Completing Partnered Research with the Office of Connected Care

CORE Cyberseminar Series

May 5, 2021

CONNECTED CARE

Virtual Care CORE

Presenters

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Agenda

OCC Overview

- Telehealth
  - Synchronous
  - Asynchronous
  - Home Telehealth/Remote Patient Monitoring
- Connected Health
  - Connected Apps
  - Wearables/Sensors
  - VHA Loaned Devices
- MyHealth***e***Vet
  - Scheduling
  - Secure Messaging
  - Prescribing
  - Patient Portal
- Training and Implementation

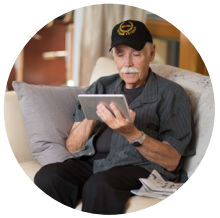
OCC Future State

- Strategic Plan
- Analytics
- Transition to OIT/ROCKIES
- Patient Generated Health Data
- Areas of Future Inquiry

Selected Connected Care Services and Technologies

- **VA Video Connect** – Video visits with patients offsite, including viewing data from peripherals
- **Virtual Care Manager** – Manage virtual care: scheduling video appt. viewing patient generated data, ordering digital therapies
- **Image Viewing Solution** – Diagnostic quality mobile image viewer, used predominately by Telestroke
- **Stroke Code** – Clinical decision tool that facilitates communication between stroke team members (pilot)
- **Patient Viewer** – Mobile responsive app for viewing VistA EHR data and writing notes
- **Home Telehealth** – Medtronic devices in patients home collect data, nurse managed panel of patients

- **Annie** – Sends automated text messages, based on clinical protocols, and receives and stores text message from Veterans
- **Pain Coach** – Pain management strategies and pain data collection
- **Mobil*e*Kidney** – CKD management strategies + collects CKD data
- **My VA Images** – Patients can send images and videos to care team
- **Mental Health Checkup** – Patients can complete MH assessments remotely, sent to VistA
- **Genetic Diagnostic Testing (GDx)** – Providers and patients can see electronic molecular testing results
- **Somnoware** – Replaces REVAMP, collects sleep data (CPAP devices)
- **Telehealth Store and Forward**
- **My Health*e*Vet Secure Messaging**
- **VA Health Chat** – Clinical Chat (pilot)



- **My Health*e*Vet** – VA's patient portal
- **VA Online Scheduling** – Self scheduling / appointment requests
- **Express Care** – Tele-urgent Care requests (pilot)
- **Rx Refill** – My Health***e***Vet Rx Refill capabilities rendered in mobile app
- **VA PUR** – Pressure ulcer self-management
- **Mental Health apps** – Many MH apps created jointly between VA and DoD
- **Sync My Health Data** – Allows patient to pair connected device and authorize data to flow to VA for display to providers
- **Get Care** – Directs patients to virtual care modalities and displays patient data
- **MOVE Coach** – Weight loss management

Connected Care Key Programs

- Synchronous Telehealth
- Asynchronous (Store and Forward) Telehealth
- Remote Patient Monitoring (Home Telehealth)

- Connected Apps
- Wearables/Sensors
- VHA Loaned Devices

- Prescription Refill and Tracking
- Secure Messaging
- Scheduling Appointments
- Blue Button (Download my Health Records)

Poll: Which of the below technologies have you studied?

- Synchronous Telehealth
- Asynchronous (Store and Forward) Telehealth
- Remote Patient Monitoring (Home Telehealth)

- Connected Apps
- Wearables/Sensors
- VHA Loaned Devices

- Prescription Refill and Tracking
- Secure Messaging
- Scheduling Appointments
- Blue Button (Download my Health Records)

Poll 2: Which of the below technologies are you interested in studying?

- Synchronous Telehealth
- Asynchronous (Store and Forward) Telehealth
- Remote Patient Monitoring (Home Telehealth)

- Connected Apps
- Wearables/Sensors
- VHA Loaned Devices

- Prescription Refill and Tracking
- Secure Messaging
- Scheduling Appointments
- Blue Button (Download my Health Records)

Connected Care Points of Contact

- Synchronous Telehealth
  Dr. Leonie Heyworth
  Leonie.Heyworth@va.gov
- Asynchronous (Store and Forward) Telehealth
  Sara Derycke
  Sara.Derycke@va.gov
- Remote Patient Monitoring (Home Telehealth)
  Cathy Buck
  catherine.buck@va.gov

- Connected Apps
  Shawn Hardenbrook
  Shawn.Hardenbrook@va.gov
- Wearables/Sensors
  Dr. John Murphy
  John.Murphy3@va.gov
- VHA Loaned Devices
  Emily Drucker
  Emily.Drucker@va.gov

- Prescription Refill and Tracking
  Dr. Eric Spahn
  Eric.Spahn@va.gov
- Secure Messaging
  Patty Henry
  Patricia.Henry@va.gov
- VA Appointments; Blue Button
  Carnetta Scruggs
  Carnetta.Scruggs@va.gov

Telehealth

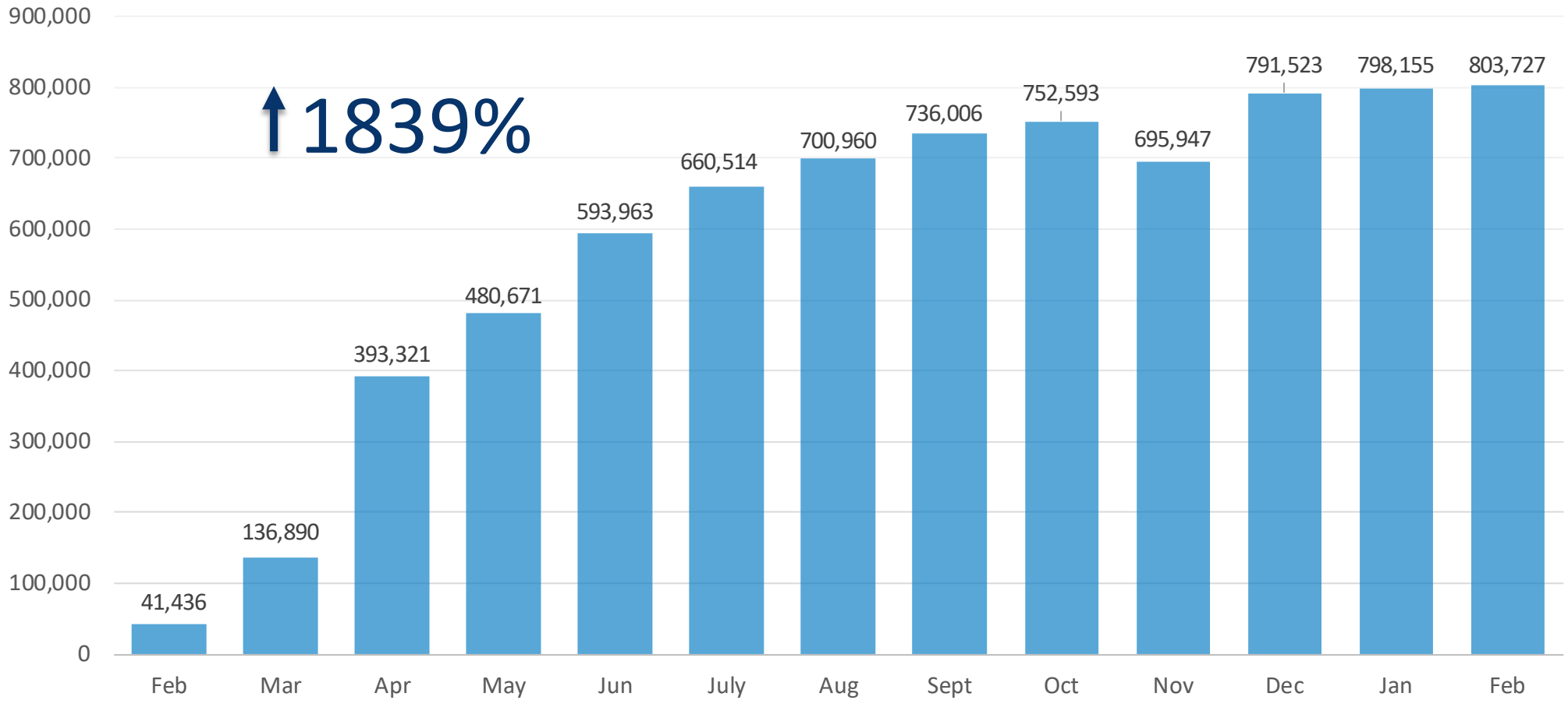
https://vaww.telehealth.va.gov/

Synchronous Telehealth – VA Care to the Home

Providers integrate clinical telehealth in the home (or home communities) into routine operations to enhance the **accessibility** of VA health care for Veterans, their family members, and/or their caregivers.

