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WHERE **THE WORLD** CONNECTS FOR HEALTH

Conference & Exhibition | March 5–9, 2018

Las Vegas | Venetian – Palazzo – Sands Expo Center

Connected Care: VA, Virtual Care and the Patient Experience

Session # 152, March 7, 2018

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U.S. Department of Veterans Affairs

ENGAGED

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Conflict of Interest

Neil C. Evans, MD

Chief Officer, Office of Connected Care

Veterans Health Administration, U.S. Department of Veterans Affairs

Has no real or apparent conflicts of interest to report.

Agenda

- Learning Objectives
- Connected Care: The Big Picture
- Connected Care: A Veteran Journey
- Best Practices and Lessons Learned
- Q&A

Learning Objectives

- Explain VA's current strategy for patient engagement through digital technologies
- Summarize VA's best practices, challenges and opportunities relating to building a comprehensive digital health program
- Describe VA's strategy for information and knowledge-sharing with VA's consumers and Veterans
- Compare the needs and preferences of consumers regarding digital access to care and information across a wide range of patient demographics
- Discuss incorporating patient generated data into clinician workflow

Connected Care: The Big Picture

Francis W. Peabody, MD



The Journal of the American Medical Association

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CHICAGO, ILLINOIS

MARCH 19, 1927

THE CARE OF THE PATIENT *

FRANCIS W. PEABODY, M.D.
BOSTON

It is probably fortunate that systems of education are constantly under the fire of general criticism, for if education were left solely in the hands of teachers the chances are good that it would soon deteriorate. Medical education, however, is less likely to suffer from such stagnation, for whenever the lay public stops criticizing the type of modern doctor, the medical profession itself may be counted on to stir up the stagnant pool and cleanse it of its sedimentary deposit. The most common criticism made at present by older practitioners is that young graduates have been taught a great deal about the mechanism of disease, but very little about the practice of medicine—or, to put it more bluntly, they are too “scientific” and do not know how to take care of patients.

science to the diagnosis and treatment of disease is only one limited aspect of medical practice. The practice of medicine in its broadest sense includes the whole relationship of the physician with his patient. It is an art, based to an increasing extent on the medical sciences, but comprising much that still remains outside the realm of any science. The art of medicine and the science of medicine are not antagonistic but supplementary to each other. There is no more contradiction between the science of medicine and the art of medicine than between the science of aeronautics and the art of flying. Good practice presupposes an understanding of the sciences which contribute to the structure of modern medicine, but it is obvious that sound professional training should include a much broader equipment.

The problem that I wish to consider, therefore, is whether this larger view of the profession cannot be approached even under the conditions imposed by the present curriculum of the medical school. Can the practitioner's art be grafted on the main trunk of the funda-

The Care of the Patient (FW Peabody)

the crux of the whole situation. The treatment of a disease may be entirely impersonal; the care of a patient must be completely personal. The significance of the intimate personal relationship between physician and patient cannot be too strongly emphasized, for in an extraordinarily large number of cases both diagnosis and treatment are directly dependent on it, and the failure of the young physician to establish this relationship accounts for much of his ineffectiveness in the care of patients.

THE CARE OF THE PATIENT*
FRANCIS W. PEABODY, M.D.
BOSTON

What Does Connection Look Like For Me as a VA Physician?

Command Sergeant Major George W. Howell, Jr., USA (Ret.)

- 30-year U.S. Army Veteran
- Rose to Command Sergeant Major of the U.S. Army Intelligence and Security Command
- Served in Germany, Thailand, Vietnam, Hawaii, and the continental United States
- Began receiving care at the Washington DC VA Medical Center in 1985
- Hypertensive, widower, lives alone.



What Does Connection Look Like in VA?

Veterans

- **~20,000,000 (9% female)**
Estimated US Veteran Population
- **~623,000** Estimated Number of Living WWII Veterans
- **404** Estimated Number of WWII Veterans Passing Away Daily
- **47.1%** Percent of Veteran Population >64

Veterans in VA

- **9.05 million** Total Enrollees in VA Health Care System (FY16)
- **6.26 million** Total Unique Patients Treated in FY16
- **4.55 million** Number of Veterans receiving VA Disability Compensation
- **959,703** Number of Veterans Compensated for PTSD as of 9/30/17

What Does Connection Look Like in VA?

