Connected Health: Improving Access to Health Care through Technology

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VHA’s Mission and Vision

**Mission:**
Honor America’s Veterans by providing exceptional health care that improves their health and well-being.

**Vision:**
VHA will continue to be the benchmark of excellence and value in health care and benefits by providing exemplary services that are both patient-centered and evidence-based.

This care will be delivered by engaged, collaborative teams in an integrated environment that supports learning, discovery and continuous improvement.

It will emphasize prevention and population health and contribute to the Nation’s well-being through education, research and service in national emergencies.
VA’s Health Care Expertise

VA is one of the largest civilian employers in the federal government and one of the largest health care employers in the world.

288,000+ Total VHA Employees

177,000+ Clinical Employees

88,000+ Veteran Employees
VHA’s Current Priorities

- Patient Aligned Care Teams (PACT)
- Connected Health Care
- Access
- Homelessness
- Mental Health Care
- Standardization
VA Connected Health

Uses technologies that engage and connect patients to their care, extending the “mainframe” of medicine: in-person visits

Aligns virtual care technologies to create a seamless, unified experience for Veterans. Integrates care into their daily lives on their terms.
Identifying patient needs to drive the next generation of tools.

Translating Veteran needs to information & services.

Developing Health IT solutions to meet Veteran needs.

Tailoring across platforms to optimize reach.

- Reminders
- Secure email
- Video visits

- Smart phone
- Feature phone
- Web
- Point of Service
Use my time wisely.

Make sure someone responds to me.

Let me see all my health records.

Make it easy for me to send you information.

Help me manage my medications.

Help me connect with other Veterans.

Personalize my care.

Help me manage my appointments.

Help me care for myself.

Notify me.
1. Expand Veteran Access to Care through Virtual Technologies.
2. Create a seamless, unified experience for Veterans across all VA patient-facing technologies.
3. Improve information sharing to increase the value of communication.
4. Increase VA health care team efficiency and quality by providing the tools for moving relevant clinical data closer to the point of care.
5. Systematically and intentionally deliver innovations that will improve health care delivery.
6. Contribute to Patient-Centered Care through personalization of VA digital health technologies.
7. Provide tools to better engage Veterans and their families in self-management of health.
Importance of Connected Health Technologies

**Video Visits**
- Global market for Video Visits is expected to increase tenfold by 2018, expanding into a $13.7 billion market
- 50% reduction in readmissions with Video visits/monitoring, a study found

**Remote Monitoring**
- Forecasted savings from remote patient monitoring 36 billion over the next five years
- 22 million households are expected to use virtual care solutions in 2018, up from one million in 2013

**Mobile Health**
- By 2018 mHealth is forecasted to increase by 61% to be a $26 billion market
- Text appointment reminders reduced no-shows by 20-90%
VA Connected Health Technologies

- Clinical Video Telehealth
- Home Telehealth
- Store and Forward Telehealth
- Telemental Health
- SCAN-ECHO
- VA Point of Service Kiosks
- Mobile Health
- My Health_eVet
- Secure Messaging
- Mobile Apps
# VA Connected Health

<table>
<thead>
<tr>
<th>Connected Health Technologies</th>
<th>Year Started</th>
<th>Veterans Served in 2014</th>
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<tbody>
<tr>
<td>Virtual Care Totals (Telehealth, Secure Messaging, SCAN-ECHO)</td>
<td></td>
<td>1,831,221 (32% VHA patients)</td>
</tr>
<tr>
<td>Veteran Point of Service Kiosks</td>
<td>2010</td>
<td>&gt;4M transactions</td>
</tr>
<tr>
<td>My HealtheVet</td>
<td>2003</td>
<td>~2,900,000</td>
</tr>
<tr>
<td>Blue Button</td>
<td>2010</td>
<td>~1,100,000</td>
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<tr>
<td>Secure Messaging</td>
<td>2008</td>
<td>1,093,327</td>
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<tr>
<td>Store &amp; Forward Telehealth</td>
<td>2000</td>
<td>379,010</td>
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<tr>
<td>eConsults</td>
<td>2010</td>
<td>351,239</td>
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<tr>
<td>Clinical Video Telehealth</td>
<td>2002</td>
<td>248,774</td>
</tr>
<tr>
<td>Home Telehealth</td>
<td>2003</td>
<td>156,826</td>
</tr>
<tr>
<td>SCAN-ECHO</td>
<td>2011</td>
<td>1,429</td>
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<tr>
<td>Veteran Mobile Apps</td>
<td>2013</td>
<td>Field testing &amp; Initial Release</td>
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Scope of VA Telehealth Services

Clinical Video Telehealth (CVT)
Real-time video consultation that covers over 45 clinical specialties including: Tele-Intensive Care, TeleMental Health, TeleCardiology, TeleNeurology, TeleSurgery, Women’s Telehealth, Tele-Primary Care, TeleSCI care, TeleAmputation Care, TeleAudiology, TeleSpeech, Remote Nursing Home Consultation, TelePathology, etc.