VA Video Connect (VVC) Expansion Initiative

Video to Home and Non-VA Site: Monthly Encounters



February 2020 through February 2021

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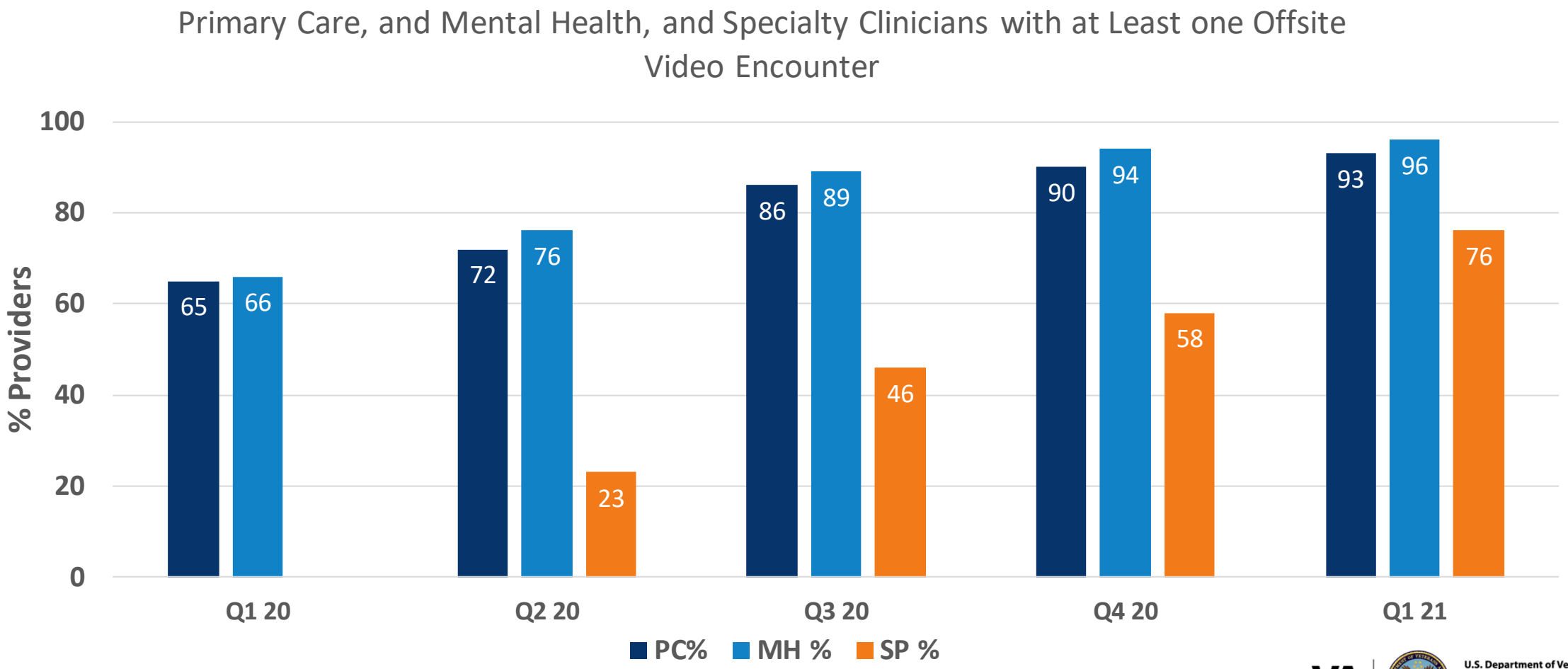
Video to Home – PC / MH / Specialty Care - % Providers



*Note: Denominator methodology for MH was changed in Q4

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Remote Exams

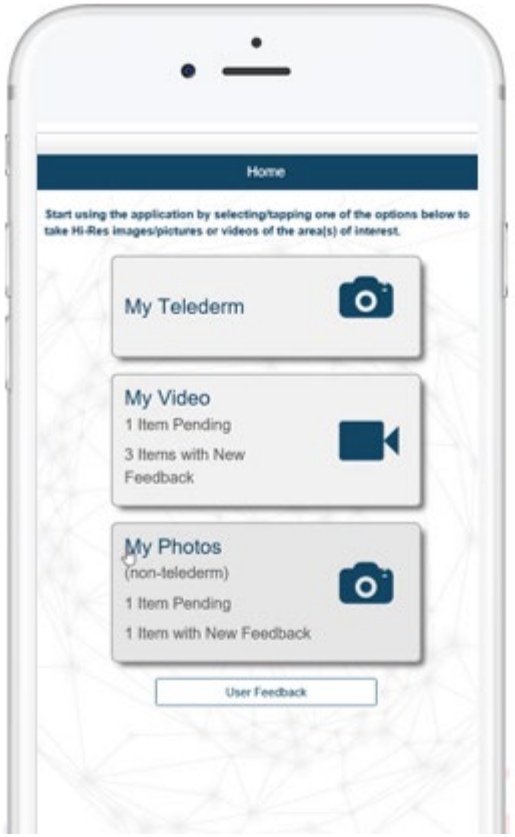
Peripheral devices

- Personalized home kit for home-inclined Veterans
- Easily integrated with VVC, minimal patient assist

Asynchronous (Store and Forward) Telehealth

- Dermatology
- **Tele Eye Care**
- Spirometry
- Sleep Medicine

Not Every Appointment Needs to be Live Applications of My VA Images - TeleDerm

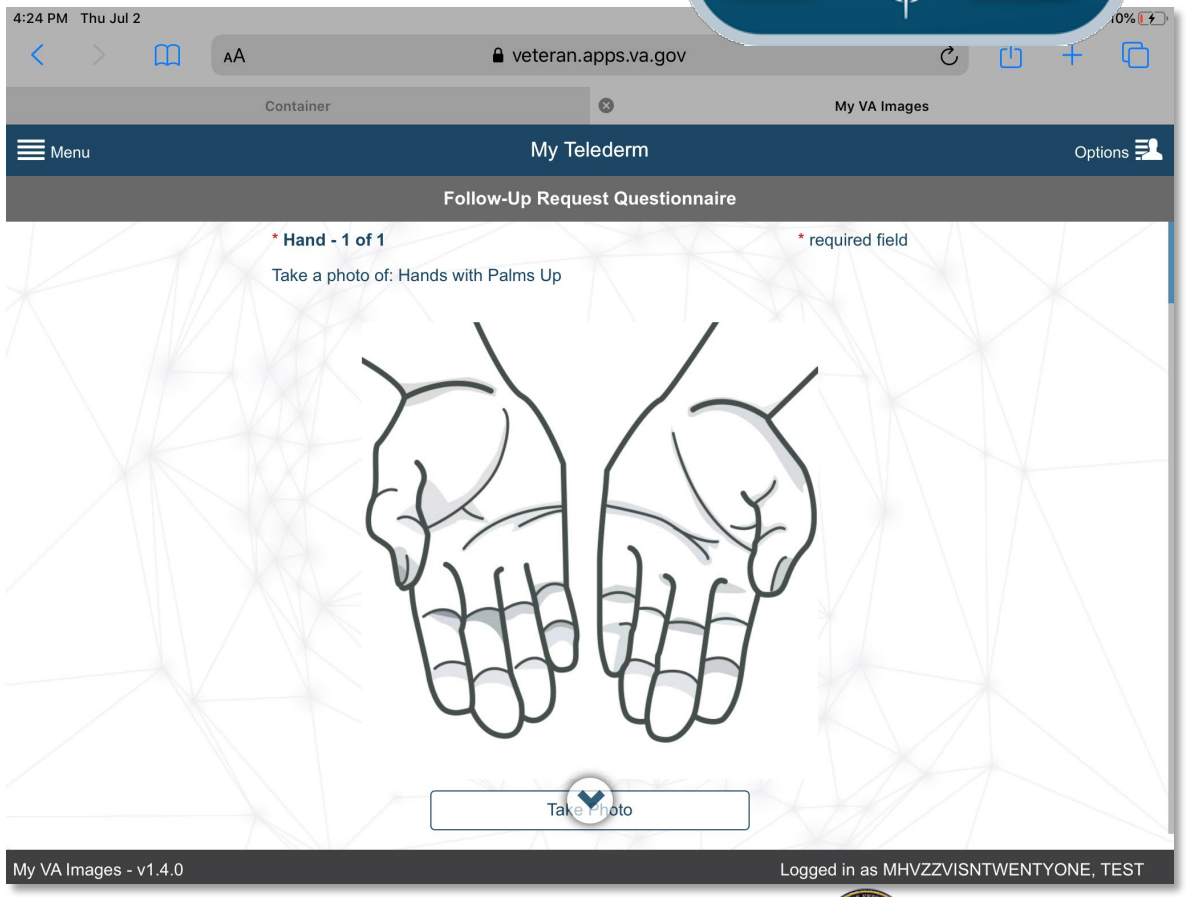


Telederm*

Through My VA Images and its patient questionnaire, dermatologists can use the app for:

- Substitution for routine in-person follow-up clinical visit.
- Medication monitoring.
- Preoperative and postoperative evaluation.

*Use by dermatology only.



