



# VA Connected Health: Patient Engagement

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**VA**  
HEALTH  
CARE | Defining  
**EXCELLENCE**  
in the 21st Century

# VHA's Current Priorities

- Access
- Veterans Experience

## Connected Health Care

Homelessness

Mental Health Care

Standardization





 **CONNECTED  
HEALTH**

# What is Connected Health?

- **VA Defines:** *Connected Health is defined as extending the reach of healthcare, empowering patients, and supporting healthcare teams through virtual systems of care*
- *Connected Health is powered by consumer health technologies that engage patients and connect them to their health care teams, enabling the extension of the health care relationship beyond the traditional in-person synchronous encounters that for so long have been the centerpiece of patient/provider interactions.*
- *Connected Health Office started 3 years ago to focus on integrating technologies across the enterprise to ensure a seamless user experience both for provider (healthcare team) and patient*
- *Listened to what Veterans told us they wanted –guiding the development of our services*



# Access is about meeting Veteran needs

## Transactions

- Fill my prescription
- Make / Request an appointment
- Pay VA bills online
- Submit travel claim online

## Information Sharing

- Share data with my clinical team that I am tracking from my biometric and home monitoring devices
- Control my healthcare data – I can store it, I can send it, I can receive it, I can combine it
- Personalize care based on what you already know about me

