

# The Patient Will See You Now The Doctor Will See You Now Telemedicine 2.0

Hina Mazharuddin, MSPAS, PA-C Vice President for PA's in Virtual Medicine & Telemedicine

# **Disclaimer & Disclosures**

- This presentation is not intended as, nor is a replacement for legal guidance.
- As the telemedicine world is changing rapidly it is the responsibility of each PA wanting to practice in telemedicine to:
  - investigate applicable statutes, regulations and standards
  - seek the guidance of attorneys for legal matters:
  - healthcare and business prior to starting in telemedicine.

• Non-Declaration Statement: I have no relevant relationships with ineligible companies to disclose within the past 24 months. (Note: Ineligible companies are defined as those whose primary business is producing, marketing, selling, re-selling, or distributing healthcare products used by or on patients.)



# **Objectives**

- Review the various types of Telemedicine
- Perform various modifications for physical examination on a telemedicine platform
- Discuss how telemedicine can be utilized/integrated for present and future use

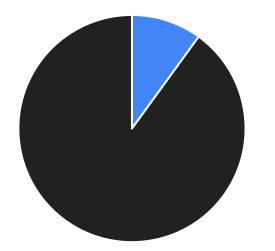


# Telehealth <sup>1</sup>

# Telemedicine <sup>1</sup>

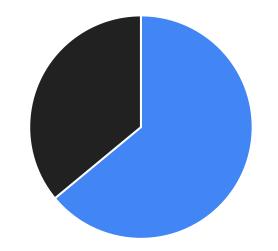


#### PA Telemedicine Use in 2/2020



Using TelehealthNot using Telehealth

PA Telemedicine Use in 6/2020



Using Telehealth Not using Telehealth





Taken from AAPA Telemedicine Data Brief

## From 2014-2018 use of non-hospital-based, provider-topatient telehealth grew...<sup>3</sup>

# 1393%



From December 2019 - December 2020 use of non-hospitalbased, provider-to-patient telehealth grew...<sup>3</sup>

# 2817%



# **Types of Telemedicine**



## Broad Categories: Synchronous

VS

- Real-Time, Face-to Face contact between care provider & patients
- Teleconferencing (zoom, Lifesize, Doximity, embedded in EMR)



## Asynchronous

- Monitoring & delivering feedback without Face-to-Face contact
- E-mail, Cell phone, data portals and automated messaging systems





Introduction to Telemedicine



## **Reimbursable Categories defined by CMS**



#### Video Visits "Telehealth"



Interprofessional Consult Curbside Consults or eConsults

Remote Patient Monitoring and more



Introduction to Telemedicin

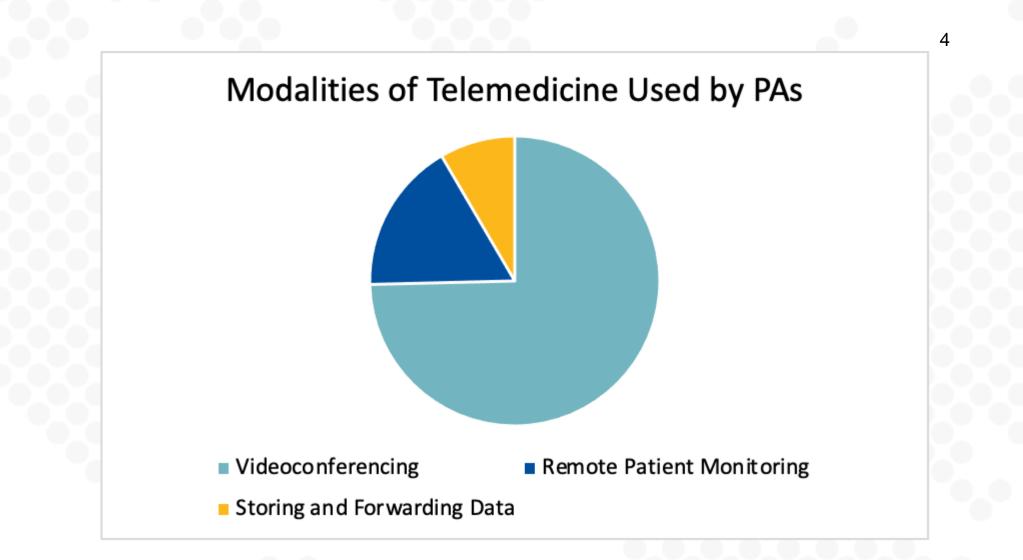




## Telephone & E Visits

\*Telephone: Brief Communication Technology Based Service/ Virtual Check In \*Email: Online Digital Management and Evaluation Services/ "e-Visit"