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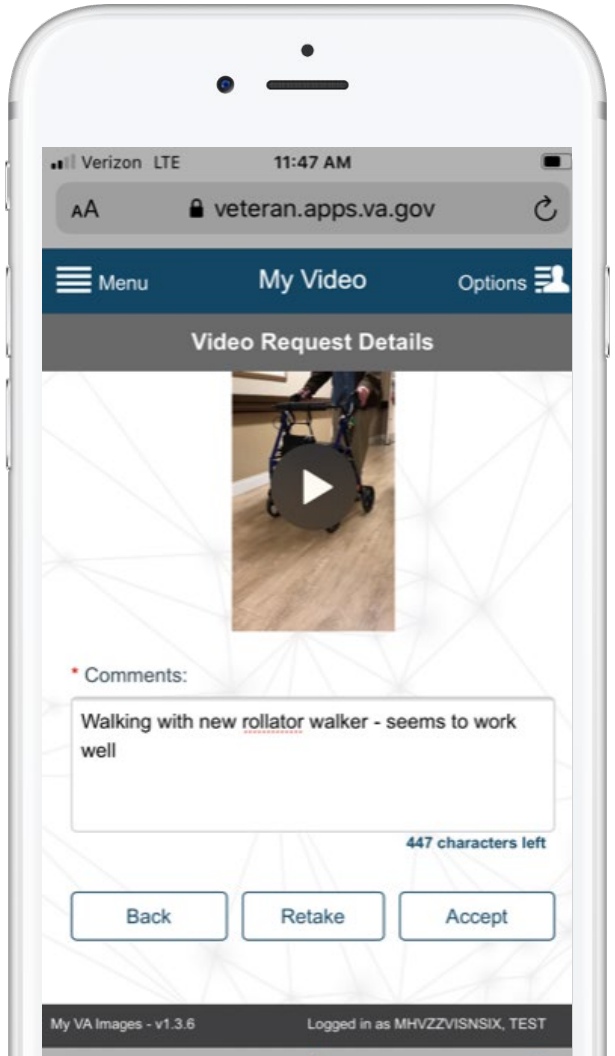
Applications of My VA Images – Video/Photo

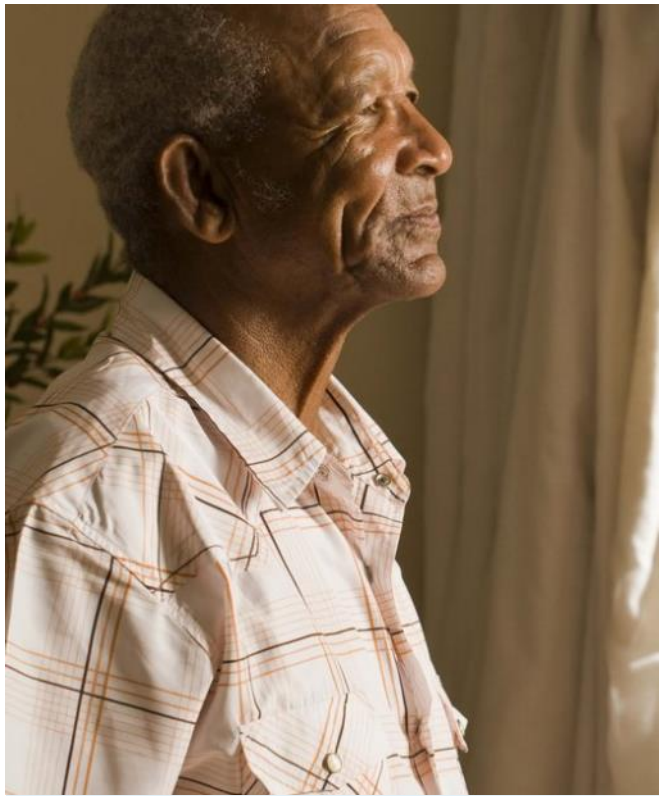


Video/Photo

Clinicians can use My VA Images for applications, such as:

- Discharge planning
- Review of rehab equipment use
- Review of medical device use
- Gait and balance assessment
- Wound care
- Skin conditions not managed by dermatology
- Medication management
- Nutrition
- Surgery (pre- and post-op)
- Ostomy Care
- Other store-and-forward image needs

Remote Patient Monitoring-Home Telehealth (RPM-HT)



Applies care and case management principles to coordinate care using health informatics, disease management and technologies such as in-home and mobile monitoring, messaging and/or video technologies

Goals:

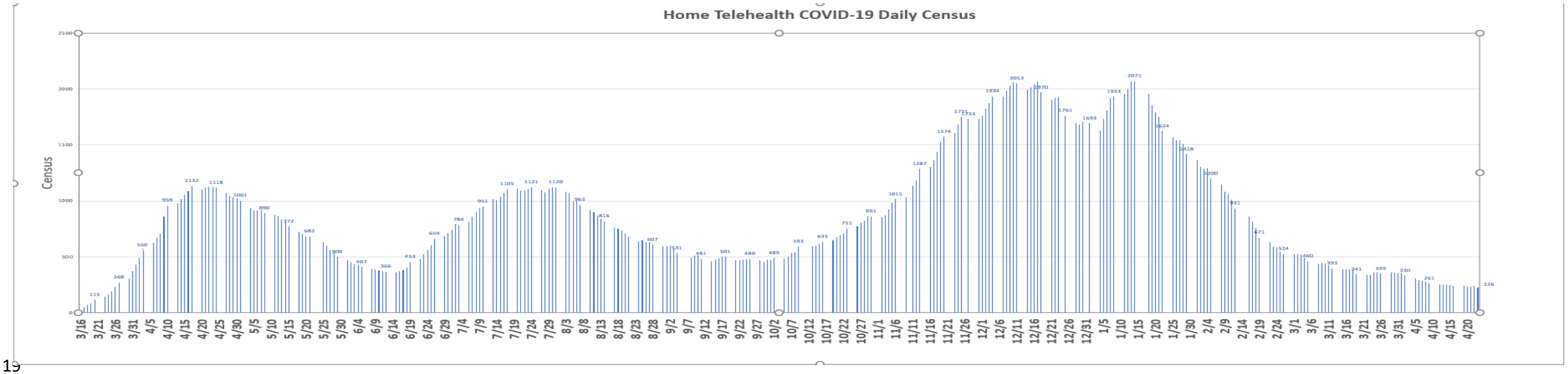
- Improve clinical outcomes and access to care while reducing complications, hospitalizations, and clinic or emergency room visits for Veterans in post-acute care settings, high-risk Veterans with chronic disease or Veterans at risk for placement in long-term care
- Health Promotion and Disease Prevention (tobacco cessation, Weight Management)
- Providing Right Care, in the Right Place, at the Right Time

RPM-HT

- Available in all VA facilities
- Care Coordinators primarily RNs, but also LCSWs, Registered Dieticians (TeleMove)
- Average Daily Census: 70,000
- Average number Veterans served / year: 140,000
- In-home, mobile, video devices which deliver Disease Management Protocols (DMPs)
- Peripherals connected by cable, Bluetooth, self-report: BP monitor, scale, thermometer, pulse oximeter, thermometer, spirometer

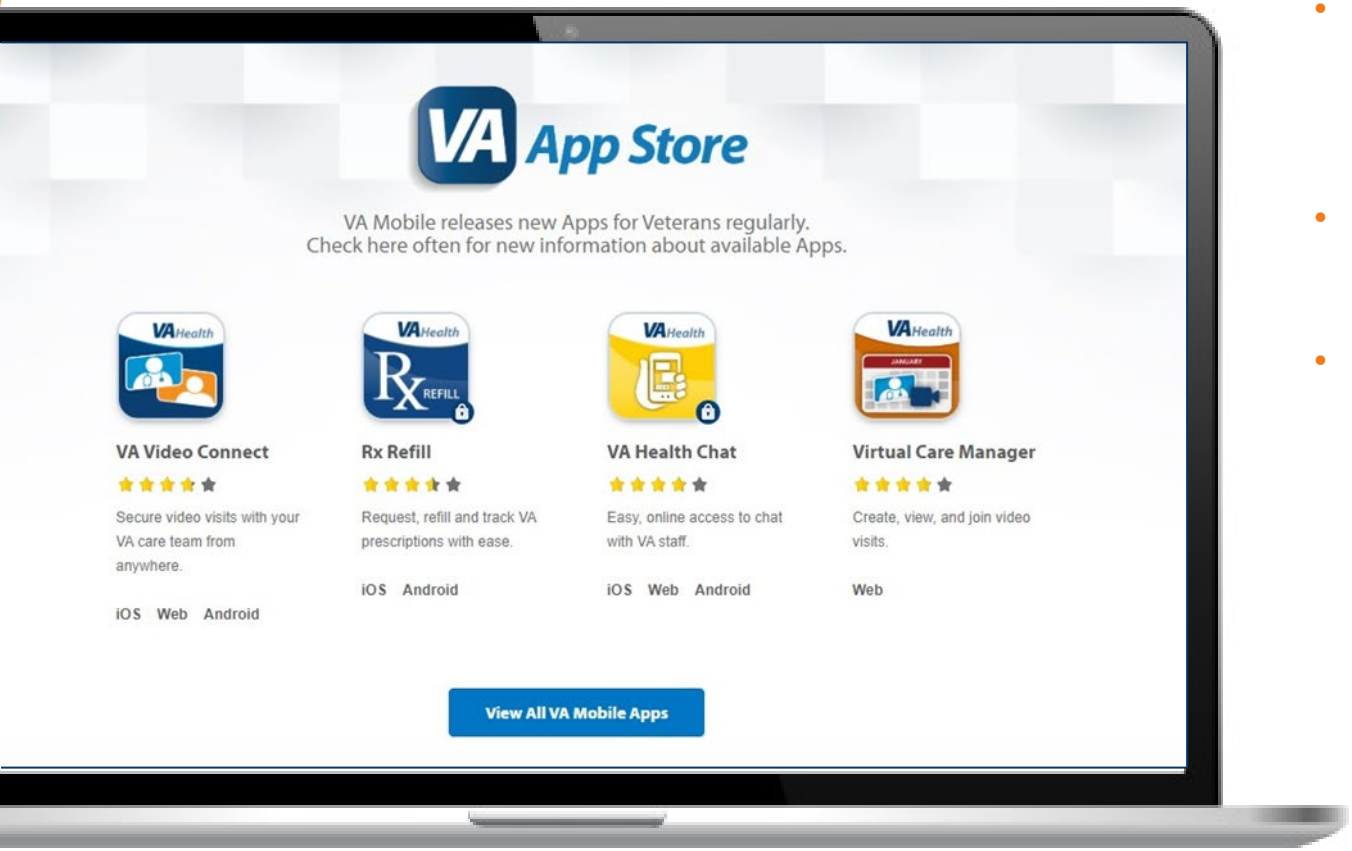
RPM-HT COVID-19 Response

- New Disease Management Protocols (DMPs)
- Global Messaging
- 7 day / week monitoring (not usual M-F business days)
- Communications – weekly COVID forums
- Reporting
- Training
- COVID-19 Remote Monitoring Acute Care Management Plan for Low, Moderate and High-Risk Veterans
- March 2020 – April 2021
  - Total Veterans enrolled 23,422 Cumulative daily monitoring sessions (clinical touch-points): 243,991
  - Daily census trends (mirrors VA / CDC data)



