# Moving Beyond Facility Walls: A Community Planning Approach to Broad Scale Information Exchange from the Department of Veterans Affairs Perspective

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## Presentation Overview

- Understanding Social Determinants of Health
- Social Determinants of Health and Implications for Health Information Technology (HIT)
- Overview of Department of Veterans Affairs
- How it All Comes Together: Advancing the Elimination of Health Disparities in Veterans Through Informatics
  - Through the use of Big Data and Advanced Analytics
  - Through Research
  - Through Health Information Technology



## Understanding Social Determinants of Health



## Social Determinants of Health

According to *Healthy People 2020* Social determinants of health are the following:

- Conditions in the environments in which people are born, live, learn, work, play, worship, and age that affect a wide range of health, functioning, and quality-of-life outcomes and risks. Resources that enhance quality of life can have a significant influence on population health outcomes.
- Conditions (e.g., social, economic, and physical) in these various environments and settings (e.g., school, church, workplace, and neighborhood) have been referred to as "place." In addition to the more material attributes of "place," the patterns of social engagement and sense of security and well-being are also affected by where people live.
- Understanding the relationship between how population groups experience "place" and the impact of "place" on health is fundamental to the social determinants of health—including both **social** and **physical** determinants.

**Source: Centers of Disease Control and Prevention**

## Social Determinants of Health

Examples of ***social determinants*** include:

- Availability of resources to meet daily needs (e.g., safe housing and local food markets)
- Access to educational, economic, and job opportunities
- Access to health care services
- Quality of education and job training
- Availability of community-based resources in support of community living and opportunities for recreational and leisure-time activities
- Transportation options
- Public safety
- Social support
- Social norms and attitudes (e.g., discrimination, racism, and distrust of government)
- Exposure to crime, violence, and social disorder (e.g., presence of trash and lack of cooperation in a community)
- Socioeconomic conditions (e.g., concentrated poverty and the stressful conditions that accompany it)
- Residential segregation
- Language/Literacy
- Access to mass media and emerging technologies (e.g., cell phones, the Internet, and social media)
- Culture

**Source: Centers of Disease Control and Prevention**



## Social Determinants of Health

Examples of ***physical determinants*** include:

- Natural environment, such as green space (e.g., trees and grass) or weather (e.g., climate change)
- Built environment, such as buildings, sidewalks, bike lanes, and roads
- Worksites, schools, and recreational settings
- Housing and community design
- Exposure to toxic substances and other physical hazards
- Physical barriers, especially for people with disabilities
- Aesthetic elements (e.g., good lighting, trees, and benches)

By working to establish relationships that positively influence social and economic conditions and those that support changes in individual behavior, health can be improved for large numbers of people in ways that can be sustained over time. Improving the conditions in the way people live, learn, work, and play and the quality of our relationships will create a healthier population, society, and workforce.

**Source: Centers for Disease Control and Prevention**



## Social Determinants of Health

**Healthy People 2020 Approach to Social Determinants of Health**


**Source: The Centers for Disease Control and Prevention**



## Social Determinants of Health and HIT

The Office of the National Coordinator for Health Information Technology *Interoperability Roadmap* states "This shift requires a high degree of information sharing between individuals, providers and organizations and therefore a high degree of interoperability between many different types of health IT, such that systems can exchange and use electronic health information without special collaboration and action across government, communities and the private sector. As such, the Roadmap will enable stakeholders to make key commitments and take actions that align with other stakeholder actions, in order for the nation to collectively move towards a learning health system".

- Health Information Technology (health IT) that facilitates the secure, efficient and effective sharing and use of electronic health information when and where it is needed is an important contributor to improving health outcomes, improving health care quality and lowering health care costs – the three overarching aims that the U.S. is striving to achieve.
- The concept of a continuously Learning Health System (LHS), first expressed by the Institute of Medicine in 2007, is now being rapidly adopted across the country and around the world. The LHS is based on cycles that include data and analytics to generate knowledge, leading feedback of that knowledge to stakeholders, with the goal to change behavior to improve health and to transform organizational practice.

