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of Veterans Affairs

# Virtual Care and PGHD for Heart Health

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Office of Connected Care

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Health Implementation Strategies, Office of Connected Care



# What We'll Cover Today

- Heart Conditions in the Veteran Population
- Overview of Patient-Generated Health Data
- Evidence Base for Using Virtual Care and PGHD for Heart Health
- Current Virtual Care Resources for Heart Health
  - Coming Soon: Share My Health Data app
  - Case Scenarios
- Additional Resources



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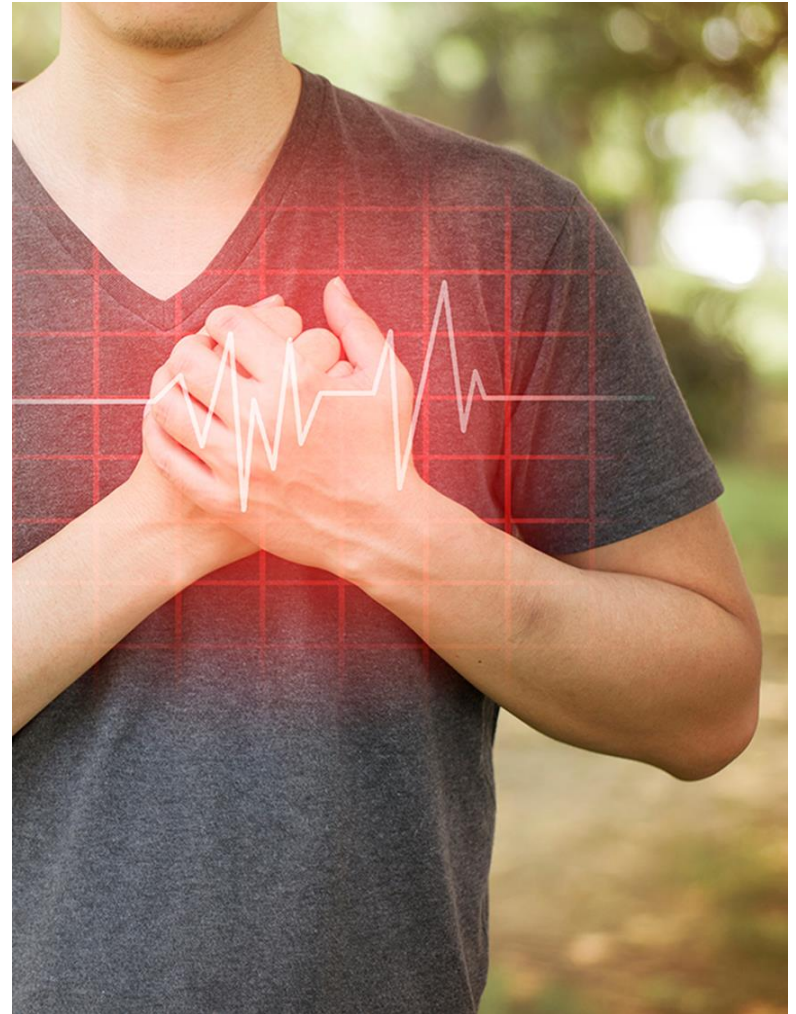
# Heart Conditions in the Veteran Population



# Cardiovascular Disease

Cardiovascular disease refers to conditions that affect the heart or blood vessels.

It describes conditions ranging from peripheral artery disease and hypertension to heart attacks and strokes.





# Cardiovascular Disease cont.

- Coronary artery disease
- Arrhythmias such as atrial fibrillation
- Heart valve disease
- Congenital heart disease
- Cardiomyopathy
- Heart failure
- Heart infections such as endocarditis, myocarditis, and pericarditis





# Cardiovascular Disease and COVID-19

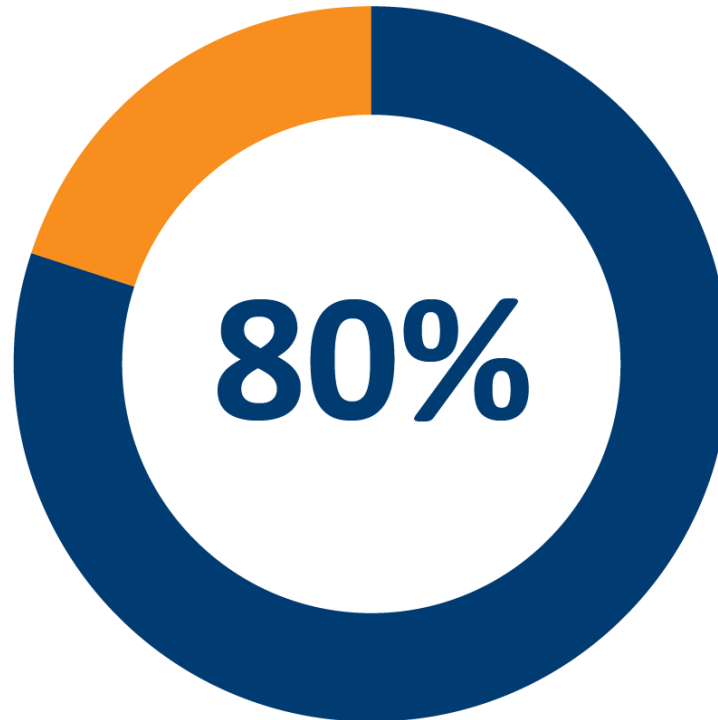
- COVID-19 is a multiple organ disease.
- Less is known about long-term effects.
- The cardiovascular system is significantly affected by COVID-19.
- Post-acute coronavirus infection will continue to be concerning for heart disease patients.

