



# Department of Veterans Affairs

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## TELEREHABILITATION: CURRENT SERVICES AND THE BENEFITS OF TELEHEALTH IN PHYSICAL THERAPY

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## Disclaimer

- What is presented is for information purposes and should not be regarded as legal advice.
- My comments are based on my own clinical experience as a physical therapist and do not represent the policy or views of the Department of Veterans Affairs.





# Telerehabilitation History & Trends



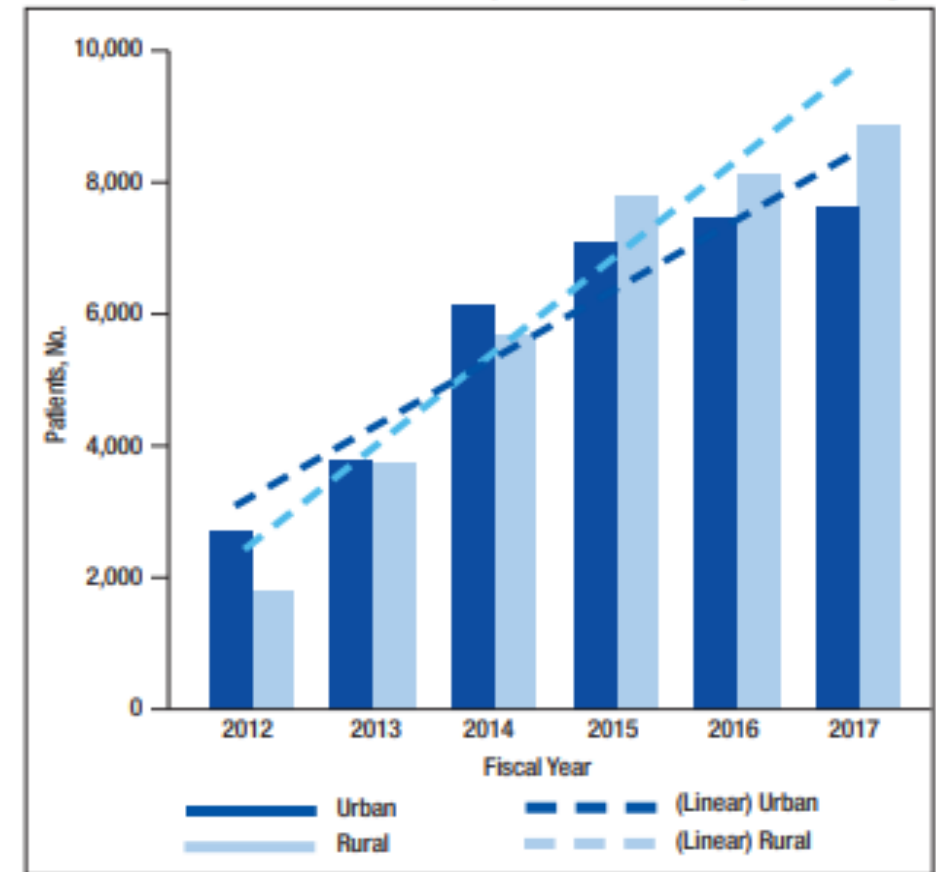
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## Rural Veterans Telerehabilitation Initiative

- Established 2009
- Funding from the VA Office of Rural Health.

