ACCESS EXPANSIONS THROUGH VIRTUAL MODALITIES: RESEARCH-BASED INSIGHTS FOR THE COVID-19 PANDEMIC AND BEYOND

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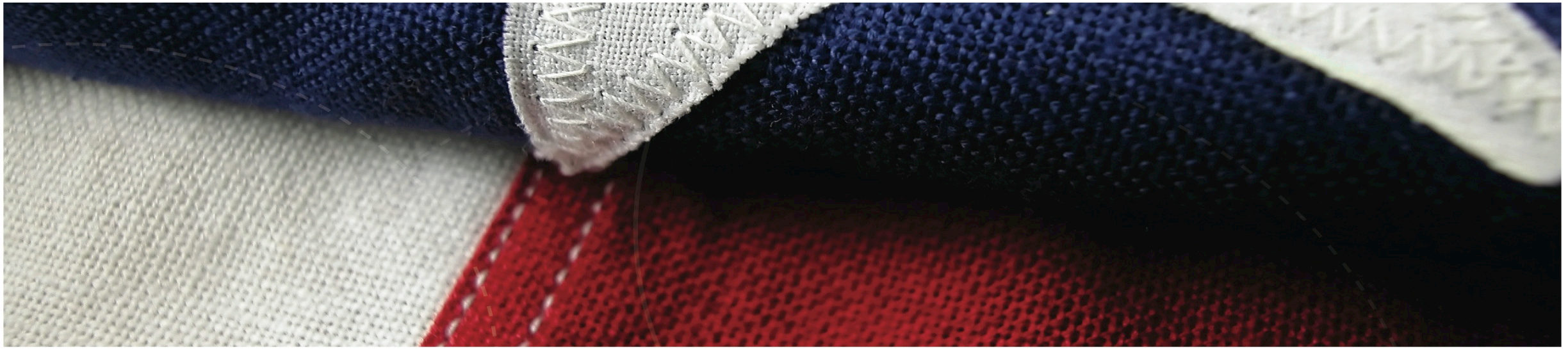
June 10, 2020

PACT Cyberseminar Series



An RCT of a Primary Care-Based PTSD Intervention: Clinician-Supported PTSD Coach

Kyle Possemato & Eric Kuhn

Access Expansions through Virtual Modalities: Research-Based Insights for the COVID-19 Pandemic and Beyond

June 10, 2020

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Presentation Overview

- Describe the RCT of Clinician-Supported PTSD Coach
- Describe modifications made during the COVID-19 pandemic
- Describe lessons learned from these modifications and implications for increasing access to research

The Problem of PTSD in Primary Care (PC) Patients

- PTSD in PC patients in common: 12-20% VA PC clinics
- PTSD is associated with a variety of negative outcomes
- Individuals often seek PC services, when they don't engage in mental health services
  - Treatment Barriers: negative beliefs about treatment, stigma, problems navigating to a new clinic.
- Primary Care Mental Health Integration (PCMHI)
  - Behavioral health clinicians function as members of PC team
  - Open access allows for warm handoffs
  - Brief sessions focus on improving functioning
  - Patients who need more treatment are stepped up to specialty care
- PCMHI clinicians need structured approaches for treating PTSD.

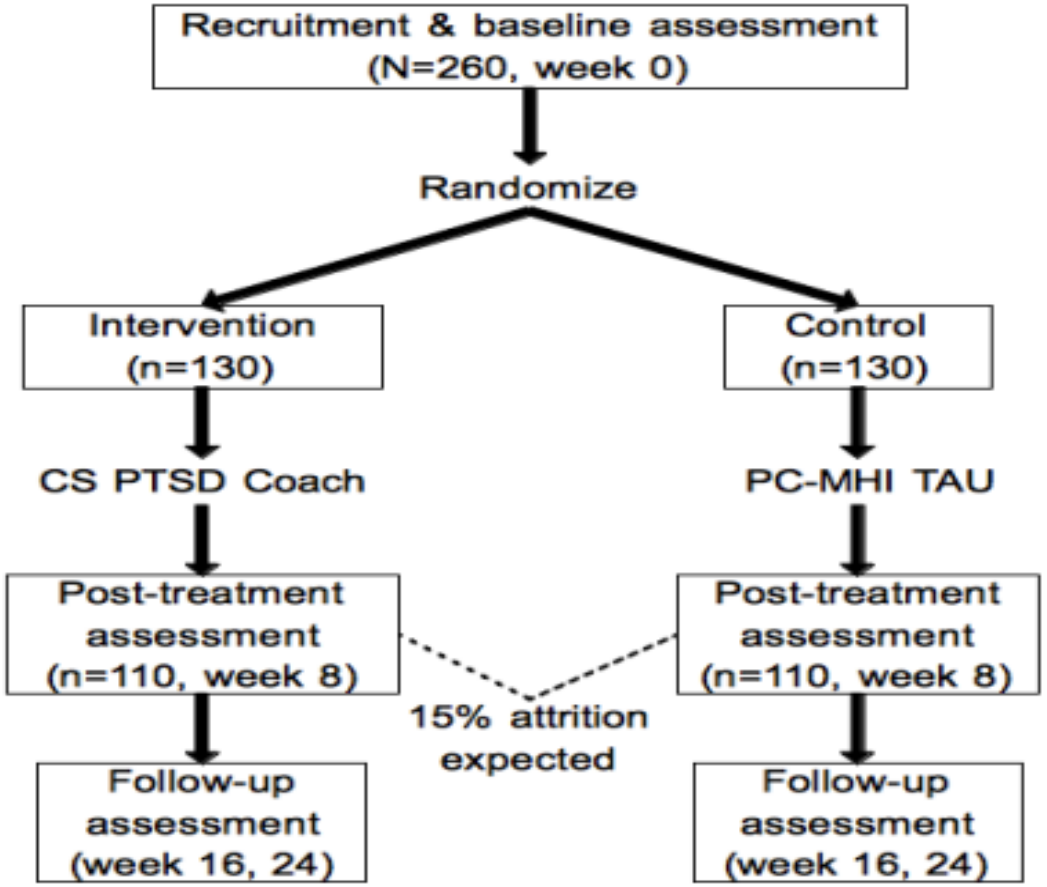
Clinician-Supported PTSD Coach

- Combines four 30-minute PCMHI sessions with the PTSD Coach mobile app

PCMHI Clinician Support

- Focus on personalizing the symptom-management strategies for the participant's specific concerns.
- Assigns the patient to use the app daily to manage symptoms.
- Clinicians help patients apply strategies in daily life and overcome barriers to active symptom management.
- Facilitates transition to other care if symptoms persist.

VA HSR&D Merit (IIR-14-288)
PIs: Kuhn & Possemato



Participants

Inclusion Criteria:

- –Enrolled in PC at VA Syracuse or Palo Alto healthcare systems
- –Traumatic event on the Criterion A screener + ≥33 on the PCL-5

Exclusion Criteria

- –Gross cognitive impairment, current symptoms of mania or psychosis
- –Current suicidal intent
- –Already receiving psychotherapy or MH counseling for PTSD outside of PC
- –Changed dose of a psychotropic medication for PTSD in the last 2 months
- –Voice a preference to be directly referred to MH specialty care

Specific Aims

1. Investigate the impact of CS PTSD Coach on PTSD severity.
2. Investigate the impact of CS PTSD Coach on engagement in specialty mental health care.
3. Investigate patient and provider satisfaction with CS PTSD Coach.

