

INSTITUTE  
FOR HEALTH  
POLICY  
FORUM

# LEVERAGING TELEHEALTH TO EXPAND ACCESS TO HIGH- QUALITY CARE

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## **The Telehealth Evidence Base**

# What evidence are we looking for?

“(I) reduce spending under this title without reducing the quality of care; or

“(II) improve the quality of patient care without increasing spending.

Evidence-Based Telehealth Expansion Act of 2017

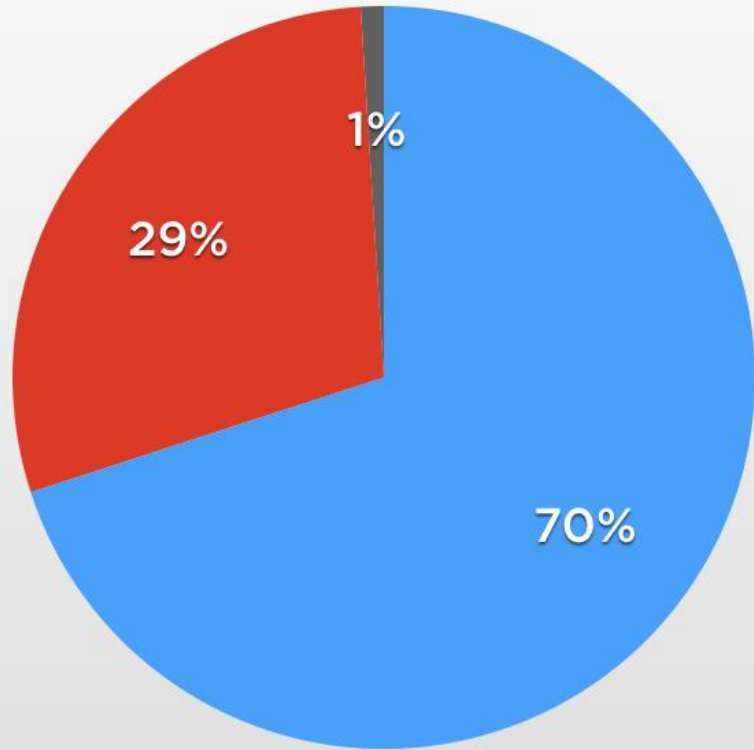
# Cost Savings I

- Veterans Affairs
  - Home Telehealth Program
    - Reduced 8 admissions per every 100 participants
    - Chronic disease patients have decreased LOS, re-admissions, save \$1999/year
  - Store and FWD
    - Saved \$38/consult with specialist

# Cost Savings II

- Rural Community members save time, cost of travel, lost wages
- Remote patient monitoring for patients with CHF can reduce ED visits, hospitalizations, and re-admissions
- Telehealth can reduce transfers to ED from SNF, LTF, and Acute Rehab

# From Call9



● Avoided Transfer   
 ● Transferred   
 ● Expired

Chief Complaint	n	Avoided ED Transfer	Confidence Interval
Shortness of Breath	97	76.3%	(67.7% - 84.9%)
Altered Mental Status	70	58.6%	(46.8% - 70.3%)
Febrile	41	82.9%	(71.2% - 94.7%)
Abnormal Vital Signs	40	85.0%	(73.7% - 96.3%)
Cardiac	36	58.3%	(41.9% - 74.8%)
Fall	34	58.8%	(41.9% - 75.7%)
Emesis	25	72.0%	(54.0% - 90.0%)
Pain	24	66.7%	(47.4% - 85.9%)

# Quality I

## CMMI – Use Telehealth and Remote Patient Monitoring in Home PD

- High Level of Adoption (87%)
  - Home Weight Scale
  - Home BP monitoring
- High Levels of Satisfaction (80%)
- Use of Home Wt scale associated with reduced hospitalization, and LOS
- Use of Home BP associated with increased hospitalization and LOS

# Quality II

## Care First Foundation Telehealth Grant

- CDRs may improve consistency and quality of care
- Not conducted in Telemedicine environment
- Often patients or non-clinicians assist in applying the CDR
- Is there similar validity when applied via telemedicine compared to in-person?



# Validation of the Ottawa Ankle Rules via Telemedicine

- Determine need for x-rays in acute injuries
- Validated in 1991 by Ian Stiell, et al.
- 100% sensitive and 40.1% specific for detecting malleolar fractures
- Reduce 36% of ankle x-rays ordered

Figure 2.  
Clinical decision rule for ankle radiographic series in ankle injury series.

