

Telemedicine:

The History, Benefits, Challenges, & Tips

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Disclosures

Non-Declaration Statement: I have no relevant relationships with ineligible companies to disclose within the past 24 months.

Objectives

At the conclusion of this session, you should be able to:

- ✓ Contrast the history of telemedicine before and after the COVID-19 pandemic
- ✓ Summarize the benefits of telemedicine for patients and providers
- ✓ Examine the challenges of telemedicine for patients and providers
- ✓ Integrate tips for effective telemedicine visits into practice

My Telemedicine Background

You Can Call Me “Kat”



- No more skiing = ice fishing during MN winters (introduced to PA profession)
- Des Moines University PA '14
- Started in family medicine
- Started noticing symptoms of burnout only 5 years into PA career
- Considered learning & incorporating telemedicine into family med role in 2019 to add variety
- Thought this may help with burnout

My Telemedicine Background



- Became burnt to a crisp in 2020
- Forced to learn telemedicine quickly due to the pandemic & loved it
- Switched to outpatient psychiatry for an organization and did even more telemedicine visits
- Transitioned to a 100% remote telepsychiatry role end of 2022

What Is Telemedicine?

Definitions



- **Telemedicine** = remote diagnosis and treatment of patients via telecommunication technology
- **Telehealth** = the delivery of healthcare services and clinical information via telecommunication technology (incorporates telemedicine, virtual therapy, mobile health, & remote patient monitoring)

Telemedicine

Synchronous



Synchronous: Live, remote exchange of patient information through direct, real-time interaction between a patient and a provider (or between two providers)

Examples:

- Live video visits
- Real-time observation
- Phone visits

*Synchronous visits are more beneficial than asynchronous visits because they're in real-time

Telemedicine

Asynchronous



Asynchronous: Not live or in real-time = “store-and-forward” (information is shared then reviewed at a later time)

Examples:

- Patient & providers messaging through a portal
- Patient completing questionnaires for provider to review later
- Patient sharing an image of rash for provider to review later
- Provider sharing patient notes electronically through EMR with another provider / specialist to consult on care of a patient

History of Telemedicine

500 B.C.E.



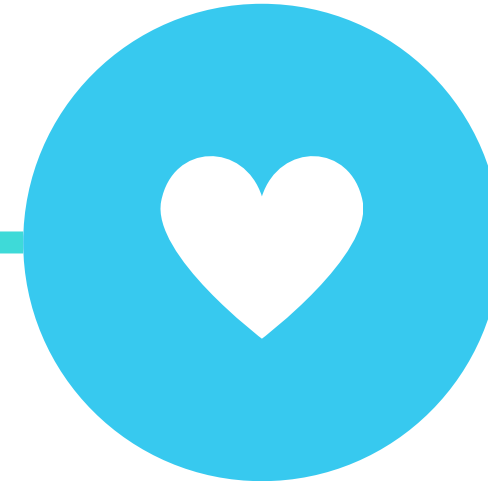
Greeks and Romans used fire and light signals to send messages about spreading plagues.

1860s



Telegraphs were used during the Civil War to order medical supplies and to communicate about deaths & injuries.

1905



First “telecardiogram” was recorded and sent via telephone wire from lab to hospital.

1920s



Radio was used for first time to transmit medical advice to clinics on ships.

History of Telemedicine

1924



Radio News magazine depicted the first idea of modern telemedicine as the future of healthcare on front cover.