VA Staff

- **351,540** Full-time VA Employees
- **127,211** Health Care Professionals Rotating Through VA in FY16
- Full-time Physicians
- **80,000** Nurses

VA Footprint

- **145** VA Hospitals
- **1,231** VA Outpatient Sites
- **300** VA Vet Centers
- **56** VBA Regional Offices
- **135** VA National Cemeteries



No Matter Where They Live, We'll Be There.



No Matter Where They Live, We'll Be There.



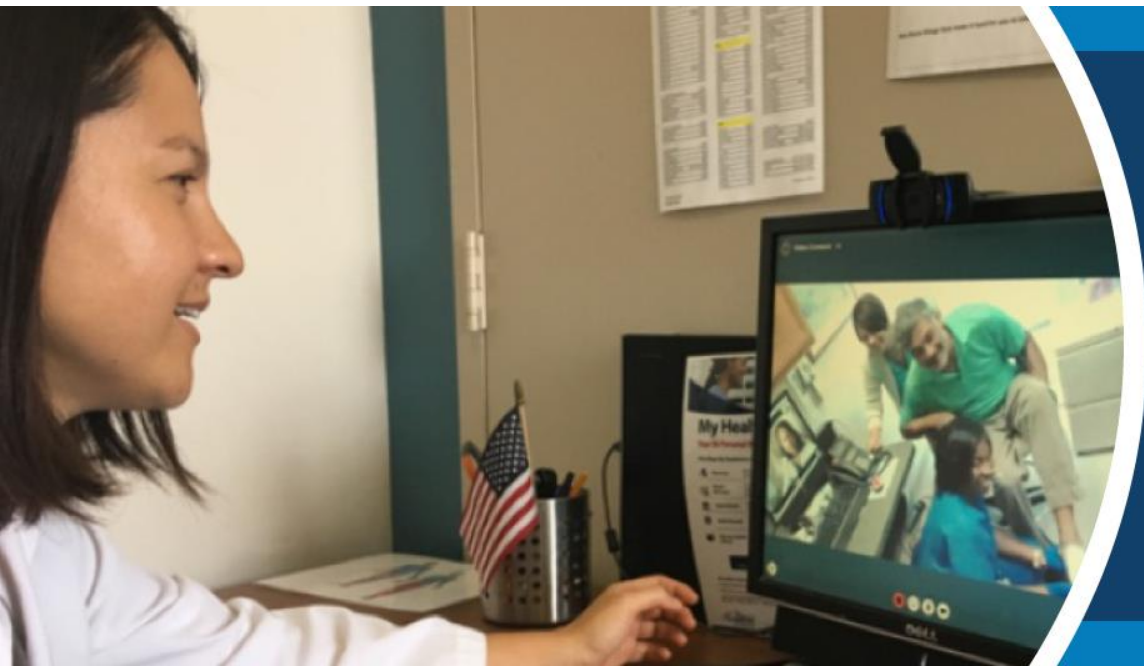
No Matter Where They Live, We'll Be There.

Rural Veterans

- **5.2 million** rural and highly rural Veterans, 2.9 million enrolled in VA
- **44%** have at least one service connected disability
- **57%** of enrolled rural Veterans are 65+ years old
- **15%** served in Iraq/Afghanistan.
- **54%** earn less than \$36,000 annually
- **500,000+** cannot access broadband.



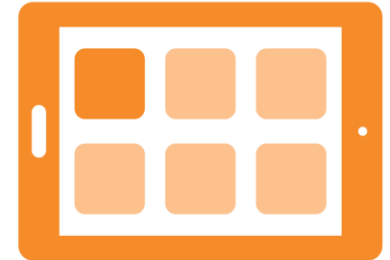
Access Challenges aren't Unique to Rural Veterans



“The bottom line is that telehealth is meeting Veterans where they are. We are making things flexible and convenient for them.”