Home Telehealth (HT)
Care and case management of chronic conditions and provision of non-institutional care support to patients. Uses in-home and mobile technologies to manage diabetes, chronic heart failure, hypertension, obesity, traumatic brain injury, depression, etc.

Store and Forward Telehealth (SFT)
TeleRetinal Imaging, TeleDermatology, TeleWound Care, TeleSpirometry, Tele-Sleep Studies
VA Telehealth Services Outcomes

Provided care to more than 717,000 patients...amounting to over 2,100,000 Telehealth episodes of care
45% of these patients lived in rural areas, and may otherwise have had limited access to VA healthcare...
The number of Veterans receiving care via VA’s Telehealth services grew approximately 18% in the last fiscal year.
Of the 156,826 Veterans enrolled for Home Telehealth services in VA, 40,886 (26%) were supported by Home Telehealth to live independently in their own homes, patients who otherwise would have needed long-term institutional care.
VHA Telehealth Services Outcomes (cont’d)

Reductions in Utilization FY 2014
• Home Telehealth - reduced bed days of care - 54%
• Home Telehealth - reduced hospital admissions - 32%
• Clinical Video Tele Mental health - reduced Acute Psychiatric bed days of care by 35%

Patient Satisfaction
• Home Telehealth - 88%
• Store-and-Forward Telehealth - 93%
• Clinical Video Telehealth - 94%

Travel Reduction Savings
• Clinical Video Telehealth - $34.45 per consultation
• Store and Forward Telehealth - $38.81 per consultation

Home Telehealth Savings
• $2,000 per annum per patient
SCAN-ECHO

Use of videoconferencing technology to seek expertise from specialists located 100-500 miles away
Veterans Point of Service Kiosks

- Kiosks have been shown to save hospitals up to $7 per check-in

- Utilization of kiosks has been shown to increase patient satisfaction by reducing waits and offering greater convenience
- My HealtheVet: VA Personal Health Record
- VA Patient-Facing Apps
- Annie, VA’s Text Messaging System
- VA Mobile Health Provider Program (Device Distribution & Health Care Team-Facing Apps)
My HealthVet: VA Personal Health Record

• My HealthVet has 10 years of award-winning and proven success

  – An established brand with public and private partners and innovative functionality, including Secure Messaging, Pharmacy, Appointments and Blue Button (Open Notes)

  – As of September 30, 2014, nearly 45 percent of VA patients have registered for My HealthVet

  107 million+ visits

  2.5 million+ registered users

  843,000 opted-in to use Secure Messaging
Secure Messaging

- Secure Messaging is now implemented in all VA primary care clinics, and many other specialty clinics, improving access, enabling direct communications and raising the bar for communications expectations among patients, Caregivers and VA staff.

- A recent research study* found that Secure Messaging has a number of benefits, including improving access and perceptions of access, enabling more direct communication, and changing the way patients and providers communicate by lowering the threshold and enhancing relationships.

*Research study source information should be included for full credit.
Journey to VA Patient-Facing Apps

2011:
Initial Clinician Pilot

2011-2013:
Expanded to address the needs of Veterans, and created a new, streamlined process for App development at VA

2013:
Family Caregiver Pilot

Fall 2014:
Launch of first Veteran-facing Apps that connect to the EHR

Winter 2014:
Large scale field test of provider-facing Apps begins
Family Caregiver Suite of Apps (iOS)

- **Pain Coach** – Supports pain management
- **Care4Caregiver** – Supports Caregiver stress
- **Journal** – Allows for the recording of vitals, exercise, meals, contacts
- **RxRefill** – Assists with refilling VA prescriptions
- **Summary of Care** – Displays data from electronic health record (EHR)
- **PTSD Coach** – Supports PTSD management
- **Health Advocate** – Allows Veteran to designate a health advocate
- **Health Assessment** – Provides Veteran with a convenient way to take various health self-assessments
- **Notifications and Reminders** – Sets medication reminders and receive notifications from VA care team
Veteran Apps – Rollout began November 2014

Mobile Blue Button
✓ Access, print, download, store, share EHR data

Summary of Care
✓ Detailed EHR data view, graphing and interactive

Launchpad
✓ Groups apps with secure login, single sign on
Self-Care

- PTSD Coach
- Pain Coach
- Concussion Coach
- Mindfulness Coach
- Mood Coach
- Moving Forward
- Parenting2Go
- Care4Caregiver

- ACT Coach
- CBT Insomnia
- Stay Quit
- Vet Change
- CPT Coach
- PE Coach
- Mission Health*
- VetLink*

*Peer-to-Peer Community
Communication (Information/Notification)