History of Telemedicine

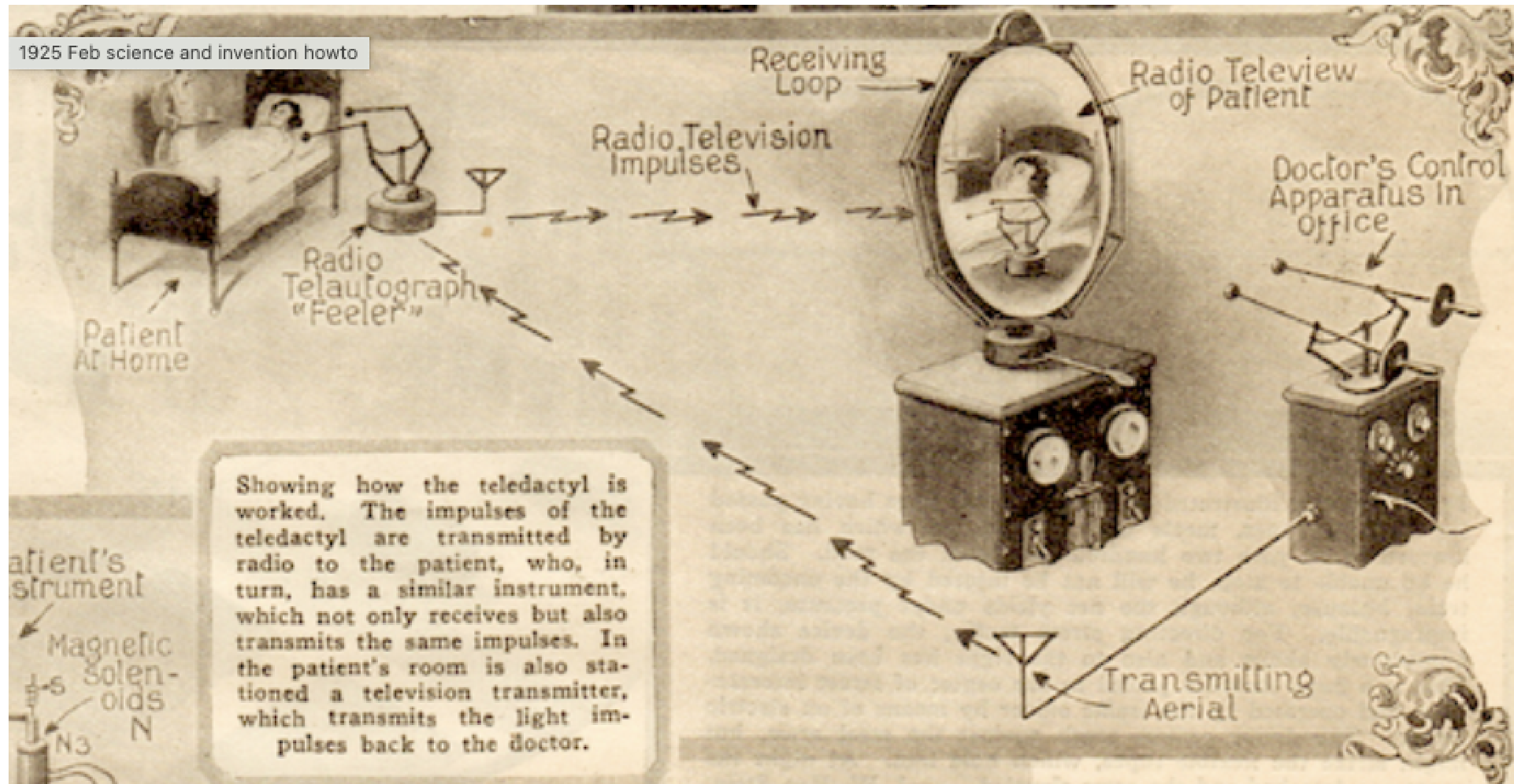
1925



Science and Invention magazine depicted a doctor using radio and a theoretical tool called a “teledactyl” to diagnose a patient.



History of Telemedicine



The "teledactyl" in *Science and Invention* magazine

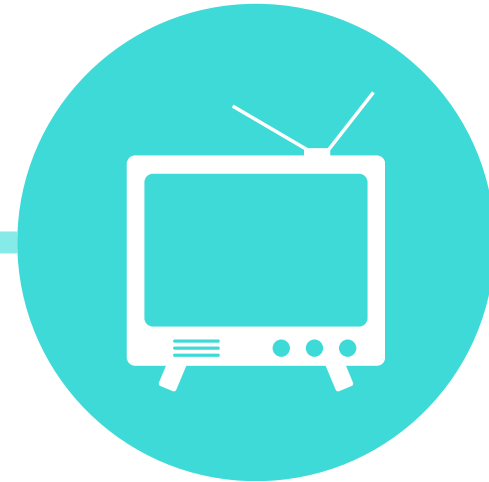
History of Telemedicine

1948



First radiologic images were sent over 24 miles via telephone.