# Physical Examination on a Telemedicine Platform



# Beginning

- Introduce yourself
- •Verify right patient, right location
- •Use body language
- •Use the patient's name
- •Listen, repeat, clarify
- Avoid distractions



## You had me at hello

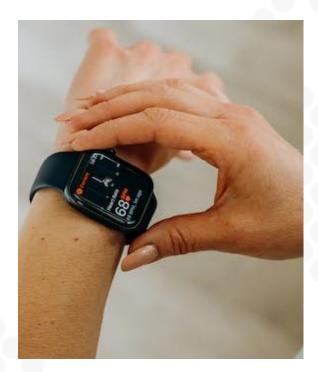




Vital Signs:

- Inquire about tools at home:
  BP cuff, Thermometer, Pulse Ox, Weight scale
  Pain scale
- Count respirations
- . Count pulse out loud to you









Vital Signs:

• Inquire about tools at home- BP cuff, Thermometer, Pulse Ox, ,Pain scale, Count pulse and respirations

#### General:

- Comment on their surrounding- safe without hazards?
- General appearance
- Diaphoretic? Flushed? Appearing ill? Or No Acute sign of distress?











#### **Clinical Pearls**<sup>5</sup>

Vital Signs: Do they have any tools at home? BP cuff? Thermometer? Pulse Ox? Pain scale? Pulse or respiratory count.

Gen: Surrounds- safe without hazards? General appearance.

Skin: Dry? Lesions? Describe the rash -Place a common item like a coin for comparison/assessment of size -Tumbler Test/Glass test





Vital Signs: Do they have any tools at home? BP cuff? Thermometer? Pulse Ox? Pain scale? Pulse or respiratory count.

Gen: Surrounds- safe without hazards? General appearance.

Skin: Dry, noted on exposed areas, describe the rash, picture with common item for comparison/assessment of size, tumbler test/glass test

- HEENT:
- -EOM
- -Nystagmus
- -Can use flashlight on their phone to illuminate oropharynx. PERRL: use natural light source with camera at eye heightask to open/close eyes.
- For congestion- ask pt to yawn and note any cracking or popping in ears. Can palpate on sinus, mastoid process, mouth, lips etc.





Vital Signs: Do they have any tools at home? BP cuff? Thermometer? Pulse Ox? Pain scale? Pulse or respiratory count.

Gen: Surrounds- safe without hazards? General appearance.

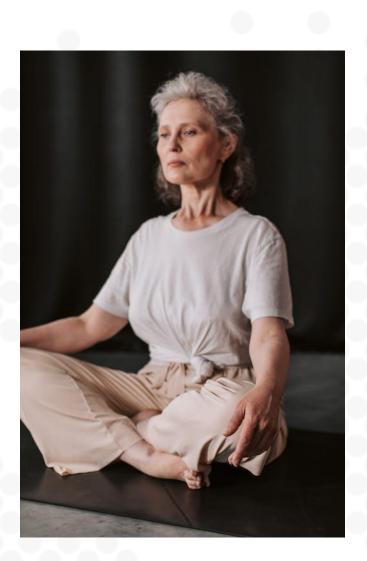
Skin: Dry, noted on exposed areas, describe the rash, picture with common item for comparison/assessment of size, tumbler test/glass test

HEENT: EOM, nystagmus, use flashlight on their phone to illuminate oropharynx. PERRL: use natural light source with camera at eye height- ask to open/close eyes. For congestion- patient can yawn and note any cracking or popping in ears. Can palpate on sinus, mastoid process, mouth, lips etc.

#### **Respiration:**

- Ask patient to takes deep breath in/out.
- Comment on patent nares,
- Hear/observe wheezing, cough, accessory muscles

use







Vital Signs: Do they have any tools at home? BP cuff? Thermometer? Pulse Ox? Pain scale? Pulse or respiratory count.

Gen: Surrounds- safe without hazards? General appearance.