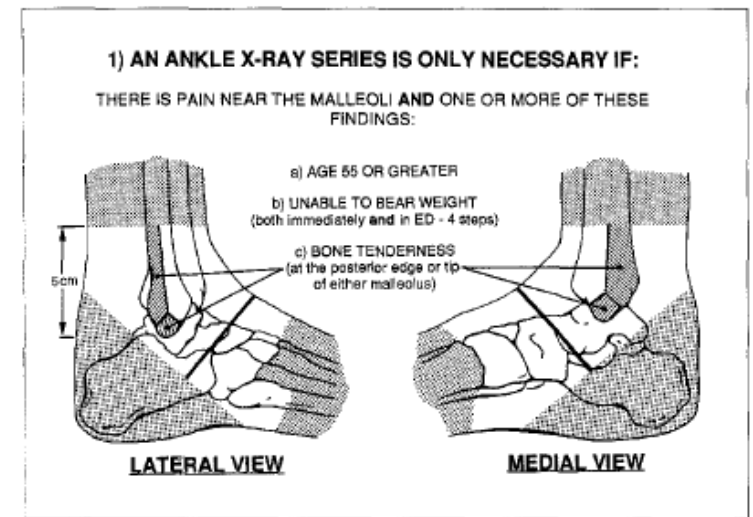
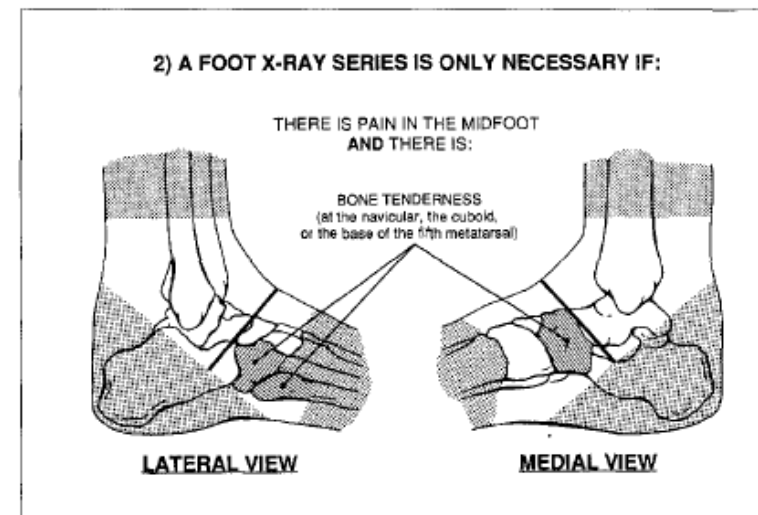