1959



University of Nebraska used two-way interactive television to transmit neuro exams across campus to med students.

Early 1960s



University of Nebraska started performing psych consults for a hospital >100 miles away using closed-circuit television.

1960s - 1970s



NASA pioneered more telemed developments to monitor first animals then humans in space, and to help Alaskan & Native American communities.

History of Telemedicine

1983



The internet was born: computer networks established a universal communication standard.

1991



Jay Sanders, MD (Father of Telemedicine) developed first statewide telemedicine system in Georgia, and created first correctional telemedicine program and first tele-homecare technology ("The Electronic House Call").

History of Telemedicine

1993



The American Telemedicine Association was founded to promote and increase the usage of telehealth to improve the reach of healthcare to more patients and those who struggle to access it. They aim to educate patients and providers about advances in technology and care.

2003



The first public version of Skype was released, making video chats everyday occurrences.

History of Telemedicine

2009



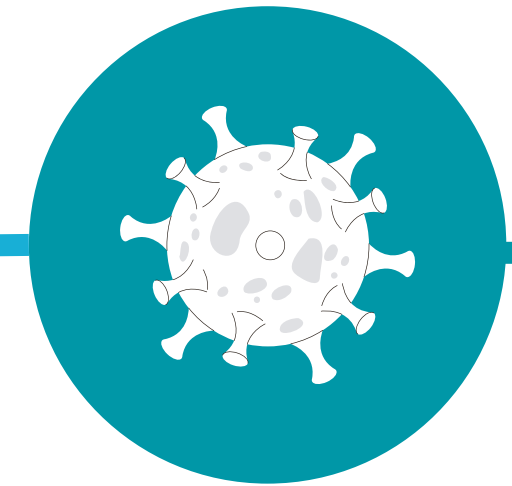
The American Recovery and Reinvestment Act (ARRA) promotes and leads to greater connection online across medical technologies.

2016



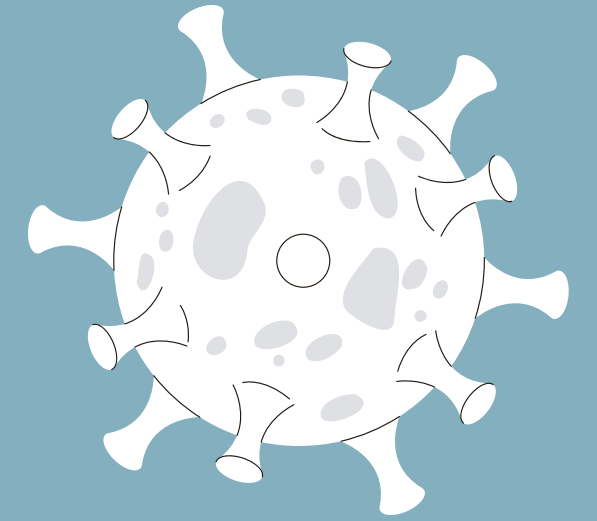
The Health Resources and Services Administration (HRSA) receives funding to expand use of telemedicine in rural communities (one of the populations that benefits the most from telemedicine).

2020



The global outbreak of the COVID-19 virus that spread easily caused increased utilization of telemedicine across many medical specialities.