Connected Health
(Mobile Apps)

VA Mobile - VA App Store

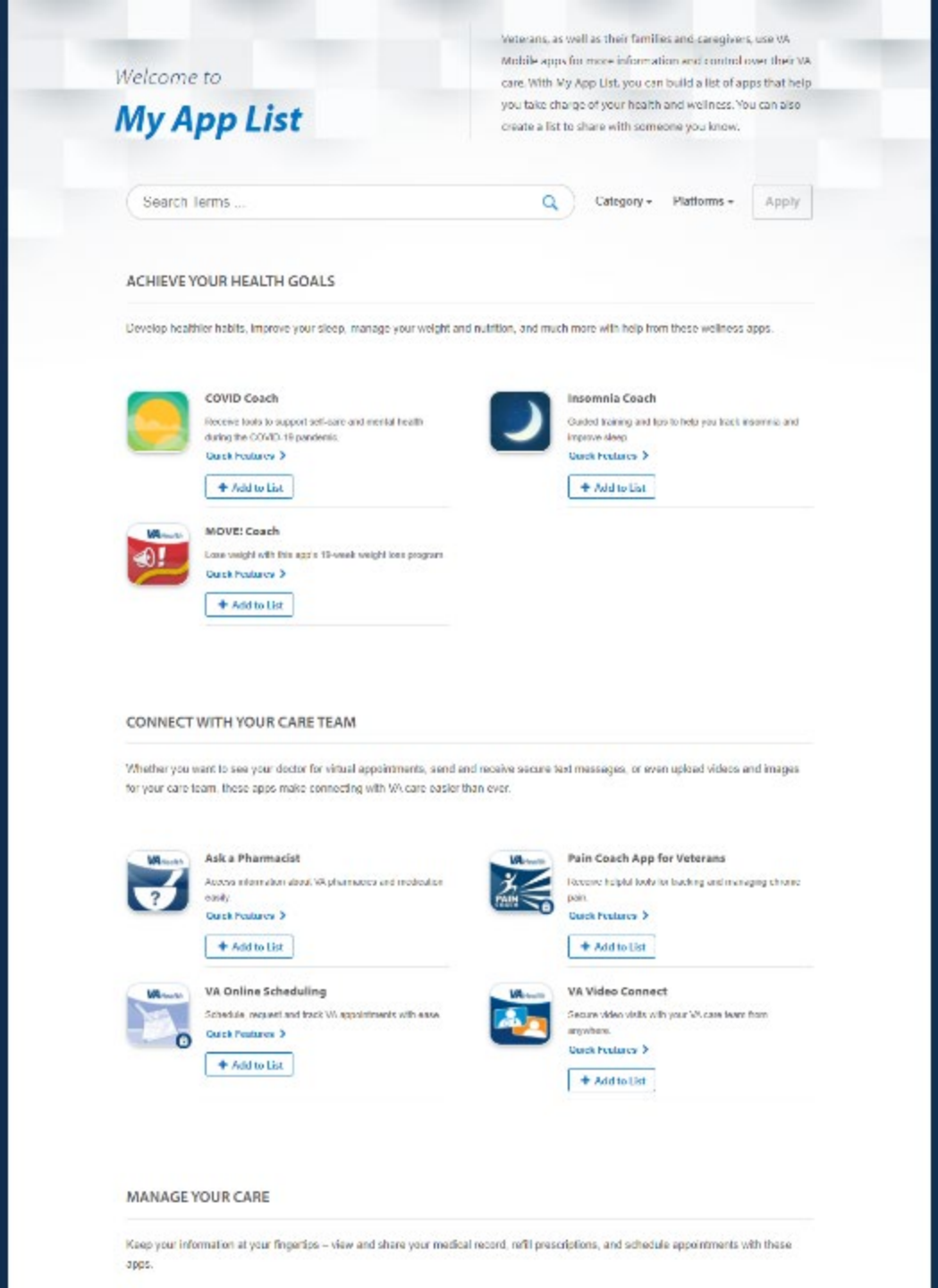


- The VA App Store provides access to VA-developed and third-party apps for Veterans and VA care teams
- Apps increase access, communication, and coordination of care for Veterans
- 67 apps on the VA App Store
  - 38 health apps
  - 20 mental health apps
  - 33 Veteran-facing apps
  - 35 care team-facing apps
  - 22 web apps
  - 43 iOS apps
  - 40 Android apps

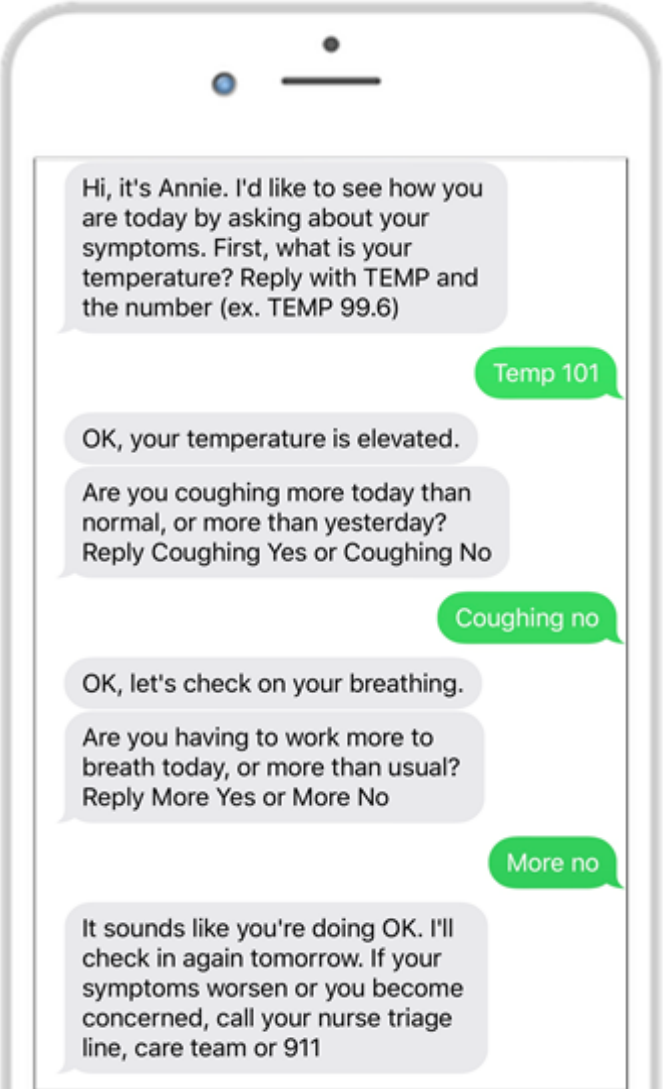
New on VA Mobile: My App List

An interactive version of the VA App Store. **My App List** enables Veterans, providers, and caregivers to curate a list of helpful apps and share or print for themselves or for a Veteran.

mobile.va.gov/my-app-list



Annie App: Text Message Protocols



- The **Annie app** sends automated text messages to Veterans, based on clinical protocols, and receives and stores text messages from Veterans
  - Over 170 enabled protocols
  - Top: BP, Glucose, Med reminders, Colonoscopy Prep

VAHealth

annie

mobile.va.gov/annie

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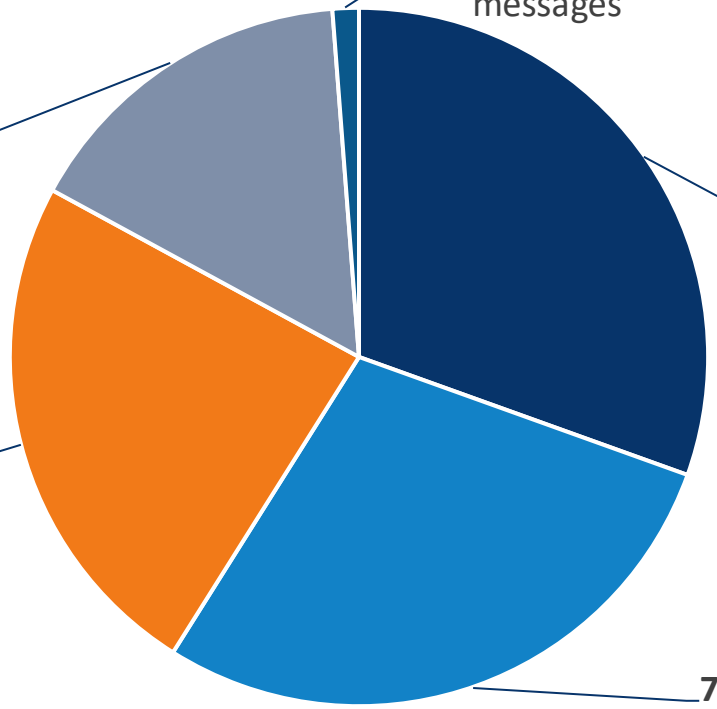
Veteran Responses to Annie During COVID-19

1,134 Veterans enrolled in the Annie Coronavirus Precautions Protocol participated in a survey, and the results can be seen below.