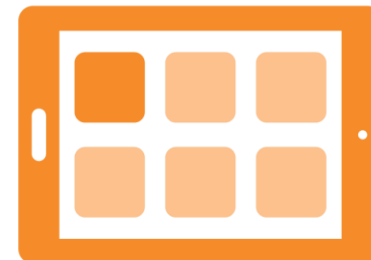
– **Dr. Leonie Heyworth**, VA San Diego Health Care System, who provided care via telehealth technologies to Veterans in Texas and Florida following Hurricanes Harvey and Irma.

Enter Technology



Connected Care

(Consumer Health / mHealth / Connected Health / Virtual Care / Telehealth)



VA's Connected Care Vision

Access and the **Veteran Experience** will be enhanced through information and communication technologies that are effectively **integrated** into the daily lives of Veterans and VA Staff.



Veteran at the Center of Connected Care



ACCESS

- Trusted Health Information
- Simplified Transactions
- Open Communication Channels
- Self Management and Monitoring
- Clinically Supported Remote Monitoring
- Asynchronous Virtual Care
- Synchronous Virtual Care

PATIENT EXPERIENCE

Efficient
Effective
Easy to Use
Consistent
Continuity
Coordinated
Delightful

REAL LIFE

HEALTH CARE

The Grand Challenge

How do we meaningfully integrate Connected Care into care delivery in a way that

- preserves rich relationships,
- improves health care system efficiency,
- improves quality, and
- improves the experiences of both the consumer and deliverer of health care?

2 million+
Telehealth episodes

4 million+
registered
My HealthVet users

Hundreds
of innovations

20+ apps
available on the
VA App Store



Connected Care: A Veteran's Journey Through VA











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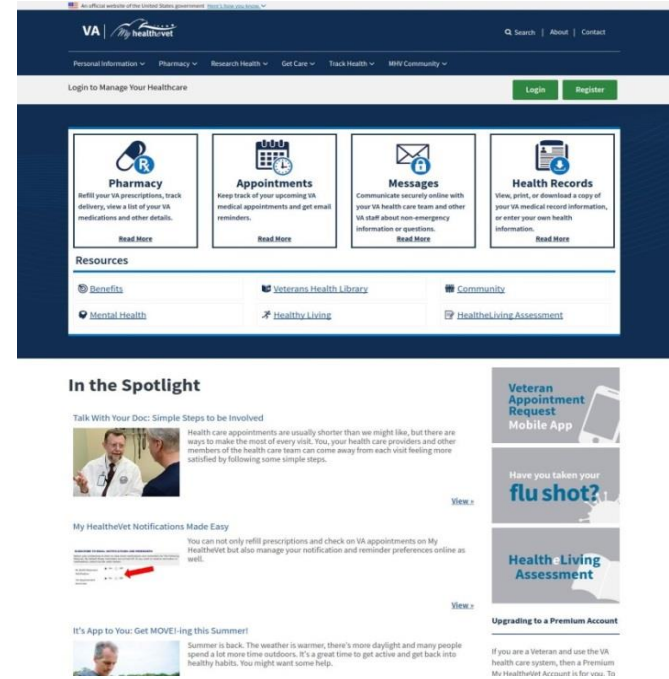
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Lessons Learned and Best Practices