Telemedicine: Pre-COVID & Post-COVID



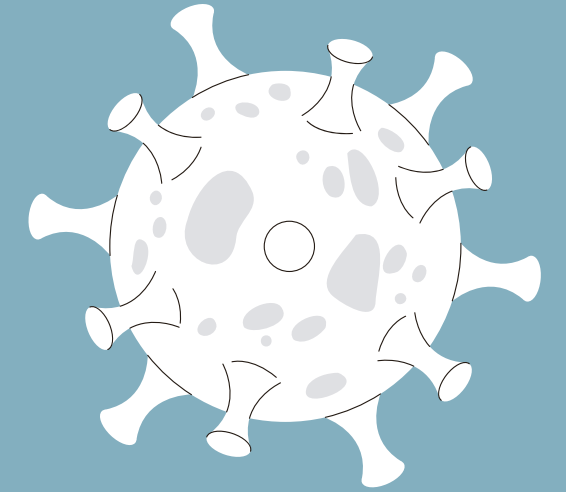
Pre-COVID:

- Use was increasing, but slowly
- Reimbursement was often inconsistent and inadequate
- Limitations on which patients and providers could use telemedicine
- Needed pre-existing relationship

Post-COVID:

- Use rapidly increased: many providers and patients were forced into using telemedicine
- Reimbursement is better, if not equivalent, to in-office visits
- Many types of providers use telemedicine
- No requirement for pre-existing relationship (except may need this again in future for controlled meds?)

Telemedicine: Pre-COVID & Post-COVID



Pre-COVID:

- Limited location options
 - Only at prespecified sites: designated rural areas, certain medical facilities, etc.
 - Providers had to conduct visits from their place of practice
 - Telemedicine could not cross state lines

Post-COVID:

- Increased location options
 - May originate and be conducted from any site, including patient's home
 - Providers may conduct visits from home
 - Telemedicine can now be provided in another state only if provider is licensed in that state

Benefits of Telemedicine

For Patients and Providers

1. Convenience:

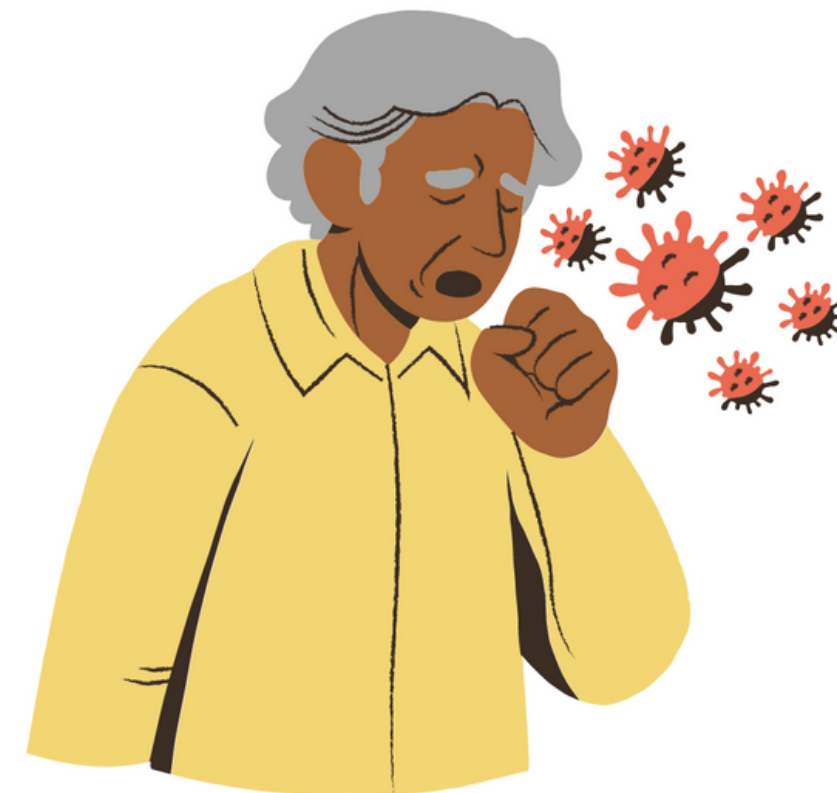
- Patients can be seen in the location of their choice at a time that works well for them.
- Providers can see their patients from their workplace, from their home, or from other private places if needed.

Benefits of Telemedicine

For Patients and Providers

2. Infection Prevention:

Illnesses spread less between both patients and providers with the use of telemedicine.