Exploratory Aims:

- Explore potential mediators (i.e., objective app use, coping self-efficacy) and moderators (e.g., baseline PTSD severity and co-morbid psychiatric symptoms) of outcomes.
- Explore trajectories of change over the follow-up period to examine if specialty mental health treatment engagement or continued app use interacts with symptom change.

COVID-19 Modifications

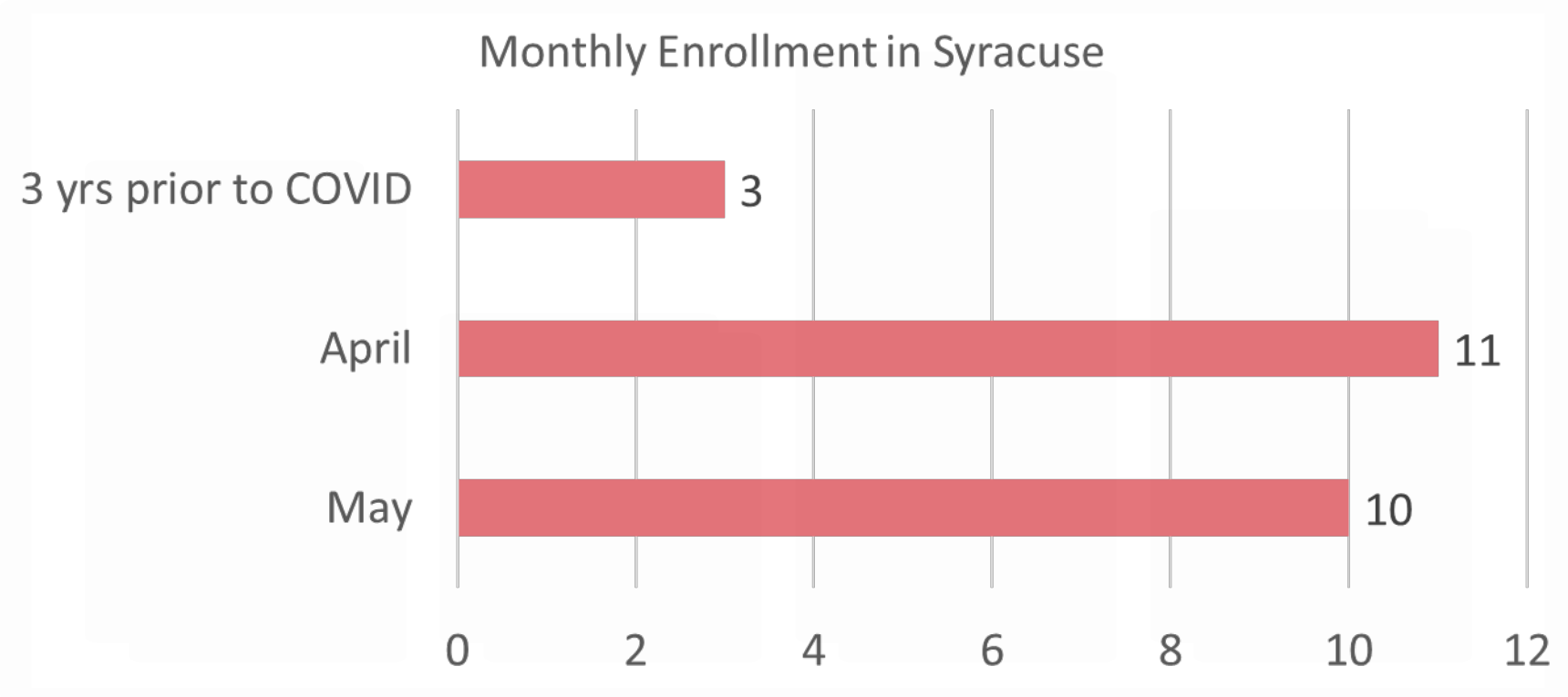
- Converted study to minimal risk with local IRBs
  - Allows for waiver of consent documentation

Old Procedure	New Procedure
Invitation letter sent by mail	Same
Phone screen	Same
In-person consent	Virtual consent
In-person baseline assessment	Phone and online surveys
Warm hand off to clinician for session 1	Virtual warm handoff
Session 2-4 in-person or by phone	Video call or phone
Post tx assessments in-person or online	Online, phone or mail
Follow-up assessments in-person or online	Online, phone or mail

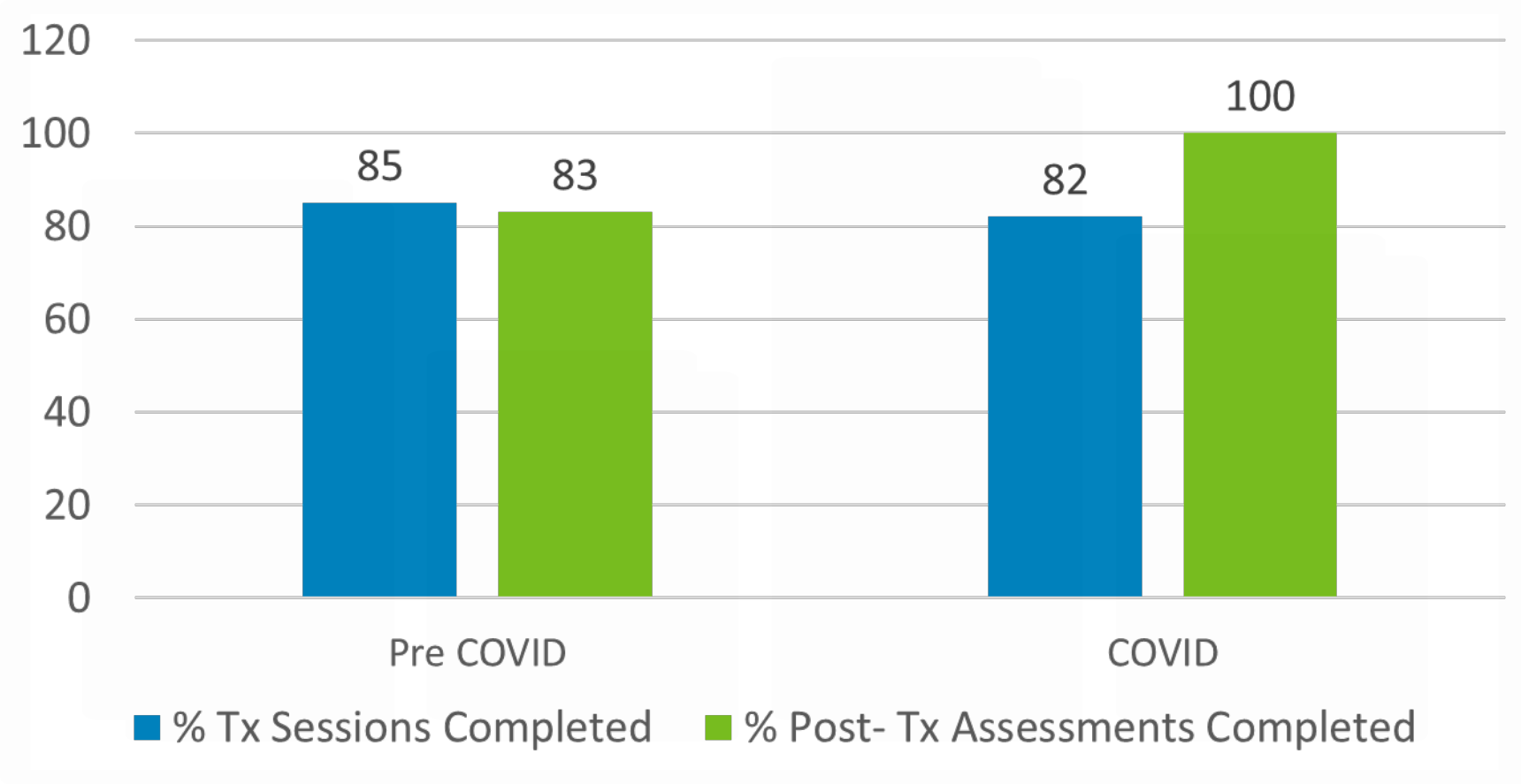
Programs Needed when Staff and Participants are Virtual

