Using Data & Information Systems in Partnered Research

Session 1:
Measuring Transformation in Healthcare: Findings and Lessons Learned from the Whole Health Implementation Study

Justeen Hyde, PhD and Barbara Bokhour, PhD
Center for Healthcare Organization and Implementation Research, VA Bedford Healthcare System
Using Data & Information Systems in Partnered Research Cyberseminar Series

*Presentations from the field focusing on VA data use in quality improvement and operations-research partnerships.*

**Topics**

- Use of VA data and information systems in QUERI Projects and Partnered Evaluation Initiatives
- Operational data resources and QI-related data
- Challenges in using and managing multiple data sources
- VA resources to support data use
- Experiences working within operations/research partnerships
Using Data & Information Systems in Partnered Research – FY22
Third Tuesday of the month | 12:00 - 1:00 PM ET

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<tr>
<th>Date</th>
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<tr>
<td>11/16/21</td>
<td>QUERI SHAARK Partnered Evaluation of VHA Diffusion of Excellence: Sustaining Partnerships &amp; Using Mixed Data Sources</td>
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Acknowledgements

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The views in this paper are the views of the authors and do not represent the views of the Department of Veterans Affairs or the United States Government.
Poll #1: What is your role in research and/or quality improvement projects?

a. Investigator, PI, Co-I
b. Statistician, data manager, analyst, or programmer
c. Project coordinator
d. Other – please describe via the chat function
Poll #2: How many *years of experience* working with VA data?

- a. None – I’m brand new to this!
- b. One year or less
- c. More than 1, less than 3 years
- d. At least 3, less than 7 years
- e. At least 7, less than 10 years
- f. 10 years or more
Roadmap for Today

- Background: VA’s Whole Health Initiative
- Partnered Research: Evaluating Patient Centered Care
- Whole Health Flagship Evaluation
- Implementation Study
  - Approach and Methods
  - Lessons Learned
- Impact of Partnered Research
Poll #3: How familiar are you with the Whole Health model of care?

a. Not familiar at all
b. Vaguely familiar
c. Moderately familiar
d. Very familiar
Redesigning Healthcare to Promote One’s Whole Health

- **Whole Health** is an approach to health care that empowers and equips people to take charge of their health and well-being.

- Shift from a model of care organized around expert-oriented *disease management*, to one that is based in partnership with a focus on whole health and well-being.
The Practice of Whole Health

Conventional & Complementary Approaches

Mindful Awareness

Community

Me

Self Care

Clinical Care

Community

Working Your Body
Power of the Mind
Surroundings
Family, Friends & Coworkers
Recharge
Food & Drink
Spirit & Soul
Personal Development

Energy & Flexibility
Relaxing & Healing
Physical & Emotional
Listening & Being Heard
Rest & Sleep
Nourishing & Fueling
Growing & Connecting
Personal Life & Work Life

Prevention & Treatment
Whole Health System

The Pathway (Empowering):
Exploration of mission/purpose/aspirations and beginning of personal health planning

Wellbeing Programs (Equipping):
Skill building and support; proactive, integrative health approaches such as stress reduction, yoga, tai chi, mindfulness, nutrition, acupuncture, health coaching;

Whole Health Clinical Care (Treating):
Providers trained in Whole Health approach; includes changing conversations with patients, complementary and integrative health approaches, personal health planning, and healing environments and relationships.
Brief History: Whole Health in VA

- **2011**: OPCC & CT
- **2015-2017**: WH Design Sites 1 and 2
- **2017-2020**: 18 Flagship Pilot Sites
- **2019-2021**: Learning Collaborative 2
- **2021-2024**: Whole Health Clinical Care

**2013**
Center for Evaluating Patient Centered Care in VA
QUERI Partnered Evaluation Initiative

Partnered Research Cyberseminar Series
Whole Health Flagship Evaluation

- **Implementation**
- Cost and Utilization
- Patient Reported Outcomes
- Disease Outcomes
- Employee Well-Being
Overview Whole Health Evaluation

Organizational Outcomes
- $\uparrow$ System-level Value of WH Care Delivery
- $\uparrow$ Allocation of WH Resources
- $\uparrow$ Alignment of System Level Incentives

Practice Outcomes
- $\uparrow$ Use of WH Tools to Guide Care
- $\uparrow$ Use of WH in Patient Facing Messaging
- $\uparrow$ Health Care Teams’ WH Integration
- $\uparrow$ Belief in WH Care Delivery

Employee Outcomes
- $\uparrow$ Employee Health and Well-being
- $\uparrow$ Employee Satisfaction
- $\uparrow$ Engagement
- $\downarrow$ Burnout

Patient Outcomes
- $\uparrow$ Use of personal health plans
- $\uparrow$ Patients engagement aligned with Personal Health Goals
- $\Delta$ Changes in utilization
- $\uparrow$ Patient Satisfaction
- $\uparrow$ Health and well-being, functional and clinical outcomes
Purpose of Implementation Study

Inform Interpretation of Patient Outcomes
Do we see greater improvements in patient-reported outcomes among sites?

Study Approach to Organizational Transformation
How do VA healthcare systems of different size and complexity approach WH transformation?