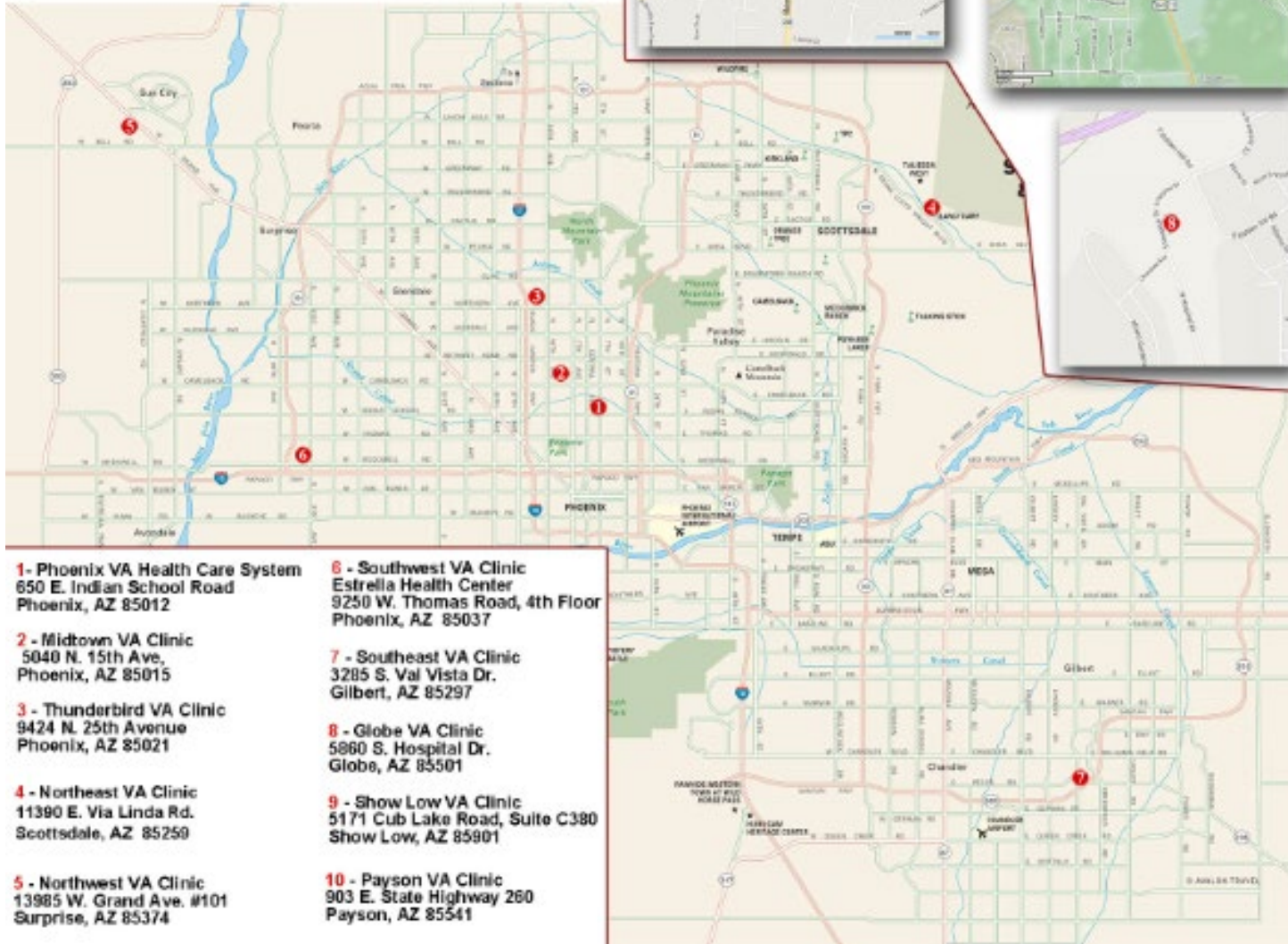


FIGURE 3 Number of Unique Patients by Rurality



Cowper-Ripley, D. C., Jia, H., Wang, X., Freytes, I. M., Hale-Gallardo, J., Castaneda, G., ... Romero, S. (2019). Trends in VA Telerehabilitation

# PHOENIX VA HEALTH CARE SYSTEM CBOCS



✓ Connecting Veterans across Metropolitan Phoenix and rural Community-Based Outpatient Clinics (CBOC):

- ✓ Southeast CBOC
- ✓ Northeast CBOC
- ✓ Show Low CBOC
- ✓ Southwest CBOC
- ✓ Thunderbird Clinic
- ✓ Northwest CBOC
- ✓ Globe CBOC
- ✓ Midtown CBOC
- ✓ Payson CBOC