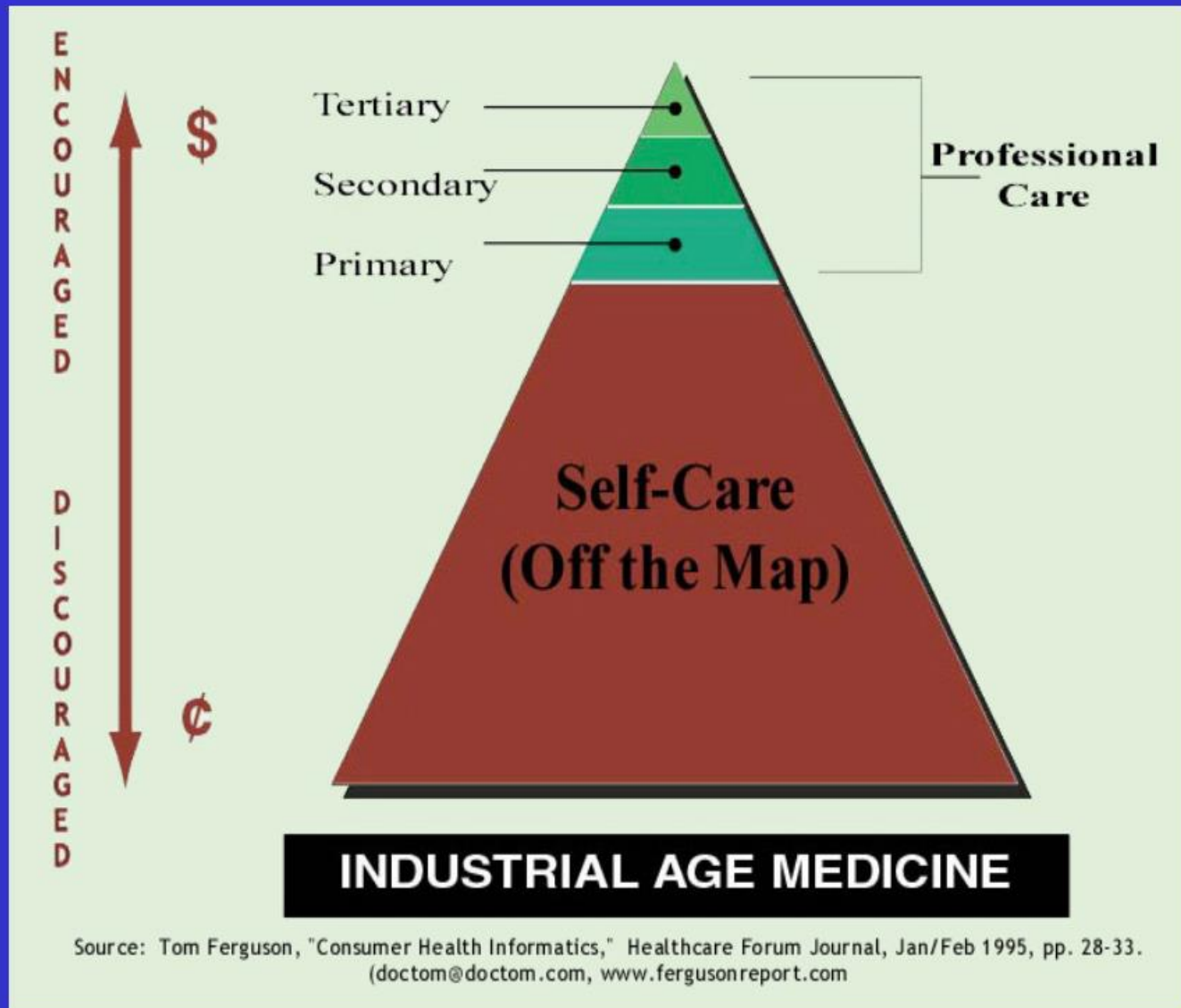
## Expert Care

- Asynchronous and synchronous remote visits with providers
- In-home/mobile monitoring, video visits, and care coordination
- Problem solving support tools to help me with self-management