Skin: Dry, noted on exposed areas, describe the rash, picture with common item for comparison/assessment of size, tumbler test/glass test

HEENT: EOM, nystagmus, use flashlight on their phone to illuminate oropharynx. PERRL: use natural light source with camera at eye height- ask to open/close eyes. For congestion- patient can yawn and note any cracking or popping in ears. Can palpate on sinus, mastoid process, mouth, lips etc.

Respiration: Ask patient to takes deep breath in/out. patent nares, Hear/observe wheezing, cough, accessory muscles use

### CV: JVD? Edema or varicosities noted? Capillary refill Cyanosis









#### **Clinical Pearls** <sup>5</sup>

Vital Signs: Do they have any tools at home? BP cuff? Thermometer? Pulse Ox? Pain scale? Pulse or respiratory count.

Gen: Surrounds- safe without hazards? General appearance.

Skin: Dry, noted on exposed areas, describe the rash, picture with common item for comparison/assessment of size, tumbler test/glass test

HEENT: EOM, nystagmus, use flashlight on their phone to illuminate oropharynx. PERRL: use natural light source with camera at eye height- ask to open/close eyes. For congestionpatient can yawn and note any cracking or popping in ears. Can palpate on sinus, mastoid process, mouth, lips etc.

Respiration: Ask patient to takes deep breath in/out. patent nares, Hear/observe wheezing, cough, accessory muscles use

CV: comment on no JVD, no edema or varicosities noted. Capillary refill. No cyanosis.

Abd: Pt laying down, position the camera to see face and abdomen, note any facial grimacing.

Palpate in all four quadrants.

Special tests like Murphy's sign or tenderness at McBurney's

To assess possible acute abdomen- ask to do jumping jacks









#### **Clinical Pearls**<sup>5</sup>

Vital Signs: Do they have any tools at home? BP cuff? Thermometer? Pulse Ox? Pain scale? Pulse or respiratory count.

Gen: Surrounds- safe without hazards? General appearance.

Skin: Dry, noted on exposed areas, describe the rash, picture with common item for comparison/assessment of size, tumbler test/glass test

HEENT: EOM, nystagmus, use flashlight on their phone to illuminate oropharynx. PERRL: use natural light source with camera at eye height- ask to open/close eyes. For congestionpatient can yawn and note any cracking or popping in ears. Can palpate on sinus, mastoid process, mouth, lips etc.

Respiration: Ask patient to takes deep breath in/out. patent nares, Hear/observe wheezing, cough, accessory muscles use

CV: comment on no JVD, no edema or varicosities noted. Capillary refill. No cyanosis.

Abd: Pt laying down, position the camera to see face and abdomen, note any facial grimacing. Palpate in quadrants. Special tests like Murphy's sign or tenderness at McBurney's, To assess possible acute abdomen- ask to do jumping jacks

MSK: ROM (have patient mirror you) Assess gait and station Special tests\*





# **Physical Examination Skills:**

# **Neer's Test**

Presented by Cody Rodman PA-S & Hina Mazharuddin PA-C Student Director for PAVMT 2021-2022 & Vice President for PAVMT



Vital Signs: Do they have any tools at home? BP cuff? Thermometer? Pulse Ox? Pain scale? Pulse or respiratory count.

5

Gen: Surrounds- safe without hazards? General appearance.

Skin: Dry, noted on exposed areas, describe the rash, picture with common item for comparison/assessment of size, tumbler test/glass test

HEENT: EOM, nystagmus, use flashlight on their phone to illuminate oropharynx. PERRL: use natural light source with camera at eye height- ask to open/close eyes. For congestionpatient can yawn and note any cracking or popping in ears. Can palpate on sinus, mastoid process, mouth, lips etc.

Respiration: Ask patient to takes deep breath in/out. patent nares, Hear/observe wheezing, cough, accessory muscles use

CV: comment on no JVD, no edema or varicosities noted. Capillary refill. No cyanosis.

Abd: Pt laying down, position the camera to see face and abdomen, note any facial grimacing. Palpate in quadrants. Special tests like Murphy's sign or tenderness at McBurney's, To assess possible acute abdomen- ask to do jumping jacks

MSK: . ROM, gait, station, can do special tests\*

#### Neuro/ Psych: CN1-12, comment on speech and if in appropriate situational mood.





#### NEUROLOGY EXAM Cranial Nerves

Olfactory- Smell common household items - Coffee, Citrus, Perfume/Cologne, Candle

**Optic-** Grossly read paper/screen OD/OS/OU (use corrective lens if needed), Red desaturation test, Use of NIH stroke cards, Pupillary reaction to light, \*fundoscopy

#### Oculomotor/ Trochlear/ Abducens: Extraocular Movements

**Trigeminal**- Grossly touch each side of face following trigeminal nerve pattern, may compare each side using common items ie: tissue, pen/pencil, ice. Assess motor function with clenching of jaw- to assess for tone and muscle bulk.