- ✓ Telehealth Clinical Technicians (TCT)
- ✓ 1-2 TCT in each CBOC to assist with remote care



**VA**  
HEALTH  
CARE

Defining  
**EXCELLENCE**  
in the 21st Century



# Connecting with CBOCs

- Schools – 1x education class
- Group exercise classes
- One-on-one appointment
  - Durable medical equipment assessment
  - Assistive device assessment
  - Pain management and modulation treatment options
  - Follow-up from prior appointment
  - Guide primary care provider for specialized referral





# Staying Active & Staying Connected

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# Benefits of Clinic-to-Clinic Connection



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## ➤ **Provider**

- Can more readily include family/caregivers in teaching/education
- Attracts new patients
- Reduces No-Shows
- Ease of set-up/clean-up in-between
- Optimizes space of a smaller clinics

## ➤ **Veteran**

- Convenient - Frequently occurs after working with primary care provider
- Reduce resource burden (e.g. time - long commute)
- Improved remote access to a specialist
- Provides timely follow-up to facilitate carry-over
- Co-Pay exempt



# Connecting with the Veteran at Home

- Specialty PT Providers available:
  - Chronic Pain, Orthopedic, Pelvic Floor, Amputee, and Geriatrics
- PT Telehealth services:
  - AD training or retraining
  - Pain education or modality training
  - Home Exercise program review or progression
  - Fall recovery in home and education
  - Post discharge follow-up (example: TKA)
  - Patient and family education
  - Consult with home primary care team



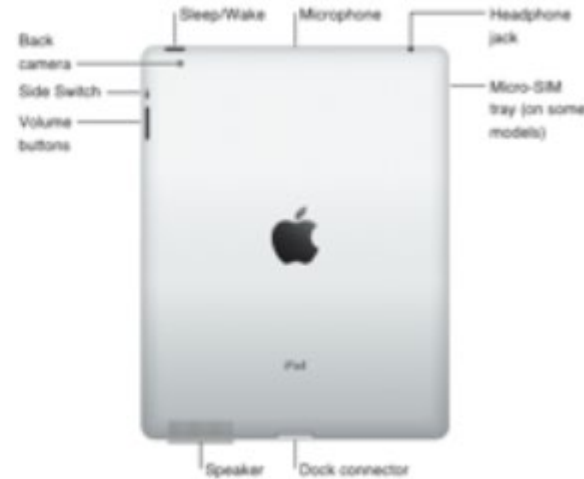




# Video-to-Home Telehealth Services



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***“Anywhere to Anywhere”***



# Benefits of Video-to-Home Telehealth



- Improved access and reduced no shows
- Improve continuity of care
- Convenient
- Home Environment
  - Able to assess function and mobility in patient's home
  - Inclusion of family and caregivers
- Optimize use of resources
  - Co-Pay exempt
  - No transportation needed
  - Time





# Influencers of Telehealth Utilization

## Barriers

- Slow Internet speed
- Poor audio/video quality
- Internet access and wireless coverage
- Low provider communication skills
- Resistance to use or perceptions
- Difficulty with camera position
- Security and privacy concerns
- Reimbursement issues
- Policy and laws

## Facilitators

- Cost savings
- Reduced wait time
- No travel time
- Easy to use
- Motivation and engagement
- Family involvement
- Convenience
- Privacy
- Better management

# Musculoskeletal Telerehabilitation

2017 Systematic Review & Meta-Analysis - Telerehabilitation was found to be...

- Effective to improve physical function and pain
- More favorable than in-person care alone
- Equivalent to in-person care
  - Cottrell, Galea, O'Leary, Hill, & Russell, 2017

2016 Systematic Review - Telehealth PT assessment - "feasible with overall good concurrent validity and excellent reliability"

- Assessment of pain, swelling, range of motion, muscle strength, balance, gait and functional assessment.
  - Mani, Sharma, Omar, Paungmali, & Joseph, 2016