My HealthVet

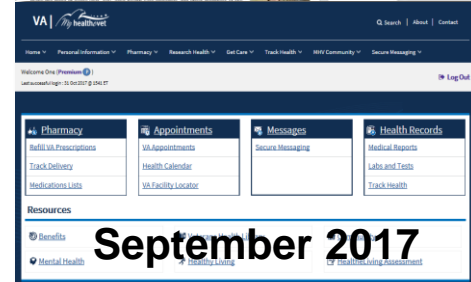
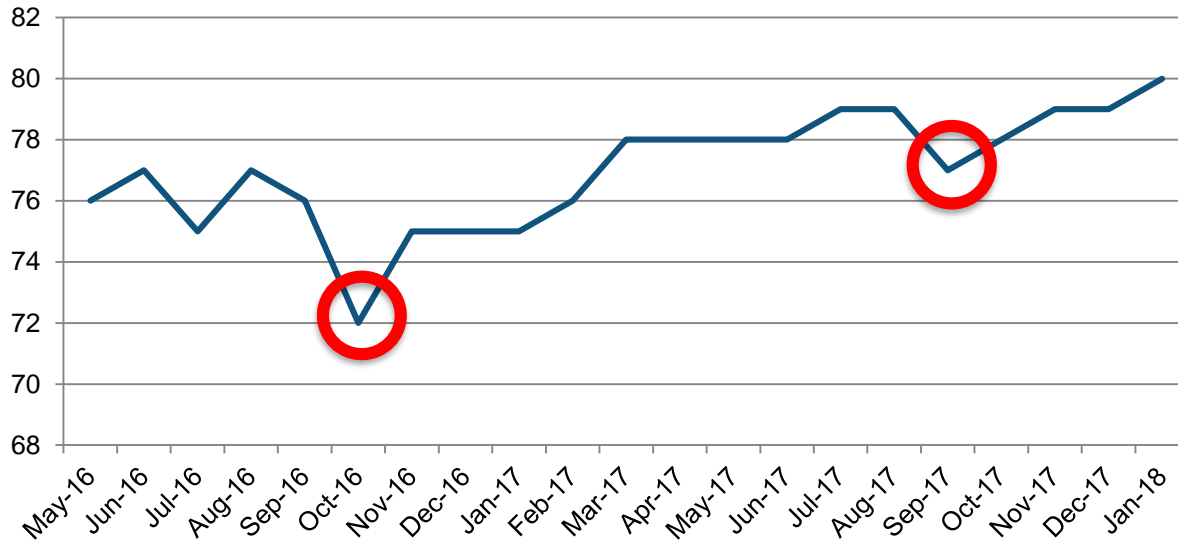
4th Quarter 2017

- **1.55 million** active users (32% mobile)
- **3.54 million** Secure Messages sent/received
- **1.39 million** Blue Button downloads
- **5.22 million** Prescription refills
- **~100K** new registrations
- Record-breaking User Satisfaction
 Jan 2018 CXA survey reported user satisfaction score of **80**, the highest ever seen for My HealthVet
- **30%** of users are 65 - 69



User Centered Design and Measuring the Impact of Change

User Satisfaction Scores



VA Online Scheduling (MHV)

The screenshot shows the VA My HealthVet website interface. At the top, there is a navigation bar with 'VA | My healthvet' on the left and 'Search | About | Contact' on the right. Below this is a secondary navigation bar with links for Home, Personal Information, Pharmacy, Research Health, Get Care, Track Health, MHV Community, and Secure Messaging. A welcome message for 'Test (Premium)' is displayed, along with a 'Log Out' button. The main content area features four primary service tiles: Pharmacy, Appointments, Messages, and Health Records. The 'Appointments' tile is highlighted with a red border and contains links for 'View My VA Appointments', 'Schedule a VA Appointment', and 'VA Facility Locator'. Below these tiles is a 'Resources' section with links for Benefits, Veterans Health Library, Community, Mental Health, Healthy Living, and HealthLiving Assessment.