- Telephone call centers that use common triage tools

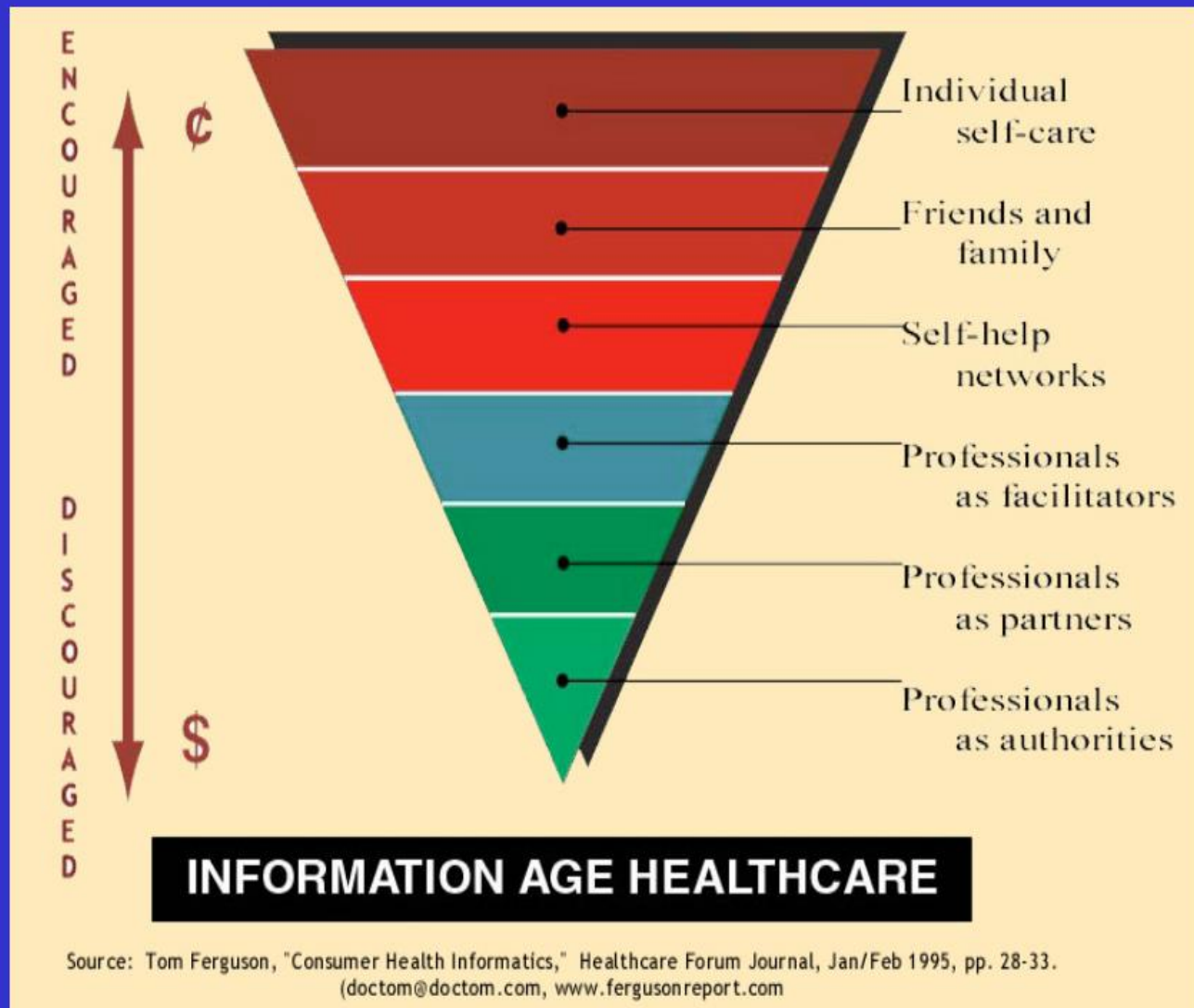
## Communications

- Secure messaging with my healthcare team
- Text messages to support self-management