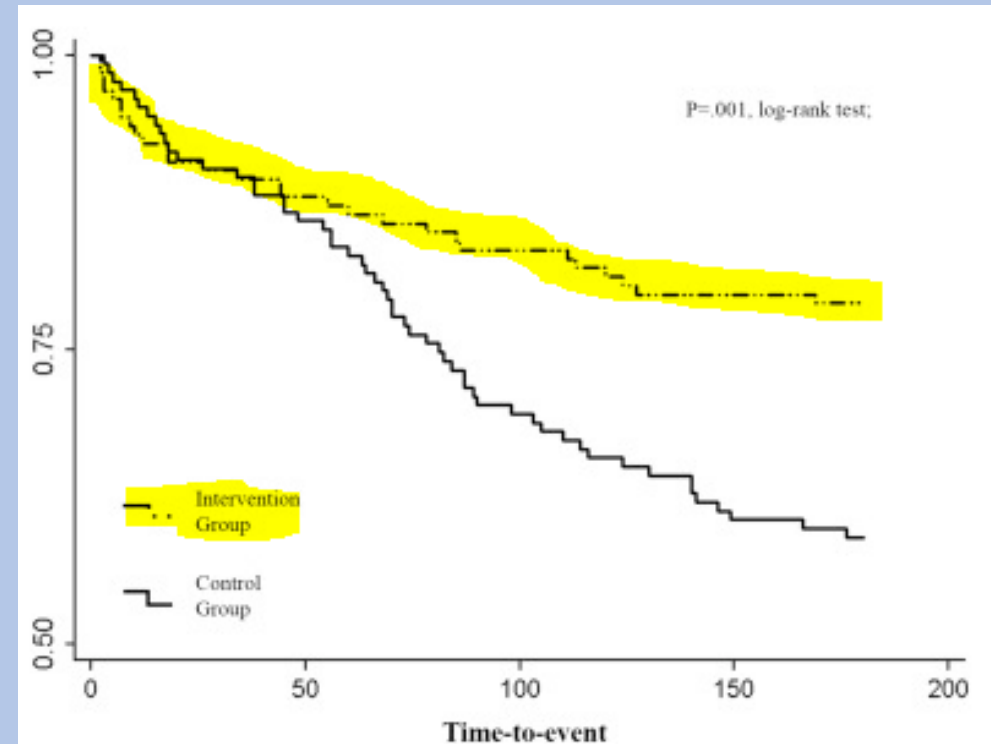
# Fall Prevention Telehealth Program

## Participants with 1 fall

- Telehealth group 20.6%
- Conventional 39.4%

## Participants with 2 or more falls

- Telehealth group 8%
- Conventional group 17%



# Total Joint Arthroplasty

- 2020 Systematic Review –  
Telerehabilitation for post-op lower  
limb total joint
  - Improved physical function, similar to  
that of in-person outpatient physical  
therapy, without an increase in adverse  
events or resource utilization.

Jansson, Rantala, Miettunen, Puhto, &  
Pikkarainen, 2020

- Is there acceptance of telehealth after  
surgery?
  - 44% preferred a virtual visit
  - Satisfaction associated with feeling  
heard
  - Helpful for self management
  - Clear communication pathway
    - Parkes, Palmer, Wingham, & Williams, 2019