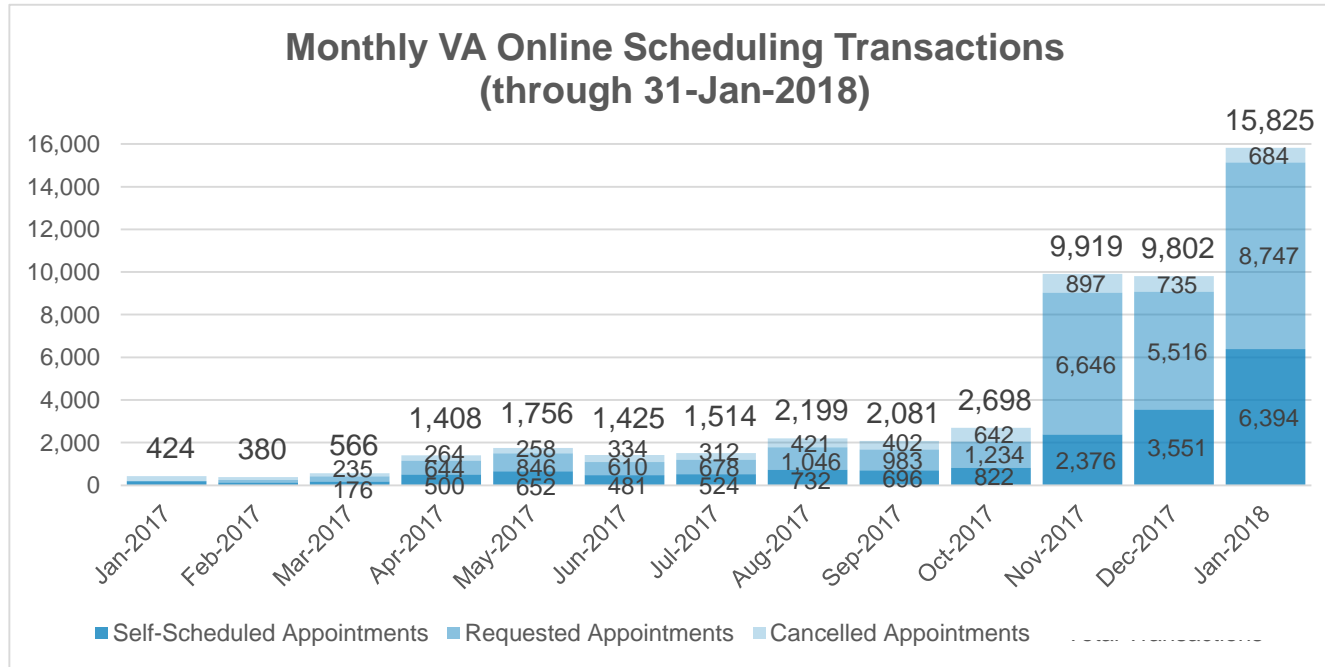
In the Spotlight

It's Here! The Improved My HealthVet Website

We are proud to announce the release of our newly redesigned website is officially here. It is designed to reflect your needs and address the U.S. Web Design Standards.



VA Online Scheduling Growth



Blue Button Medical Imaging

(New Features – Driven by Veterans/Identified Pain Points)

- Veterans can now view or download their VA diagnostic quality images online through MHV, for viewing online or as DICOM files to share with non-VA providers.
- Pilot running in VISN 20, 2, 6, and 8
- **Full national implementation expected March 2018**
- Since the initial BBMI pilot launched at Puget Sound on 8/11/2017
 - 18,665 unique users have viewed a list of their Radiology studies
 - 10,720 unique users submitted a request for a particular study (in total 38,465 studies have been requested)

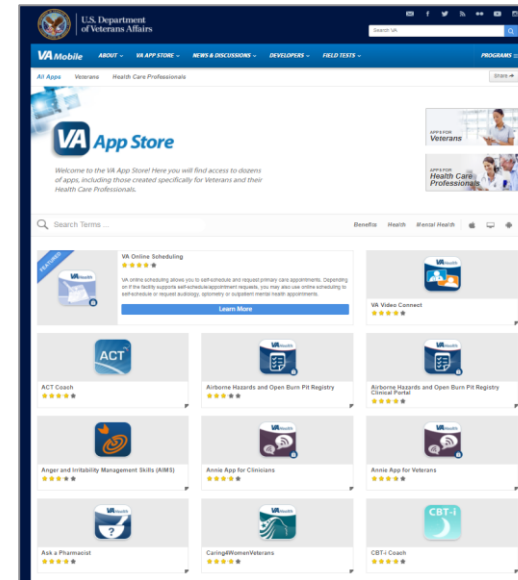
Secure Messaging – Integrating Connected Care into Core Operations

Secure Messaging – FY17	
Inbound messages	6.79 million
Outbound messages	6.91 million
Average Bus Days to Complete	1
Completed by Providers	1.6 million
Completed by Clinical Members	3.79 million
Completed by Triage Members	1.39 million

VA App Store (mHealth)

