Smart Service Delivery Systems to support Systems of Care within VHA

Heather Woodward-Hagg, PhD
Acting Director, Veterans Engineering Resource Center (VERC) National Program Office
Director, VA Center for Applied Systems Engineering
Introductions

• Heather Woodward-Hagg
  – Acting Director, Veterans Engineering Resource Center (VERC) National Program Office
  – Director, VA Center for Applied Systems Engineering

• PhD in Manufacturing Engineering (emphasis in Health Systems) from Worcester Polytechnic Institute, MS Materials Science, BS in Mechanical Engineering, BS in Ceramic Engineering

• Previously Assistant Professor, College of Engineering and Technology, Purdue University (Indianapolis) and Process Engineer at Intel

12/5/14
Today’s Talk…

• Introduction to the Veterans Engineering Resource Center Program

• VA ‘Future State’ Service Delivery Model

• Challenges to building robust Systems of Care
What is a VERC?

- Veterans Engineering Resource Center (VERC)

- Mission:
  - To propose, develop, and facilitate innovative solutions to challenges within VHA healthcare delivery through the integration of systems engineering principles.
VHA Health Systems Engineering

Systems engineering focuses on ensuring the pieces work together to achieve the objectives of the whole.
Legacy Enterprise Health System (ENTRY): Design, analysis and control of complex, enterprise-level systems.

Engineered Systems Management: Develop and deploy models, processes and standards for systems management.

Health Systems Improvement: Application of Systems Engineering/Science methods to design, analyze and control local, targeted or bounded systems (Lean, LSS).

Professional Development: Development of VHA workforce capacity in Systems Thinking.
- 80% Technical Staff/20% Admin Staff
- 30% Veterans/75% w/ service connected disabilities
- 90%+ retention rates, high employee satisfaction
VERC National Engagement

Over 1000 engagements across 90% of VHA facilities.

Denotes VERC on-site support/training or engagement activity, individual markings may indicate multiple engagements.
HSE Integration with VHA – Lessons Learned

• Translation of SE in healthcare is our responsibility

• Health Services Research (HSR) and Implementation Science (IS) are key

• Resiliency…lack of organizational/cultural readiness should not be an excuse/constraint

• The journey is more important than the destination!

12/5/14
VA ‘Future State’ Service Delivery Model

Challenges to building robust Systems of Care
Understand Experience Across the Spectrum

VBA
VHA
NCA

Veteran Experience

Employee Experience on behalf of Veteran
Enterprise Value Stream Defined

• All of the activities required to achieve a specific outcome from Veteran entry into the system to Veteran exit from the system

Veteran Entry Into the VA System

Veteran Exit From the VA System
Continuum of Care Defined

- All of the activities required to achieve a specific outcome from Veteran entry into the VHA System of Care to Veteran exit from the VHA System of Care.

Veteran Entry Into the VHA System of Care

Veteran Exit From the VHA System of Care
VHA Systems of Care Example

Eligibility For Services → Prevention → Event/Acute Treatment → Inpatient Treatment → Post-event recovery → Disease Management

Veteran Health (VHA) → Veterans Health (VHA) → Veterans Health (VHA) → Veterans Health (VHA) → Veterans Health (VHA) → Veterans Health (VHA)

Health Benefits → Primary Care → Emergency Department → Inpatient/Specialty Care → Rehab → Primary Care -or- Specialty Care
VHA Systems of Care Breakdowns

Eligibility for Services → Prevention → Event/Acute Treatment → Inpatient Treatment → Post-event recovery → Disease Management

Veteran Experience

- Benefits Unclear
- Primary Care Capacity
- Delayed Diagnosis
- Inter-facility Transfer not available
- Standards of care not received
- Rehab Standards not met
- Chronic Disease not managed

Employee Experience on behalf of Veteran

- Benefits do not meet clinical need
- Poor Control of Risk Factors
- Standards of care not available
- Appropriate level of care not available
- Follow-up appt not scheduled
- Care driven by policy, not patient need
- Veteran Placement in SNF?
- Community engagement for long term support?
- Struggle w/ care continuity for Non-VA Care
- How to meet patient needs if benefits not aligned?
Link to Shared Services/Upstream Systems

Eligibility For Services → Prevention → Event/Acute Treatment → Inpatient Treatment → Post-event recovery → Disease Management

Veteran Experience

- Benefits Unclear
- Primary Care Capacity
- Delayed Diagnosis
- Inter-facility Transfer not available
- Standards of care not received
- Rehab Standards not met
- Chronic Disease not managed

- Poor Control of Risk Factors
- Scheduling Process Complexity
- Triage by non-qualified staff
- Technology/CPRS not integrated
- Care driven by policy, not patient need
- Veteran Placement in SNF?
- Community engagement for long term support?

Employee Experience on behalf of Veteran

- Benefits do not meet clinical need
- Complicated Rules
- Hiring Issues
- Poor Control of Risk Factors
- Mandated Processes
- Technology/CPRS not integrated
- Complicated Rules
- How to meet patient needs if benefits not aligned?
- Struggle w/care continuity for Non-VA Care
- Appropriate level of care not available
- Follow-up appt not scheduled
- Veteran Experience
VHA Service System Examples (Current State)

- Eligibility For Services
- Prevention
- Event/Acute Treatment
- Inpatient Treatment
- Post-event recovery
- Disease Management

- On-line Benefits Applications
- Mass Customization
- Patient/Family Portals
- Patient Driven Apps
- Consolidated Outpatient Pharmacy
- My HealtheVet
- Integrated Clinical Decision Support
- Interactive Operational Platforms
Key Questions

• How to integrate VHA Systems of Care with proposed VA Service Delivery Systems?

• How to align system analysis/design/deployment approaches to insure that integration across VBA, VHA and NCA is possible?