Question: What impact have Annie's Coronavirus Precautions messages had on you? Please check all that apply to you.



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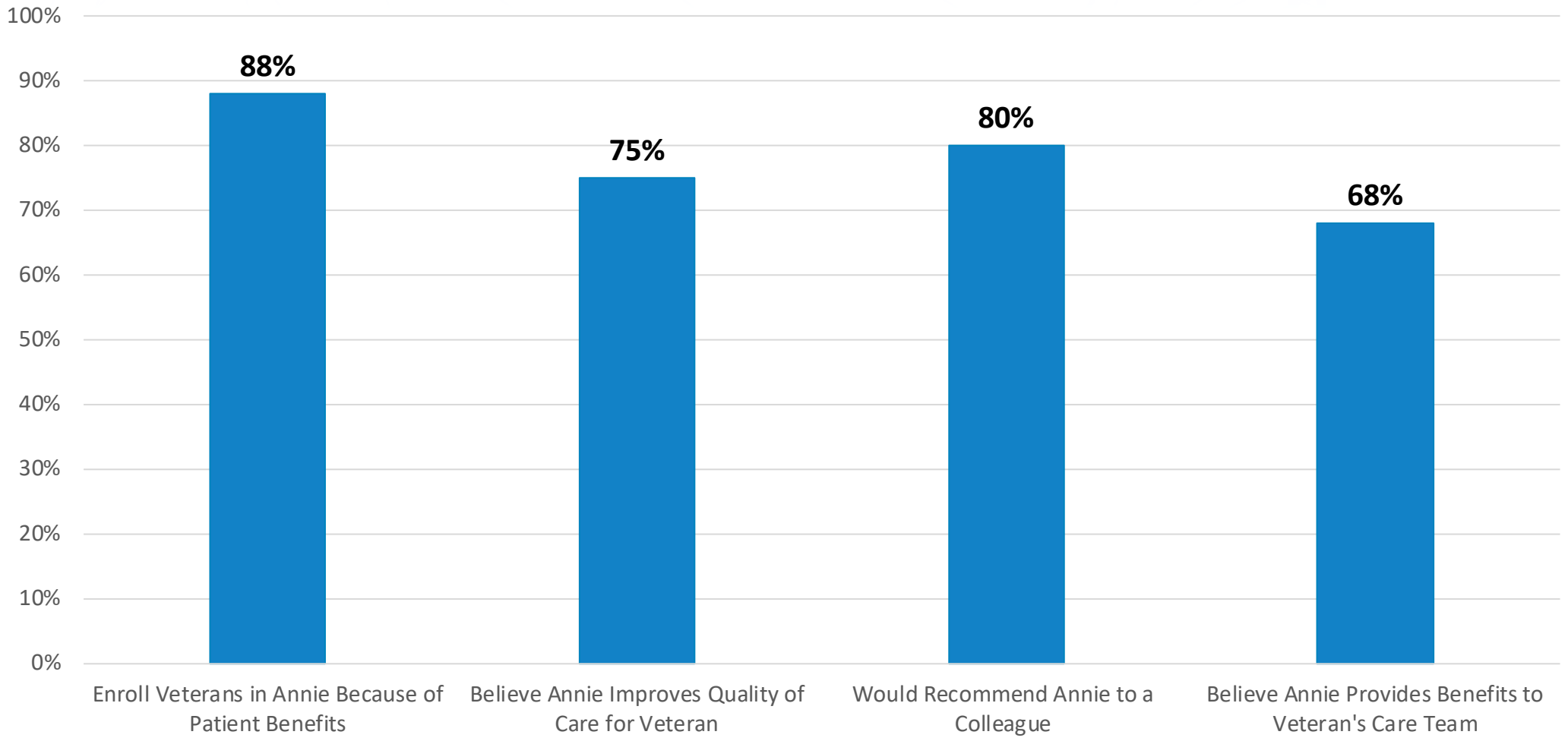
Staff Responses to Annie



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Other Key Mobile Apps

	Mental Health Checkup for Care Teams	Mental Health Checkup for Veterans	My VA Images	Patient Viewer	Rx Refill
Total # Unique Users	2541	3185	566	3381	125,743 **# of Refill Requests*** 279,149
Date Range	July 2020 – February 28, 2021		January 2020 – February 28, 2021		iOS - Jan 2020 Android - Aug 2020
Comments	Application officially launched July 2020		Application still in pilot phase and has not been released nationally	This is the number of new PV users between Jan. 2020 and Jan. 30, 2021	*This denotes the total number of requests to refill medications and DOES NOT account for multiple refills in a single RxR request

Bridging the Digital Divide

VHA Loaned Devices

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Bridging the Digital Divide: Social Worker Use Case

1. Veteran has an **Appointment** with their provider
2. Provider and Veteran identify that the Veteran would **benefit from digital options**
3. **Social worker** completes digital divide assessment
4. Social worker determines if the Veteran qualifies for **a tablet, Lifeline, and/or other program**

Reaching Veterans for Telehealth: Connected Devices

- **VA's Loaned Tablet Program** provides Veterans with 4G-enabled tablets for telehealth
- **VA peripheral devices** are provided Veterans who need home monitoring (e.g. pulse oximeter, thermometer)
- **"Zero Rating" carriers,** including Verizon, T-Mobile, and SafeLink by TracFone, provide internet connectivity at no charge for Veterans to use VA Video Connect

https://youtu.be/hIU8xgreOCM

Access and the Digital Divide: Tablet Program

Six months after loaned tablet receipt:

- ↑ in Veterans reporting convenient care (67% to 80%)
- 28% fewer missed appointments or no shows in mental health
- ↑ in VA's mental health continuity of care measure (31.6% to 40.2%)

Lifeline Program

What: Lifeline is a federal benefit that provides eligible subscribers up to $9.25 a month for phone and internet services **or** up to up to $34.25 for those living on Tribal and Native lands

Who is Eligible: A consumer can qualify for the Lifeline benefit if their income is 135% or less than the federal poverty guidelines, or if they participate in SNAP, Medicaid, or other federal programs including:

- Veterans Pension and Survivors Benefit
- ***Tribal Programs*** (and live on federally -recognized Tribal lands)
- Supplemental Nutrition Assistance Program (SNAP), formerly known as the Food Stamp Program
- Medicaid
- Supplemental Security Income (SSI)
- Federal Public Housing Assistance (FPHA)

For more information, visit ***usac.org/lifeline***.

