followed in 2016. However, be sure to contact your Medicare Advantage provider for up-to-date information about available telemedicine options.

**Medicaid:** Except for Massachusetts and Rhode Island, all states offer some type of telemedicine reimbursement through their Medicaid programs. These states all reimburse for services delivered using live audio-visual technology, but the specific services and providers covered varies from state to state. In addition, 19 of these states reimburse for remote patient monitoring, and 12 states reimburse for store-and-forward services, although again the specific policies vary by state.

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Telemedicine could lower health care costs for employers by $6 billion annually.

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**What Risks Are Associated With Telemedicine?**

Receiving treatment through telemedicine is not without risks, so it is important to be informed about them and ensure that the particular treatment being offered is right for you under the circumstances.

**Appropriate use:** Not all conditions should be treated by telemedicine. It is important for both the patient and the provider to evaluate whether a remote service is appropriate in each circumstance. Patients should not turn to telemedicine as a replacement for in-person care. Although these services can be useful in specific instances and may augment traditional health care services, most practitioners agree that an ongoing patient-provider relationship is necessary for patients to obtain the best health outcomes.
After Alaska introduced telemedicine services for ear, nose, and throat issues, the percentage of new patients who had to wait longer than 5 months for an appointment dropped from 47% to 8% within 3 years.

Safety and effectiveness: Although many scientific studies demonstrate the effectiveness of various telemedicine services, others show evidence of missed diagnoses and failures to order necessary lab tests or prescribe appropriate antibiotics. In short, there is no guarantee that telemedicine consultations will be effective or sufficient for your particular condition. That said, the American Medical Association (AMA) recently published guidelines designed to assure safe and effective telemedicine interactions. These guidelines have been added to the AMA’s Code of Medical Ethics to ensure that physicians comply with their fundamental ethical responsibilities when providing telemedicine services.

Privacy and security of personal health information: Most providers and technology companies that transmit, receive, or otherwise come into contact with patient health information must comply with the Health Insurance Portability and Accountability Act of 1996 (HIPAA), regardless of whether they are involved in treating the patient in person or by telecommunications technology. Despite such providers’ and companies’ efforts to comply with HIPAA’s requirements to keep patients’ health information confidential, data breaches can and do occur. It is important to become familiar with the safeguards required and your rights under HIPAA so that you know what you can do if your health information is compromised.

57% of physicians recently surveyed were willing to have a video visit with a patient.
ENDNOTES


3 Download for free at www.healthlawyers.org/mHealthPrivacy.


10 See American Well and Doctor on Demand.


12 Id.


17 Id.

18 Id.


FACTOID SOURCES


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Additional Public Interest Resources

**How Does This Work? Using Mobile Health Technology While Protecting Your Privacy**

Provides general guidance on how you can protect the privacy of your information when using mobile health applications to collect and share your health information and medical data through your smartphone or tablet.

[www.healthlawyers.org/mhealthprivacy](http://www.healthlawyers.org/mhealthprivacy)

**Medicaid Basics: Eligibility, Coverage, and Benefits**

Provides answers to the most commonly-asked questions about Medicaid’s background, history, coverage, and eligibility requirements.

[www.healthlawyers.org/MedicaidBasics](http://www.healthlawyers.org/MedicaidBasics)

**A Handbook for Parents: The Individuals with Disabilities Education Act**

Addresses the educational challenges that parents and caretakers of children with disabilities face and offers valuable guidance about rights and benefits.

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