Benefits of Telemedicine

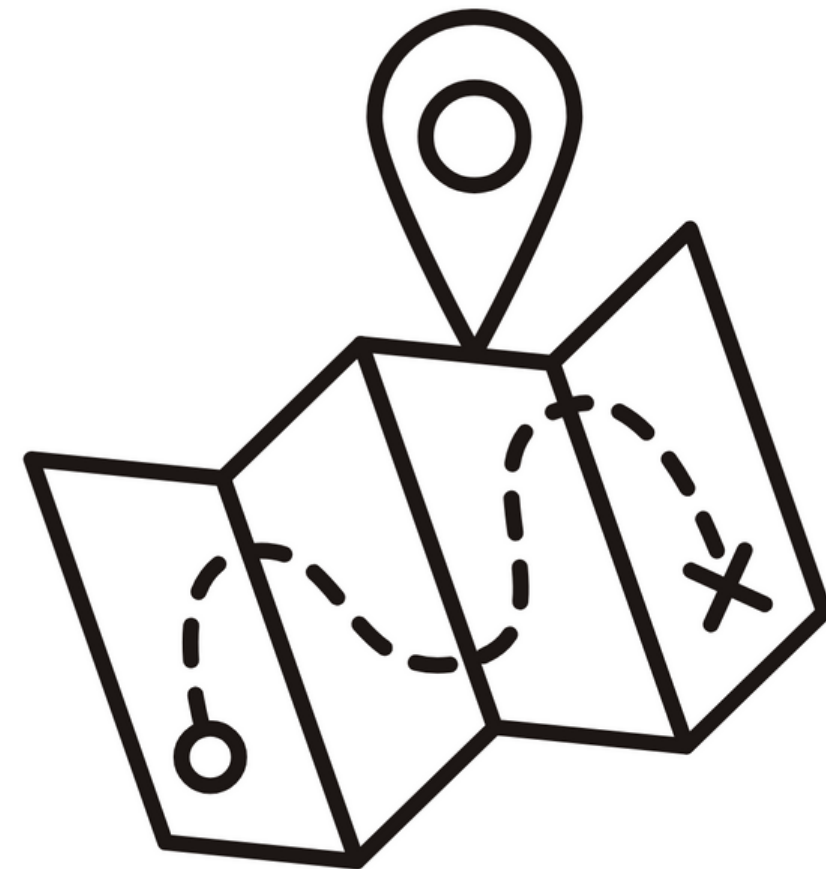
For Patients and Providers

3. Lower Anxiety: Patients who have white coat syndrome, agoraphobia, or social anxiety often prefer telemedicine visits.

Benefits of Telemedicine

For Patients and Providers

4. Greater Access For Rural Patients: Patients who live in rural locations can avoid long commutes.



Benefits of Telemedicine

For Patients and Providers

5. Easier Access to Specialists:

Some specialists are the only one available within a large distance, and telemedicine increases access to care.



Benefits of Telemedicine

For Patients and Providers

6. Safety:

- Telemedicine allows patients and providers to avoid commuting in inclement weather or during rush hour.
- Providers can be protected from physical abuse from hostile patients.

Benefits of Telemedicine

For Patients and Providers

7. Reduced Cost:

- Depending on the visit type, telemedicine may be more affordable to the patient or insurance company.
- The healthcare organization may save on cost of office space, electricity, etc., if the provider is working from home.



Benefits of Telemedicine

For Patients and Providers

8. Quality Medical Care:

- Even though care is not face-to-face, telemedicine can be used to still provide great quality care to your patients for many types of chief complaints, concerns, or questions.
- This includes chronic disease management (HTN, HLD, DM, asthma, etc.) and acute concerns.

Challenges of Telemedicine

For Patients and Providers



- **Technology issues:** poor internet connectivity, system downtime, or hardware malfunctions
- **Technology access:** need access to a tech device that can accomplish telemedicine visits
- **Security & privacy concerns:** involves transmission of sensitive patient information over digital networks

Challenges of Telemedicine

For Patients and Providers

- **Not ideal for some patients**
 - Those who prefer in-office visits w/ their provider
 - Those who have difficulty focusing when using a screen
 - Those who have many caregivers attending the appts
 - Those who are psychotic or delusional (sometimes)

Challenges of Telemedicine

For Patients and Providers

- **Cannot check vitals** (patients can self-report)
- **Cannot perform procedures or obtain diagnostics right away** (such as EKG, labs, imaging studies, etc.)