Need	Programs used
Call conferencing that hides staffs' personal phone numbers	Skype for Business, Doximity
Online surveys	RedCAP
Video Conferencing for warm hand-offs and therapy sessions	VA Video Connect, Zoom
Audio recording via CAG	Audacity

Enrollment during COVID-19



Treatment and Assessment Retention



Lessons Learned

- Veterans comment that they never would have participated if they needed to come in-person
  - Barriers: time, travel, anxiety, frustration
- Increases in staff efficiency
  - No longer traveling to rural clinic
- Anecdotally, patient satisfaction is high
  - This is supported by patient engagement data
- Close assessment of cognitive abilities is needed
  - Engaging virtually is complicated. Staff consenting must assess if participants have the ability to do this.

Implications for Increasing Access to Research

- When designing studies consider if face-to-face contact is really needed.
  - Consider study aims and study population
  - Our study targets patients who don't typically engage in care: any engagement, even virtual engagement is a win.
- A lot of the impact of these modifications are still unknown
  - Current retention data is very preliminary
  - Impact on effectiveness results?
  - Impact on how we design future research and implementation?

Questions/ Comments

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Factors Associated with Secure Messaging Use among Homeless-Experienced Veterans

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IDEAS
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Views are my own, do not represent VA, NIH, US Government

Background

- 37,000 Veterans homeless on given night

- Healthcare needs and challenges
  - Medical-, mental health-, substance-related comorbidity
  - Significant access barriers

- Primary care adaptations
  - Walk-ins, flexible scheduling, evening/weekend care

Telehealth during pandemic

- Virtual visits, telephone visits, electronic communication
- Secure messaging
  - Asynchronous communication with VA providers
  - Available in My HealtheVet patient portal since 2008
- Feasible/acceptable among vulnerable populations?

Objectives

1. Examine use of secure messaging, perceptions of usefulness

2. Determine factors associated with secure messaging use

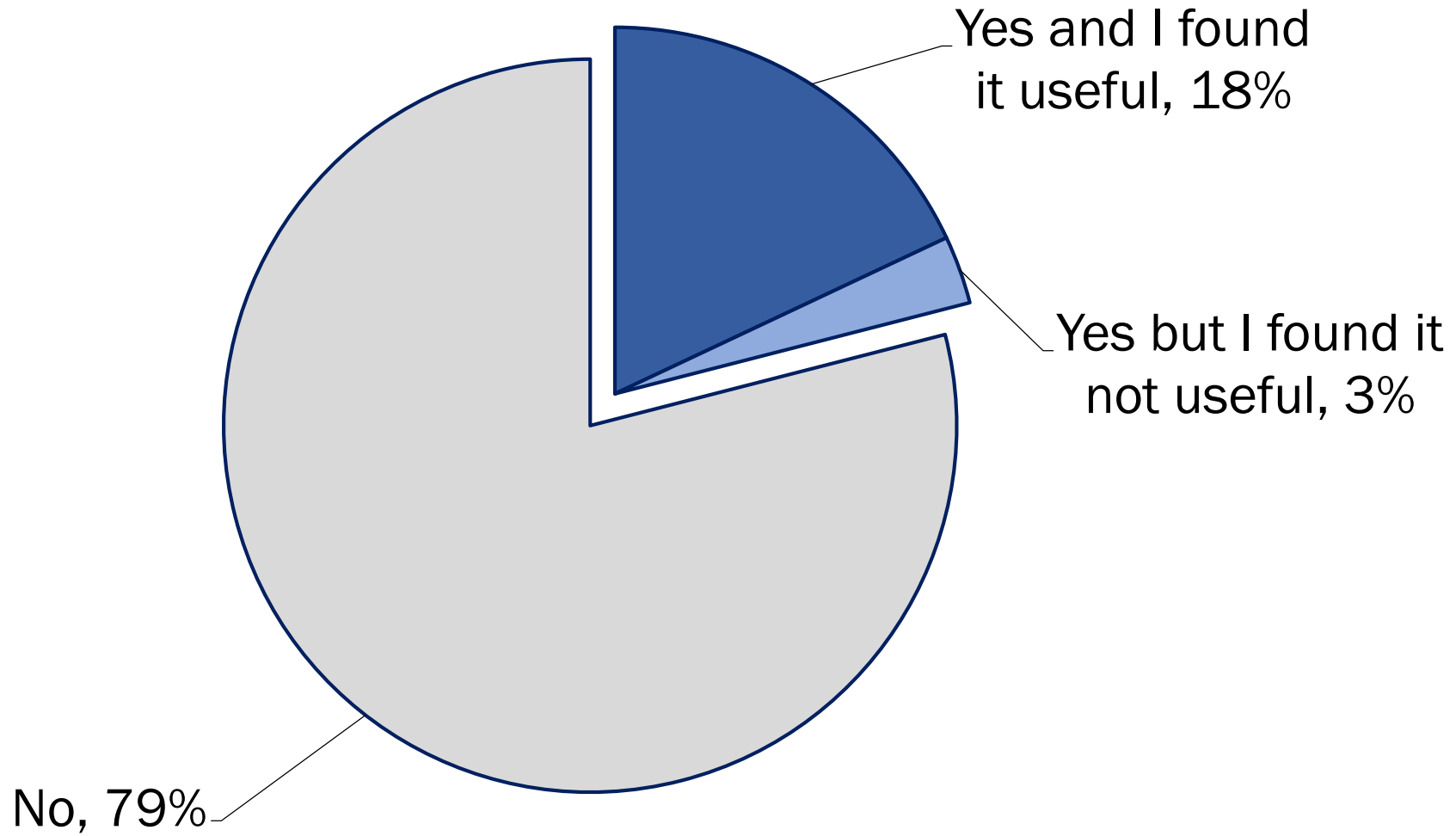
Primary Care Quality – Homeless Services Tailoring Study

IDEAS
VA Salt Lake City

Survey methods

- Primary care patients from 26 VA medical centers
- Stratified, random sample
- Contracted survey organization mailed surveys, conducted telephone follow-up
  - 5,766 completed surveys
  - 40.2% response rate!

