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What Is Telemedicine?

Telemedicine refers to the practice of caring for patients remotely when the provider and patient are not physically present with each other. Modern technology has enabled doctors to consult patients by using HIPAA compliant video-conferencing tools. (<https://vsee.com/messenger/>)

Most robust and easy to use telemedicine software

[LEARN MORE ABOUT VIRTUAL CLINIC \(HTTPS://VSEE.COM/CLINIC\)](https://vsee.com/clinic)

Know more real life usecases of telehealth (/telemedicine) and successful telehealth deployments (/success-stories) all over the world.

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Telemedicine Definition

Meet us at HIMSS'21 Booth #2251, Aug 10-12 (<https://vsee.com/himss2021-meeting-scheduler>) A tool that makes healthcare more accessible, cost-effective, and that increases patient engagement, is telemedicine. Since making its debut in the late 1950's, advances in telemedicine has contributed to seniors having the choice to age in place. In addition, the patients that reside in rural areas that previously had difficulties accessing a physician, can now reach them virtually.

Physicians and patients can share information in real time from one computer screen to another. And they can even see and capture readings from medical devices at a faraway location. Using telemedicine software, patients can see a doctor for diagnosis and treatment without having to wait for an appointment. Patients can consult a physician at the comfort of their home.



The concept of telemedicine and telehealth could be still new to providers and physicians given the especially slow adoption of technology in healthcare.

However, the continue advances in technology and healthcare innovation has greatly expands its usability. Moreover, the demand from new generation of tech savvy population has pushed for its rapid adoption due to convenience, cost saving and intelligent features it brings.

It's now a matter of time for healthcare system, medical group, providers and even solo practitioner integrate telemedicine as part of their medical services offering.

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Telemedicine is simply defined as, "the remote delivery of healthcare services (<http://searchhealthit.techtarget.com/definition/telemedicine>)". There are 3 common types of telemedicine, which include but not limited to:

- **Interactive Medicine** – which allows patients and physicians to communicate in real-time while maintaining HIPAA compliance
- **Store and Forward** – which permits providers to share patient information with a practitioner in another location.
- **Remote Patient Monitoring** – which allows remote caregivers to monitor patients that reside at home by using mobile medical devices to collect data (e.g. blood sugar or blood pressure)

How is telemedicine set up?

It can be simple or complex for a provider to implement telemedicine into their practice. For solo practitioner and clinic, most just require a basic HIPAA compliant video conference software (/messenger) to start delivering telemedicine consultation.

For providers looking to have a more complete virtual clinic solution (/clinic), they need to consider their existing workflow and incorporate the telemedicine software solution into their practice. Usually these software need to have waiting room, EHR and payment function.

For large medical group or hospitals, they usually requires custom telehealth solution to fit into their existing workflow to lessen the disruption of adopting telemedicine as its harder to train large number of physicians to change their behaviour.

Besides the software part, it's advisable for provider to do due diligence on the telehealth regulations, and reimbursement policy for their country or state, which will be discussed later in this article.

Organizations will have to change operationally and have knowledge of the regulations, legalities, and technological aspects (<https://www.healthcaredive.com/news/how-to-set-up-a-telemedicine-practice/433069/>) of implementing telemedicine. Many organizations decide to partner with a telemedicine company to make the transition and implementation easier.

Check in-depth discussion for tips of implementing telemedicine ([/blog/top-10-tips-making-telehealth-work-physician-perspective/](#)) here.

How is it Conducted?

Telemedicine is conducted in a number of ways. The most basic is just a simple video call (like you normally do with family and friends), however most countries required secured HIPAA compliant video conference tool, so telemedicine company such as VSee also provides this kind of secure and simple to use solution for providers.

Meet us at HIMSS21 Booth #225, Aug 10-12. There are also some telemedicine is conducted with portable telemedicine kits that include a computer and mobile medical devices, such as ECGs or vital signs monitors. High resolution digital cameras are also available for physicians to send detailed medical images to specialists.

Lastly, there is robust telemedicine software that allows everything from data storage to live video conferencing. Overall, there are many innovative telemedicine equipment to meet the various needs of patients today.

Check out VSee HIPAA Compliant Telemedicine Solutions

[VSEE PRODUCT SOLUTIONS \(/VIRTUAL-CARE-SOLUTIONS\)](#)

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What are the difference between Telemedicine and Telehealth

In the last decade, rapid advances in medicine and technology has resulted in the use of new terms. Policymakers, healthcare systems, advocacy groups, and vendors may unknowingly use terms incorrectly when discussing medicine and technology. This is especially true when it comes to the terms, telemedicine and telehealth. Although the words are often used interchangeably, there is certainly a difference between the two.

What is Telemedicine?

The World Health Organization (WHO) refers to telemedicine as "healing from a distance" (<https://mhealthintelligence.com/features/is-there-a-difference-between-telemedicine-and-telehealth>"). It is the use of telecommunications technology and information technologies to provide remote clinical services to patients. Physicians use telemedicine for the transmission of digital imaging, video consultations, and remote medical diagnosis.