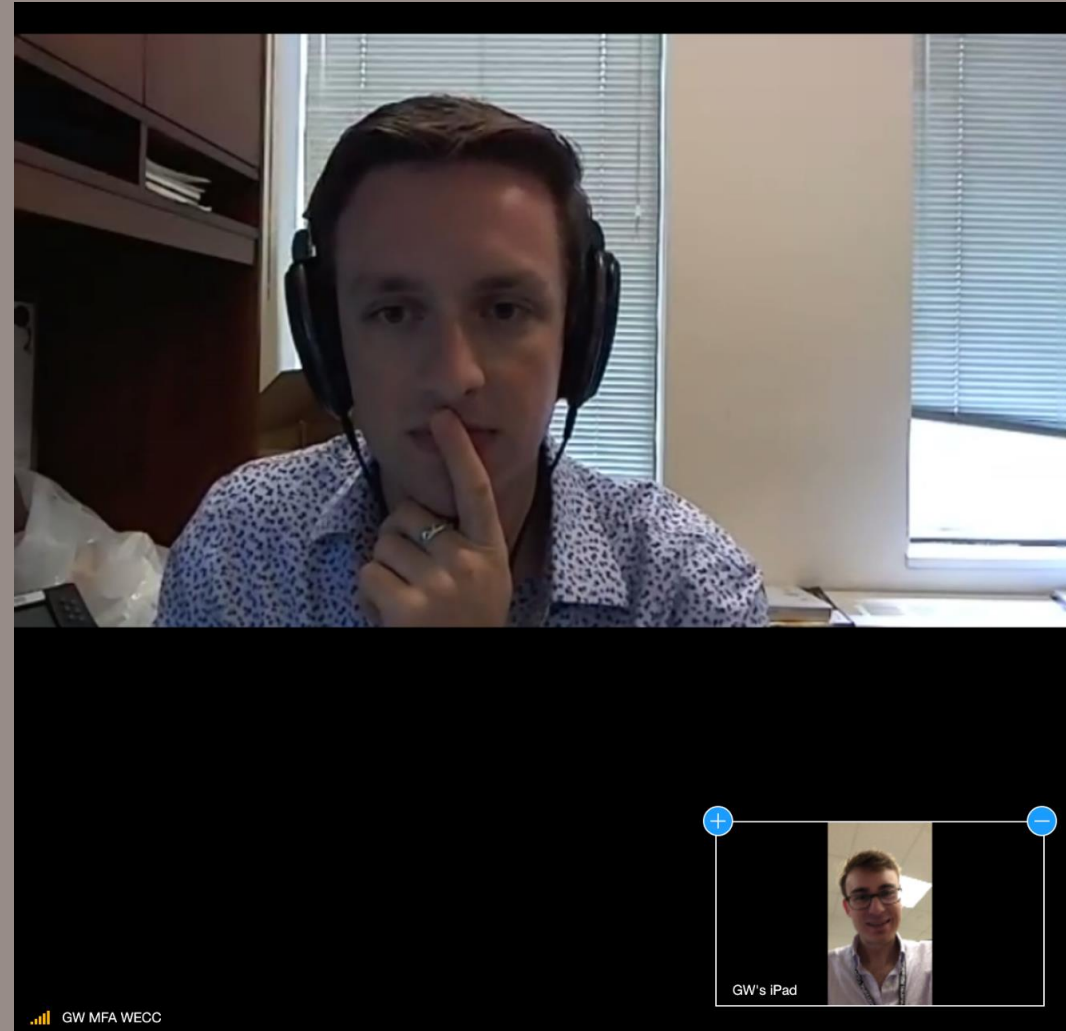
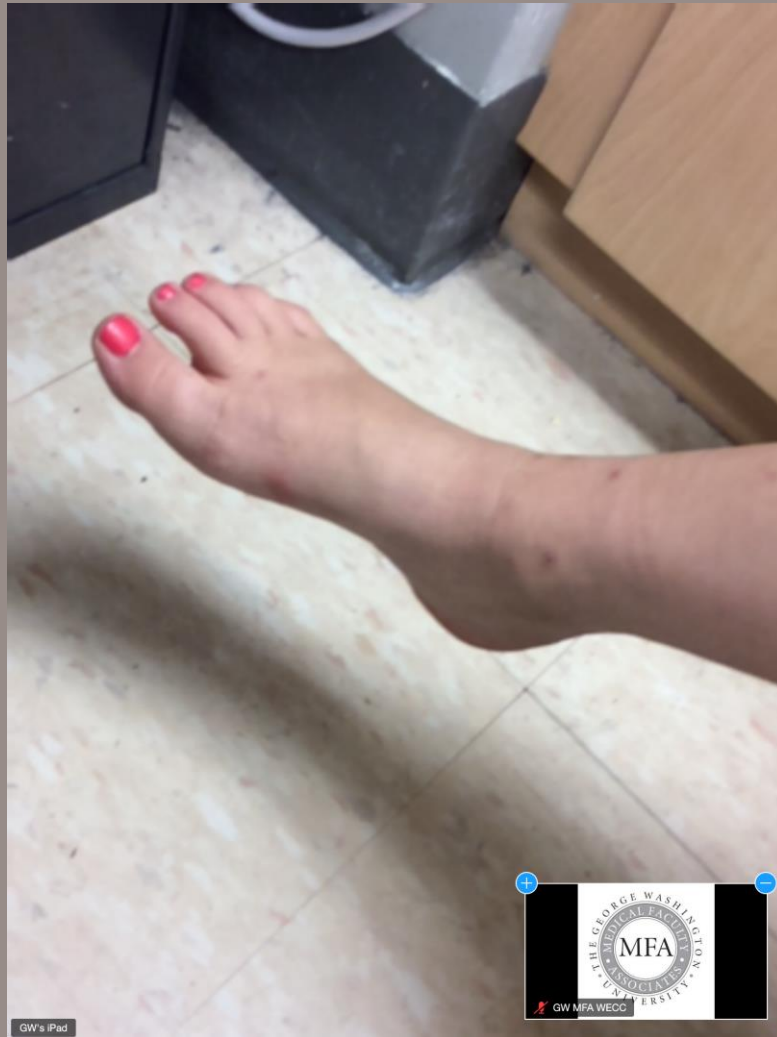