References: *Cardiovascular Research*, 2021





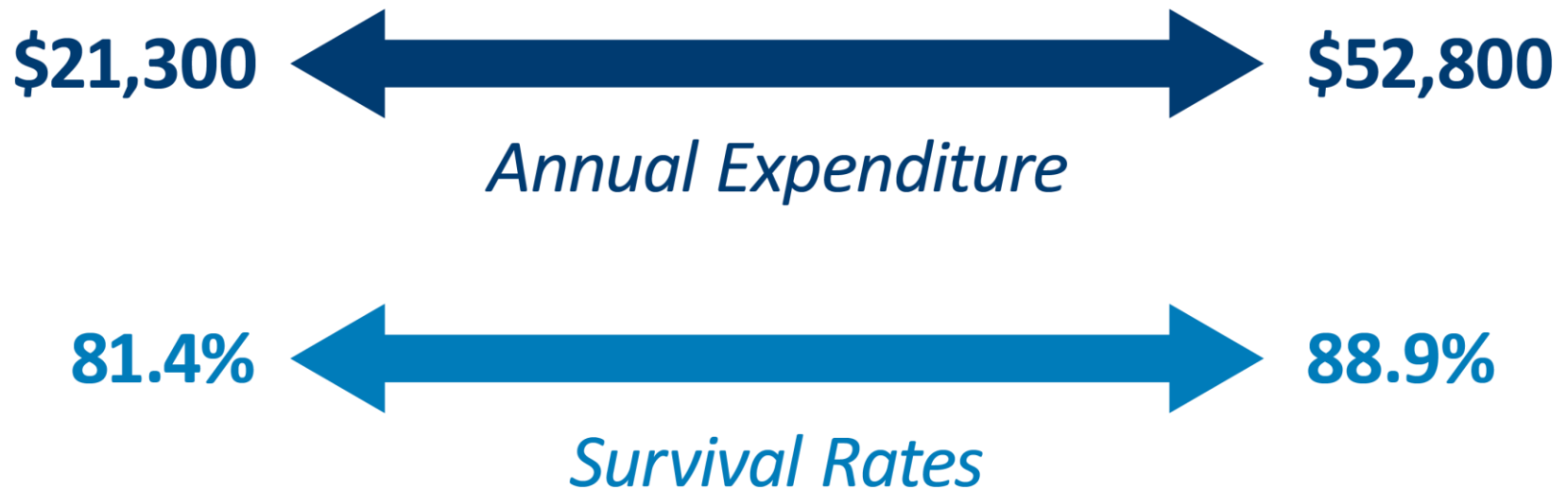
# Prevalence of Risk Factors for Heart Disease



VA patients with 2+ risk  
factors for heart disease



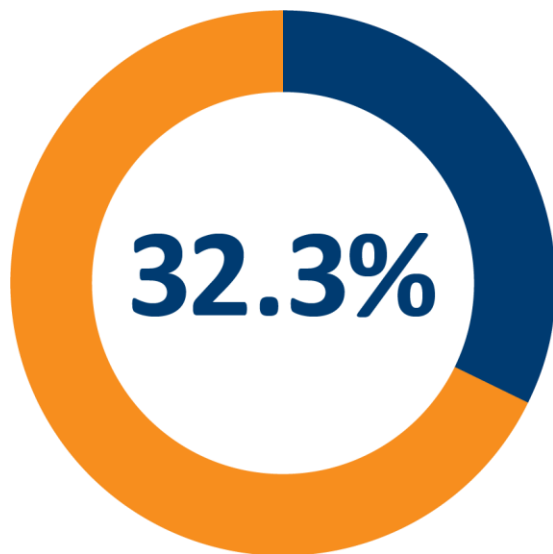
# Prevalence of Heart Disease Among Veterans Receiving Care at VA