# Traditional Healthcare Model



# Information Age Healthcare Model



# My HealtheVet

**A personal My HealtheVet account provides Veterans with 24/7 online access to a variety of tools to manage their health care.**

**[www.myhealth.va.gov](http://www.myhealth.va.gov)**



Communicate with  
Participating Patient  
Aligned Care Team  
Members



View Appointments  
and Health  
Information



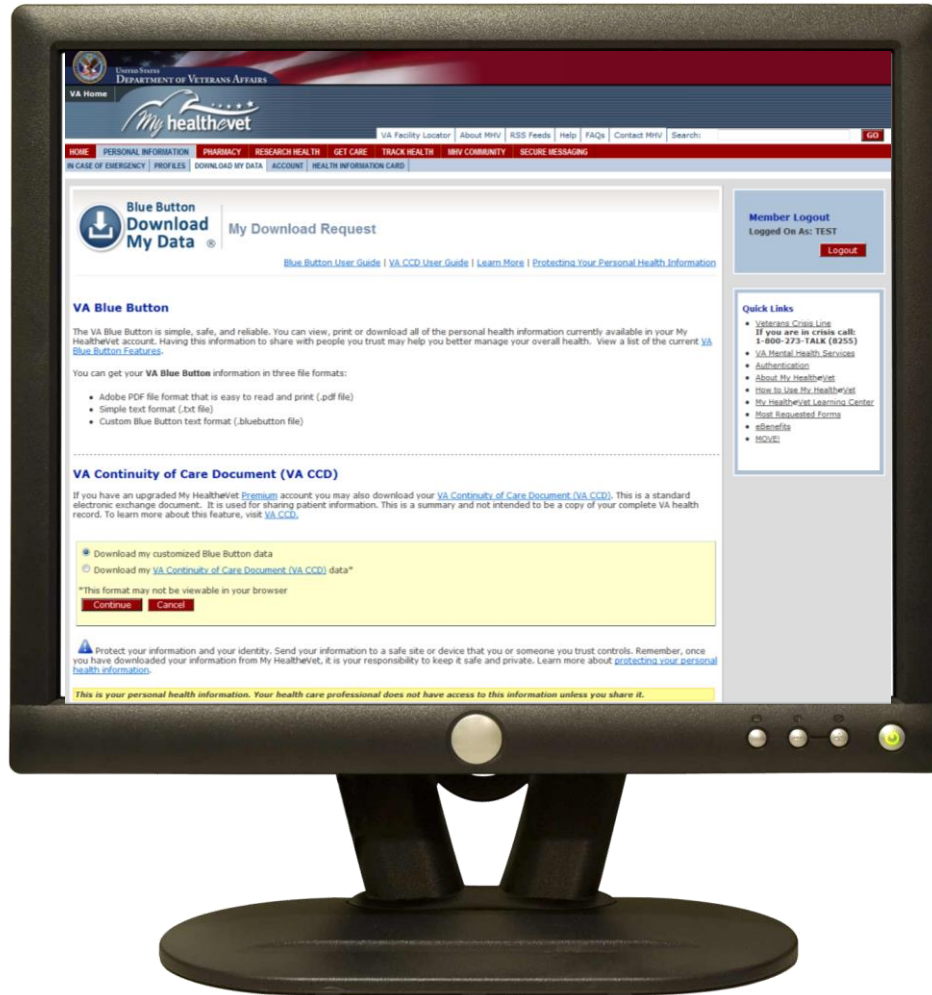
Refill Prescriptions



Download and Share  
Personal Health  
Record



# VA Blue Button



- Enhances Veteran access to personal health information from the VA Electronic Health Record and other key data sources
- Fosters patient engagement
- Encourages activation
- Supports patient-centered care
- Includes “Open Notes” as of January 2013

# VA Blue Button: Download Results



Blue Button  
Download  
My Data

## My Download Results



Your VA health record information update is complete.

The results of your Blue Button download request are shown below.

You can:

- **Download PDF file:** download your information in Adobe PDF format before saving the file. If needed, you can obtain a free copy of the PDF file.
- **Download Text file:** download your information in a simple text file.
- **Download Blue Button file:** download your information in a custom file format that can be used with other programs and services.
- **View/Print:** view your information in the browser window and print it.