Today, individuals no longer have to schedule an in-person visit with a physician to receive treatment. The use of secure video and audio connections makes it possible for specialists to treat patients who reside in locations with limited access to care.

What is Telehealth?

HealthIT.gov defines telehealth (<https://www.healthit.gov/telehealth>) as "the utilization of electronic information and telecommunications technologies to support and promote long-distance clinical health care, patient and professional health education, public health and health administration."

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While this definition sounds a lot like telemedicine, there is one distinct difference. Unlike telemedicine, telehealth also covers non-clinical events like administrative meetings, continuing medical education (CME), and physician training. Telehealth is not a specific service, but a collection of methods to improve patient care and education delivery.

In general, one can think of telehealth as all-encompassing, as telemedicine and telecare fall under its umbrella.

Telemedicine and Telehealth

The terms telemedicine and telehealth bring with them plenty of debate among individuals in the healthcare field. One reason for this debate is due to the varying definitions pertaining to the terms themselves. Some experts consider telemedicine to be physician focused and telehealth to include all health professionals in general.

As technology in the medical field continues to advance, the two terms will likely become more distinguishable. With these advances, there are fortunately industry experts like VSee that keep up with the varying changes for physicians and hospitals. Healthcare organizations interested in implementing telehealth or telemedicine do not have to do so alone.

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History of Telemedicine

Contrary to popular belief, telemedicine is not a new practice. In fact, the concept of telemedicine is dated back to the 19th century! What began as a few hospitals wanting to reach patients in remote locations became an integrative system across the care continuum. The history of telemedicine will unveil how we got to where we are today.

Telemedicine in the 19th Century

The creation of telemedicine began with the inception of the telecommunications infrastructure, which included the telegraph, telephone, and radio. Casualties and injuries were reported using the telegraph during the Civil War, in addition to the ordering of medical supplies and consultations. This is considered one the earliest adoptions of telemedicine technology.

By 1879, a Lancet report discussed how using the telephone can reduce the number of unnecessary office visits (<http://www.cdwcommunit.com/news/top-news/the-history-of-telemedicine/>). This was only the beginning of what would be a patient care transformation.

Telemedicine in the 20th Century

Meet us at HIMSS'21 Booth #225, Aug 10-12 In 1922, Dr. Hugo Gernsbacher featured the teledactyl in a science magazine (<https://telehealth.com/telemedicine-history-infographic/>). Gernsbacher predicted that this sensory feedback device would permit physicians to see their patients through a television screen and touch them from miles away with robot arms (<https://www.smithsonianmag.com/history/telemedicine-predicted-in-1925-124140942/>).

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The first radiologic images were sent via telephone between two medical staff at two different health centers in Pennsylvania by 1948. The health centers were 24 miles apart from one another! Then in 1959, physicians at the University of Nebraska transmitted neurological examinations (<http://searchhealthit.techtarget.com/definition/telemedicine>) across campus to medical students using two-way interactive television. Five years later, a closed-circuit television link was built that allowed physicians to provide psychiatric consultations 112 miles away at Norfolk State Hospital.

Telemedicine Today

Today, most people have access to basic telemedicine devices like mobile phones and computers. With improved accessibility, individuals in rural areas and busy urban areas can connect with a provider with ease. Home-use medical devices make it possible for caregivers to monitor everything from vitals to glucose levels. Physicians can gather essential medical information and make a diagnosis without patients stepping foot in a doctors office.

By 2020, telemedicine is expected to be a \$35 billion industry (<https://vsee.com/blog/two-upbeat-reports-global-telemedicine/>) and be an imperative piece of modern healthcare delivery. The history of telemedicine shows that we've come so far from where we started, and yet still have a long ways to go.

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What are the benefits of telemedicine

Known as a technological advancement that is changing the entire healthcare infrastructure, telemedicine is here to stay. Today, patients, providers, and payers alike are able to benefit from the emergence of telemedicine. Read on to discover how telemedicine is enhancing the healthcare system across the continuum.

Also check out our Top 8 Telemedicine Benefits that will change your mind about healthcare ([/telemedicine-benefits](#))

How Telemedicine Benefits Providers

Healthcare systems, physician practices, and skilled nursing facilities are using telemedicine to provide care more efficiently. Technologies that comes integrated with telemedicine software like electronic medical records, AI diagnosis and medical streaming devices, can better assist providers in diagnosis and treatment. The latter allows providers to monitor patients in real-time and adjust treatment plans when necessary. Ultimately, this leads to better patient outcomes.

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Providers can also benefit from increased revenue. By utilizing telemedicine, physicians can see more patients without the need to hire more staff or increase office space. Experts in telemedicine like VSee help providers set-up HIPAA-compliant telemedicine solutions (<https://vsee.com/virtual-care-solutions/>) that will streamline workflows and enhance patient care.