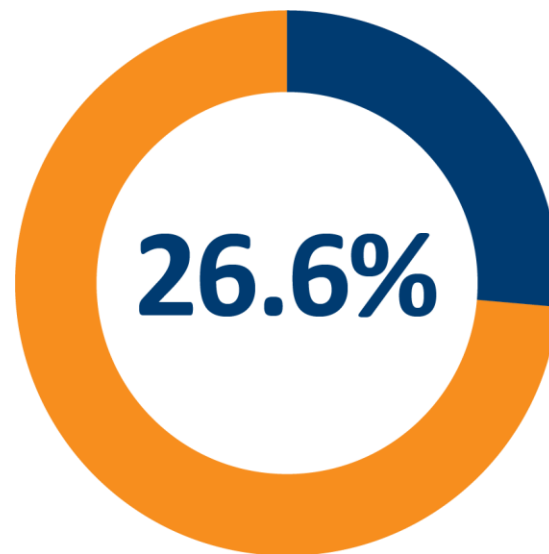
References: Groeneveld et. al, 2015



# Prevalence of Heart Disease Among Veterans Receiving Care at VA



Male Veterans

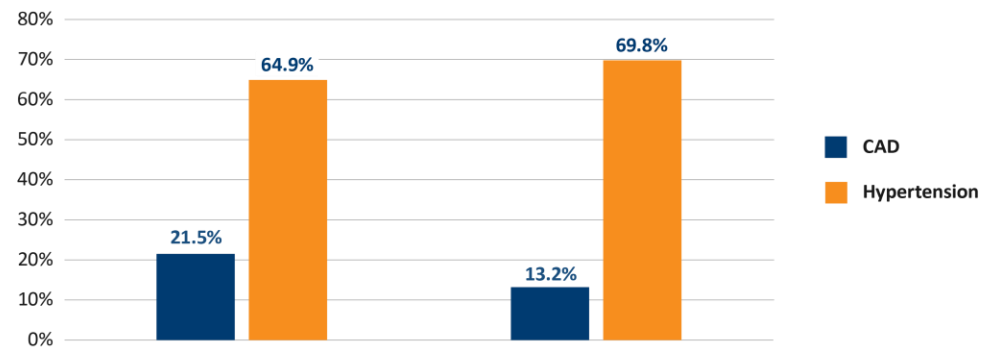


Male non-Veterans



# Prevalence of Heart Disease Among Veterans Receiving Care at VA

- Hypertension
- High cholesterol
- Coronary artery disease



References: Steinman et al., 2012



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# Overview of Patient Generated Health Data (PGHD)



# Definition of PGHD

**Patient generated health data (PGHD)** is health-related data created, recorded, or gathered by patients, their family members, or caregivers outside of the traditional clinical health care setting to promote health and wellness or to help address a health concern.

- Patients capture their data through clinical apps, wearable devices, devices such as glucometers, and/or smart scales.
- PGHD is usually distinct from the data generated in clinical settings and through encounters with clinicians.
- Patients decide whether or not to share the data with their providers.



# Importance of Collecting PGHD

- Improve your understanding of the Veteran's white space.
- Identify meaningful trends.
- Empower the Veteran to engage as an active partner in their care
- Support shared clinical decision-making and delivery of care



For more information on PGHD, read the [VHA Directive 6506](#)



# Recommended PGHD Courses

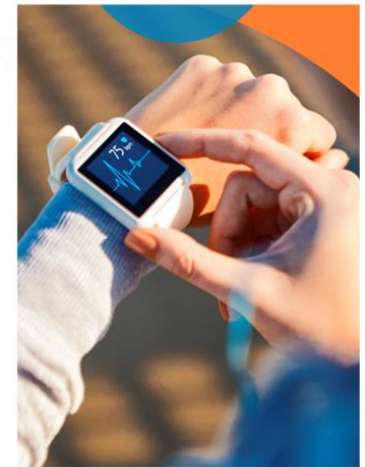
## Introduction to Patient-Generated Health Data

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THE U.S. DEPARTMENT OF VETERANS  
AFFAIRS' OFFICE OF CONNECTED CARE



## Clinical Use of Patient-Generated Health Data in Virtual Care Manager

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# Evidence Base for Using Virtual Care & PGHD for Heart Health



# Veteran Use of VA Virtual Care Technologies

## Veterans Receiving VA Telehealth Care



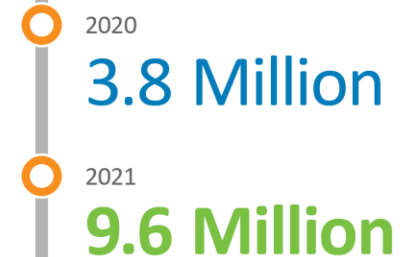
**44% increase**

## Episodes of Care Across All Telehealth Care Modalities



**100% increase**

## Video Visits With Veterans

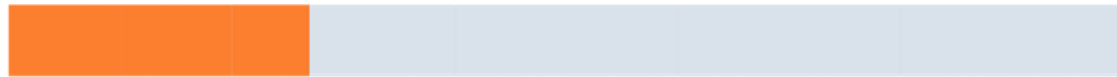


**3,147% increase**



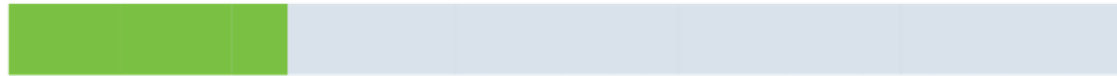
# Expanding Access

Lower cardiac  
death rates



**27%**

Fewer fatal  
heart attacks



**25%**

Fewer nonfatal  
heart attacks



**21%**

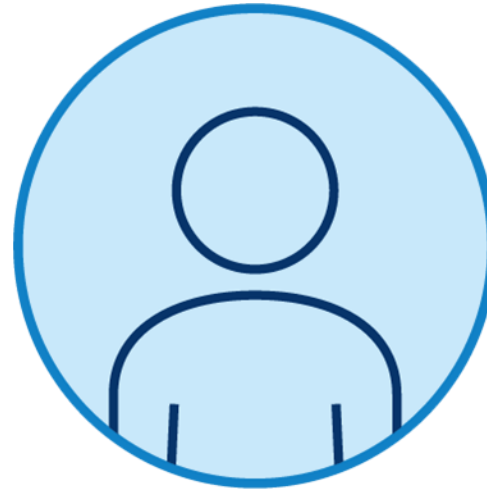
References: Drwal et. al, 2020; Wakefield et. al, 2016