Have you ever used secure messaging in the My HealtheVet system?



Analysis

- Multivariable logistic regression of secure messaging use
- Patient characteristics included as covariates
- Survey weights: Inverse probability of response

- Calculated predicted probability of secure messaging use for hypothetical patient scenarios

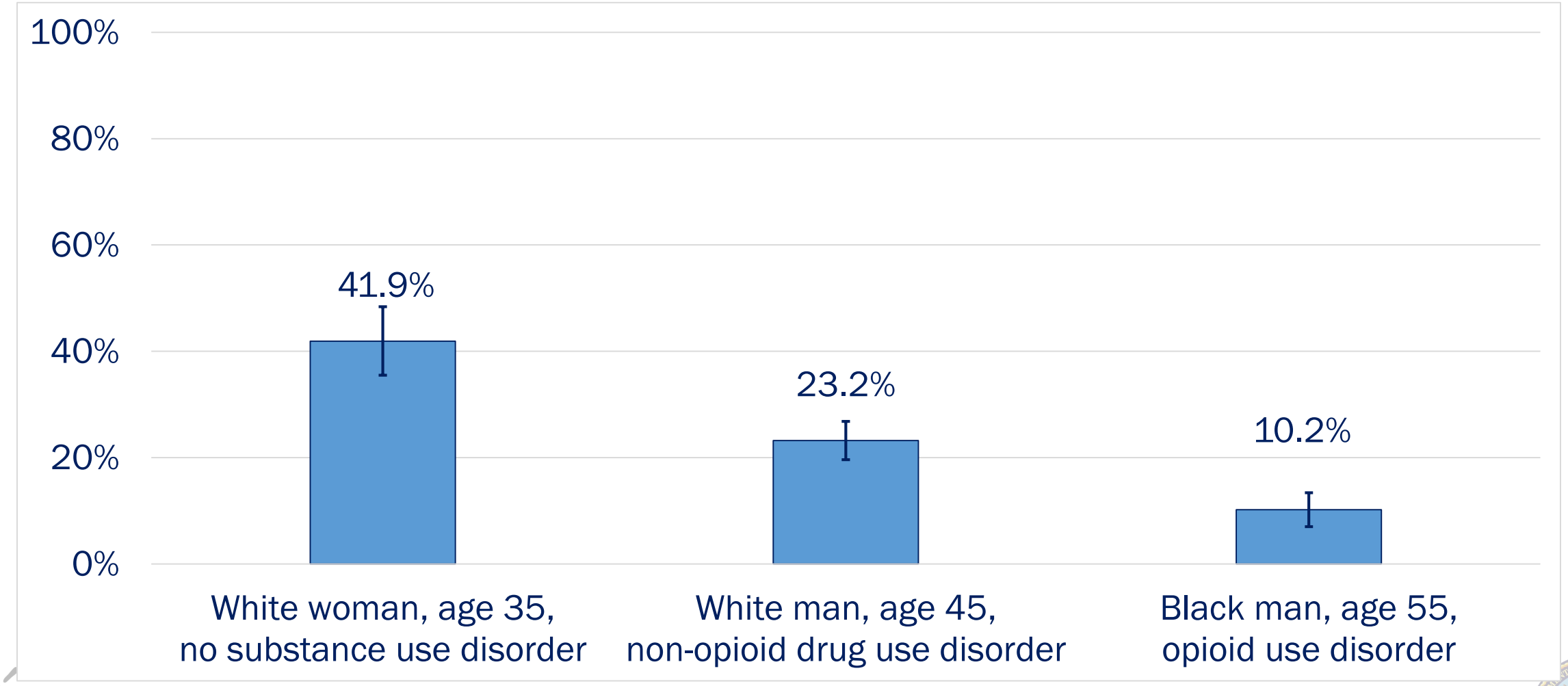
Results: Veteran characteristics

Survey	%	CDW	%
Female / other gender	9	Depression	57
Age 55+	65	Anxiety	31
Non-Latino black	37	PTSD	29
> High school education	62	Alcohol use disorder	38
Married	15	Drug use disorder	34
1+ night without shelter, last 6 mo	16	- opioid use disorder	8
3+ medical conditions	26		
Chronic pain, moderate/severe	60		

Adjusted model results

Variables associated with secure messaging			
Female / other gender	+	Depression	+
Age 55+	-	Anxiety	+
Non-Latino black	-	PTSD	+
> High school education	+	Alcohol use disorder	-
Married		Drug use disorder	-
1+ night without shelter, last 6 mo		- opioid use disorder	-
3+ medical conditions	+		
Chronic pain, moderate/severe			

Secure messaging under hypothetical scenarios



Conclusions

- 21% of homeless-experienced Veterans use secure messaging through VA patient health portal
- Gaps for older Veterans, non-Latino black minorities, those with addiction histories

- 87% found the technology to be useful

Implications in a pandemic

- Messaging is one form of telehealth to reach out to providers.
- Could these results have implications for other forms of telehealth?
- Vulnerable patients may need
  - help engaging with health technology
  - low-technology alternatives to prevent care disruptions

Thank you!

Birmingham VA		VA Salt Lake City	VA Greater Los Angeles	VA Pittsburgh	CDC	Survey Research Group (SRG)
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IDEAS VA Salt Lake City

Expanding Access for Veterans through VA-issued Video Telehealth Tablets

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VA's Tablet Program: Background

- Office of Rural Health and Office of Connected Care Initiative
- Initial purchase: 5,000 tablets to distribute to Veterans (2016-2017)
  - These have now been replaced by iPads, currently 28,000+ in field
- Veterans are referred if they met criteria:
  - Access Barriers- distance/geography, transportation, homebound
  - Clinical Need
  - Technology Needs- does not own device or has insufficient connectivity

Clinician in clinic or other setting (e.g., home)

VA desktop/laptop/tablet; DX/EX or CODEC

Veteran at home/work

VA issued tablet

Evaluation of Tablet Initiative

- Partnered evaluation with VA's Offices of Rural Health & Connected Care
- Guided by RE-AIM Framework
  - Adoption- facility distribution and patient tablet usage rates
  - Reach- characteristics of tablet recipients
  - Effectiveness- impact on patient experience, access, continuity
    - Patient survey (upon tablet receipt and ~6 mo later, 61% response rate)
    - Mental health access and continuity for tablet recipients vs. propensity-score matched control group
  - Implementation- barriers/facilitators to tablet distribution
    - Survey of 68 facility telehealth coordinators
    - Interviews with 20 telehealth coordinators and regional leadership

Early Tablet Distribution (6,745 Veterans between 5/1/2016-9/30/2017)