April 26, 2019

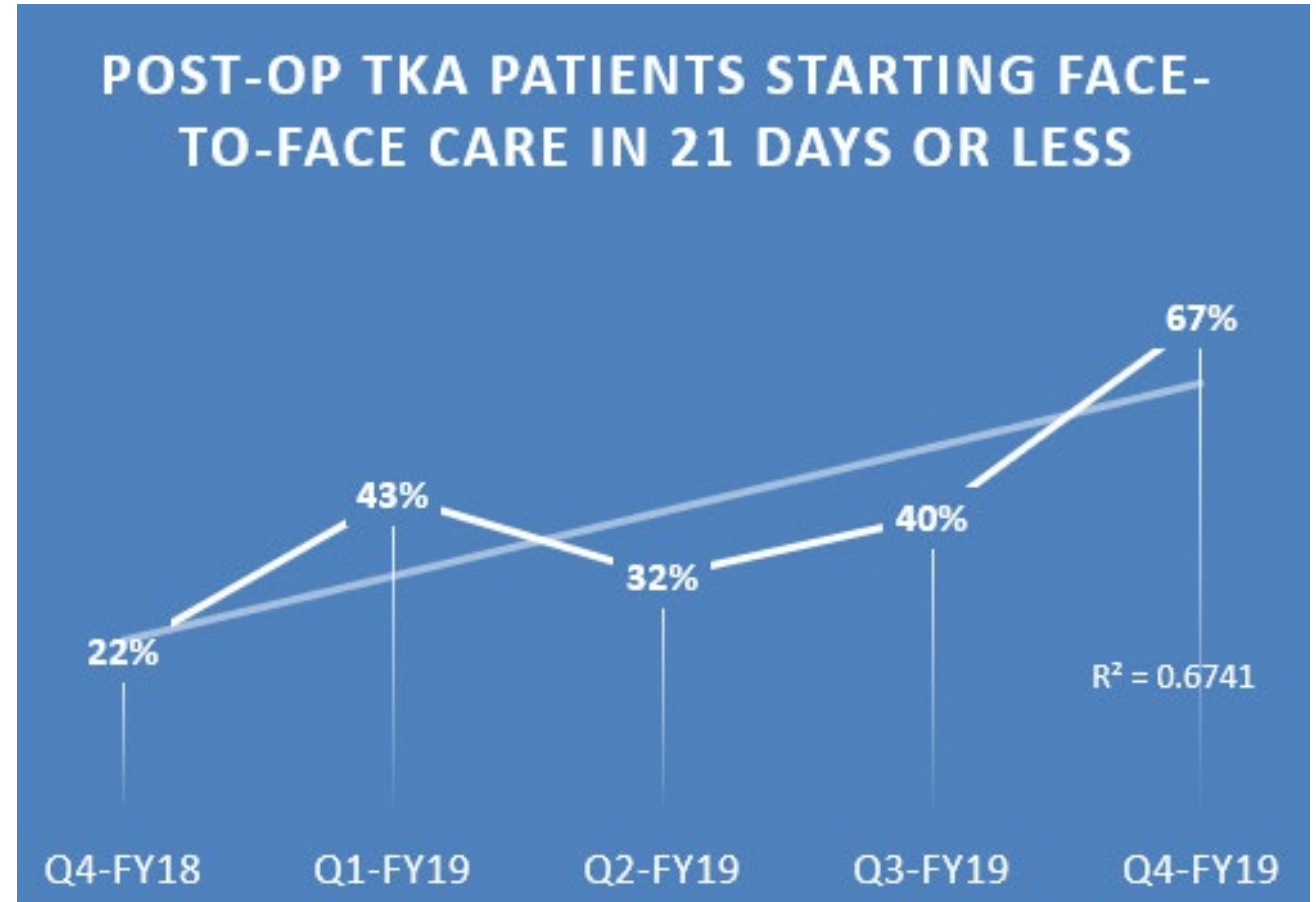
## **Assessment of Outcomes of Inpatient or Clinic-Based vs Home-Based Rehabilitation After Total Knee Arthroplasty A Systematic Review and Met- a-analysis**

Mark A. Buhagiar, PhD, MHM, BAppSc<sup>1,2</sup>; Justine M. Naylor, PhD, BAppSc<sup>2,3,4</sup>; Ian A. Harris, MBBS, MMed, PhD, FRACS, FAHMS<sup>2,3,4</sup>; et al



## Potential Telehealth Impact on Post-Op Care

- Connecting Phoenix VA Veterans that are post-operative total knee arthroplasty
  - Start conversation at pre-op
  - Facilitate access & connection
    - See virtual provider within 1 week from discharge
  - Significantly more patients started out-patient services in the recommended time.



*“Learn from yesterday, live for today, hope for tomorrow.  
The important thing is not to stop questioning.”  
~Albert Einstein~*

*Thank you!*