Facial-Assess if able to smile symmetrically, puff out cheeks, open and shut eyes

Vestibulocochlear- intact to voice, rub fingers to ear bilaterally, comment on gait and nystagmus

Glossopharyngeal & Vagus - Can comment on dysarthria ,palate elevation,gag reflex, uvula deviation

Accessory- Shrug shoulders, turn heard

Hypoglossal- Can comment on atrophy, asymmetry, fasciculations

\*Subject to what resources you have access to

**Olfactory**- Smell common household items - Coffee, Citrus, Perfume/Cologne, Candle

**Optic-** Grossly read paper/screen OD/OS/OU (use corrective lens if needed),Use of NIH stroke cards, Pupillary reaction to light, \*fundoscopy

Oculomotor/ Trochlear/ Abducens: Extraocular Movements

**Trigeminal**- Grossly touch each side of face following trigeminal nerve pattern, may compare each side using common items ie: tissue, pen/pencil, ice. Assess motor function with clenching of jaw- to assess for tone and muscle bulk.

**Facial**- Assess if able to smile symmetrically, puff out cheeks, open and shut eyes

**Vestibulocochlear-** intact to voice, rub fingers to ear bilaterally, comment on gait and nystagmus

**Glossopharyngeal** & **Vagus** - Can comment on dysarthria, palate elevation, uvula deviation

Accessory- Shrug shoulders, turn heard

Hypoglossal- Can comment on atrophy, asymmetry, fasciculations

\*Subject to what resources you have access to







Vital Signs: Do they have any tools at home? BP cuff? Thermometer? Pulse Ox? Pain scale? Pulse or respiratory count.

Gen: Surrounds- safe without hazards? General appearance.

Skin: Dry, noted on exposed areas, describe the rash, picture with common item for comparison/assessment of size, tumbler test/glass test

HEENT: EOM, nystagmus, use flashlight on their phone to illuminate oropharynx. PERRL: use natural light source with camera at eye height- ask to open/close eyes. For congestionpatient can yawn and note any cracking or popping in ears. Can palpate on sinus, mastoid process, mouth, lips etc.

Respiration: Ask patient to takes deep breath in/out. patent nares, Hear/observe wheezing, cough, accessory muscles use

CV: comment on no JVD, no edema or varicosities noted. Capillary refill. No cyanosis.

Abd: Pt laying down, position the camera to see face and abdomen, note any facial grimacing. Palpate in quadrants. Special tests like Murphy's sign or tenderness at McBurney's, To assess possible acute abdomen- ask to do jumping jacks

MSK: . ROM, gait, station, can do special tests\*

Neuro/ Psych: CN1-12, comment on speech and if in appropriate situational mood.

Feel free to use any screening tools (PHQ9, GAD7 etc), Ottawa rules, diagnostic criteria (ex: Centor Criteria), at home testing kits (COVID test, UTI tests)





# **Special Tests/Clinical Pearls**







# Telemedicine Utilization and Integration for present (2.0) and future use (3.0)



#### **Telemedicine 2.0 – Patient case**<sup>6</sup>

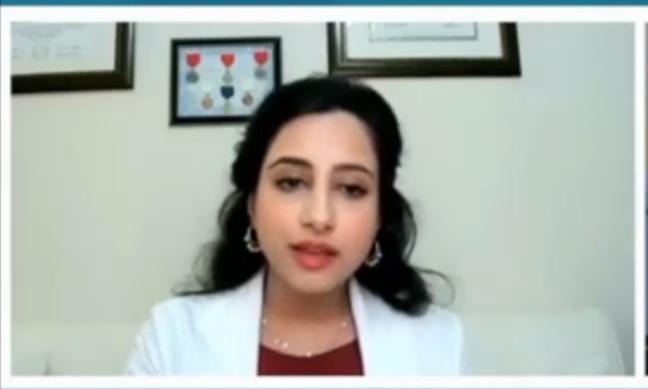
Ms Jones is a 41 y/o F calls in on a video chat about R shoulder pain x 4 weeks