How Telemedicine Benefits Patients

Because of telemedicine, patients who previously had limited access to health care services can now see a physician without leaving their home. Seniors who would prefer to age in place can now do so with the use of medical streaming devices. The spread of disease is reduced as individuals with contagious diseases don't have to expose it to others in crowded waiting rooms.

Telemedicine also benefits patients in the following ways:

- Transportation: Patients can avoid spending gas money or wasting time in traffic with video consultations.
- No missing work: Today, individuals can schedule a consultation during a work break or even after work hours.
- Childcare/Eldercare Challenges: Those who struggle to find care options can use telemedicine solutions.

How Telemedicine Benefits Payers

Although this is more difficult to prove, big payers like Blue Cross Blue Shield and Aetna are benefiting from telemedicine too. Patients with substance abuse disorders who are treated using various telemedicine strategies provide cost-savings for payers. The cost per treatment is cheaper overall and offers cost savings across the board. As technology continues to improve, the cost savings will become more visible.

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What are the disadvantages of telemedicine

Although telemedicine brings with it many benefits, there are some downsides to it as well. Providers, payers, and policymakers alike know that there are some gray areas that are difficult to keep up with. While the field will grow exponentially over the next decade, it will bring with it both practical and technological challenges.

Unclear Policies

Because technology is growing at such a fast pace, it's been difficult for policymakers to keep up with the industry. There is great uncertainty regarding matters like reimbursement policies, privacy protection, and healthcare laws. In addition, telemedicine laws are different in every state.

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There are currently 20 states with telemedicine parity laws, which require private payers to reimburse in the same way they would for an in-person visit. As additional states adopt parity laws, private payers may institute more guidelines and restrictions for telemedicine services. Although it's a step in the right direction, there is still uncertainty regarding reimbursement rates, billing procedures, and more.

Fewer Face-to-Face Consultations

Several physicians and patients are finding it difficult to adapt to telemedicine, especially older adults. Physicians are very concerned about patient mismanagement. While advances in medicine have made it more efficient to use technology, there are times when system outages occur. There is also the potential for error as technology cannot always capture what the human touch can.

Technology Is Expensive

Healthcare systems that adopt telemedicine solutions can attest that it requires a lot of time and money. Implementing a new system requires training and sometimes staff members find it difficult to welcome this change. Practice managers, nurses, physicians, and more have to learn how to utilize the system so that practices can see the benefits. Although telemedicine is expensive in the beginning, healthcare systems should see a positive return on investment over time due to more patients and less staff.

Telemedicine Experts Make It Easier

Healthcare systems that are thinking about implementing telemedicine solutions should consult with experts in the industry. VSee, a leading telemedicine organization, suggests that practices do not rush into telemedicine without having the right equipment (<https://vsee.com/start-telemedicine-practice/>). They offer a variety of practical solutions for practices wanting to add telemedicine to their clinic and can make the integration more seamless.

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What are the types of telemedicine services

Did you know that there are different types of telemedicine? That's right, there are a few different ways that healthcare systems can use telemedicine to assist patients. As discussed in previous articles, telemedicine is the method of using telecommunications to connect patients and providers over a distance. Today, there are three different types of telemedicine used and it includes the following:

See here for more detailed discussion on types of telemedicine services (/telemedicine-services/)

Interactive Medicine

Meet us at HIMSS'21 Booth #2251, Aug 10-12 (Interactive medicine, also known as "live telemedicine" or "video conferencing", allows patients and physicians to communicate in real time while also maintaining HIPAA compliance. Communication methods include both phone consultations and video conferences. Physicians can assess a patient's medical history, perform psychiatric evaluations, and more using interactive medicine.) Request A Meeting Here (<https://vsee.com/himss2021-meeting-scheduler>)

Telemedicine solutions provided by VSee ensures that interactive medicine is HIPAA compliant in two ways (<https://vsee.com/hipaa/>):

1. Audio/video communication is encrypted and transferred from point-to-point. Identifiable health information is only shared on a need to know basis.
2. VSee offers a HIPAA-required business agreement, which states that they are responsible for keeping all patient information secure. VSee must immediately report any breach of contract.

Store and Forward

This type of telemedicine allows providers to share patient information with a practitioner in another location. For example, a primary care physician can now share patient records and medical data with a specialist without being in the same room. Systems can transmit information across vast distances and different systems (sometimes) so one physician can know what another has already done. This leads to less duplicate testing and fewer instances of poor medication management.

Remote Patient Monitoring

Likely a favorite among patients aging in place, telemedicine permits providers to monitor their patients in their own homes. Using patient portals, a physician can gather and share information with their patient. In addition, medical devices can send vital signs and more to providers so they can make adjustments to care as needed. VSee offers their clients the following telemedicine solutions:

- EKG
- Ultrasound
- Dermatoscope
- Pulse oximeter and more!

These medical devices also allow physicians to travel to rural and developing countries to provide necessary patient care.