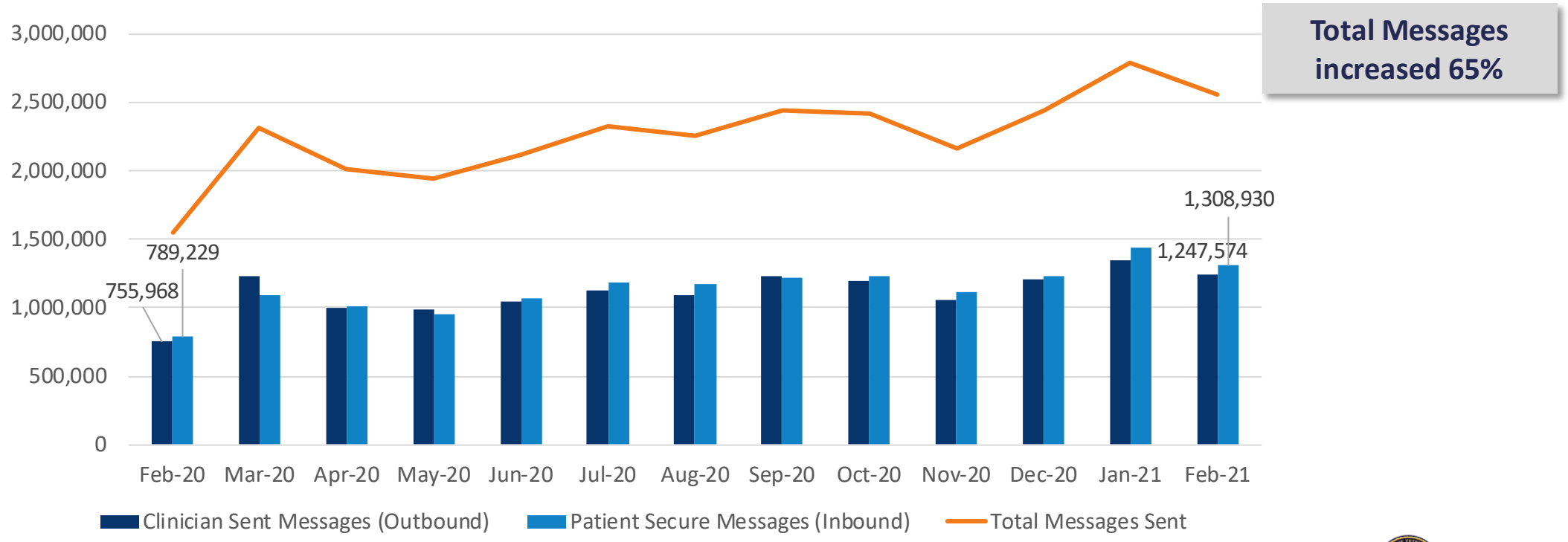
MyHealth*e*Vet

My Health*e*Vet: An Overview

- My Health***e***Vet, **VA's online patient portal and personal health record**, empowers Veterans, service members, and their dependents to take an active role in managing their health care.
- Accounts for 40% of all VA web traffic
- Veterans can:
  - View VA Health Records
  - Refill VA Prescriptions
  - Exchange Secure Messages with their VA care team
  - Manage VA Appointments
  - Explore Veterans Health Library (content written by VA clinicians)
  - Complete a Health Risk Assessment through HealtheLiving Assessment
  - Receive biweekly up-to-date newsletters
- Launched on Veteran's Day 2003, My Health***e***Vet has 16+ years of proven success
- **Over 3.6 million Premium accounts** – sign up is free

My HealtheVet: Secure Messages | Feb. 2020 – Feb. 2021

- Total messages 2,556,504 in February 2021
- The rate of escalated messages dropped from 3% to 1% from February 2020 to February 2021.
- Over 125 million messages sent as of March 2021.



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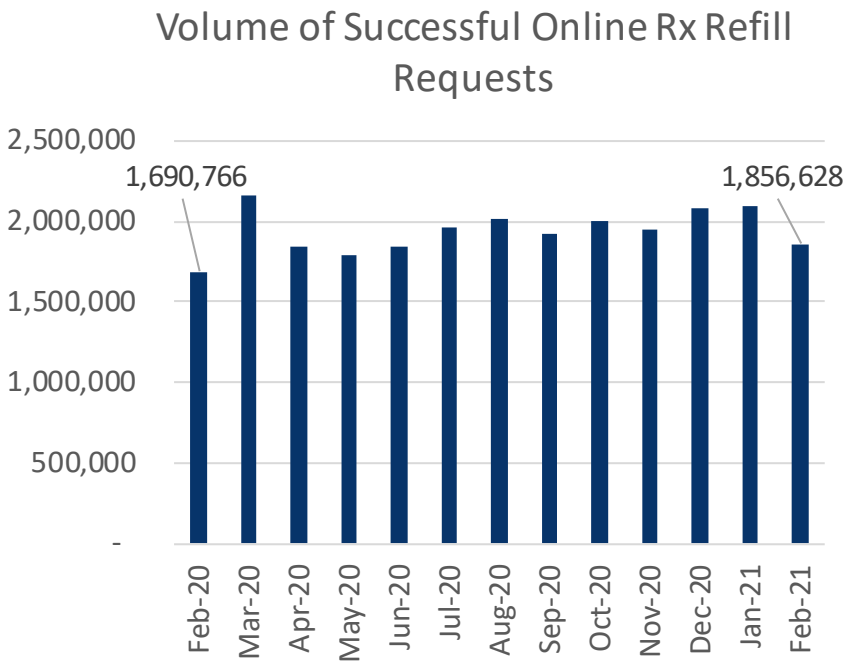
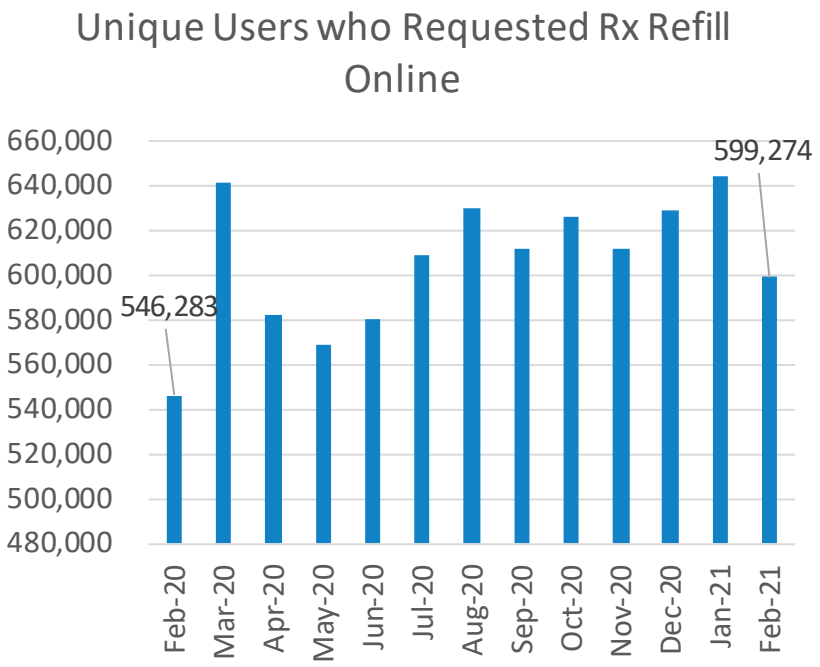
My HealtheVet: Rx Refill | Feb. 2020 – 2021 (cont.)

- Rx Refill Requests are up 10% over February 2020
- Requestors are up 10% over February 2020





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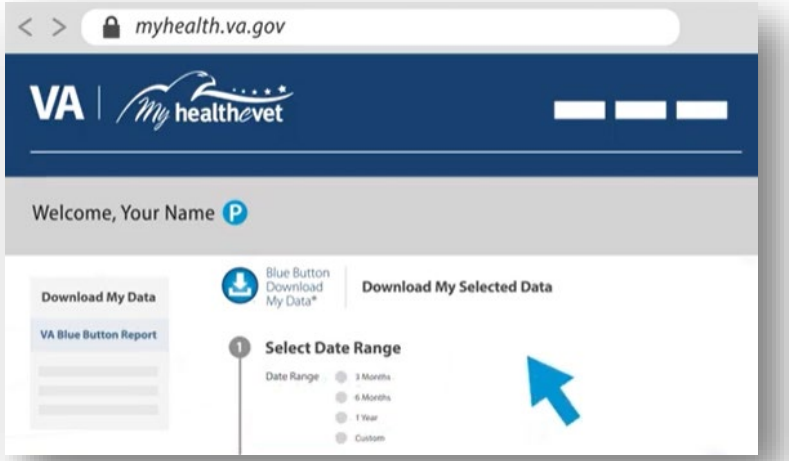
Downloading Data from My Health*e*Vet: VA Blue Button Reports

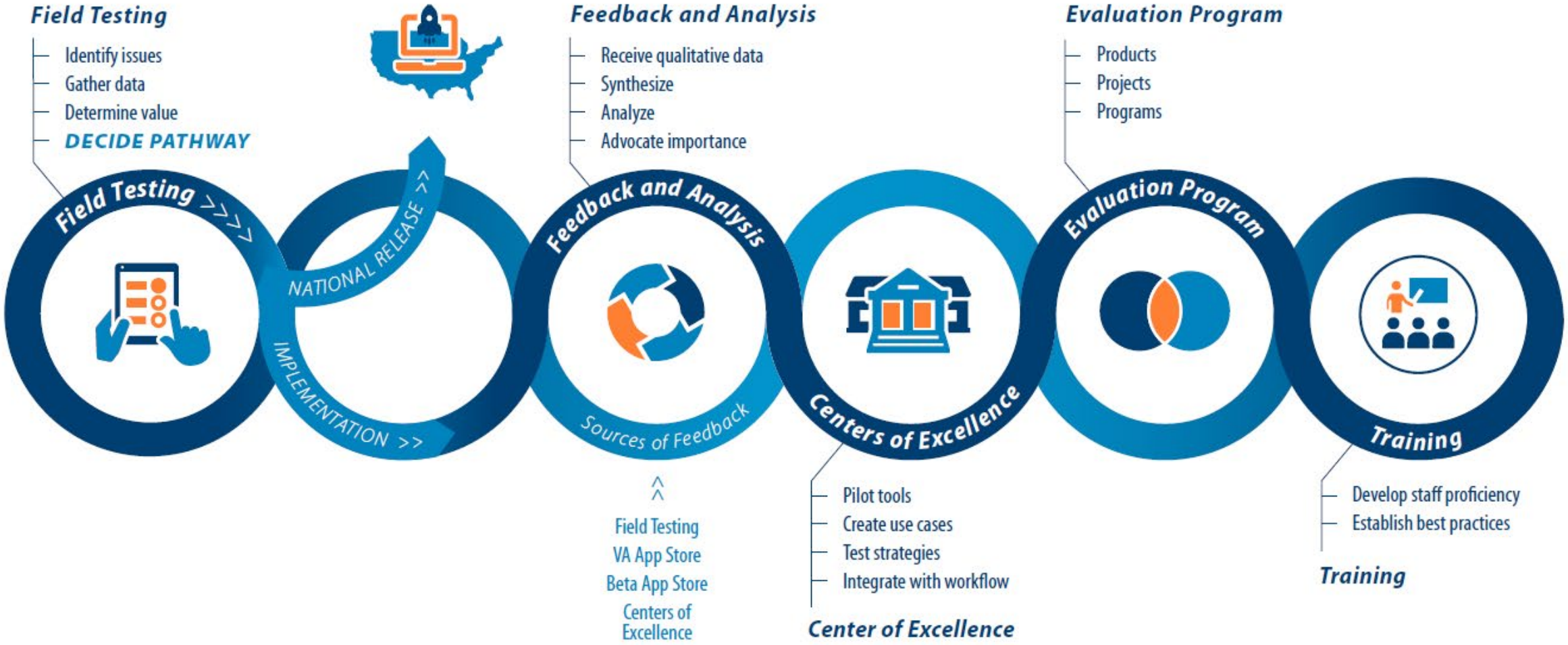
- Download VA health information to **save, print,** or **share** with family members, caregivers, and non-VA providers.
- Can include:
  - VA lab results
  - VA prescriptions
  - Past and upcoming VA appointment information
  - Self-entered health information
  - U.S. DoD military service information
- Requires My HealtheVet Premium Account
- 45.7 million files have been downloaded as of March 2021
- Downloading VA Blue Button Reports
  - *https://www.youtube.com/watch?v=G5yKojCocqQ*