## Personals Health Information of ONE MHVVETERAN

### DOWNLOAD YOUR DATA

File Contents	File Name	File Size
All Health Data	mhv_MHVVETERAN_20110721.pdf	233 KB
All Health Data	mhv_MHVVETERAN_20110721.txt	42 KB
All Health Data	mhv_MHVVETERAN_20110721.bluebutton	42 KB

mhv\_MHVVETERAN\_20110523[1].txt - Notepad  
File Edit Format View Help  
----- MY HEALTHEVET PERSONAL HEALTH INFORMATION -----  
\*\*\*\*\*CONFIDENTIAL\*\*\*\*\*  
Produced by  
05/23/2011

This summary is a copy of information from your VA Health Record. Your summary contains information that may also include a copy of some of the information in your VA Health Record as it becomes available in My Health Record. Your care team know if you have questions about your information.

Name: MHVVETERAN, ONE A

----- DOWNLOAD REQUEST -----  
System Request Date/Time: 05/23/2011 05:23:00  
User Request Type: Download all  
File Name: mhv\_MHVVETERAN\_20110523[1].txt

----- MY HEALTHEVET PERSONAL HEALTH INFORMATION -----  
Source: VA  
Authentication Status: Authenticated  
Authentication Date: 08/19/2010  
Authentication Facility ID: 979  
Authentication Facility Name: SLC10 TEXAS

VA Treating Facility  
-----  
AUSTIN HDR INT  
AUSTIN PSIM  
DAYT29

----- DEMOGRAPHICS -----  
Source: Self-Entered  
First Name: ONE  
Middle Initial: A  
Last Name: MHVVETERAN  
Suffix:  
Alias: MHVVET  
Relationship to VA: Patient, Veteran, Beneficiary  
Gender: Male Blood Type: AB+

MHVVETERAN, ONE A

CONFIDENTIAL

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## VA Medication History

Source:	VA
Last Updated:	11 Apr 2011 @ 1737
Sorted By:	Last Filled On (Descending)
VA Medication History includes up to two years of medication history unless you select a different date range in your download request.	

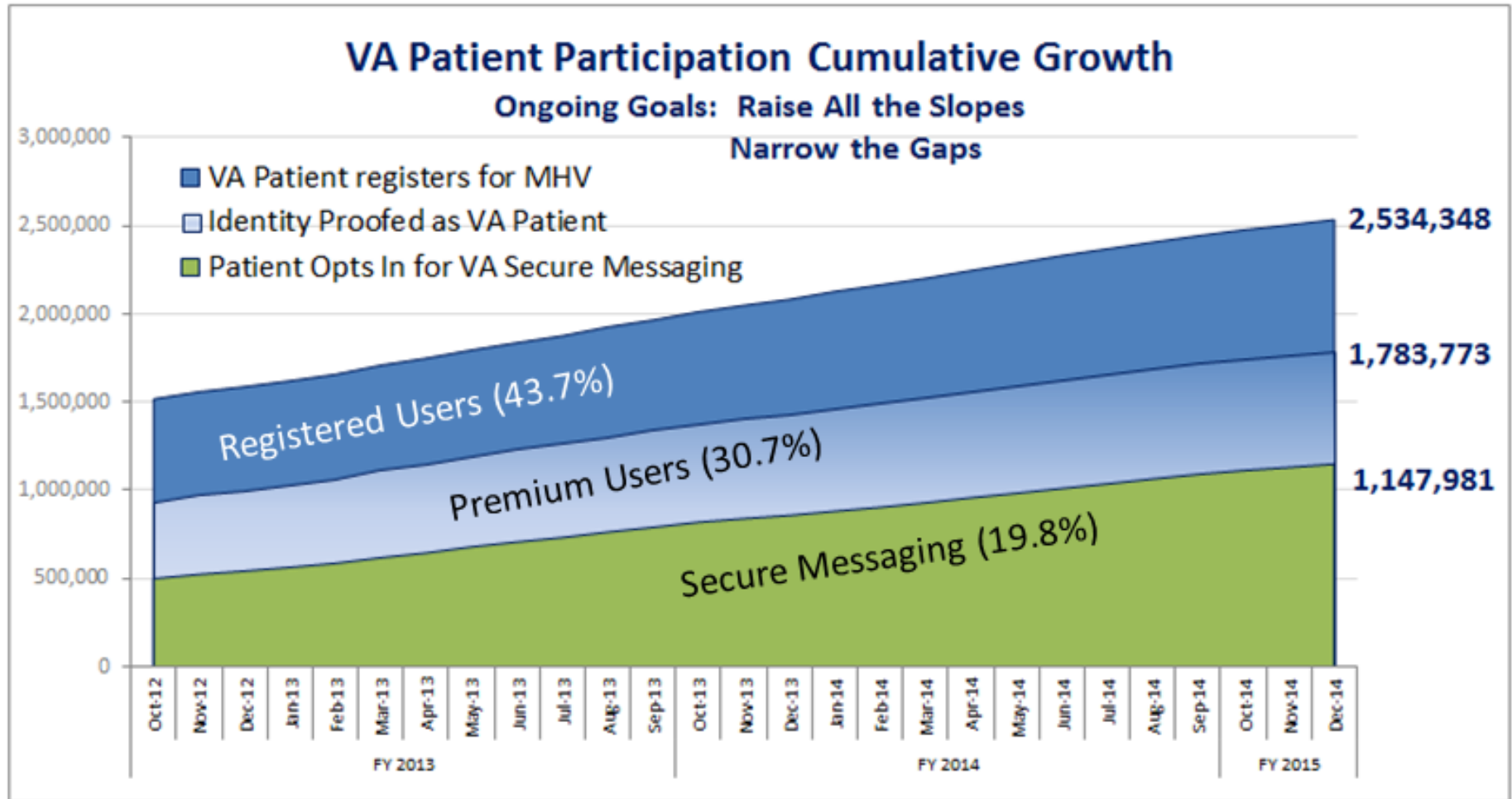
Medication:	AMLODIPINE BESYLATE 10MG TAB		
Instructions:	TAKE ONE TABLET BY MOUTH TAKE ONE-HALF TABLET FOR 1 DAY --AVOID GRAPEFRUIT JUICE--		
Status:	Active		
Refills Remaining:	3		
Last Filled On:	20 Aug 2010		
Initially Ordered On:	13 Aug 2010		
Quantity	Days Supply	Pharmacy	Prescription Number
45	90	DAYTON	2718953