Recently moved to new apt and was repeatedly lifting heavy boxes

Pain occurs when using shoulder Mostly at bedtime Pain is in front of the shoulder No hx of trauma/falls No numbness/tingling No red/warm swollen joint













**Telemedicine 2.0 – Patient case**<sup>6</sup>

TXT: Ice, Rest, NSAIDS, ergonomic position recommendation, PT or Home exercise program

Follow up- synchronous or asynchronous, virtual or in person

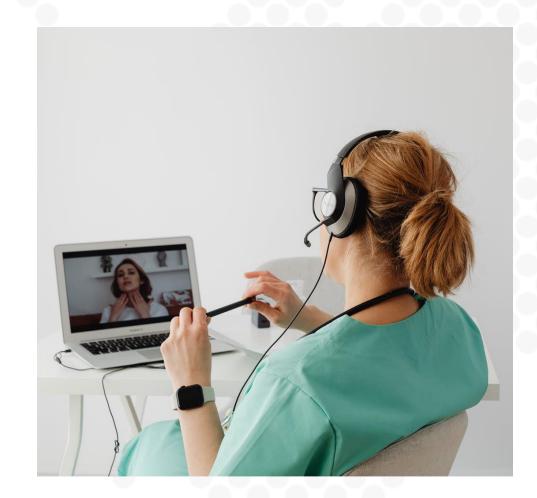
No improvement: Consider imaging or referral to ortho





## Telemedicine Ecosystem- More than just a zoom call

- Improve Access to care
- Improve patient experience
- Improve care
- Improve Efficiency/ Decrease costs
- Making meaningful impact through innovated care model





# Telemed 3.0<sup>7</sup>

## Meet Ms. Smith

- 38 y/o F
- Primary wellness visit
- PMHx: Pre-DMtaking metformin





# Telemed 3.0<sup>7</sup>

## 7:45 AM Before work-

- Open app
- Geo locater to choose
   clinic
- Schedule /Calendar capability to find same day or next day appt with PCP
- Choose provider via bio

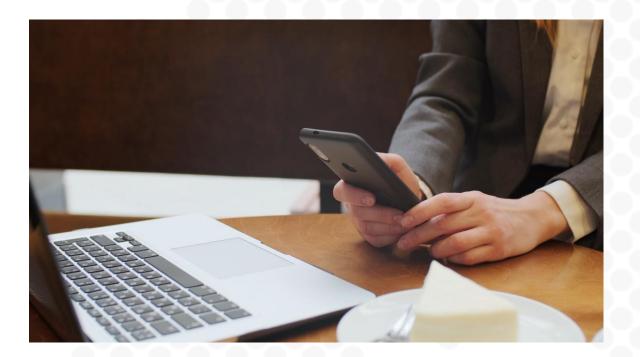




# Telemed 3.0<sup>7</sup>

## Before the visit:

- Alert/text message on her phone
- Fill out health hx and screening questionaries
- Other Concerns: Insomnia





# Telemed 3.0<sup>7</sup>

12:15-12:45 PM- meets with her PCP

- Reviews Hx, USPSTF questionaries
- Physical exam
- Pt education on pre-DM-set her up for the Diabetes Prevention Program
- RX refill
- Discuss pts concern re: insomnia
- New job with increased stress (reflected in her GAD7)
- Schedule mental health therapist/counselor,
- Orders: lab, DM retinopathy screening, Annual Flu shot
- F/u will be virtual





## Telemed 3.0<sup>7</sup>

#### End of work day:

- Finds herself having more caffeine and sweets, remembers PCP education
- Clicks the invite to join DPP– nutrition, exercise, sleep, stress management, support group etc.