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What are the applications of telemedicine

Thanks to telemedicine, physicians have the wonderful opportunity to connect with clients wherever they are. Patients who once could not see a physician due to access to care issues, can now do so almost seamlessly. However, many may wonder what is telemedicine's most valuable applications? We'll discover a few popular ways that telemedicine is used today.

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With high-tech medical devices, physicians can now monitor their patients health over long distances. Touchscreen technology allows providers to access heart rate, blood pressure, glucose levels and more through the transmission of data from one device to another.

Leading telemedicine companies like VSee, assists healthcare organizations in being able to treat patients with chronic diseases (<https://vsee.com/blog/ata-fall-forum-2014-chronic-care/>). They recognize that 75% of the United States healthcare spending is dedicated to treating heart disease, cancer, and diabetes. As a result, they've created telemedicine solutions that can keep physicians abreast from hospital to home. In addition, the patient, their family members, and other healthcare professionals can collaborate in the patient care process.

Today, when readings fall out of range, a physician can intervene in real time, which leads to better health outcomes.

Medication Management

Those in the healthcare industry recognize that medication management is a big deal, especially among seniors. Older adults are more likely to forget to take their medications, which is where telemedicine comes in. Providers and other healthcare professionals can use telemedicine technology to monitor when and if their patients took their medicine. As a result, this leads to fewer hospital readmissions and enhances medication compliance.

Sharing Medical Information

Store and forward, a type of telemedicine that allows providers to share information over a distance, has been a game changer. Today, primary care physicians can connect with specialists who are in another location than them. Healthcare information like diagnostic images, blood analysis, and more can be shared for appropriate patient assessment in real time.

Emergency Room (ER) Diversion

Without a doubt, the emergency room is one of the most expensive, overcrowded, and stressful environments in healthcare. With telemedicine, overcrowded emergency rooms can be reduced by having patients see a remote physician using video chat first. The remote physician can determine if that individual should seek care in an emergency department, which increases ED efficiency.

2nd Opinion

Today, there are telemedicine solutions that allow patients to seek a second opinion from the comforts of their home. Sending another physician copies of your medical images and more can easily be done by uploading the content to their secure website. This is very convenient for those who need a specialist but do not have the resources to drive thousands of miles away or wait a long time.

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In the NICU/ICU, telemedicine can be used in a variety of ways. One approach is by using HD webcams to see the baby from different angles. High-risk infants can be seen by a specialist at another hospital by simply sharing the video within seconds. This decreases the need for infants to be transferred to another hospital, which is costly and time consuming.

Some facilities have also set-up telemedicine follow-up visits that take place one week after a baby is discharged from NICU. Hospitals that did this noticed a significant decrease in extra visits or calls from worried parents.

Read more on how telemedicine can be implemented for NICU (<https://vsee.com/blog/intermountain-nicu-uses-vsee-telehealth/>) in real life here.

Disaster Relief

When a disaster occurs, the local healthcare resources are immediately pulled in to provide both emergent and non-emergent care. This usually results in a shortage as the demand for services is much higher than what can be supplied.

With telemedicine, physicians in other locations can provide assistance by conducting video visits. In fact, when Hurricane Harvey occurred in 2017, healthcare professionals provided emergency and behavioral health video visits. This allowed practitioners to focus on high demand, complex cases in-person versus low level cases that can managed remotely.

Paramedic/Ambulatory

It's not uncommon for an emergency department to shut down after reaching capacity. This leads to ambulances taking patients to hospitals that are farther away and this ultimately affects their outcome.

By using telemedicine, paramedics can use technology to see the capacity of an emergency room in real-time instead of heading to the hospital and then being diverted later.

Also, when emergency rooms begin using video consultations to triage their patients, it gets the non-emergent cases out sooner. This leads to less ambulance diversion and better patient outcomes.

Telemedicine for Remote Clinics

In many Walmart stores, retail consumers can walk up to a kiosk for a doctor consultation. The doctor is not physically present inside the store. Instead, the customer uses a touchscreen computer to type in their symptoms and enter a virtual waiting room. They are then connected by a video link to a doctor. This use-case is HIPAA-compliant because the video link is encrypted to protect patient health information.

Mobile Health

Meet us at HIMSS'21 Booth #2251, Aug. 10-12. Sometimes the answer to the question "What is telemedicine?" is simply mobile medicine. It doesn't require a heavy desktop computer or a lot of equipment. Activities that used to happen only in person are now easy to do on a smartphone. Modern consumers are accustomed to downloading apps and using their smartphones for simple transactions. The same is true for doctor visits. For example, with MDLIVE the patient simply opens the app and clicks to choose a doctor, with whom they can speak either by phone, instant message, or video.

More recently, we are starting to see small scopes and other peripherals that can plug into a mobile phone. These devices transform the phone into a pocket-sized diagnosis tool, excellent for point-of-care tests.