Medication:	IBUPROFEN 600MG TAB		
Instructions:	TAKE ONE TABLET BY MOUTH FOUR TIMES A DAY WITH FOOD AS NEEDED		
Status:	Active		
Refills Remaining:	3		
Last Filled On:	20 Aug 2010		
Initially Ordered On:	01 Jul 2010		
Quantity	Days Supply	Pharmacy	Prescription Number
240	60	DAYTON	2718960

Medication:	INSULIN/GLARGINE HUMAN 100 UNT/ML INJ		
Instructions:	INJECT 10 ML VIAL UNDER THE SKIN AS DIRECTED FOR 28 DAYS INJECT 25 UNITS UNDER THE SKIN AT BEDTIME DO NOT MIX WITH OTHER INSULINS/DISCARD OPEN VIALS AFTER 28 DAYS		
Status:	Active		
Refills Remaining:	3		
Last Filled On:	20 Aug 2010		
Initially Ordered On:	01 Jul 2010		
Quantity	Days Supply	Pharmacy	Prescription Number
30	30	DAYTON	2718956

Medication:	TERAZOSIN HCL 2MG CAP
Instructions:	TAKE THREE CAPSULES BY MOUTH AT BEDTIME.
Status:	Active
Refills Remaining:	2
Last Filled On:	20 Aug 2010

# Growth in My HealthVet Adoption by VA Patients



# 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 HealtheVet
- Secure Messaging
- Mobile Apps

VETERANS HEALTH ADMINISTRATION





# Areas of Focus

- Redesign of My HealthVet: architecture, movement to cloud, navigation, responsive design, coordination with Kiosk, integration with Web & Mobile Apps
- Development of Web & Mobile Apps that are connected to enterprise data and Patient Generated Database (PGD).
  - Annie, VA's Text Messaging System for Disease Management
- Legacy Data from My HealthVet that is unstructured and initially set up as owned by Patient
- Kiosk (Veteran Point of Service) expand from Business Check in Services and coordinated with other products
- Need Uniform Experience – e.g., Banking/ Airlines