# Telemed 3.0<sup>°</sup>





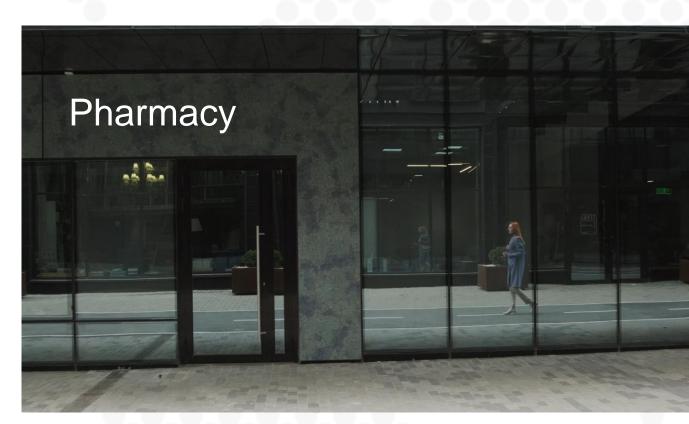


DM Prevention Program



## Telemed 3.0

 After work pick up rx-, get her blood work drawn, gets her flu shot, kiosk- AI DM retinopathy screening







Shared with owner's permission www.careportmd.com

# Telemed 3.0<sup>7</sup>











### Telemed 3.0

**Evening**:

- After flu shot feels a ill
- Soreness, redness on arm
- Use symptom checker and algorithm advises it something that can be take care of via virtual medical team( vs UC or ER) using the asynchronous messaging





## Telemed 3.0<sup>7</sup>

Sample Asynchronous Questions:

When did symptoms start?

Where is this located? Please send in multiple pictures of affected area.

Please describe the rash.

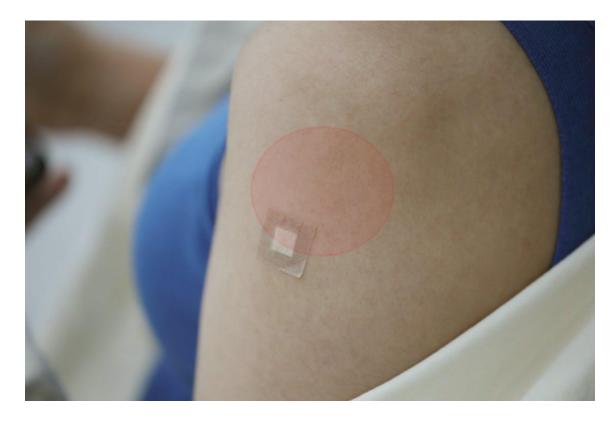
Pain? Fever? Itching?

Anything make it better?

Anything make it worse?

How would you rate your pain on a scale of 1-10?

Anything else you'd like to share with your medical provider?

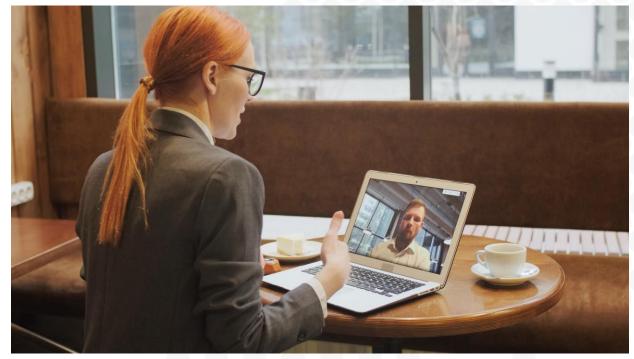




## Telemed 3.0<sup>′</sup>

Next day at lunch break

 1<sup>st</sup> therapy appt with a Mental Health Counselor





## Telemed 3.0

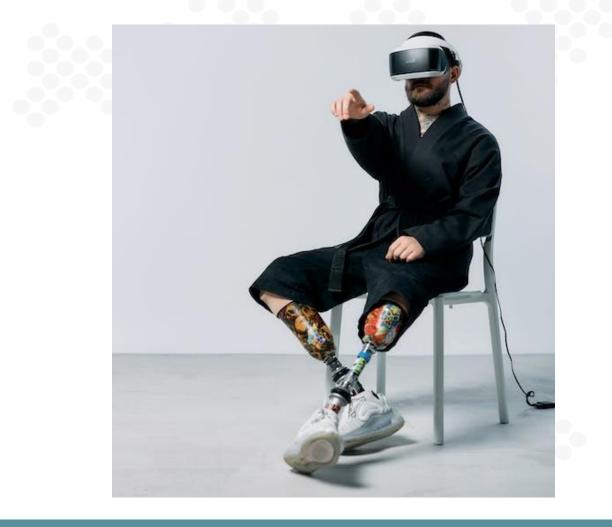
### Virtual follow up:

 Follow up with her multidisciplinary medical team for her holistic care





### Telemed 3.0

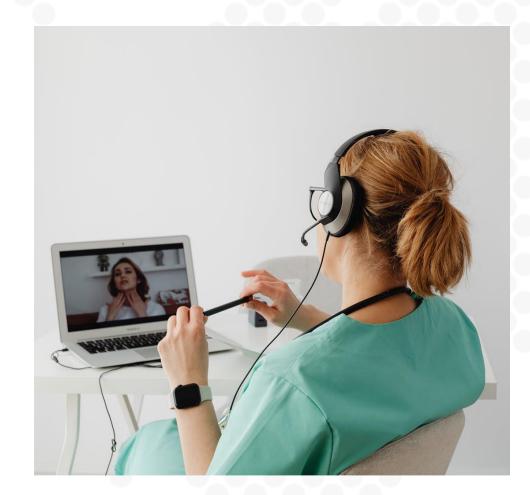


- Virtual Reality/Augmented reality
- Digital therapeutics
- Wearable devices



#### Telemedicine Ecosystem- More than just a zoom call

- Improve Access to care
- Improve patient
- Improve care
- Improve Efficiency/ Decrease costs
- Making meaningful impact through innovated care model
  - ....this already exists





### Reimaging health care

- Easy to use- reduce barriers
- Streamlined approachmatching modality with need
- Team oriented- we work better when we work together.
   #stronger together



5.7



## Reimaging health care

- Telehealth for American Indian and Alaska Native communities
- Telehealth for behavioral health care
- Telehealth and cancer care
- Telehealth for chronic conditions
- Telehealth for direct to consumer care
- **Telehealth for emergency departments**
- Telehealth for HIV care
- Telehealth for maternal health services
- Telehealth for physical therapy Telehealth for rural areas
- Telehealth for school based services
- Telemonitoring



5.9



# Updates<sup>10</sup>

- Dec 29 2022 President Biden signed into law H.R. 2716 Consolidated Appropriations Act for Fiscal Year 2023.
- Provides funding including a 2 year extension of the major telehealth waivers that were initiated during the federal public health emergency – Dec. 31, 2024

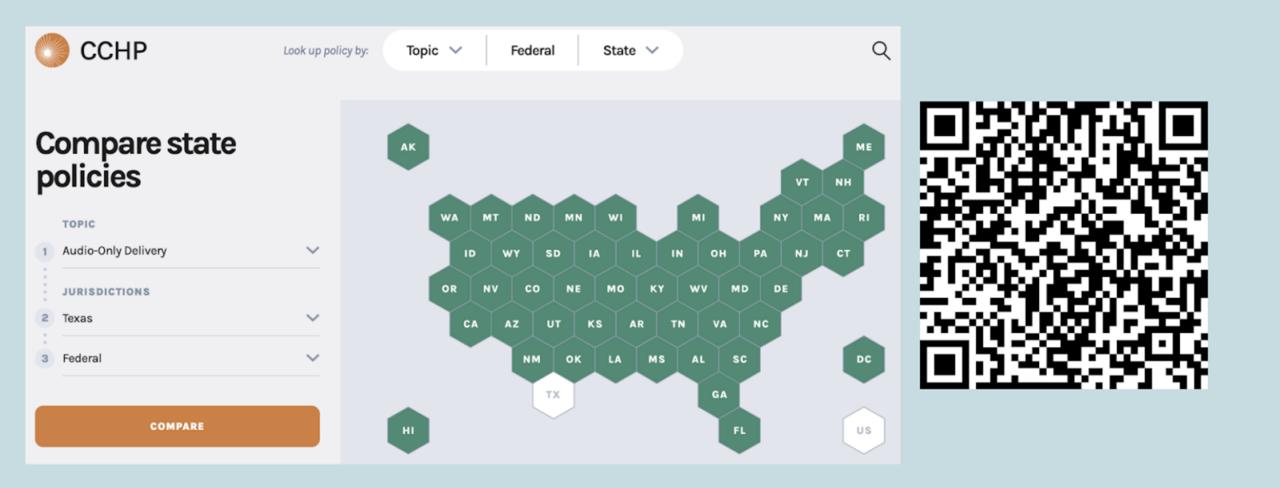


# Updates <sup>10</sup>

- Key Takeaway #1: Patients can continue to access telehealth from their home.
- Key Takeaway #2: Audio-only telehealth services is allowed.
- Key Takeaway #3: In-person visits for tele behavioral health not required under the CAA, but virtual prescribing for controlled substances still tied to PHE.
- Key Takeaway #4: Extend pre-deductible telehealth waiver.
- Key Takeaway #5: Expand care options with eligible practitioners and hospital at home programs.