6,175 (91%): COTS

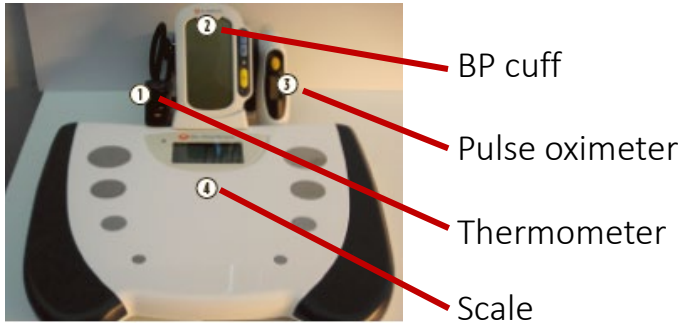
- Commercially available Off The Shelf tablet
- Video capability only

641 (10%): HATs

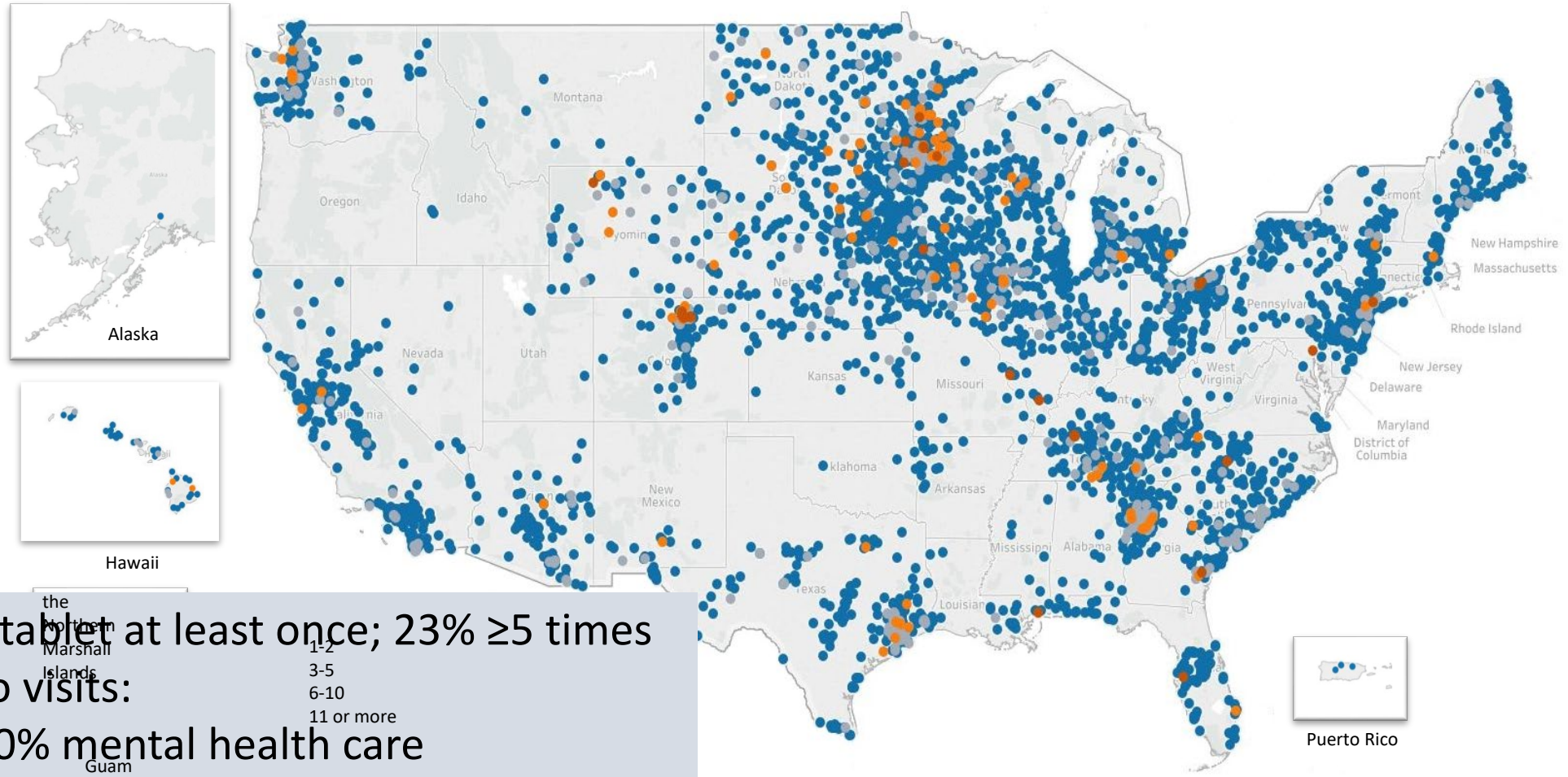
- Healthcare Access Tablet
- Video capability + clinical monitoring

433 (6%): Peripheral Devices

- Stethoscope: 88%
- Blood Pressure Cuff: 77%
- Pulse Oximeter: 53%
- Weight Scale: 56%
- Thermometer: 61%



Tablet Distribution & Use



64% used tablet at least once; 23% ≥5 times

Video visits:

- 60% mental health care
- 9% spinal cord injury
- 8% therapy/rehab
- 5% primary care

Implementation Findings

- There were few patient characteristics associated with tablet use:
  - Age (45-64 (AOR 1.37, $p < 0.001$) or ≥ 65 (AOR 1.33, $p = 0.002$)
  - Married (AOR 1.24, $p = 0.002$)

- Veterans were less likely to use their tablets if they had ≥ 7 chronic conditions (AOR 0.73, $p = 0.001$)