# Home-Based Cardiac Rehab (HBCR) Effectiveness



**35 sites**



**6,000 patients**

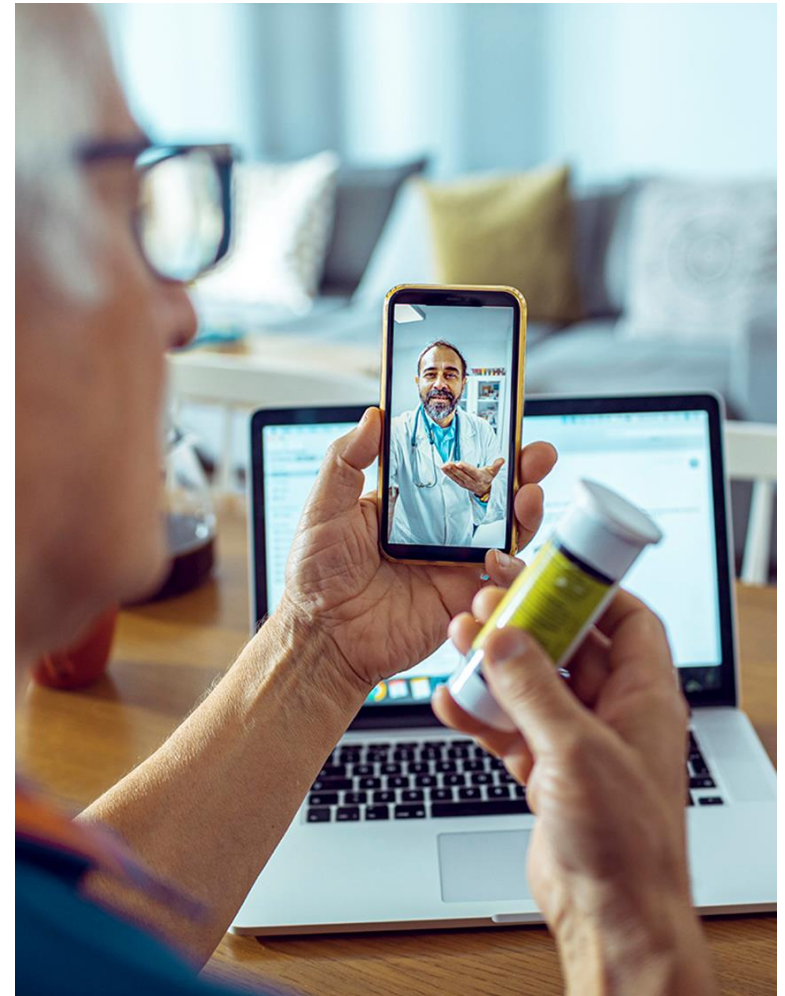
References: Drwal et al., 2020; Drwal et al., 2021



# HBCR Effectiveness

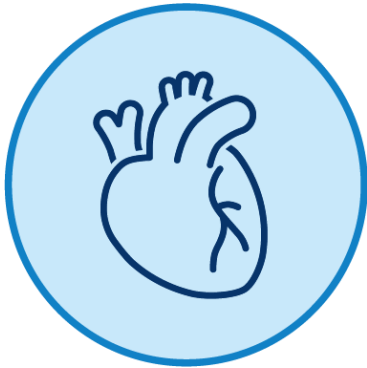
- Adherence to therapy appears to be better in HBCR.
- No statistically significant mortality differences between institutional CR and HBCR.
- Highlights the need for VA to connect with Veterans wherever they live.

References: Thomas et al., 2019





# Remote Monitoring for Preventative Care



**Harmful health events can be missed frequently.**

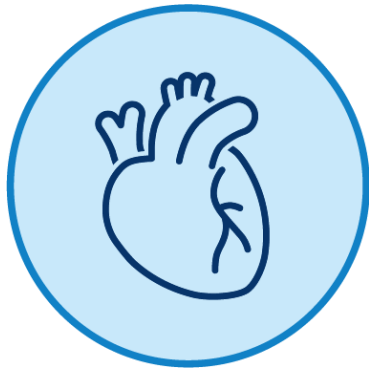
**Remote patient monitoring could help resolve timeliness issues.**

**Remote monitoring increases the quality of care in cardiovascular patients.**

**References: Heidenreich et. al, 2013; Viderman et al., 2022**



# Remote Monitoring in Heart Failure Patients' Care Regimen



**83% are hospitalized at least once, and 43% are hospitalized at least four times.**

**75% of the 30-day readmissions may be preventable.**

**79.1% of participants used the activity tracker, and 60.0% of the subjects wore the device for at least 70% of the study's duration.**