Challenges of Telemedicine

For Patients and Providers

- **Physical examination options may be limited**
 - Can be difficult to see rashes or skin lesions on video
 - Cannot palpate
 - Cannot perform pelvic exam, rectal exam, etc.
 - Cannot auscultate or conduct ear or eye exam
 - Except for some clinics that use clinical staff to use digital stethoscopes, otoscopes, or ophthalmoscopes on patients to relay sounds & images to providers

Challenges of Telemedicine

For Patients and Providers

- **Decreased personal interaction / connection:** can make it more difficult for providers to establish personal relationships with patients, which may affect patient satisfaction or adherence to treatment
- **Resistance to change:** some patients and providers may be resistant to adopting new technologies and new ways of delivering health care, which could limit the adoption of telemedicine
- **Quality of care concerns:** some providers and patients could be concerned that telemedicine may compromise the quality of care delivered, particularly surrounding the limitations of physical exam or other aspects of in-person care

Challenges of Telemedicine

For Patients and Providers

- **Insurance coverage limitations:** While most insurance plans now cover telemedicine visits, some plans may not cover it or may still have limitations on the types of services that can be provided through telemedicine
- **Reimbursement:** Reimbursement policies for telemedicine vary by state and by insurance plan
- **Acceptance:** Patients, caregivers, providers, nurses, and other medical team members all need to support the use of telemedicine to care for the patient

Challenges of Telemedicine

For Patients and Providers

- **Legal and regulatory challenges:** subject to a variety of legal and regulatory requirements, which can vary by state and can be complex and burdensome to navigate
 - Ryan Haight Act may go back into effect?
- **Licensing restrictions:** providers must be licensed in the state where the patient is located in order to provide telemedicine services, which can be a barrier to providing care across state lines
 - Many states are trying to get the PA Compact legislation passed

Telemedicine Can Be Used in Most Specialties

- Family Medicine
- Internal Medicine
- Pediatrics
- Urgent Care
- Emergency Medicine
- Psychiatry
- Addiction Medicine
- Endocrinology
- Weight Management
- Dermatology / Aesthetics
- Sleep Medicine
- Functional Medicine
- Maternal-Fetal Medicine
- Pain Management

What are some examples for CCs / visit types in these specialties that you can think of where telemedicine would likely be a good fit?

***And **many more**, including roles that are in-basket support for other providers when they are taking PTO (“inboxologists”)



Starting a Telemedicine Visit

What's Required



1. Get consent for care and telemedicine visit specifically: Most states require this

2. Confirm the patient's name: Make sure you're in the right chart!

3. Confirm the patient's current physical location:

- They need to be physically located in a state that you're licensed in
- In case emergency services need to be sent to their location

4. Make sure that you and patient are in a private setting:

- If working from home, your family members cannot see the patient or the chart.
- The patient needs to be in a private setting where they feel comfortable talking openly.

Tips for Effective Telemedicine Visits

For Patients and Providers



1. Test the technology:

- Tech device
- Internet connection
- Video and audio (may need to ask pt to turn the camera and mic on)

2. Find a quiet, well-lit space:

- Quiet
- Well-lit area (consider getting a light source)
- No interruptions or distractions

3. Be prepared:

Both you as the provider and the patient should prepare for the visit as you would for an in-person visit.

4. Dress appropriately:

Both parties should dress professionally (at least from the waist up!)

Tips for Effective Telemedicine Visits

For Patients and Providers



5. Ensure privacy:

- You and your patient
- To discuss sensitive medical information without interruption or being overheard

6. Engage in active listening:

- You and your patient should engage in active listening, just like during an in-person visit
- Encourage them to ask questions, and clarify if needed

7. Follow up:

- Encourage your patients to follow up with you as recommended
- May need to schedule a follow-up appointment, arrange for lab tests or other diagnostic tests, or adjust the treatment plan as needed

Tips for Effective Telemedicine Visits For Patients and Providers

*“People don’t care how much you know
until they know how much you care.”
-Theodore Roosevelt*



8. Connect with your patients:

- Be mindful where your camera is - have the patient’s face on video close to your camera or look at camera periodically to have “virtual eye contact”
- Ask about their day and updates in their lives
- Comment on things around them - you’ll likely see many pets, babies, kids, pictures, bookshelves full of books, art pieces, objects used for hobbies, etc.