Device Streaming

Medical devices (<https://vsee.com/telemedicine-kits/>) that can stream their data long-distance include, but are not limited to:

- Digital stethoscope
- EKG
- Pulse oximeter
- Ultrasound
- Blood pressure cuff
- Otoscope
- Dermatoscope

These devices can be packed into a kit and sent out into the field. In this way, telemedicine has proved extremely useful in rural and developing countries like Gabon (/blog/vsee-telemedicine-kit-in-africa/), Iraqi Kurdistan (/blog/syrian-refugees-vsee-telemedicine-duhok/), and Nigeria (/blog/virtual-doctor-visit-shell-nigeria/), where there is very little access to high-quality medical care. Telemedicine eliminates the barrier of distance and improves access to medical services that would otherwise not be available in distant rural communities.

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In this category of medical devices, we can also include wearables like FitBit. Data from wearables can be captured via Bluetooth and displayed on a digital dashboard, which allows doctors to monitor their patients' vital stats.

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Which medical specialties can use telemedicine

Although telemedicine has been most beneficial to the primary care arena, it also benefits various medical specialities. Consider the following ways that VSee implements their telemedicine solutions to benefit multiple medical specialities.

Radiology

A radiologist specializes in using medical imaging techniques to both diagnose and treat disease. Their day-to-day responsibilities include working with other healthcare professionals, which can be extremely time-consuming. With telemedicine, radiologists can receive high-quality images and provide feedback on where ever they are. They no longer have to be in the same area as the provider sending over the images, which allows for a more streamlined process.

VSee technology uses radiology software like the VSee Clinic (<https://vsee.com/radiologists/>), to:

- Schedule patient appointments
- Allow patients to pay for services rendered
- Provide or give second opinions

Mental Health

Likely one of the most popular specialities for telemedicine, mental health practices can increase revenue (<https://vsee.com/mental-health/>), streamline patient flow, and provide counselling sessions from anywhere. With telemedicine, patients in rural areas can now access mobile and web apps to speak with their therapist. In addition, cancellations and no-shows are less likely to occur. Mental health practices that implement telemedicine can also see more patients and still provide a high level of patient care. This leads to increased profitability and effective time management.

Pediatric

Parents can now avoid bringing their sick child out of the house to see a doctor because of telemedicine solutions. A Pediatrician can use HIPAA Messenger (<https://vsee.com/pediatricians/>) to securely share images, texts, and more to make a diagnosis and treatment plan. Pediatrician can also provide education to parents regarding next steps just as they would at a clinic.

Dermatology

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With telemedicine, patients can connect with their dermatologist using a smartphone, tablet, or computer. Using high definition images and video, dermatologists can examine a patient suffering from psoriasis, eczema, bedsores, and more. This is extremely convenient for those patients that are housebound. Using telemedicine solutions, dermatologists can diagnose and treat skin care conditions (<https://vsee.com/dermatologists/>) effectively and efficiently. In addition, it not only saves a patient from travelling to a clinic but it also helps them maintain their dignity.

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Business Association Agreement (BAA) and HIPAA for Telemedicine

Check out our comprehensive HIPAA guide (/hipaa) here

Healthcare systems, policymakers, vendors, and providers alike can attest to the many gray areas within telemedicine. One particular area that requires more clarity is the legalities surrounding telemedicine. With it being an industry that is constantly growing, it has become difficult to create a concrete solution. In addition, each state follows different laws for telemedicine, which makes it increasingly difficult to keep up with it.

What is HIPAA?

Health Insurance Portability and Accountability Act, also known as HIPAA, is a US legislation that provides security provisions to safeguard medical information (<http://searchhealthit.techtarget.com/definition/HIPAA>). To date, it currently serves a few purposes:

1. To continue providing health insurance coverage to those who lost their jobs or are changing jobs,
2. Alleviate financial and administrative burden by standardizing financial and administrative transactions and,
3. Avoid waste, fraud, and abuse in healthcare delivery and health care insurance.

Because personal health information is transferred via multiple avenues in health care, HIPAA has created guidelines that ensure information is shared securely.

What is a Business Associate Agreement?

A Business Associate Agreement (<https://www.hipaajournal.com/hipaa-guidelines-on-telemedicine/>) is required when healthcare organizations allow electronic personal health information to be stored by a third party. The BAA should cover how the third party organization will safeguard the data and the resources used for continuous auditing of the data's security.

HIPAA and Business Associate Agreements

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HIPAA requires that healthcare organizations have a Business Associate Agreement with their technology provider to ensure that everyone involved is responsible. However, HIPAA does not apply to telemedicine.

Providers are responsible for protecting patient information. They should ensure that patient information in digital visits are safeguarded in the same way they would in-office visits. HIPAA does not require encryption to meet compliance, but providers should aim to find a business that encrypts data.

Telemedicine Vendors

A telemedicine vendor should have no reservations in signing a Business Associate Agreement. Those that do sign one are confident in their ability to securely store patient information. They are confident that their telemedicine solutions can protect pertinent patient information.