# VA Mobile Health



***VA Mobile***

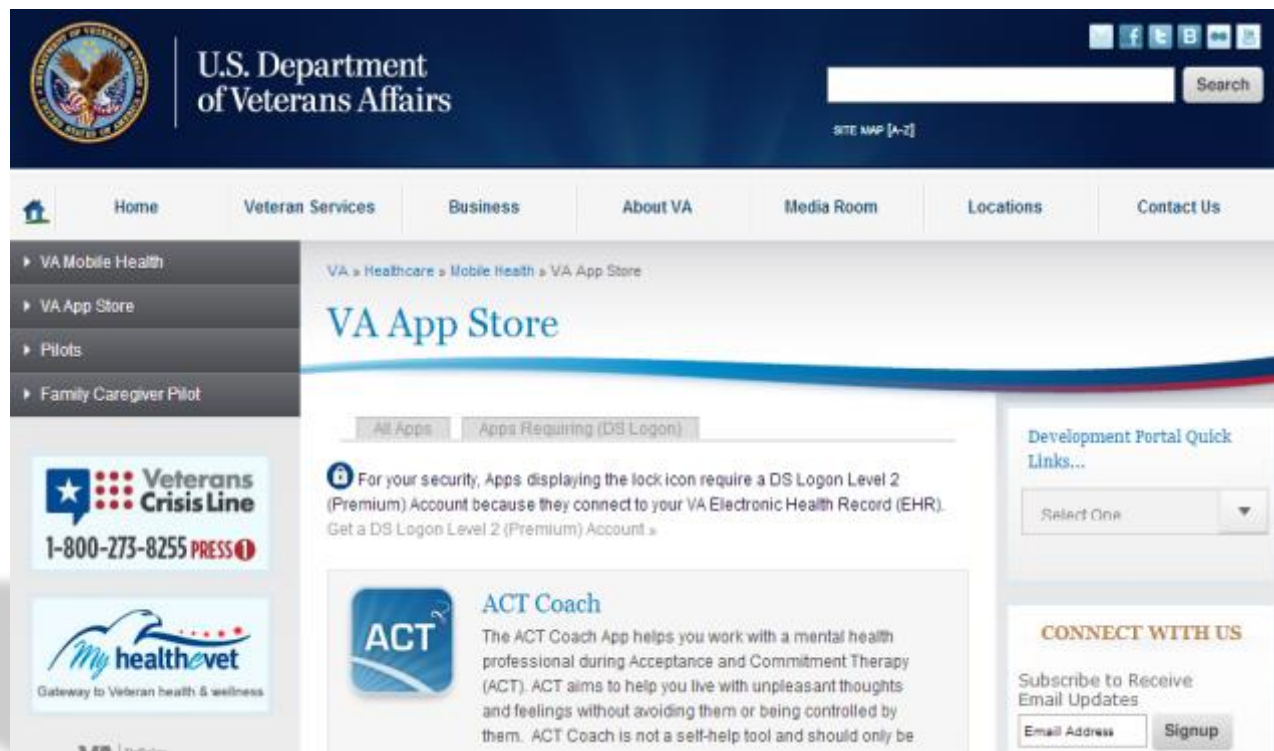
# Behavioral Opportunity

## Constructs

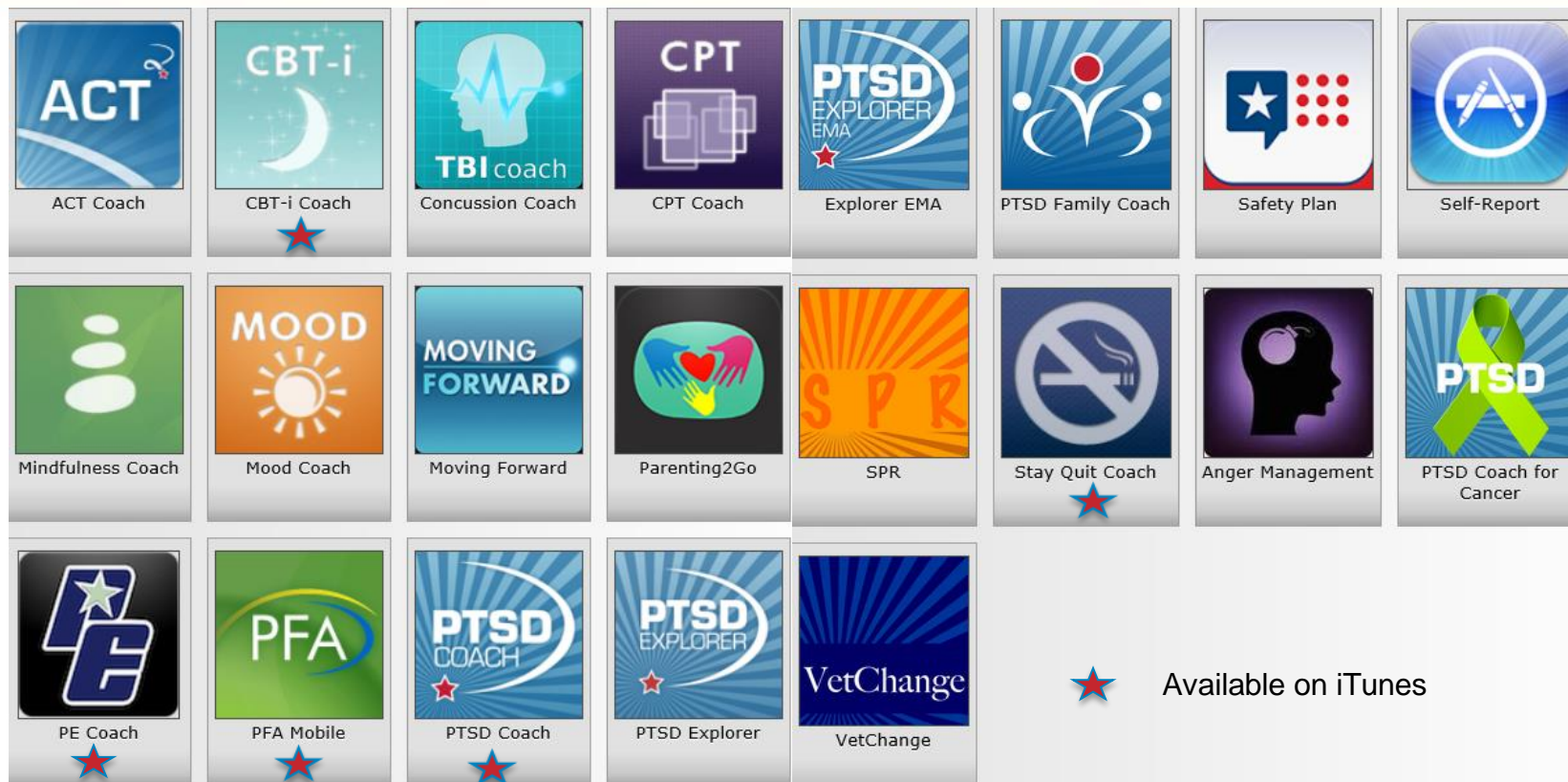
- Pervasive (always on)
- Cue to action (reminders, texts)
- Self-efficacy (exploration, goal setting)
- Social support (networks)
- Self monitoring (tracking)
- Feedback (algorithms)

# VA's App Store

- Accessing VA's App Store is easy. Visit: [mobile.va.gov/appstore](http://mobile.va.gov/appstore)
- CURRENT STATUS: Initial phased/targeted roll-out to assure adequate capacity.



# VA Mental Health Apps



Available on iTunes

Apps are native and do not connect to VA



# VA Mobile Text Messaging System



## ***VA Mobile*** **Text Messaging System**

# 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's Text Messaging System



## **Annie G. Fox**

*August 4, 1893 – January 20, 1987*

- First woman to receive Purple Heart
- Chief Nurse in Army Nurse Corps at Pearl Harbor