- Information App
- Notification & Reminders Framework
- VA Benefits App
- Prosthetic Sensory Aids Service
- VA Virtual 311
- Psychological First Aid Mobile
- eBenefits Job Explorer
- Federal Benefits Booklet
- Mobile eBenefits
- eBenefits Claims
Transactions

- Appointment Scheduling/Request (VAR)
- Prescription Refill
- Health Advocate
- Care4Caregiver
- Patient Consent
- Durable Medical Equipment
- Benefits Enrollment
Self-Care + Expert Care or Shared Data

- Text Messaging (Annie)
- Secure Messaging
- Teledermatology
- Safety Plan
- MyVAHealth (Journal/MyStory/Tracking)
- Pre-Visit Agenda
- eProHealth
- Maternity Care
- Women’s Health

- Health Assessment
- FitHeart (Cardiac Rehab)
- Diabetes Mobile
- Women’s Health
- Chronic Kidney Disease
- Burn Pit Registry
- Wellness Check (Bio-surveillance Reporting)
- MyMeds
- MOVE! Coach
VA Mobile Text Messaging System
Mobile Culture
Text Messaging and Its Impact

2.2 Trillion in 2012

- 6 billion per day
- Per person 35/day
  Teens up to 100/day
- 95%
- 90%
- 15 mins.
- 1 hour

http://blogs.forrester.com/michael_ogrady/12-06-19-sms_usage_remains_strong_in_the_us_6_billion_sms_messages_are_sent_each_day
Advantages in Health Care

- Available on almost all models of cell phones
- Cost low (relatively)
- Widespread use
- Doesn’t require great technological expertise
- Can tap important constructs for behavior change such as cues to action, reinforcement, and social support
- Asynchronous, but a sense of immediacy
- Allows for “in-the-moment, personally tailored health communication and reinforcement”

Text Messaging and Health Care

• Kaiser Permanente SMS appointment reminder pilot project
  – 1,873 fewer appointment no-shows
  – $150 savings per appointment (their no-show cost)
  – Total cost savings of over $275,000 at a single clinic

• Consumer Health Information Corporation survey about health-related reminders
  – 41% of participants said that they would like to receive a text reminder
  – Only 1.3% said they wanted to receive a phone call as a reminder

• American Journal of Preventive Medicine survey of smokers randomly assigned to participate in a text-messaging program or receive self-help material designed to help smokers quit
  – 11 percent of smokers using the text-messaging program quit
  – Only five percent of those who did not use the text-messaging program did the same
Automated Text Messaging System

How's your blood pressure today? Thanks, Annie.

Hi! Flu shots today at your VA facility!

Annie G. Fox
Chief Nurse at Pearl Harbor, first woman to receive Purple Heart
Annie – VA Text Messaging Program

• **Protocol Messaging:** Automated messages for specific clinical issues and conditions

• **Broadcast Messaging:** Tailored messages to people/groups (age, facility - “flu shot ready”)

• **Provider to Provider:** Staff messaging

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Drivers for SMS Texting

- 24/7, everywhere phones
- Population reach (basic cell phones)
- Care efficiency (visit attendance)
- Empower patient self-efficacy
- Connecting with Veterans
- Low cost
NHS England Implemented Flo – Simple Telehealth

Named after Florence Nightingale

- “The service has altered my life. I feel supported...It’s great.”
- “I was astonished at how Flo changed my medication habits.”
- “Flo found I had a heart problem and my [GP] saw me quickly and now checks on my progress.”
- “I now feel that I am not on my own.”

Patients found Flo:
- Flexible and easy to use
- Can build confidence
- Can provide comfort and companionship
- Acceptable for reporting blood pressure vs. other means

VA Mobile Health Provider Program & Health Care Team-Facing Apps
VA Mobile Health Provider Program

- Distributed 10,000 mobile devices at 18 VA Medical Centers for use in clinical care
  - 85% iPad Minis
  - Phase 1: Commercial Apps
  - Phase 2: VA Developed Apps
VA Health Care Team-Facing Apps in Development

- Patient Viewer (Data Review, Note Entry, Order Entry)
- Immunization
- Warfarin Monitoring
- VA Mobile Imaging
- Caring for Women Vets
- Pre-Conception Care
- Pregnancy
- Nursing Suite of Apps

- Chronic Kidney Disease
- Safe Women Prescribing
- Maternity Care Coordinator
- Scheduling Calendar View
- Secure Messaging
- Joint VA-DOD Patient Viewer
- Launchpad
- Mobile ECG Viewer
- VA GDx Clinical Genetic Testing in Veterans
Oftentimes, a patient only meets with their health care provider once a year.
Annual visit to health care provider

However, managing your health is an everyday journey. Connected Health technologies help fill the gaps between patient visits.
Connect Health technologies offer more contact opportunities between patients and providers beyond routine doctor’s visits.
Thank you!

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