Zulman, et al. 2019. *JAMIA Open*

Tablet Effectiveness for Mental Health Care

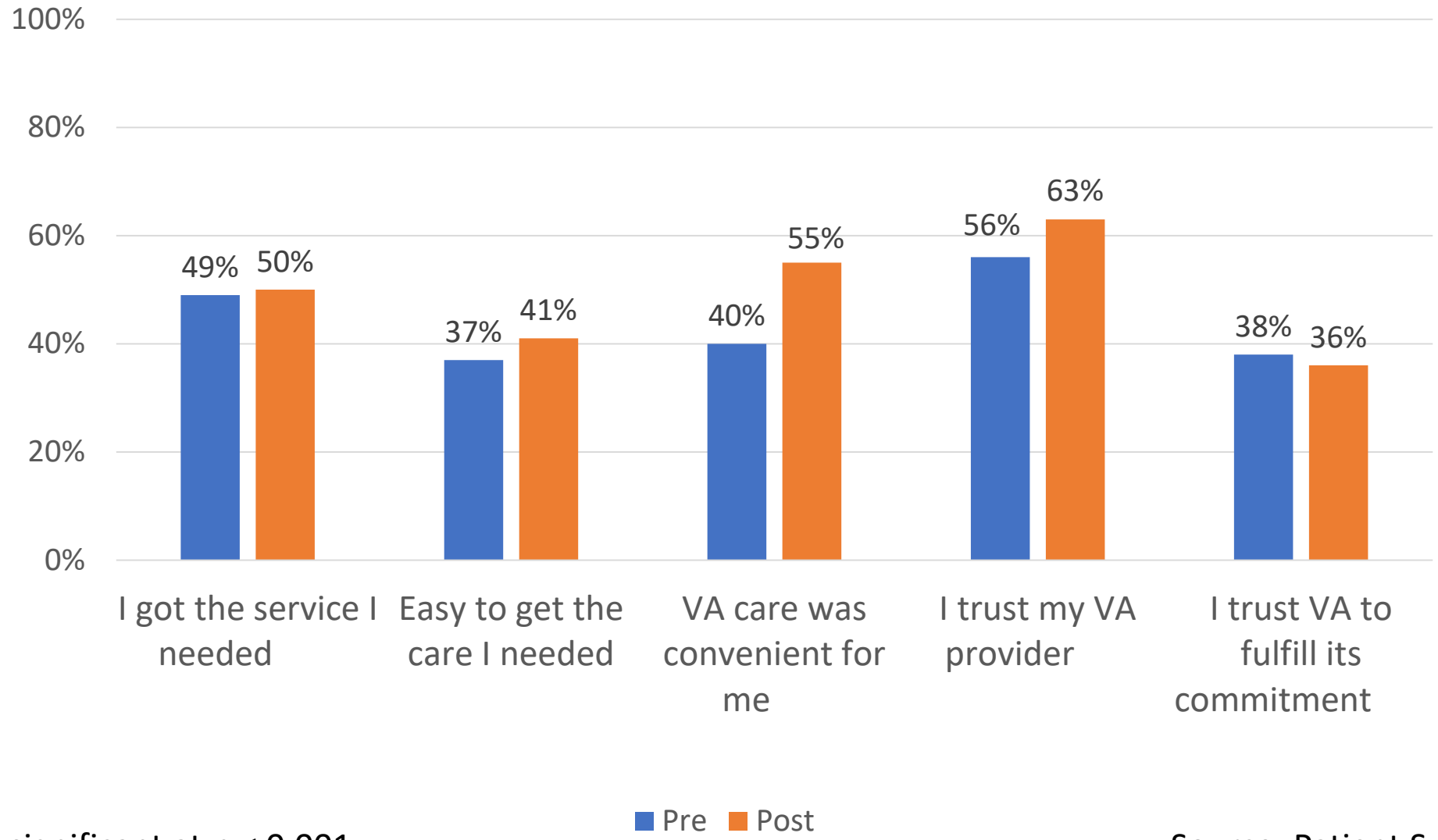
Compared with matched controls, recipients with MH conditions experienced:

- An increase of 1.94 **psychotherapy encounters** over 6 months ($p < 0.001$)
- An increase of 1.05 **medication management visits** over 6 months ($p < 0.001$)
- An 18.54 percentage point increase in **SAIL continuity measure** of receiving 3 MH visits in 6 weeks ($p < 0.001$)
- A 20.24 percentage point decrease in **missed opportunity rate** (missed and canceled appointments) in 6 months ($p < 0.001$)
- No significant differences in ED or urgent care use

Jacobs, *et al. Psychiatric Services,* 2019

Veteran Experience with Tablets

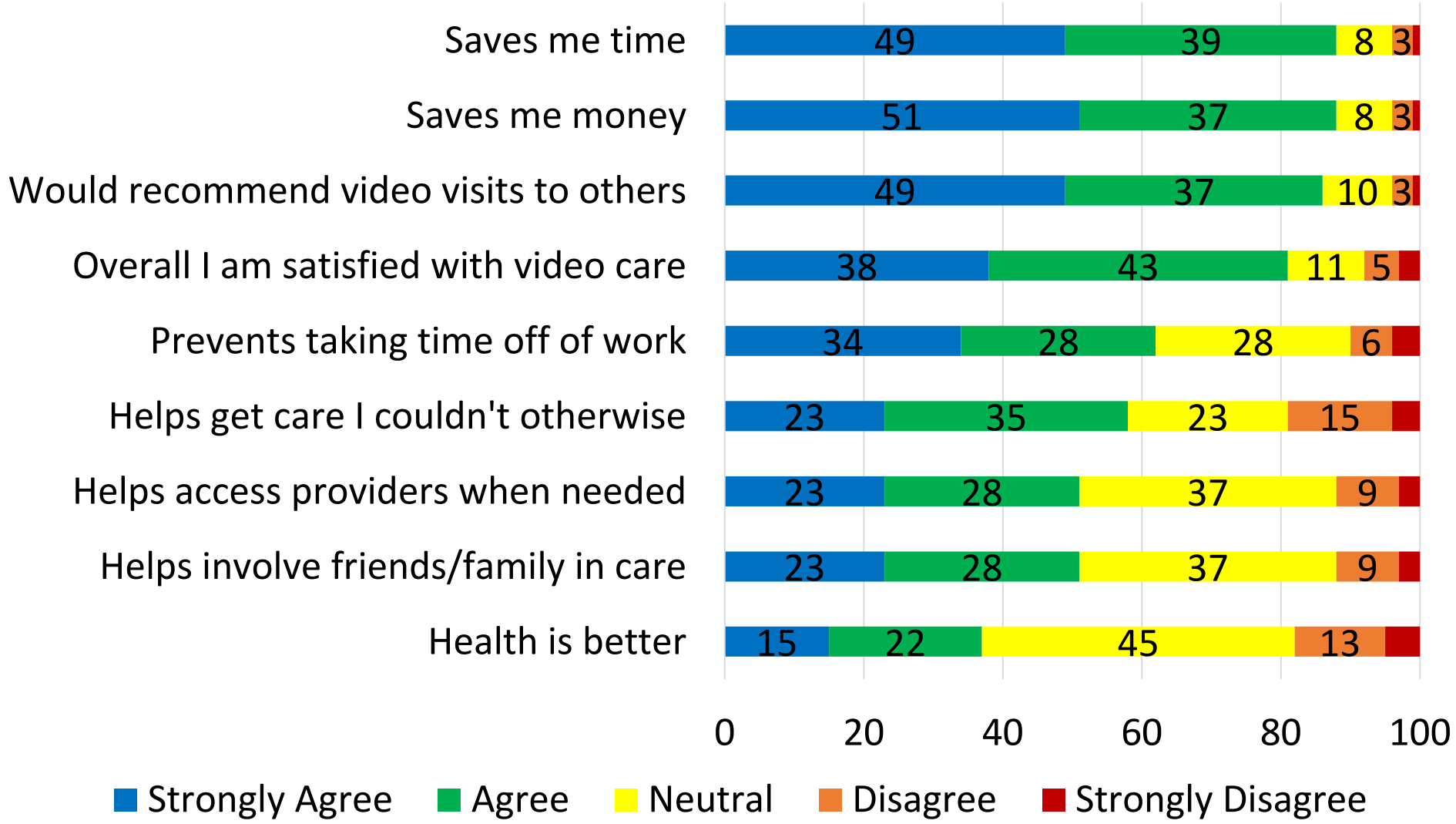
Tablet recipients reported improvements in perceived access, convenience, & trust in provider