## Social Determinants of Health and HIT

Health IT can help health care providers recommend treatments that are better tailored to an individual's preferences, genetics and concurrent treatments; it can help individuals make better treatment decisions and health-impacting decisions outside of the care delivery system; and can help reduce care delivery redundancy and cost by allowing test results to be reused while supporting analyses to pinpoint waste. To achieve this, however, the health IT community must expand its focus beyond institutional care delivery and health care providers, to a broad view of person-centered health. This shift is critical for at least two reasons:

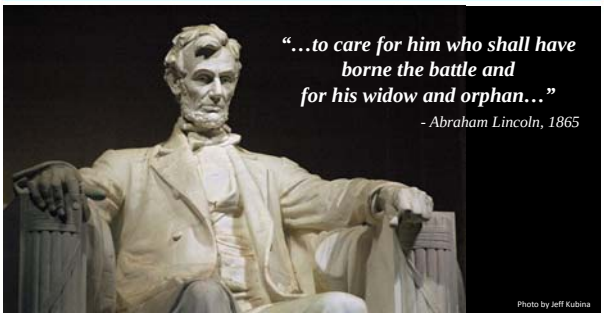
- Health care is being transformed to deliver care and services in a person-centered manner and is increasingly provided through community and home-based services that are less costly and more convenient for individuals and caregivers; and
- ***Most determinants of health status are social and are influenced by actions and encounters that occur outside traditional institutional health care delivery settings, such as in employment, retail, education and other settings.***



Overview of Department of Veterans Affairs



## Mission of the Department of Veterans Affairs (VA)






## Composition of the Department of Veterans Affairs (VA)

- Established in 1930
- Elevated to Cabinet level in 1989
- United States government's 2nd largest department after the Department of Defense
- Three components:
  - Veterans Health Administration (VHA)
  - Veterans Benefits Administration (VBA)
  - National Cemetery Administration (NCA)

## Veterans Health Administration (VHA)"Footprint"

167 Medical Centers

14 VA Health Care Centers

749 Community Based Outpatient Clinics

272 Other Outpatient Services Sites (including Mobile Clinics, Outreach Clinics)

370 Veterans Centers (including Mobile Veterans Centers



Veterans Population and Social Determinants of Health



## Definition of Veteran for VA Purposes

- Veteran is a person who:
  - Served in the active military, naval or air service
  - Was discharged or released under conditions other than dishonorable
- Former or current Reservists, if they served for the full period for which they were called (excludes training purposes)
- Former or current National Guard members if activated/mobilized by a Federal order



## Eligibility for VHA Healthcare Services

Eligibility for VHA health care services depends on a number of qualifying factors, including:

- The nature of a Veteran's discharge from military service (e.g., honorable, other than honorable, dishonorable)
- Length of service
- VA adjudicated disabilities (commonly referred to as "service-connected disabilities")
- Income level
- Available VA resources

Health and Health Care



## VA Office of Rural Health (ORH)

- In 2006, Congress created the Office of Rural Health (ORH) by enacting Public Law 109-461, Sec. 212
- As the VA's lead proponent for rural health, ORH works to see that America's Veterans thrive in rural communities
- Mission of ORH: Improve the health and well-being of rural Veterans by increasing their **access to care and services**
- Works across VA and with external partners to develop policies, best practices and lessons learned to improve care and services for rural and highly rural Veterans



## VA Office of Health Equity (OHE)

- The Department of Veterans Affairs Office of Health Equity (OHE) was created in 2012 in order to promote equity in healthcare and health outcomes for all Veterans by targeting the achievement of the highest level of health for all Veterans.
- The mission of OHE: is operationalized by identifying, understanding the cause, and bringing to clinical practice, interventions targeted at reducing disparity drivers within the VA as well as partnering and interacting with other VA Offices, Federal government Offices and non-government institutions whose mission impacts health equity.
- These drivers typically fall into one of more of the following categories including: race/ethnicity, gender, age, geographic location, religion, socio-economic status, sexual orientation, military era, disability-cognitive, sensory or physical, and other characteristics historically linked to discrimination or exclusion.