Training and Implementation

The Implementation Process

Improving Virtual Technologies to Better Serve Stakeholders



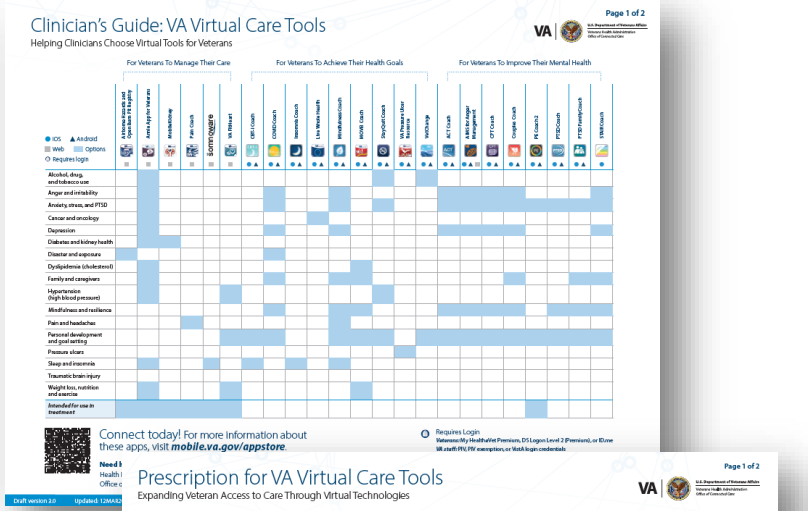
Virtual Health Resource Centers

- Help Veterans and clinicians to use virtual care tools at Implementation Centers of Excellence

Adoption Specialist responsibilities

- Enroll Veterans in Connected Health programs
- Assist Veterans and Clinicians with virtual care tool set up and use
- Conduct outreach and training activities
- Represent the facility at forums, conferences and meetings
- Collect and analyze data on usage and impact of the center
- Coordinate efforts with Telehealth field staff, My Health*e*Vet Coordinators, Health Information Specialists, Educators, Public Affairs, and other stakeholders

Virtual Care Tools



Trusted Care: Anytime, Anywhere

VHA CONNECTED CARE STRATEGIC PLAN 2021–2025

Office of CONNECTED CARE

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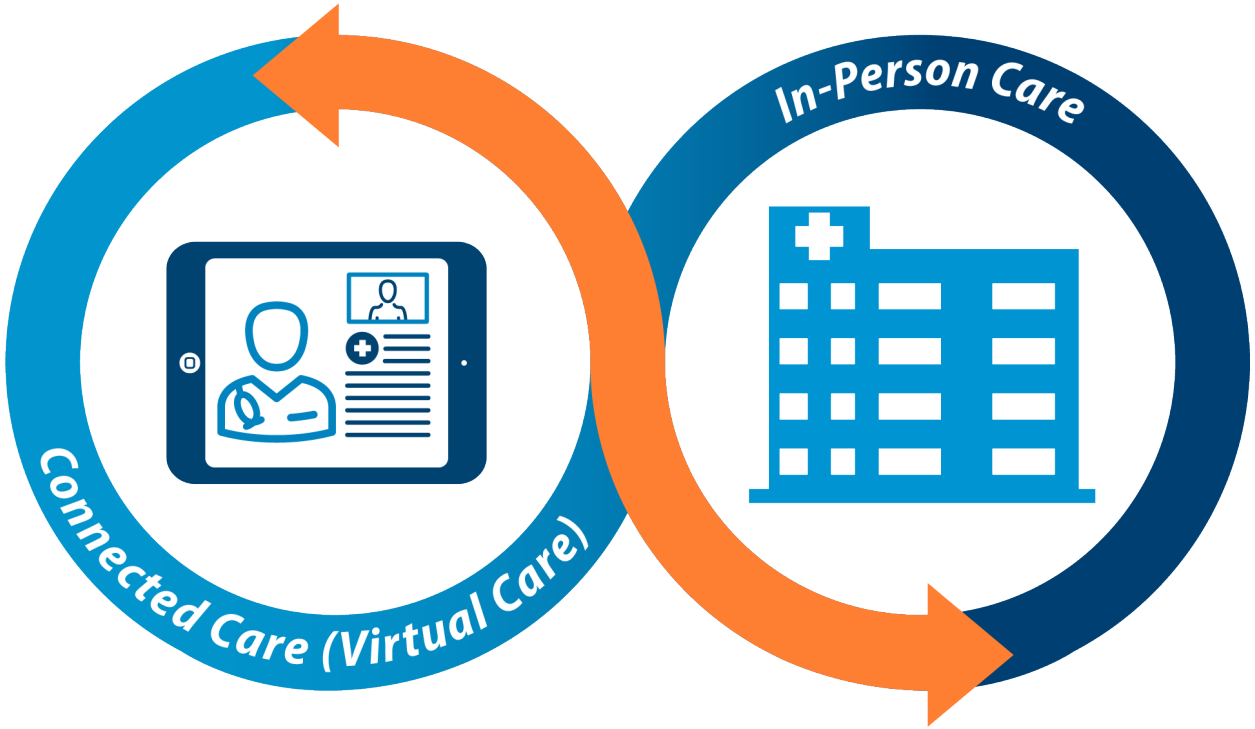
Trusted Care: Anytime, Anywhere

Our Vision

- VA will leverage telehealth to enhance the **accessibility**, **capacity**, **quality** and **experience** of VA health care for Veterans, their families, and their caregivers anywhere in the country.



At a VA Facility

At Home

On Any Device

Trusted Care: Anytime, Anywhere

In this VHA Connected Care Strategic Plan for fiscal years 2021–2025, three goals drive eight organizational strategies:

GOAL 1

Enhance Veteran Digital Engagement

Strategy 1 **Build an Engaging Digital Front Door**

Strategy 2 **Support Veterans in Managing Their Own Health**

GOAL 2

Deliver Health Care Without Walls

Strategy 1 **Deliver Care in the Home**

Strategy 2 **Expand Clinical Capacity**

Strategy 3 **Empower VA's Workforce To Deliver Virtual Care**

GOAL 3

Solidify Connected Care Foundations

Strategy 1 **Modernize VA's Connected Care Infrastructure**

Strategy 2 **Analyze Digital Health Data and Connected Care Program for New Insights**

Strategy 3 **Enhance Connected Care Operations and Authorities**

Analytics

- Conduct analysis on PGHD in our CDW project database and soon in the OIT Rockies analytic platform which adds a full suite of data science tools.

Poll

What research areas are data science and analytics vital to investigating?

- ❑ Access
- ❑ Outcomes
- ❑ Engagement
- ❑ Implementation

Transition to ROCKIES Environment

What is ROCKIES?

- **A Cloud-Native Enterprise Data and Analytics Platform**
- *What does it really mean?* Rockies is VA's cloud-based platform for enterprise data, analytics tools, computing resource, and knowledge management. And, most importantly, these components are seamlessly connected for the users to rapidly turn data into actionable insights.

Data

- 100 billion rows of health data
- The entirety and daily refresh CDWwork – Live
- CDWwork2 (Cerner Syndication data) – ETA Q3'FY21
- PGHD from Office of Connected Care – ETA Q4'FY21
- NDS-compliant access controls

Data Ingestion

- Leverage Rockies data ingestion framework
- On-prem or cloud data sources

Knowledge Management

- Collibra supporting data catalog and data lineage
- Trifacta supporting collaboration of data curation recipes

Advanced Analytics Tools

- Databricks supporting Spark big data analysis in R, Python, and Scala
- Trifacta supporting no-code/low-code data curation
- Azure Machine learning supporting advanced ML/AI use cases, including many open-source ML libraries
- Sandbox for potential users

High-Compute Platform

- Base infrastructure addresses data scientist computing power needs
- On-demand; various models of CPU and GPU-machines

Poll

In the current research ecosystem, which of these resources is the biggest bottleneck on research?