# **Center for Connected Health Policy**<sup>10</sup>





(10

### Take home points:

- 1. Telehealth offers an opportunity to see the future, recreate the clinic experience remotely.
- 2. Telemedicine is a platform that allows PA to connect with patients in a meaningful way.
- 3. Expect growth and integration of telemedicine and various digital tools/capabilities to be integrated into a work-life and life-work flow
- 4. As PAs it is our and opportunity to be the change makers, improve practice revenue, improve patient health outcomes and provide value based care which can involve telemedicine being part of that health care ecosystem.
- 5. For us to make those positive changes, we must educate ourselves on how to safely and confidently practice in the virtual space.

PAVMT would like to provide you with a complimentary Telemedicine Quick Reference Guide





✓ Intro and Vitals

Abdominal

Respiratory

Cardiology

Dermatology

HEENT

Neurology

MSK Exam Intro ✓ MSK - Shoulder MSK - Elbow and Hand MSK - Back MSK - C-Spine MSK - Hip MSK - Knee MSK - Ankle MSK - Cool Tech

> Shoulder Exam Shoulder ROM Empty Can/Jobe Test Infraspinatus Test Hornblower's Test for Teres Minor

Lift Off Test
Belly Press
Scarf Test (AC Joint)
Cross Body Adduction Test (AC Joint)

Neer Test
 Hswkins-kennedy Test
 O'Brien Test
 Drop Arm Test
 Speeds Test
 Yergason's Test
 Tinef's Test
 Phaleris Test
 Finkelstein's Test

Demo - Reflexes

Demo - Back ROM, Single Leg Raise, Double Leg Squat, Gait Assessment

🗸 MSK

#### • (b) ► Þ • -



Back I



# Membership

One Mission. PA Community. Together We are Stronger. Join Us.



Discount Code: AAPA23 www.pavmt.org/membership/join-renew



### References

1. Waller M, Stotler C. Telemedicine: a Primer. *Curr Allergy Asthma Rep*. 2018;18(10):54. Published 2018 Aug 25. doi:10.1007/s11882-018-0808-4

2. PAs Embrace Telemedicine After COVID-19 Jumpstart. AAPA. Published October 16, 2020. https://www.aapa.org/news-central/2020/10/pas-embrace-telemedicine-after-covid-19-jumpstart/

3. Monthly Telehealth Regional Tracker. www.fairhealth.org. <u>https://www.fairhealth.org/states-by-the-numbers/telehealth</u>

4. 2020 Statistical Profile of Certified Physician Assistants by Specialty National Commission on Certification of Physician Assistants. <u>https://www.nccpa.net/wp-content/uploads/2021/12/2020-Specialty-report-Final.pdf</u>

5. PAVMT Virtual Medicine. PAVMT.org. Published May 25, 2021. Accessed November 30, 2022. https://www.pavmt.org/home

6. Addressing Pain Management Via Telemedicine. PA Foundation. Accessed November 30, 2022. https://pa-foundation.org/preventing-prescription-opioid-misuse/addressing-pain-management-via-telemedicine/



### References

- Media XH. Beyond Telehealth 2.0: Preparing For A Hybrid Care World. Vimeo. Published March 24, 2022. Accessed November 30, 2022. <u>https://vimeo.com/691931831</u>
- 8. CDC. National Diabetes Prevention Program. Centers for Disease Control and Prevention. Published 2019. https://www.cdc.gov/diabetes/prevention/index.html
- 9. Telehealth training and workforce development | Telehealth.HHS.gov. telehealth.hhs.gov. https://telehealth.hhs.gov/providers/telehealth-training-and-workforce-development/
- 10. Disentangling Telehealth from the Public Health Emergency. Southwest TRC. <u>https://southwesttrc.org/blog/2023/disentangling-telehealth-public-health-emergency</u>
- 11. All telehealth policies. CCHP. https://www.cchpca.org/all-telehealth-policies/

Copyright and Royalty Free images taken from Pexles: Pexels. Free stock photos · Pexels. Pexels.com. Published 2021. https://www.pexels.com/