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Telehealth Regulations – Laws governing Telemedicine Practice

While telehealth is not a new concept, its rapid advances in healthcare has left many organizations, policymakers, and vendors uncertain. Common questions regarding telemedicine are:

- What regulations are there with telehealth that differs from onsite care?
- How will physicians be reimbursed?
- Can physicians practice in multiple states?
- Do patients have to provide informed consent prior to using a telehealth service?

Telehealth Parity Laws

With parity laws, private payers are required to reimburse in the same way that they would for onsite medical treatment. Currently, there are 33 states (<https://vsee.com/blog/dark-side-telehealth-parity-laws-private-payer-reimbursement/>) plus the District of Columbia that require telehealth coverage, and the numbers are growing.

The Laws Vary By State

While those 33 states do have telehealth parity laws, all of them may not have payment parity. Payment parity protects providers from unjustified cuts in reimbursement for telehealth services. Currently, some health plans do not pay providers the same rates that they would for in-person services.

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The payment also varies from provider to provider. Those larger organizations that have strong negotiating powers may be able to receive higher payment rates. However, there is a disparity here because small practices may not have this privilege and have to accept what is offered to them.

When providers cannot receive reimbursement and are not able to bill their patients for the service, many of them forego offering telehealth solutions.

Patient Consent

In addition to the parity laws, some states require providers to obtain patient consent before using telehealth services. Failure to obtain patient consent may result in physicians not being paid. Providers also have to be aware that while some states do not legally require consent, if they bill telemedicine through Medicaid, they will need written consent.

Medical Licensing Across States

With telehealth allowing physicians to expand their coverage area, there have been questions regarding interstate medical licensing. Interstate medical licensing permits more physicians to serve individuals in underserved and rural areas, but currently, only a few states offer this. The Interstate Medical Licensure Compact helps streamline the licensing process for physicians that are interested in practising in participating states.

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Telemedicine Reimbursement

A question popular among organizations that want to implement telemedicine solutions is regarding how their physicians will be reimbursed. With telehealth regulations varying for each state and with payers setting up different policies, it is difficult to find consistency. What does remain consistent is that telemedicine is advancing and its becoming difficult for the key players to keep up.

Telemedicine reimbursement for Private Payers

To date, there are 33 states plus the District of Columbia, that have parity laws that require private payer reimbursement for telemedicine (<https://vsee.com/blog/dark-side-telehealth-parity-laws-private-payer-reimbursement/>) services. All states with parity laws require private payers to pay for video-conferencing. To date, only a few states require reimbursement for store and forward telemedicine. Organizations should also understand that payment for telemedicine services may not equal that of onsite services.

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Besides the limited amount of services that can be reimbursed, there is also an issue of which physicians can actually practice telemedicine. The state medical board decides who can practice, however any provider that can bill for onsite services can also bill for telemedicine.

Medicare and Telemedicine

Similar to private payers, Medicare also will only reimburse for certain services and practitioners. Providers that can legally provide telemedicine solutions are:

- Physician
- Physician assistant
- Nurse practitioner
- Nurse midwives
- Clinical nurse specialists
- Clinical psychologists and social workers
- Registered dietitians or nutrition professionals

Medicare does not provide reimbursement for store and forward methods or digital monitoring devices. They do reimburse for videoconferencing and remote patient monitoring that includes video conferencing.

Physicians that provide services to patients in rural and underserved populations are likely to receive reimbursements, but other locations are currently off limits. In addition, Medicare will only pay for certain facilities to provide telemedicine services such as hospitals and rural health clinics.

Many of the reimbursement limitations found in the regular Medicare program are not applicable to the Medicare Chronic Care Management Program.

Medicaid and Telemedicine

Medicaid reimbursement varies for each state, but most states offer some form of coverage for telemedicine services. Similar to Medicare, there are reimbursement limitations for patient settings and facilities. As telemedicine continues to expand and technology improves, more states are removing geographic limitations.

To date, all but two states reimburse for live video conferencing and several reimburse for store-and-forward and remote patient monitoring. In addition, 29 states require informed consent prior to receiving telemedicine services.

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What do you need to start telemedicine

Meet us at HIMSS'21 Booth #225, Aug 10-12. Deciding to start a telemedicine practice is a big decision and requires a very well thought out plan. While there are wonderful benefits to starting a telemedicine practice, there are also some drawbacks. It is an endeavor that requires up-to-date equipment, trained staff, and an understanding of telemedicine laws.

Also, check out our 4 steps guide before starting telemedicine (<https://vsee.com/4-key-steps-start-telemedicine/>) ebook available for free download.

Understand the Basics

Before setting up a telemedicine practice, an organization's administration and providers should know how laws differ when using telemedicine solutions. They should also consult with an expert to determine what equipment they need, and have a basic understanding of why they want to offer this in the first place. In addition, if it's an existing practice, they should get buy-in as some physicians are not ready to make the transition.