# 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

## 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



# Clinicians “Prescribe” Clinical Protocols

Welcome, Three ▾About

Patient Search

patient03, zztest

DOB: 10/05/1900  
Age: 113  
Mobile Phone: 1-571-555-0003

Gender: Male  
SSN: 999-99-9903

Patient Search

Templates

Protocols

Message History

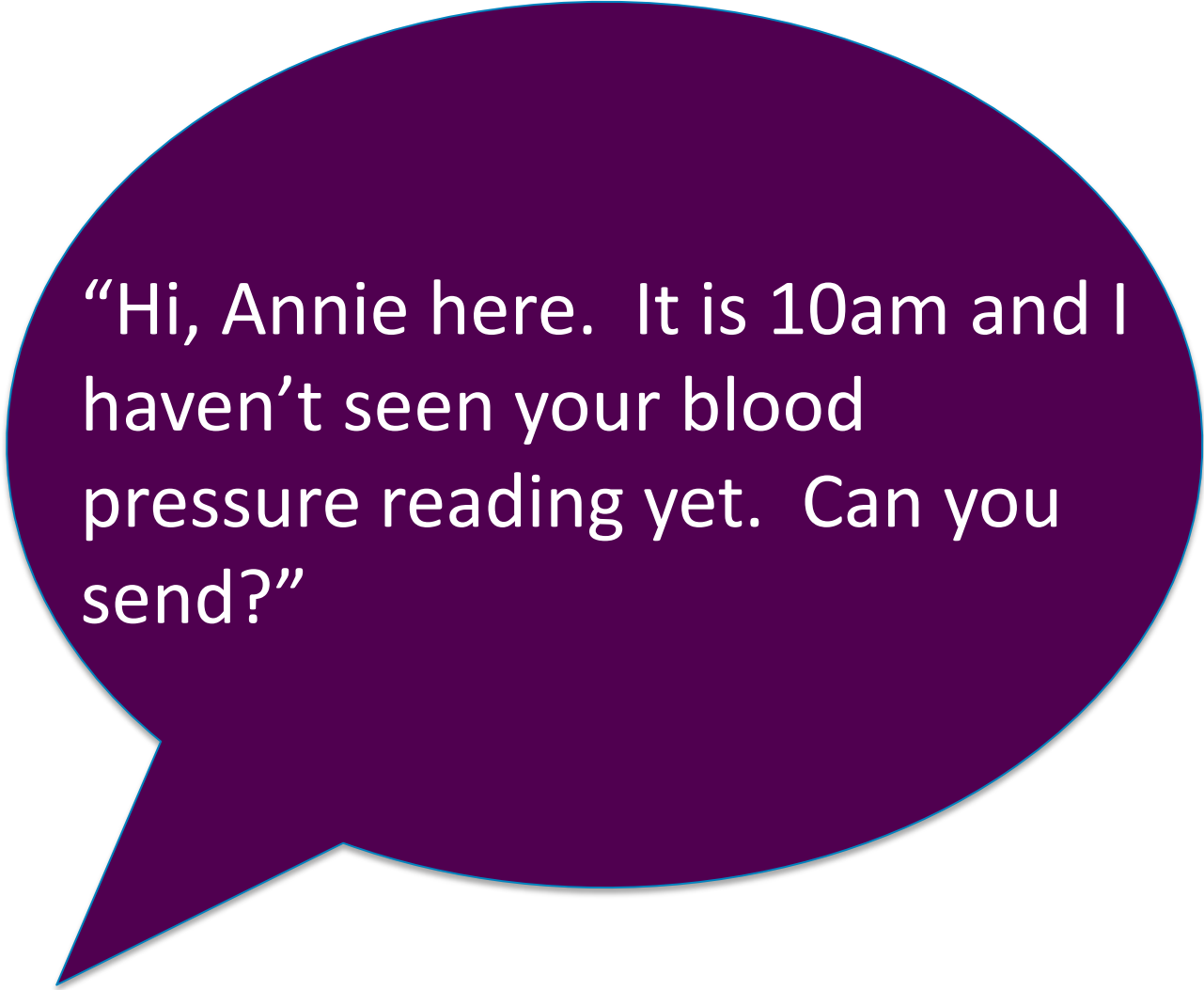
Reports

## Protocols

Active Protocol(s)

Protocol:	Blood Pressure Protocol1
Assigned On:	01/20/2014
Last Edited On:	01/27/2014
Edited By:	One Vehu
Last Comment:	Enable protocol
Status:	<input checked="" type="radio"/> Enable <input type="radio"/> Disable





“Hi, Annie here. It is 10am and I haven’t seen your blood pressure reading yet. Can you send?”

# What We Have Learned

- Barriers to Use
  - Low computer literacy
  - Access problems with credentials
- Facilitators to Use
  - Availability of support
  - Easy to use interface
  - Knowledge that Healthcare Team is involved
  - Trusted Invitation to Participate

# Critical Factors for Success

- Senior leadership commitment to “care at a distance”
- Intelligent design and implementation
  - User-centered development and design
  - Ease of use!!!
  - Integration with core IT systems and data
  - Accounts for provider and patient workflows
  - Informed by pilots, with rapid-cycle corrections
  - Adequately resourced implementation
- Effective Communication to patients about the value of these technologies
  - Extension of the relationship
  - Personal invitation to participate
- Accessible user support and low barrier to entry

# Success Relies On

- Virtual Access **MUST**:
  - Be fully integrated into the next generation of VA's electronic health record;
  - Focus on empowering the Veteran with the tools, data, and access they need to self-manage their health and wellness;
  - Take advantage of present and future communication technologies;
  - Be sustainable from a cost perspective; and
  - Include connections with other providers and health systems.
  - Focus on the Veteran experience of care, independent of device.

# Contact Information

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