**References: Sohn et al., 2020**



# Other Areas of Current Research



Los  
Angeles  
VA  
cardiology  
program



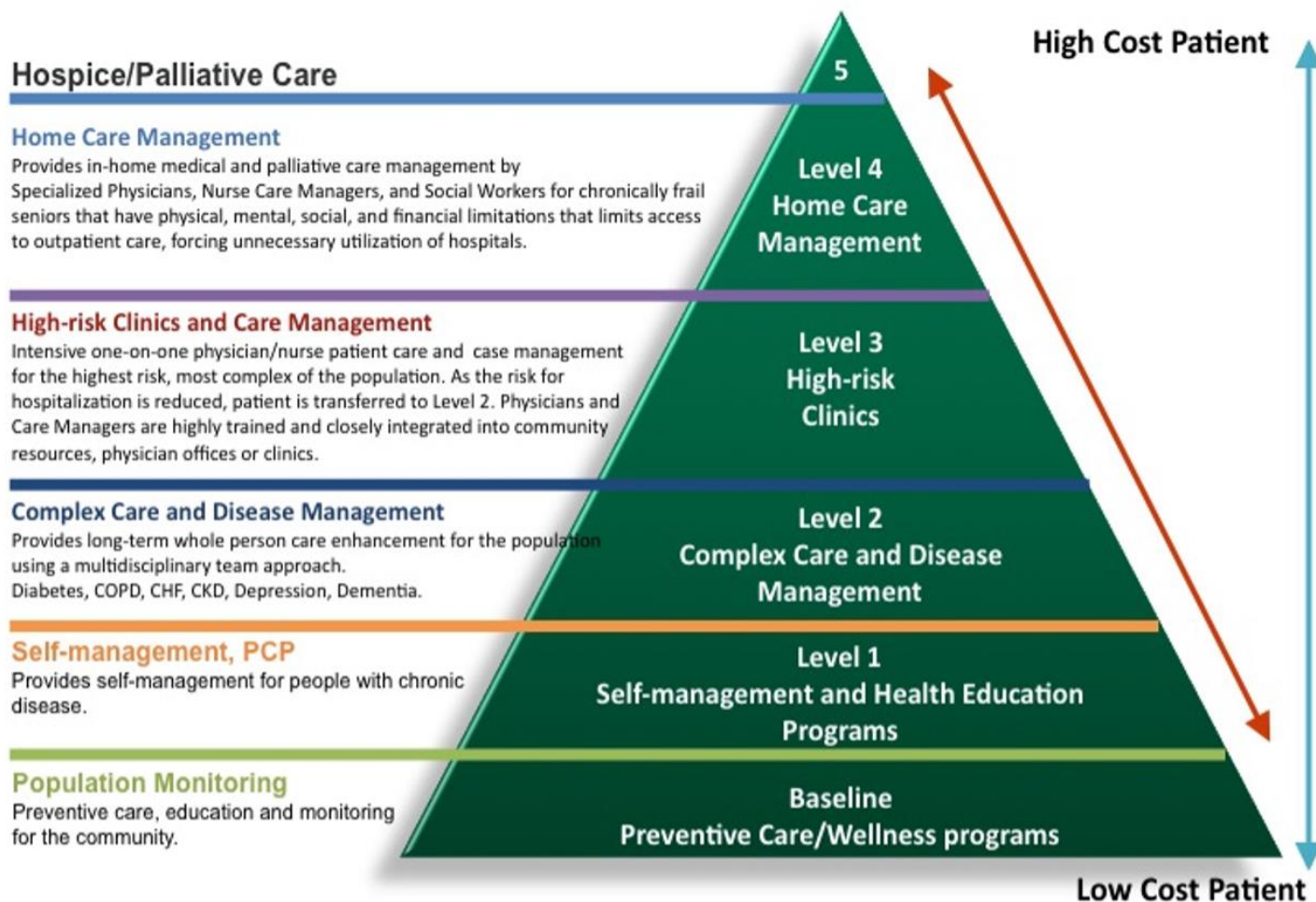
Mobile Health  
Strategies for  
Veterans With  
Coronary  
Heart Disease



Video Blood  
Pressure  
Visits  
program



# Preventative Interventions





# Tools for Cardiac Monitoring





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# Virtual Care Resources for Heart Health



# My HealthVet



Refill and manage prescriptions.

Send and receive secure messages with their care teams.

Schedule and manage appointments.

Download their health records.



Welcome, Madam President (Premium P)

U.S. Air Force, U.S. Army, All of them

Account last accessed: 19 Jan 2022 @ 14 07 ET

Track Health ▴

Track Health

Vitals

Shared Vitals

Labs + Tests

Health History

Journals

My Goals

HealthLiving Assessment

## Pharmacy

[Refill VA Prescriptions](#)

[Track Delivery](#)

[Medications Lists](#)

## Appointments

[View My VA Appointments](#)

[Schedule a VA Appointment](#)

[VA Facility Locator](#)

## Messages

[Message](#)

[Chat](#)

## Health Records

[Blue Button Medication](#)

[Labs and Tests](#)

[Electronic Sharing](#)

## Resources

[Benefits](#)

[Veterans Health Library](#)

[Community](#)

[Mental Health](#)

[Healthy Living](#)

[Learn Your Health Age](#)