Deciding On Telemedicine Solutions

After laying out the basics, an organization should decide what type of telemedicine solutions to offer. A telemedicine expert like VSee offers a text and video collaboration app, a Virtual waiting room, and more. The organization should be responding to their current pain points, such as overcrowded waiting rooms or difficulty reaching patients in rural areas.

The Equipment

VSee urges organizations to try their free app (<https://vsee.com/messenger/>) so physicians can get a feel for sharing medical documents and streaming digital device images. In addition, organizations should ensure they have compatible microphones, webcams, speakers, and more. A telemedicine tech should be identified within the practice to help others get acclimated and resolve tech issues. Also, practices should be aware of their Internet connection. VSee's video chat is robust, but how well it works comes down to the Internet connection and computer capabilities.

Understand Regulations and Reimbursements

Policies and regulations in the telemedicine arena can be confusing for providers, vendors, and payers. Organizations interested in implementing telemedicine should be familiar with the laws in their state. For example, some states require informed consent from patients, while others do not. Some payers may not pay the same rate for telemedicine services as they do for in-person services. Practices should identify how providers will be paid, as some organizations seek grant funding.

Consult with a telemedicine expert to determine the ins and outs as it relates to implementing telemedicine in a practice similar to yours.

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What Telemedicine Software Solutions are available

There are many different levels when it comes to providing telemedicine software solutions. Unlike telehealth, telemedicine focuses specifically on providing clinical care. We'll explore three popular solutions that healthcare providers use today.

Video Call

Video calls are used for in-home care, ambulatory care, and acute care. Not only does it allow for providers to reach patients in rural populations, but it also makes providing care more efficient. Practices that choose to use video calls can do so for urgent care, primary care, or follow-up consultations.

VSee offers physicians and patients the ability to communicate using HD, HIPAA-compliant software. In addition, providers can use Pan-Tilt-Zoom to view close-ups of their patients on remote exams. They can also share and mark-up documents, CT Scans, and lab results.

Waiting Room (triage)

Emergency room and urgent care environments are known for long wait times, overcrowding and even staffing shortages. This leads to additional stress being added to not only the patient, but the staff too. With tele-triage, patients can arrive to an emergency department and be seen by an off-site physician using video conferencing software. The off-site physician can order tests or determine a treatment plan, which moves patients through the system faster. Cases that are more severe can be moved to the next level of patient care and others can be discharged.

Virtual Clinic

Clinics that want to improve their workflow experience and backend experience, should consider using a Virtual Clinic.

With EMR

Because of telemedicine, physicians can access patient medical records without being onsite. Some telemedicine providers offer the ability to do data entry using a point-and-click method or video/handwriting recognition. This can cut down on the amount of time that physicians dedicate to administrative tasks. As a result, physicians can see more patients or spend more time with those cases that are more complex.

With Billing Solution

Like an onsite clinic, patients can check-in for walk-in or scheduled visits, complete an intake form, and make payment online. However, the biggest concern for physicians is reimbursement. Telemedicine experts, like VSee, can walk organizations through how successful practices have done it. A 'Practice Set Up Guide (<https://vsee.com/start-telemedicine-practice/>)' can be found here.

Meet us at HIMSS'21 Booth #2251, Aug.10-12 (<https://lp.vsee.com/himss2021-meeting-scheduler>) Request A Meeting Here (<https://lp.vsee.com/himss2021-meeting-scheduler>)

What are the barriers of Telemedicine

While telemedicine has shown to be a game changer in the field of medicine, there are still a number of barriers to overcome. Physicians face challenges regarding how they'll be paid and where they can practice, while patients voice security concerns. Once these barriers are removed, we can anticipate greater access to care and improved patient outcomes.

Provider Reimbursement

If private payers, Medicaid, and Medicare choose not to reimburse organizations for telemedicine, then the fee falls on the hospitals. Some hospitals are able to receive grants, but there are only so many that can go around. In addition, some states do not have parity laws. That means physicians may not receive the same reimbursement that they would for onsite services. This issue alone makes implementing telemedicine unattractive for providers and they, in turn, forego it.

Physician Licensing

Although telemedicine itself permits physicians to treat patients nationwide, there are restrictions on who can provide services across state lines. States with large rural areas with limited access to care could greatly benefit from this, but varying state regulations make the process challenging. Physicians who do want to practice medicine across states may have to obtain a full medical license in all states. Not only is the process time consuming, but it is also expensive for physicians to do. This process alone makes what would be a convenient option, a very inconvenient one.

Security Concerns

Providers and patients alike have concerns with telemedicine due to the mass amount of sensitive information in the healthcare world. Because of telemedicine, physicians are able to communicate with their patients via video chat, text message, and phone call, but not all communication mediums are safe.

VSee urges organizations interested in implementing telemedicine to find a telemedicine provider that offers HIPAA compliant software. This means that all data must be fully encrypted, have secure peer-to-peer network connections and have no storage of video. Telemedicine providers should also be comfortable signing a business associate agreement, which asserts that they will take responsibility in keeping patient information safe.