All differences significant at $p < 0.001$

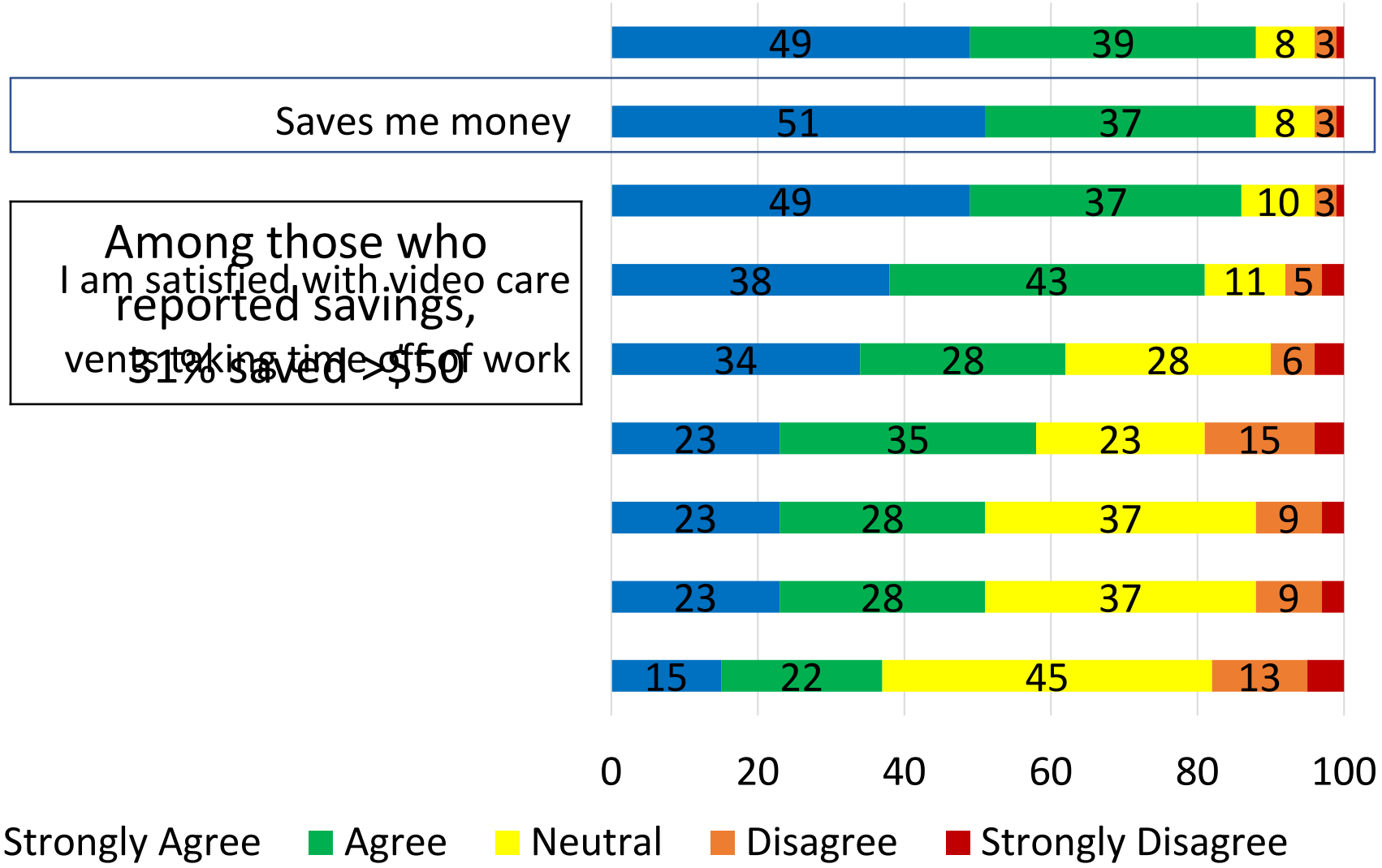
Source: Patient Survey (N=702-710)

Veteran Reported Benefits from Tablets



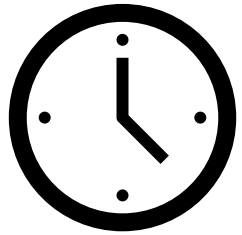
Source: Patient Follow-up Survey (N=608)

Veteran-reported cost savings

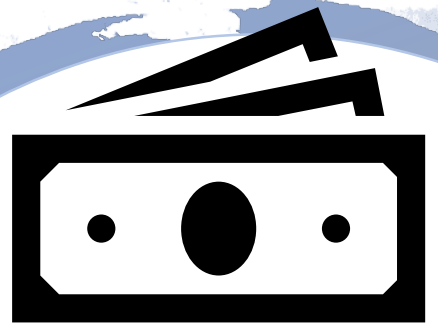


Source: Patient Follow-up Survey (N=557)

Veteran Reported Benefits



- 71% reported tablets saved them time
  - Veterans more likely to report time savings:
    - Age <45 (OR 2.1, p<0.05) or ≥65 years (OR 3.4, p<0.001)
    - Employed (OR 5.1, p<0.0001)
    - Technology experience (OR 3.2, p<0.05)



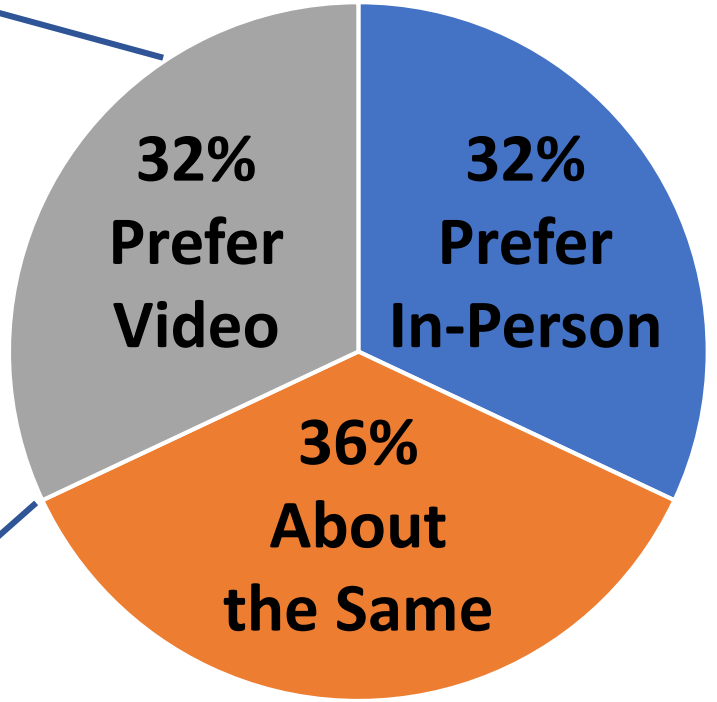
- 89% reported tablets saved them money
  - Veterans more likely to report >$50 cost savings:
    - >40 miles to VA primary care (compared to 15 miles) (RRR: 4.6, p-value < 0.0001)
    - Travel barriers (RRR 3.3, p<0.01)
    - No mental health condition (RRR 0.5, p<0.05)

Jacobs, et al., Telemedicine and E-Health, 2020

Veteran Preferences for Receiving VA Care

- Feeling uncomfortable/uneasy in the VA (AOR 2.2, p<0.001)
- Patient engagement ("I can make sure my needs are met before an appointment ends") (AOR 1.6, p<0.05)
- SUD Diagnosis (AOR 1.9, p<0.05)

More chronic conditions (AOR 0.9, p<0.05)



Slightam, *et al*. *JMIR*, 2020

Feedback from Veterans

- **Tablet addresses access barrier**

  "I would prefer video because it would expose me less to sick people. This benefits me a lot being a transplant recipient. And my caregiver wouldn't have to take off work to take me to the doctor."