Figure 3.  
Clinical decision rule for foot radiographic series in ankle injury patients.

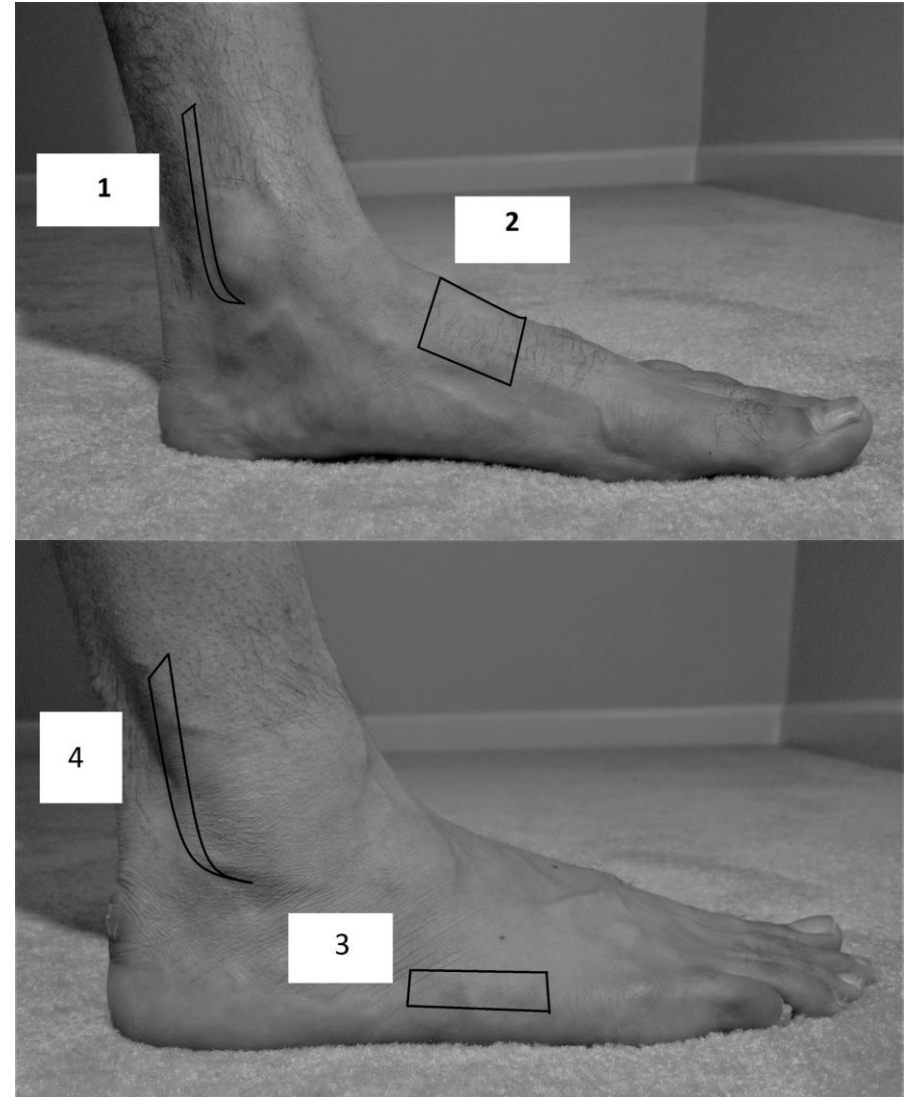


# Physician and Patient Encounter via Zoom App on iPad



# Individual OAR Question Results to Date

- Tender at 4 (post lat mal)  $k=0.89$
- Tender at 3 (base of 5<sup>th</sup> MT)  $k=0.84$
- Tender at 1 (post med mal)  $k=0.80$
- Tender at 2 (navicular)  $k=1$
- Weight bearing after injury  $k=0.94$
- 4 steps in the ED  $k=.83$



# Overall Results to Date

- 55 enrolled patients of 102 approached
- Agreement between the telemedicine /in-person provider for ankle and foot x-rays was high (both with  $k > 0.84$ )

# Gaps

- Cost to the small practice or individual provider
- Efficiency of practice/ workflow integration
- Clinical decision making via telehealth
- Stand alone telehealth vs. system based

Q + A



#KPTelehealth