See this Youtuber explaining his telemedicine barriers and his takes on the solutions for it:

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What is the Future of Telehealth

For more in-depth read and telehealth trends in year 2018 by Telehealth Pioneer, Kristi Henderson, see our 2018 Telehealth Trends video podcast and transcript. ([/blog/2018-telehealth-trends-you-need-to-know/](#))

For healthcare organizations and most patients alike, the future of telehealth is bright and exciting. Once we overcome the legal and reimbursement obstacles, telemedicine will be able to flourish nationwide.

The Future of telehealth

Annually, millions of Americans receive care using telemedicine solutions and the numbers are increasing. With more patients using the service and more physicians offering it, telemedicine has no choice but to expand. Here is what the future of telehealth looks like:

Online Medical Centers

Imagine a 24/7 online collaborative platform for patients, providers, and staff. The future of telehealth may look like a group of remote physicians treating hospitalized patients from all over the state. With digital monitoring devices and video conferencing, physicians can treat and diagnose more patients in less time.

Telemedicine Across Borders

With technology becoming more robust, the future of telehealth could include international collaboration. Some countries offer medical advances that the United States does not have readily available (and vice versa), but telemedicine would lessen the barriers.

Meet us at HIMSS'21 Great Accessibility, Aug. 10-12 (<https://lp.vsee.com/himss2021-meeting-scheduler>) Request A Meeting Here (<https://lp.vsee.com/himss2021-meeting-scheduler>)

As patients experience the reduced wait times and greater access to care, the hesitation regarding telemedicine will decrease.

Physicians will also notice better patient outcomes and more revenue without an increased workload. In addition, private payers, Medicaid, and Medicare will respond to the demand after solidifying best practices.

Health System Collaboration

Today, it is still difficult to share electronic medical record information with a health system that uses another EMR platform. The future of telehealth will likely include enhanced sharing capabilities that will allow for patients to adequately care for no matter where they are.

In addition, experts predict that the electronic medical record will become more seamless and allow for advanced automated patient billing (<http://www.healthcareitnews.com/blog/telemedicine-what-future-holds>).

Augmented Reality Mirrors

The future of telehealth likely includes augmented reality mirrors (<http://medicalfuturist.com/augmented-reality-mirror-in-telemedicine/>). The system will combine augmented reality and adaptive image transformation for diagnostics and patient monitoring. With better imaging provided by augmented reality mirrors, providers can better diagnose eye problems, skin problems, and even breast cancer.

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Telemedicine Terminology

Those new to the telemedicine arena may not understand the jargon used among payers, vendors, policymakers, and healthcare organizations. This guide will go over commonly used terms in the telemedicine field so you can understand them in the future.

Telemedicine

The most important term to clarify is 'telemedicine' itself. Telemedicine is the use of telecommunications technology and information technology for clinical services.

Telehealth

The second most important term is 'telehealth'. This term is frequently used interchangeably with telemedicine, but their meanings are slightly different. While telemedicine focuses on clinical services, telehealth focuses on all health services. An example would be a video-conference platform for nurse education.

Digital Medical Devices

Meet us at HIMSS'21 Booth #2251, Aug 10-12 | <https://vsee.com/himss2021-meeting-scheduler> Items that would be considered digital medical devices include blood pressure cuffs, glucometers, pulse oximeters, and more.

Distant Site

Distant site is the place that the physician is located at the time of which the service is provided. This term is often used when discussing reimbursement, as certain locations are not covered.

Electronic Medical Record (EMR)

EMR's allow healthcare organizations to store, retrieve, and modify patient records.

Electronic Health Record (EHR)

Often confused with an EMR, electronic health records are a collection of patient information that can be shared across healthcare settings. EHRs commonly contain billing information, vital signs, medical history, and more.

Encryption

Encryption is a term often used when discussing the sharing and security of patient information. It is a system of encoding electronic data where the information can only be decoded by those given computerized access.

HIPAA

HIPAA is an acronym for Health Information Portability and Accountability Act. It is mostly known for providing standards and requirements regarding how confidential patient information is protected and handled. To learn more about HIPAA, visit this website.

Originating Site

Also known as the patient site, the original site is the patients location when they received telemedicine services. This specifically relates to Medicaid and how and if they will reimburse a provider.

Remote Monitoring

Remote monitoring refers to the utilization of digital medical devices transferring data to practitioners and staff in real time.

Video Conferencing

The transmission of digital video images in real-time between multiple locations.

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About VSee

Since 2008, VSee has been a leading company in the field of telemedicine. Doctors and hospitals rely on VSee for HIPAA-compliant video as well as several workflow solutions. VSee has designed and implemented telemedicine solutions for NASA, Walmart Clinics, Trinity Hospitals, and many more. Write to sales@vsee.com (<mailto:sales@vsee.com>) to schedule your demonstration.

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