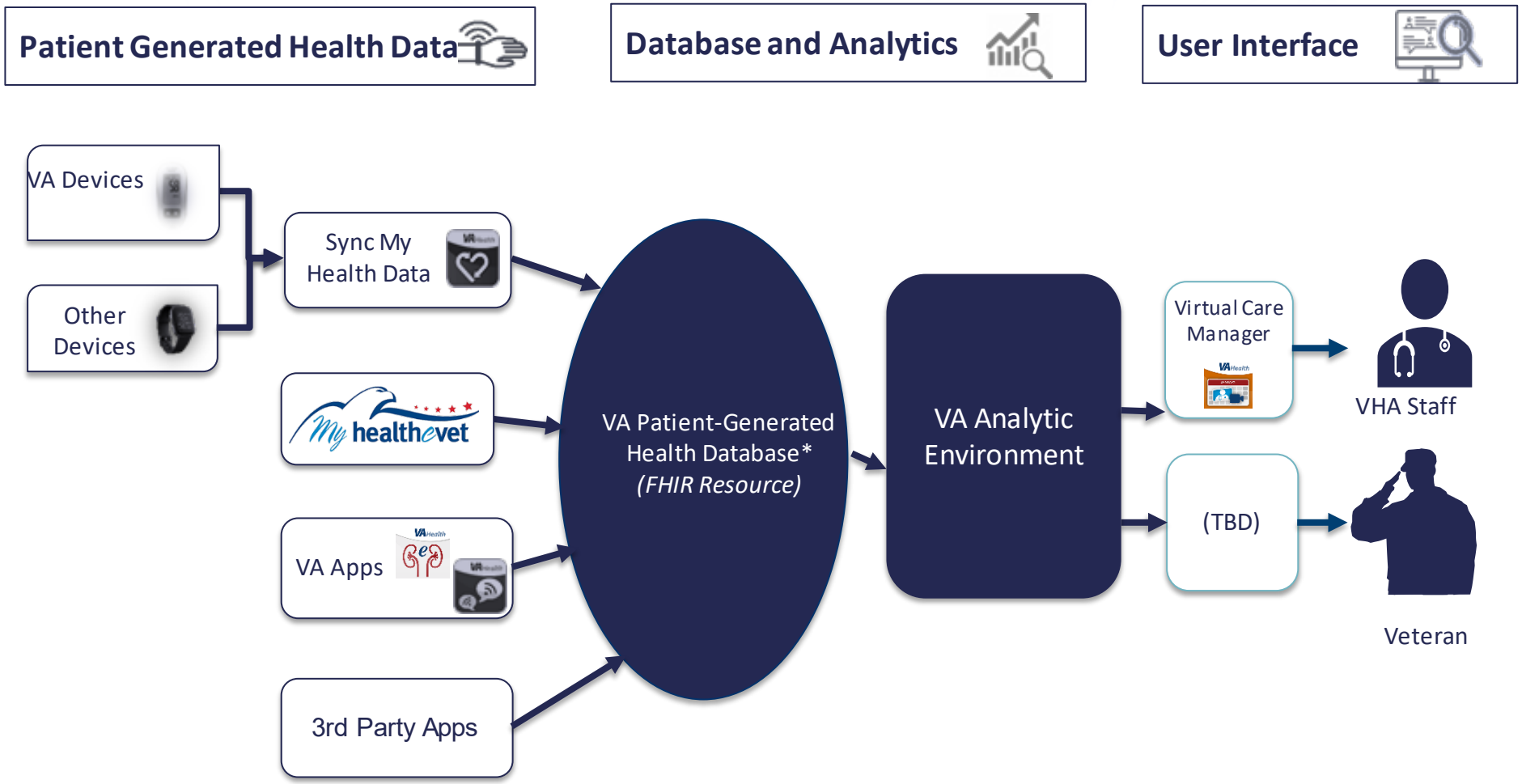
- Access to Data
- Knowledge Management
- Lack of Advanced Analytics Tools
- Computing Platform (e.g. when querying large tables)

Patient-Generated Health Data (PGHD)

What is PGHD?

- **Health-related data that patients and their family members or caregivers gather outside of a clinical setting.**
  - **Self entered data through VA mobile apps and My HealtheVet**
  - **Wearable and device data through Synch My Health data app – in limited release expect full release later this year**
- Available to VA staff through the **Virtual Care Manager** app
- Review And Use of Patient-Generated Health Data Under the Office of Connected Care

PGHD Sources and Data Flow



*Veteran chooses which data goes into the PGH Database

Poll

How likely are you to use Patient Generated Health Data in the next 12-24 months?

- Not at all likely
- Somewhat likely
- Very Likely

Areas of Future Inquiry

Benefits

- Clinically appropriate cases (and not)
- Access/Community Care

Integration

- New models of care (telework, virtual teams)
- Standard workflows for VVC (consult processing)
- Ideal proportion of care as virtual
- High value AI, technology

Challenges

- Implementation
- Digital Divide

Satisfaction

- Looking beyond existing surveys

Cost-effectiveness

- Which services?
- Community Care

Connected Care Resources

- VHA Reports and Measures Portal (RAMP)
- Reporting and Analytics Field Training (RAFT)
- VSSC – Connected Care, Telehealth, Call Centers
- My HealtheVet Statistics - My HealtheVet Product (va.gov)
- My HealtheVet Secure Messaging Reports Guide
- Connected Care Website
- Telehealth Intranet Site
- Connected Care Outreach Toolkit
- To subscribe to the VC CORE listserv, email VHAVirtualCareCORE@va.gov

THANK YOU!

Questions

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CONNECTED CARE

Virtual Care CORE

Goals

Strategies

Objectives

1. Enhance Veteran Digital Engagement

1.1: Build an engaging digital front door

- 1.1.1 VA will enhance the Veteran's digital experience for conveniently accessing their health care services.
- 1.1.2 Veterans will have real-time access to licensed independent providers through coordinated, connected technologies to assist with clinical advice, medical triage, and other urgent care needs.

1.2: Support Veterans in managing their own health

- 1.2.1 VA will develop and sustain connected care technologies designed for patient self-care, remote patient monitoring via patient-generated data, and communication with health care teams.
- 1.2.2 VA will leverage its resources, influence, and strategic partnerships to help bridge the digital divide for Veterans.
- 1.2.3 Veterans will be offered a continuum of remote monitoring and care coordination services that support independent living, healthy lifestyles, and achievement of health care goals.
- 1.2.4 VA will bridge communications across inpatient environments; connect inpatient units to specialty providers, outpatient clinics, and the home; and position the patient at the control center of their care.

2. Deliver Health Care Without Walls

2.1: Deliver care in the home

- 2.1.1 VA will integrate video care to home into routine operations to enhance the experience and accessibility of care.
- 2.1.2 VA will develop and/or leverage enhanced connected care diagnostic capabilities in the home.

2.2: Expand clinical capacity

- 2.2.1 VA will expand clinical services, as a standard, in outpatient clinics and in inpatient or acute care environments by leveraging connected care.
- 2.2.2 VA will enhance its capacity to provide consistent, high-quality outpatient clinical services by increasing clinical resource sharing within and between facilities through connected care.
- 2.2.3 Provider-to-provider specialty care consultation and advice, in key specialty areas, will be consistently and immediately available across the VHA enterprise to support Veteran care.
- 2.2.4 VA, DOD, and other health care organizations will collaborate through connected care technologies to enhance services for both active-duty Service members and Veterans.
- 2.2.5 VA will integrate connected care into enterprise emergency management planning and response.

2.3: Empower VA's workforce to deliver virtual care

- 2.3.1 VA will implement effective training to facilitate the transition of VA staff to a connected care capable workforce.
- 2.3.2 A trained, competent connected care workforce will be established and maintained to effectively manage equipment, operations, provider/patient education, and connected care encounters.
- 2.3.3 VA will develop and sustain connected care applications designed to support clinical teams in delivering health care.
- 2.3.4 VA will transition connected care capabilities to the Cerner Electronic Medical Record in place of VistA.

3. Solidify Connected Care Foundations

3.1: Modernize VA's connected care infrastructure

- 3.1.1 OI&T infrastructure and processes will be modernized to support connected care technologies.
- 3.1.2 VA will deliver connected care services using effective and modern connected care equipment.

3.2: Analyze digital health data and connected care program for new insights

- 3.2.1 VA will build and leverage standard data reports, processes, and tools to efficiently oversee and enhance the quality of connected care programs.
- 3.2.2 VA will support connected care research and evaluation to advance the health care community knowledge base.

3.3: Enhance connected care operations and authorities

- 3.3.1 Health care professionals' services will be efficiently shared across VA facilities.
- 3.3.2 VA will effectively communicate information about connected care programs and services to Veterans and other key stakeholders.
- 3.3.3 VA will establish a legal, regulatory, and policy environment that supports connected care and expanded services for Veterans.
- 3.3.4 Health care visits will be scheduled and accessed efficiently.
- 3.3.5 VA will provide Veteran and health care professional help desk support for connected care products and services.
- 3.3.6 VA will perform the product engineering and product management required to develop and sustain connected care delivery tools.

VHA LONG-RANGE GOALS

1: Make VHA the provider and care coordinator of choice for Veterans

2: Deliver comprehensive and integrated whole health care

3: Drive the efficient and effective use of resources across the enterprise

4: Innovate as a learning and teaching organization