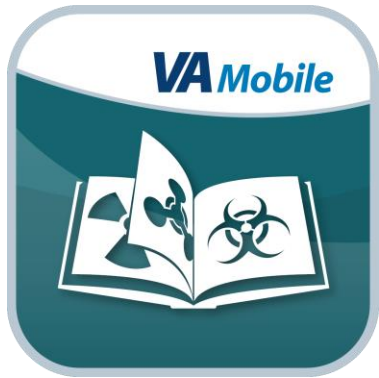


# VA Self-Contained Apps





# VA Self-Contained Apps cont.



VA Exposure Ed



MOVE! Coach



Live Whole Health



Mindfulness Coach



# VA Connected Apps



**Airborne Hazards and  
Open Burn Pit Registry**



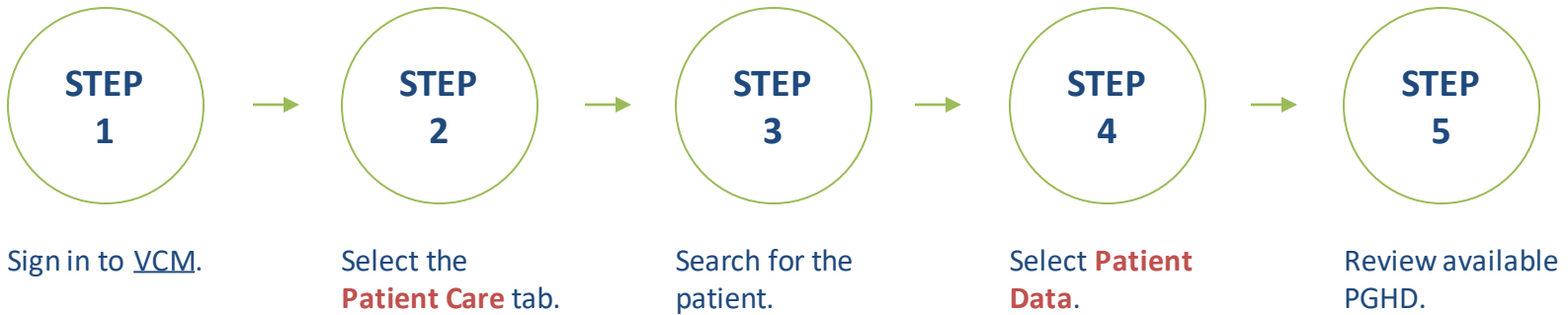
**Virtual Care Manager**



**Coming Soon! Share  
My Health Data**

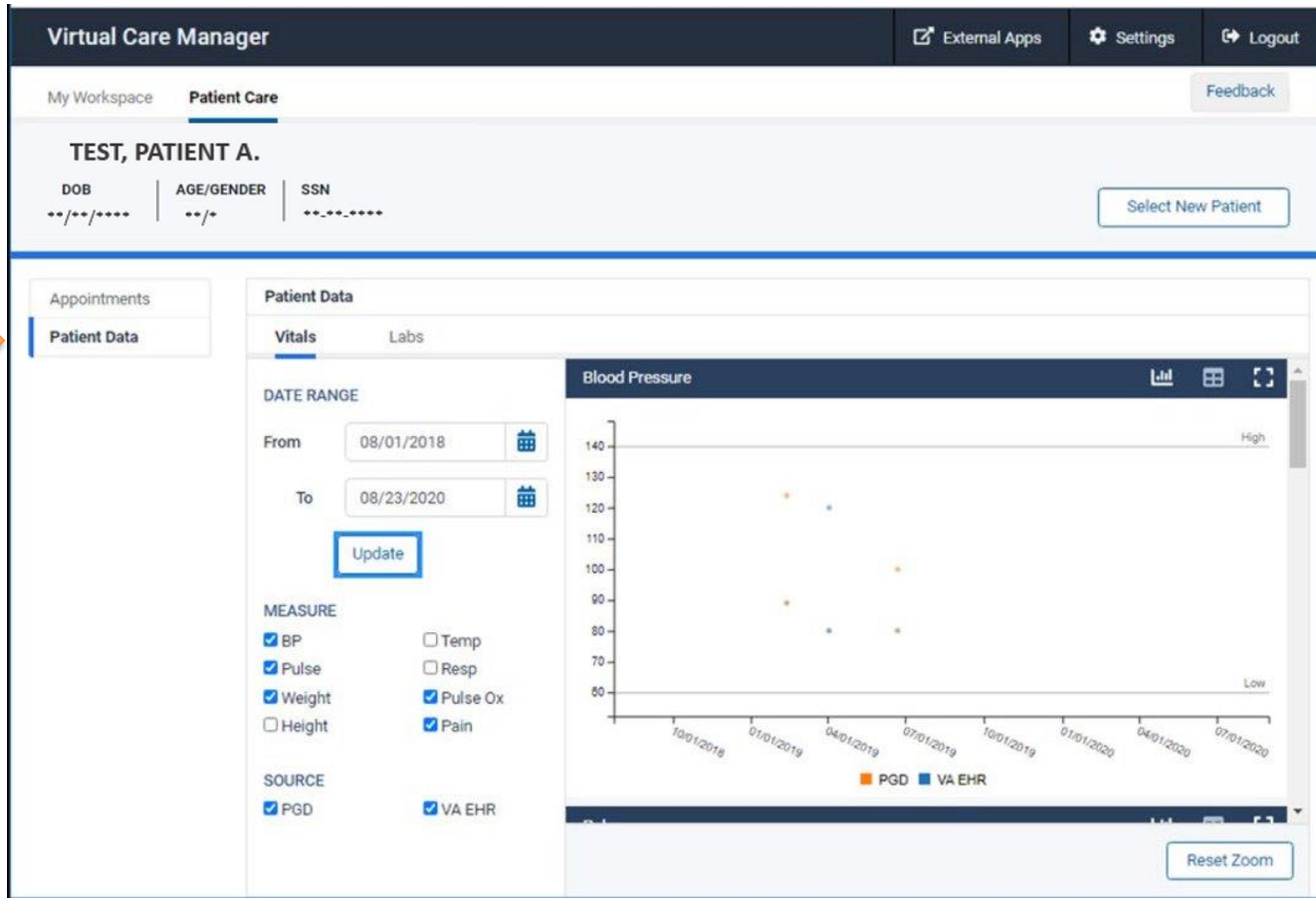


# Accessing PGHD in VCM





# Virtual Care Manager





# Virtual Care Manager

**Virtual Care Manager** External Apps Settings Logout

My Workspace **Patient Care** Feedback

**TEST, PATIENT A.** Select New Patient

DOB: \*\*/\*\*/\*\*\*\* AGE/GENDER: \*\*/ Gender SSN: \*\*-\*\*-\*\*\*\*

Appointments  
Patient Data  
**Condition Graphs**

**Condition Graphs** Show Filter

- Weight and BMI**  
Weight and BMI >
- Daily Calorie Balance**  
Daily Calories Consumed v. Calories Burned >
- Activity**  
Total Daily Steps and Daily Miles >
- Activity Time by Intensity**  
Time spent in Lightly Active, Fairly Active, Very Active >  
Workout Zones
- Sleep Metrics**  
Daily Hours of Sleep, Daily Sleep Efficiency >
- Daily Heart Rate**  
Average Daily Heart Rate, Minimum Heart Rate, and >  
Maximum Heart Rate per Day