<https://mobile.va.gov/appstore>

- Provides access to VA-developed apps for Veterans and VA care teams.
- Apps increase access, support patient self-management, enhance communication and support coordination of care for Veterans.
- 43 apps featured on the VA App Store
 - 28 health apps
 - 18 mental health apps
 - 30 Veteran-facing apps
 - 19 care-team facing apps
 - 20 web apps
 - 23 iOS apps
 - 11 Android apps



Spectrum of Mobile Health Applications

Informational
Self-Management

Self-Management with
Patient Generated
Health Data

Clinically Supported
Remote Monitoring

Direct Clinical Care and
Communication

VetLink

Dementia Care

Ask A Pharmacist

MOVE! Coach

PTSD Coach

VA Pressure

Ulcer/Injury
Resource

PE Coach

Blue Button

Rx Refill

GDx

Annie

MyVA Health
Journal

VA Fit Heart

Pain Coach

Mobile Kidney

Home Telehealth

Mental Health
Check-Up

REVAMP

Secure Messaging

VA Video Connect

TeleDerm Workflow

My HealtheVet

VA Online Scheduling

Patient Viewer



A mobile messaging system that promotes self-care for Veterans.

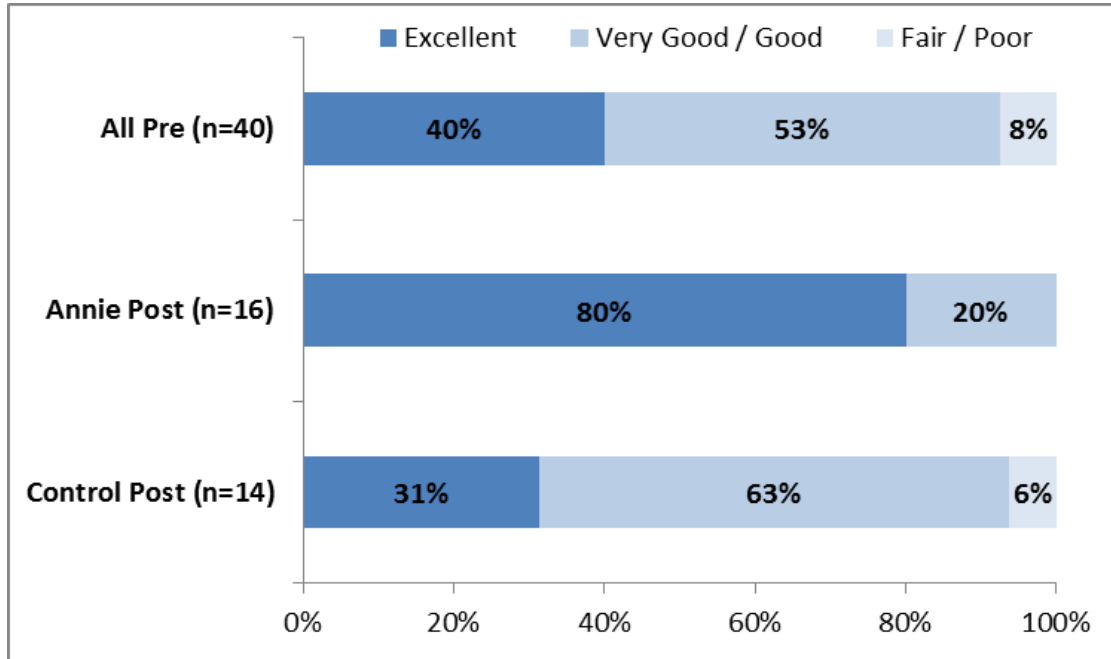
Annie sends regular, automated text message reminders to Veterans to help them track health information requested by their VA care teams.

Annie can also can send Veterans reminders and messages from their local VA facility



Named after Lt. Annie G. Fox
First woman to receive Purple Heart for combat

Annie: Clinical Outcomes



Patient Self-Reported Adherence for Hepatitis C (HCV) Medications

- Data collected at 9 HepC clinics from across the US, before treatment and after at least 6 weeks of treatment
- All Veterans trusted Annie (100%) and nearly all (94%) would recommend it to other Veterans.