## VA Veterans Choice Program (Community Care)

- Veterans Access, Choice and Accountability Act of 2014
- VA officially launched the Veterans Choice Program on November 5, 2014 in accordance with Public Law 113-146 , August 7, 2014
- The Choice Act provides $10B for community care if
  - VA cannot appoint within 30 days of the Veteran's preferred date, or;
  - The Veteran resides more than 40 miles from their closest VA medical facility, or;
  - In cases of medical necessity
- Choice Act allows VA to expand the availability of community care for Veterans through agreements with non-VA entities and providers
- This authority sunsets in three years or when Veterans Choice Fund is expended

## Patient Centered Community Care (PC3): A Community Contract Opportunity

- PC3 provides eligible Veterans access to health care through a comprehensive network of community-based, non-VA medical professionals
- Providers must meet VA quality standards when VA must supplement care outside its own facilities
- Provides eligible Veterans access to:
  - Primary care
  - Inpatient specialty care
  - Outpatient specialty care
  - Mental health care
  - Limited emergency care
  - Limited newborn care for enrolled female Veterans following birth of a child



## VA Homeless Among Veterans Program

- The mission of the National Center on Homelessness among Veterans is to promote recovery oriented care for Veterans who are homeless or at risk of homelessness.
- The program is designed to improve the lives and treatment services of Veterans who are homeless and who have mental health, substance use disorders, medical illness, cognitive impairment or other psychosocial treatment needs.
- VA also partners with many other public and private entities to expand access to meaningful employment, affordable housing and move-in essentials.



How it All Comes Together: Advancing the Elimination of Health Disparities in Veterans Through Informatics



## Using Big Data, Advanced Analytics and Informatics

- VA has three decades of experience collecting data about the Veterans it serves nationwide through locally developed information systems that use a common electronic health record (EHR).
- Advanced analytics, such as development and deployment of accurate, multivariable risk models, may lead to more context-sensitive decision support at the point of care. Such context-sensitive decision aids are expected to promote interventions that are more likely to improve health outcomes and minimize adverse events for patients than current broad population recommendations for prevention or screening.
- Utilization of these large data sets within this improved analytics model will assist Informaticians with the integration social determinants of health into clinical care
- Incorporating social determinants of health into clinical care is one approach to effectively engaging and managing the needs of vulnerable and disenfranchised patients.

## As VA's Rural Veteran Population Grows, VA Continues to Address Their Unique Needs

- 22 million Veterans in the United States, 5.2 million or 24 percent live in rural areas
- Rural minority populations (of 5.2 million)
  - 7% Women
  - 4.7% African American
  - 2.2% Hispanic
  - 1.2% American Indian/Alaska Native
  - 0.3% Asian American and Pacific Islanders
- 33 percent, or 3.0 million, are enrolled in VA's health care system
- 58% of all rural Veterans rely on VHA for health care
  - 36% of all urban Veterans rely on VHA

The **most common outpatient diagnoses** among rural Veterans are:

- ✓ High blood pressure
- ✓ Post-traumatic Stress Disorder (PTSD) and other mental health diagnoses
- ✓ Type II Diabetes
- ✓ Tobacco use disorder
- ✓ High blood cholesterol
- ✓ At least one service-connected disability



## How it All Comes Together....

***Partnered Evaluation of the Social Determinants of Health and Healthcare Resource Needs of Rural Veterans***

The overarching goal of this work is to provide ORH with data, including recommendations from Veterans and community stakeholders, to inform strategic planning for policies and programs that will improve the health of Veterans living in rural areas. Specific aims include:

- Characterize geographic variation in access, utilization, quality, satisfaction, and outcomes using existing data sources and GIS (geographic information system) mapping;
- Identify the specific socioeconomic, cultural, and environmental factors associated with geographic variation in access, utilization, quality, satisfaction and outcomes;
- Describe perceived access and need, and identify preferences for - and barriers and facilitators to - healthcare and achieving optimal health and well-being by meaningfully engaging with and listening to Veterans; and
- Identify strategies and opportunities to support innovative partnerships with community, state, and federal organizations to optimize the health and well-being of Veterans residing in rural areas



## Veterans Homeless Population Demographics

- Health rating: fair/poor 48.4%
- Homelessness effects on health 73.1%
  *(definite/most likely)*
- Personal motivations for wanting a regular source for health care *(very/most important)*
  - "Want to do more with my life" 84.2%
  - "To take better care of myself" 83.2%
  - "To get or keep a job" 70.7%
  - "Need health care to leave homelessness" 66.0%
  - "Concern about my mental health" 65.1%
  - "Chronic pain" 48.8%
  - "Concern about substance abuse" 37.2%
- Reasons for not having a source for usual care
  - Couldn't afford 42.9%
  - Didn't know where to go 27.0%
  - Didn't think needed it 25.1%
  - Not convenient 24.2%
  - Concerned about what they might find 20.5%