- **High perceived quality of virtual care experience**

  "I get to see the provider just as if I came to VA in person so to me that is about the same or just as good"

- **Low necessity for in-person care (e.g., exam)**

  "Sometimes doctors need to examine patients. I think it's wonderful for therapy because all i need to do is talk."

- **Appropriate tech literacy**

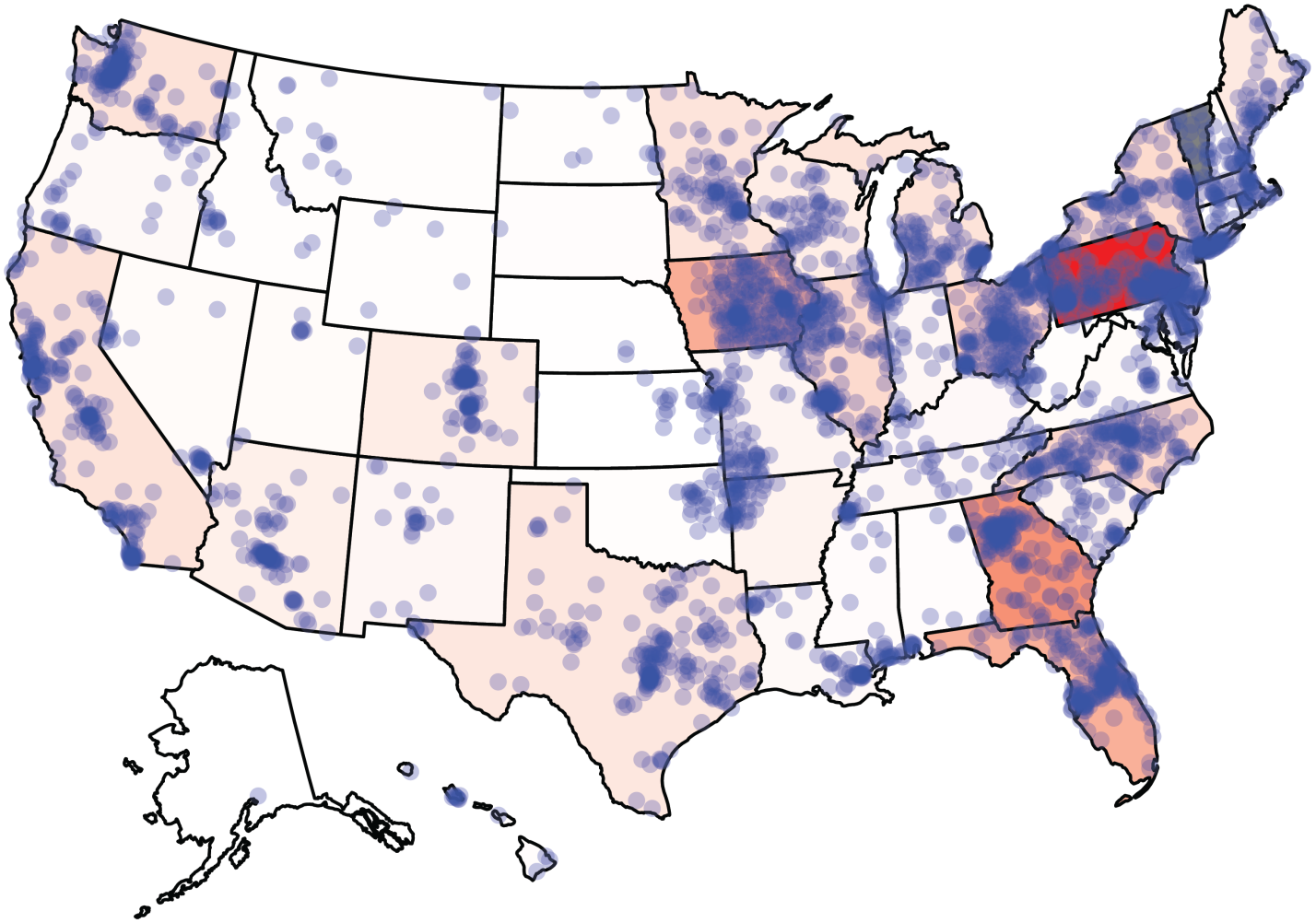
  "Need to give a class on how to use the tablet and make sure the connection & passwords are done right"

Tablet use among Homeless Veterans

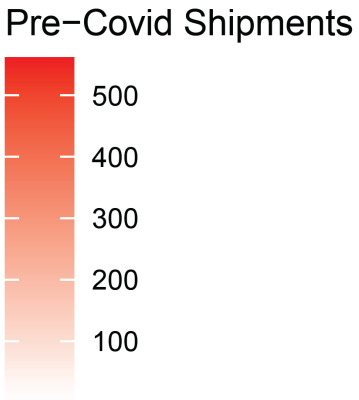
- Homeless Tablet recipients
  - More likely: younger, female, not married, black, urban, financial insecurity
  - Higher rates of SMI, SUD, depression, and suicide risk flag
- 45% used tablet in 6 months, mostly for mental health care (72%)
- Characteristics associated with tablet use:
  - Younger age (AOR = 2.8; *P* <.001) or middle-aged (AOR = 2.3; *P* <.001)
  - Rural setting (AOR = 1.5; *P* =.005)
  - PTSD diagnosis (PTSD) (AOR = 1.6; *P* <.001).
- Less likely to use tablet:
  - SUD Diagnosis (AOR = .6; *P* <.001)
  - Black (AOR = .4; *P* <.001)
  - Sustained homelessness 6 months after receiving tablet (AOR = .7; *P* = .02)

Garvin, *et al*. [Under Review]

Tablet shipments during COVID-19



Pre-COVID: 1/1-3/10/2020
COVID-19: 3/11-5/1/2020



Patterns of 7,244 tablet shipments during COVID-19, superimposed on pre-COVID tablet shipment patterns

Summary

- VA's initiative to distribute video tablets to high-need patients reached many individuals with social and clinical access barriers
- Veterans reported that tablets saved them time and money, and offered convenient access
- Tablet recipients with MH conditions had better access and continuity and fewer missed appointments compared to controls
- The most common barriers to tablet distribution nationally were insufficient training, staffing shortages, and provider disinterest
- Additional research is needed to understand the barriers and needs of the one in five tablet recipients who did not use their tablets.

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Thank You!

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