Patient Generated Data

- Clinical decision-making has always been dependent on patient generated data (i.e. the history)
- Clinicians want access to relevant patient generated data
 - In their current workflow
 - Actionable
- When patients are *prompted* to collect personal clinical data at home, they expect it to be part of the ongoing conversation regarding their health.
- Some patients require no training. Most require some.

Telehealth: An Enterprise Strategy for Increasing Accessibility, Capacity & Quality

Anywhere to Anywhere Telehealth

On August 3, 2017, the President and Secretary Shulkin discussed plans to **expand VA telehealth services**.

Dr. Shulkin announced plans for a proposed rule that “allows our VA providers to provide telehealth services from anywhere in the country to veterans anywhere in the country, whether it's in their homes or any location. We call it **‘anywhere to anywhere’ VA healthcare**. That's a big deal.”



Anywhere to Anywhere Telehealth

VA also launched **VA Video Connect**, an application that allows Veterans receiving VA care to easily access those health care services by video on their smartphones, tablets and personal computers.



Where VA Connected Care Occurs



Home

- Home Telehealth (Remote Monitoring)
- VA Video Connect
- Secure Messaging
- Telephone Visits
- Portal – My HealthVet
- mHealth - Apps, Annie



Clinic

- Video Telehealth
 - Primary Care
 - Mental Health
 - 50+ specialties
- Store and Forward Telehealth



Hospital

- TeleICU
- TeleStroke

How VA Implements Connected Care



Facility

Goal: Connected Care / Telehealth integration into all routine operations



Regional

- Telehealth Resource Hubs
- TeleDermatology
 - TeleMental Health
 - TelePrimary Care
 - TeleRehabilitation
 - TeleSleep



National

- Expert TeleConsultation
- National TeleMental Health Center
 - Provider to Provider Consultation (ECHO)
 - TeleGenomics

VHA Telehealth – Where We Started

1959

Two-Way Television Group Therapy between the *University of Nebraska Medical Center* and the *Omaha VA*, *Lincoln VA*, and *Grand Island VA*

Image from Wittson, Cecil L.; Affleck, D. Craig; Johnson, Van Mental Hospitals, Vol 12(10), 1961, 22-23.



VHA Telehealth: 2017

By the Numbers

- **>2.18 million** episodes of care
- **> 727,000 Veterans** served
 - 45% Rural
 - 900 VA Sites of care
 - 88-93% Satisfaction
 - >50 specialty areas
- **~12%** of Veterans received an element of their care through a Telehealth modality

Modalities

- More than **336,000 Veterans** - Clinical Video Telehealth
- More than **306,000 Veterans** - Store and Forward Telehealth
- More than **145,000 Veterans** - Home Telehealth

VHA Telehealth: 2017

Outcomes

- Veterans enrolled in Home Telehealth for non-institutional care needs and chronic care management had a **57 percent decrease** in VA bed days of care, and a **31 percent decrease** in VA hospital admissions.
- Mental Health services provided to Veterans via Clinical Video Telehealth (TeleMental Health) reduced Acute Psychiatric VA bed days of care by **34 percent**, and VA hospital admissions by **31 percent**.

VHA Telehealth – Why It Matters

Accessibility

- Convenience
- Expanded access
- Care available at home or preferred location
- Fully integrated into routine operations

Capacity

- Helps match supply and demand across the enterprise
- Fills clinical service gaps in rural and underserved areas

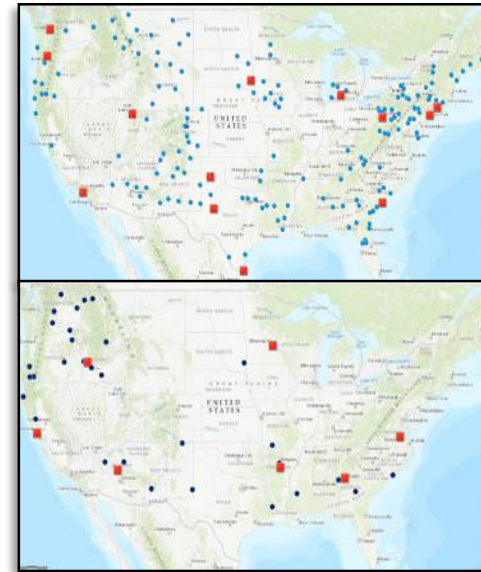
Quality

- Connects Veterans with rare conditions to specialized expertise
- Enhances provider networking (“curbside” consults) across the enterprise
- Supports standardization of best practices