## Veterans Homeless Population Demographics

- The overwhelming majority of homeless Veterans have at least one chronic medical problem (66.1–85.1%)
  - Significantly higher rates than for non-Veteran homeless (55.4%)
- Most common medical conditions:
  - Arthritis/joint pain 53.3%
  - Hypertension 22.2–45.2%
  - Hepatitis 18.9–28.0%
  - COPD/Emphysema 12.7–17.3%
  - Diabetes 7.1–9.3%
  - Heart disease 7.1%

## How it All Comes Together……

***Tailoring Care to Vulnerable Populations by Incorporating Social Determinants of Health: the Veterans Health Administration's "Homeless Patient Aligned Care Team" Program***

- Evaluation of the H-PACT program suggests that integration of social support services and social determinants into a clinical care model for homeless veterans can be effective in delivering comprehensive care. In our study, social support interventions were grouped into 3 categories: 1) programming that addressed sustenance needs such as food security, hygiene, and clothing assistance that compete with the patient's ability to prioritize health care needs and access health services; 2) programming that facilitated physical, mental, and social recovery and stabilization, such as housing assistance, legal aid, and vocational training and assistance with disability claims; and 3) programming that facilitated getting treatment by reducing stigma, hassle, and inconveniences associated with obtaining health care.
- The last category can include outreach to community agencies; mobile medical teams; peer mentors; transportation; and open-access, care-on-demand capacity. Taken together, they address several health disparities and barriers to care that homeless veterans face



HIT Tools



## Increasing Collaborations = Implications for Care Coordination and Health Information Exchange (HIE)

- Veterans have more opportunities to formally receive care outside VA
- Greater "dual-use" will increase demand for care coordination and HIE between VA and community providers
  - Dual-use is when Veterans use VA and non-VA health care services
- VA has a responsibility to ensure patients receive high quality care even when that care occurs outside VA facilities
- VA seeks to engage with community providers to deliver direct, query based and/or patient driven HIE or electronic care coordination

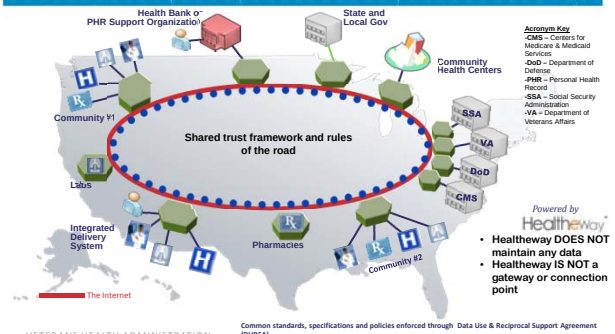


## Veteran Health Information Exchange Products

The Veteran (HIE)/VLER Health Program includes 2 options for sharing health data

- **Exchange (Provider to Provider Direct)** – allows VA providers and community providers to query and retrieve health information with each other's organizations
  - Standards Based Exchange of relevant clinical information
  - 42 Partners in production, in 40 communities
- **Direct Secure Messaging**– allows VA patients to send and receive health information to community partners via secure email through a trusted Network
  - Access through enterprise-wide web application and there is no installation or support required by the VA healthcare System

## What Does Health Information Exchange Look Like?






## Direct Secure Messaging

- Direct leads to **greater workflow efficiencies** by providing a **low cost alternative** to faxing and scanning
- Direct is a **simple and secure** way to send messages and medical information to other providers, enhancing VHA clinicians ability to collaborate for Veteran patient care
- Direct is built on **well-established Internet standards**, commonly used for secure email communications



## My HealtheVet and VA Blue Button

- **My HealtheVet**- VA's personal health record portal ww.myhealth.va.gov
  - **VA Blue Button** – Veterans can download, view, and transmit (in testing) their health information from My HealtheVet
  - **VA Health Summary** – Interoperable document available in both machine (xml) and human (pdf) readable formats


Blue Button Download My Data

VA Health Summary



## Questions