# VA Connected Apps cont.

Blood Pressures and Heart Rate Tracking

KEYWORD 'SUB HTNP'

Blood Pressure Tracking

KEYWORD 'SUB HTN'

Support to Increase Activity

KEYWORD 'SUB BODY'

## Annie App for Veterans





# VA Connected Apps cont.

## VA Screening and Assessment Platforms



Behavioral Health Laboratory (BHL) and BHL Touch

Mental Health Checkup (MHC)

eScreening

Mental Health Assistant (MHA)



# Telehealth Tools



VA Video Connect



VVC Now



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# Case Scenarios



# Scenario 1: Current State



Shared Vital Signs

Shared Precision (Shared)

Shared Temperature (Shared)

Shared Weight (Shared)

Shared Blood Pressure (Shared)

Shared Heart Rate (Shared)

Shared Respiratory Rate (Shared)

### View Shared Body Weight Information

(Personal Health Journal of TEST WIGHT INFORMATION)

Info

These vitals are shared with you. If you want to control what is shared with you, go to [Settings](#).

You can sharing Body Weight information that you've recorded in share with your VA health care team. Your Body Weight information will be recorded in a shared record for your VA health care team. If you would like to not be sharing, visit the [Full Screen](#) button.

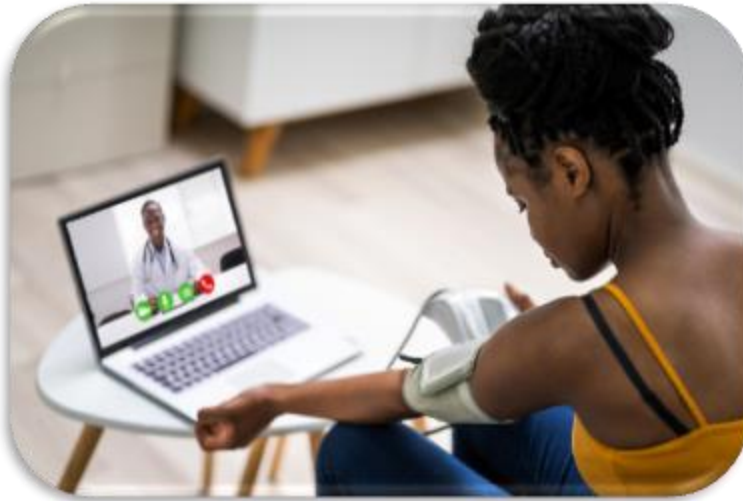
Add Note

Date	Time	Body Weight	Measure
01/01/2024	10:00	200	Pounds
01/01/2024	10:00	210	pounds
01/01/2024	10:00	205.0	lbs
01/01/2024	10:00	215	pounds
01/01/2024	10:00	215	pounds
01/01/2024	10:00	210	pounds