Telehealth Hubs: Increasing System Capacity and Enhancing Quality of Care

Ten TeleMental Hubs provide video mental health appointments. (Locations: Pittsburgh, PA; Charleston, SC; Salt Lake City, UT; the Pacific Northwest, New York, NY; West Haven CT; Honolulu, HI; Sioux Falls, SD; Battle Creek, MI; and Harlingen, TX)

Eight VA TelePrimary Care Hubs support delivery of primary care. (Locations: Boise, ID; Little Rock, AR; San Francisco, CA; Honolulu, HI; Prescott, AZ; Atlanta, GA; Minneapolis, MN; and Richmond, VA)

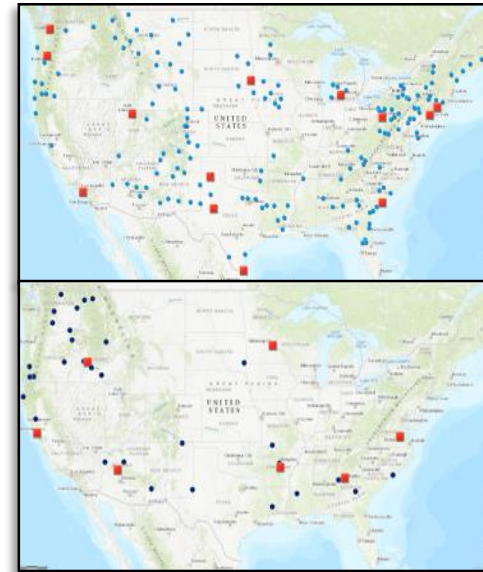


Telehealth Hubs: Increasing System Capacity and Enhancing Quality of Care

Two VA TeleICU Centers in Minneapolis, MN and Cincinnati, OH provide additional support to intensive care unit staff in approximately 300 out of about 1,700 VA ICU beds across the nation.

VA's TeleGenomic Medicine Services, based in Utah, provides genomic medicine and counseling service to more than 80 VA medical centers.

VA's National TeleMental Health Center, based in Connecticut, provides national clinical experts in affective, psychotic, anxiety, and substance use disorders, as well as neurology treatment and has provided services to more than 5,600 Veterans in the last seven years.



Summary of Lessons Learned

- Know your customer and keep them at the center
- Mobile is important and enables the use of patient-generated data to support patient self-management, remote monitoring, virtual care, and clinical decision making
- Telehealth is about more than just access to care. It is a critical strategy for health care systems to improve accessibility, system capacity, and quality
- Successful implementation of Connected Care in the health care setting is dependent on a robust community of practice and dedicated staff support
- Successful implementation of Connected Care by patients is predicated on provider and health system buy-in
- Personal connections have and will always matter

A Home Telehealth Success Story: Command Sergeant Major George W. Howell, Jr., USA (Ret.)

“I love the VA’s Home Telehealth program...it’s like having a doctor and a nurse right over your shoulder. It’s the best program in the VA.”

“I take my numbers everyday. I send over my numbers and if something is off I get a call from my nurse asking what I ate or what is wrong. I’ve lost 40 pounds on that Home Telehealth program.”

“Every time I go the VA, I talk [the Home Telehealth program] up to other Veterans...and tell them to talk to their doctors about it. It’s a life-changer.”



Don't neglect the real connections!

THE CARE OF THE PATIENT *

FRANCIS W. PEABODY, M.D.

BOSTON

gator who neglects to control all the conditions that may affect his experiment. The good physician knows his patients through and through, and his knowledge is bought dearly. Time, sympathy and understanding must be lavishly dispensed, but the reward is to be found in that personal bond which forms the greatest satisfaction of the practice of medicine. One of the essential qualities of the clinician is interest in humanity, for the secret of the care of the patient is in caring for the patient.

Boston City Hospital.



Questions?

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