Tips for Effective Telemedicine Visits

For Patients and Providers



9. Build rapport with your patients even further:

- Ensure privacy
- Discuss the importance of shared decision making
- Share medical information and provide guidance
- Explain any limitations of the virtual visit

Telemedicine

Billing and Coding



Are telemedicine visits coded the same way as face-to-face visits?

- Yes, telemedicine visits generally use the same CPT E/M codes as face-to-face visits (often with modifiers).
- Telemedicine visits can be billed based on MDM (medical decision making) or based on the time spent as the provider.

How to Find a Telemedicine Job

As a PA



1. Contact your connections:

- Think of all of your connections in your desired specialty that you may know.
- Do you work in a large organization, but know someone within the group or specialty you're considering?
- Do you have connections from your rotations in school?
- Ask if they're hiring or know of any other clinics or groups hiring.

How to Find a Telemedicine Job

As a PA



2. Search online:

- Search online job postings through sites like Indeed and Glassdoor.
- Use search terms like "telemedicine" or "telepsychiatry".
- Use "remote" for the location when searching.
- Even though you'll be searching as a PA, feel free to apply to jobs that appear to only be posted for NPs if the job looks appealing.

How to Find a Telemedicine Job

As a PA



3. Network:

- Search online for local private practice clinics and groups.
- Contact them to see if they could use the help of a telemedicine provider to further support their clinic.

How to Find a Telemedicine Job

As a PA



4. Get Social:

- Social media is not only a way to connect and be entertained. It can also be used as a great way to find new jobs!
 - I.e. you could post on your own account or within medical social groups that you're searching for a telemedicine job within a certain specialty.
- LinkedIn can be a great platform to network with other providers as well as office managers or other leaders at clinics you're interested in joining.

How to Find a Telemedicine Job

As a PA



5. Join Professional Organizations:

- There are organizations with missions surrounding telemedicine.
 - I.e. for PAs, there is PAVMT (PAs in Virtual Medicine and Telemedicine).
 - This organization advocates for PAs in telemedicine and has a paid membership where you can get access to telemedicine job postings on its job board among other benefits if you're a member.

How to Find a Telemedicine Job

As a PA



6. Be Patient; Don't Settle:

- Finding a telemedicine job in your preferred specialty will very likely take some time. Be patient and don't settle.
- Many job postings will try to offer a low rate because it's a telemedicine role. Know your worth and negotiate!

How to Incorporate Telemedicine Into a Job

As a PA



Remember, even if you are in a PA role without telemedicine, you likely could add telemedicine to your role:

- Discuss with your managers, supervising / collaborating physician, colleagues, etc. to see if they feel like it's something that could be added and if there is a need.
- Having some telemedicine visits sprinkled throughout your day can help add variety to your day and often the visits are more straightforward.
- Some PAs will even stack their telemed visits into a half day or a full day of their workweek. (And often these can be done from your home!)

In Summary...

- Telemedicine has been around longer than what most of us think (several decades).
- The COVID-19 pandemic quickly accelerated the use of telemedicine, and telemedicine looks different before the pandemic compared to after the pandemic.
- There are many benefits of telemedicine for both the patients and providers, as well as some challenges.
- There are several tips you can integrate into your telemedicine visits to make them more effective.
- Telemedicine does not replace all of the required medical care needed for our patients, but can serve as a great adjunct.
- You can use telemedicine in most specialties as a PA.
- Do not be intimidated by telemedicine - you may learn to really enjoy it.
- Telemedicine can be done in a full-time role, a per diem / part-time role, or as an adjunct to in-person clinical practice.

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What questions do you have?