VETERANS HEALTH ADMINISTRATION



## Scenario 2: Future State





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# Additional Resources

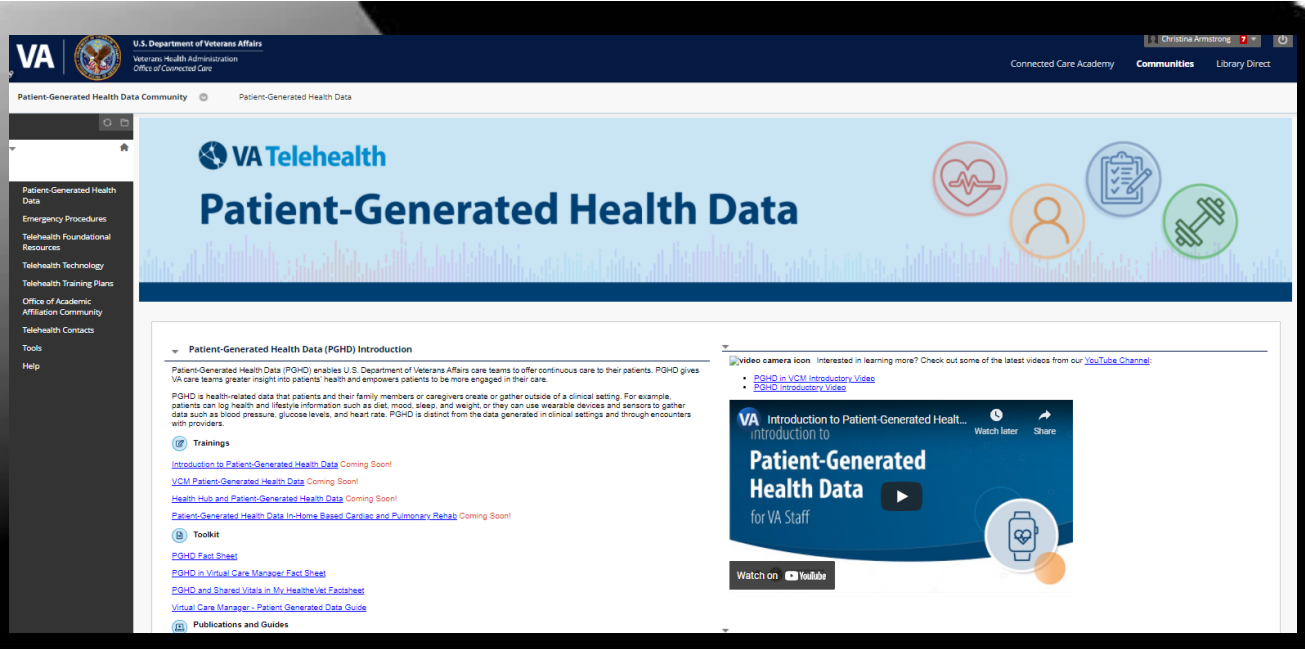


# Virtual Care and PGHD for Heart Health Training

**Coming Soon!** A durable training titled “Virtual Care and PGHD for Heart Health” will be published to Blackboard and TMS in the coming months.



# PGHD 'One-Stop Shop' for Staff Training



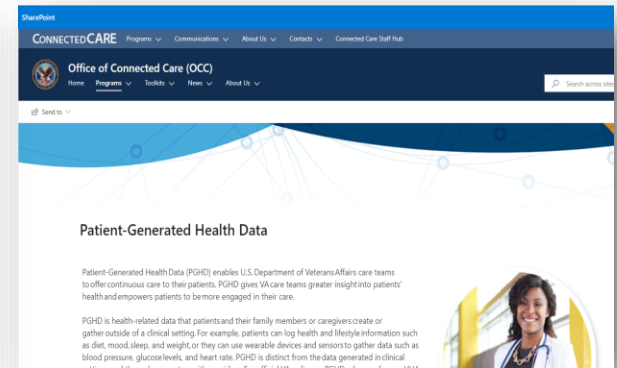
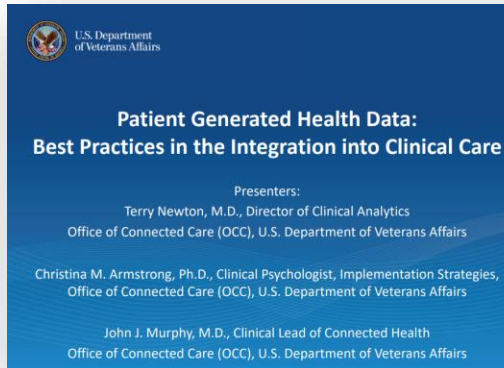
PGHD Community QR Code:



Or go to:  
**vaots.blackboard.com**, click  
on 'Communities', and join  
the "Patient-Generated Health  
Data" Community



# PGHD Resources



## PGHD Intro Video

## Connected Care Discussion Series webinar on PGHD

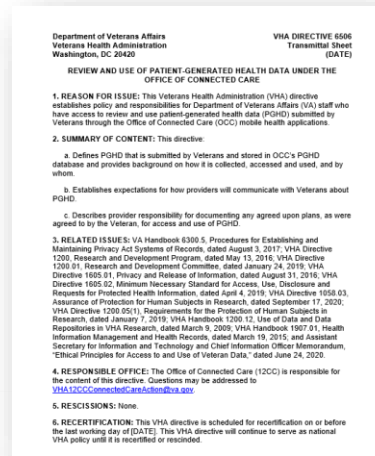
## PGHD SharePoint



## PGHD Fact Sheet



## Virtual Care Manager PGHD Fact Sheet



## VA Policy on PGHD



## Clinical Competencies on Sensors & Wearables



# VA Virtual Care Resources

## **VA App Store:**

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

## **VA Whole Health:**

<https://www.va.gov/wholehealth/>

## **Mobile Health 'Tech Into Care'**

### **SharePoint site:**

[tinyurl.com/tech-into-care](http://tinyurl.com/tech-into-care)

## **Annie SharePoint:**

[dvagov.sharepoint.com/sites/VHACCSTAFFvamobile/ANNIE/SitePages/Home.aspx](http://dvagov.sharepoint.com/sites/VHACCSTAFFvamobile/ANNIE/SitePages/Home.aspx)

## **Office of Connected Care Outreach**

### **Toolkit:**

[connectedcare.va.gov/about/outreach-toolkit](http://connectedcare.va.gov/about/outreach-toolkit)

## **Connected Care Academy:**

<https://vaots.blackboard.com>

## **Connected Care Discussion Series:**

[mobile.va.gov/discussion-series](http://mobile.va.gov/discussion-series)



# Heart Health Resources

- [Telecardiology Communications Plan](#)
- [Telecardiology Outreach Toolkit](#)
- [VA Video Connect and TeleCardiology Strong Practices](#)
- [Video Blood Pressure Visits Program](#)
- [Cardiology Community in Connected Care Academy](#)



# VA Help Desks

## **Office of Connected Care Help Desk (OCCHD)**

Portal: <https://occhdsupport.ironbow.com>

Phone: 866-651-3190

Hours: 24 hours a day, 7 days a week

## **My HealtheVet Help Desk**

Phone: 877-327-0022

Hours: Monday through Friday, 8:00 a.m. to 8:00 p.m. ET

## **VA Mobile Solutions Help Desk**

Phone: 877-470-5947

Hours: Monday through Saturday, 7 a.m. –7 p.m. CT

For TTY assistance, dial 711



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# Questions?



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