Document Lessons Learned for OPCC and Other VA Hospitals
What works, for whom, under what circumstances?
Our Challenge

2013-2016

Building the proverbial Whole Health bus

2017 →

Whole Health bus in hyperdrive
Implementation Study Design Considerations

- Whole Health System is **NOT** a single service or practice
  - Complementary Integrative Health
- Guidance on “core components” of a Whole Health System of Care in early stages of development
- Flexibility in **HOW** to design and implement core components
- OPCC & CT embodies the spirit of being a learning healthcare organization
  - Commitment to reflection, learning, improvement = change
Key Questions

– What progress do Flagship sites make towards developing and implementing “core components”?
  ▪ What is available? To whom? In what sites of care?

– How is each site approaching the development of a Whole Health System of Care?
  ▪ What are the strengths and challenges of their approach?

– What does it take to move along stages of transformation:
  Planning → Implementation → Integration → Transformation
Whole Health Flagship Implementation Rubric

- Infrastructure
- Clinical Care
- Well-Being
- Pathway
- Employee Well-Being
Implementation Rubric

Benchmarks for each core component of a Whole Health System.

5 stages for each major benchmark
- NS = Not Started
- GS = Getting Started
- F = Foundational Stage
- EI = Early Implementation
- AI = Advanced Implementation

* Benchmarks refined and updated in accordance with guidance from OPCC & CT and following each rapid assessment process.

<table>
<thead>
<tr>
<th>Core Domain</th>
<th>Indicators</th>
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<tr>
<td>Whole Health trained coaches work with Veterans to develop a PHP and then check in via phone or in person on a weekly basis to discuss progress towards meeting goals, trouble shoot challenges faced, and revise action plans as needed</td>
<td>GS = The site is developing a plan for Whole Health Coaching services including identifying number of coaches to be hired, their primary service line, and the scope of their practice. F = Site hires or identifies individuals who can serve as WH coaches. They are developing a CPRS consult and/or referral process for WH coaching services. To move beyond a 2: Most individuals identified complete WH Coaching training. WH Coaching services (one on one and/or group coaching) are initiated. At this stage, sites should begin preparing the system for coaching, including introducing coaching to providers and preparing for them for implementation of coaching. This work should lay the foundation for future coordination between coaches, whole health services, and clinical providers/staff, as coaches largely serve as boundary spanners across the components of the Whole Health System of Care. At this stage, sites may use a range of individuals in a coaching role as they begin to pilot coaching; however, by the advanced stage they will be required to fill coaching roles using paraprofessional peers rather than clinically-trained staff (or otherwise determined by OPCC). EI = All individuals providing Whole Health coaching services are trained. Capacity to provide coaching services to Veterans increases, and coaching workloads are expanding. Coaching services are available beyond the main facility and happening in at least some CBHCs. To move beyond a 3 (i.e., 3.25, 3.5): services are beginning to be spread to additional locations beyond the main hospital (which could be accomplished through telehealth). Coaches have begun to work in their roles and are learning to how to work within the system, including working across sites at the site. There is a process in place to get Veterans into coaching from any other WH system component. There is evidence that Whole Health Coaches are integrated into clinical care teams and/or are communicating with clinical care teams to support the health of Veterans. There is a clear infrastructure in place to readily expand coaching, including having approved position descriptions in place. At this stage, sites may use a range of individuals in dedicated coaching roles; however, by the advanced stage they will be required to fill coaching roles using paraprofessional peers rather than clinically-trained staff (or otherwise determined by OPCC). AI = Whole Health Coaches are a part of the site’s system of care. They enhance the work of clinical care teams and contribute to the overall approach to care for the Veterans they are working with. There is evidence that coaches have been integrated</td>
</tr>
</tbody>
</table>
Methods and Approach for Implementation Staging

- Guided By Implementation Rubric
  - Quarterly Structured Data Collection via On-line Tool
  - Quarterly Qualitative Interviews with Core WH Staff
  - Review of Whole Health Staff Training Data
  - Triangulation of Site Self Report Information w/ Utilization Database
  - Multi-day site visits with a sample of sites (n=3)

Process:
- Individual Assessment Using Implementation Rubric
- Implementation Team Discussion To Assure Consistency Across Sites
- Implementation Staging
Rapid Assessment

Small team data collection

- Assigned 2 team members to each site
  - Deep, longitudinal knowledge
  - Clear point of contact
- Teamlet responsible for data collection, review, synthesis of information for each designated site
- Brought initial assessment of stage of implementation to larger group
- Refined assessment in relation to insights and decisions made across all sites
- Continuous reflection on the relevance of benchmarks in the rubric, discussion about what to update and how to measure
Whole Health Implementation Overall

- **Baseline**:
  - Advanced: 4
  - Early: 14
  - Foundational: 15
  - Getting Started: 14

- **Year 1**:
  - Advanced: 3
  - Early: 15
  - Foundational: 8
  - Getting Started: 7

- **Year 2**:
  - Advanced: 1
  - Early: 9
  - Foundational: 8
  - Getting Started: 7

- **Year 3**:
  - Advanced: 1
  - Early: 10
  - Foundational: 8
  - Getting Started: 7

10/19/21
Stage of Implementation
January 2018-October 2020

Note: Data organized by stage of implementation as of October 2020

Getting Started: Foundational: Early: Advanced

Baseline: Year 1: Year 2: Year 3

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What Did We Learn About Our Approach?

- Use of multiple methods
- Rapid assessment process
- Sharing data: member checking and advancing the field
- Balance between flexibility and consistency
Use of Multiple Methods

Every data source offered a partial perspective and had pros and cons

• Structured data Implementation Tracking Tool
  + Efficiently gather information about staffing, local trainings, information about programs and services stood up (how many per week, capacity)
  - Not for capturing variability in implementation, required a lot of training to complete, turn over in position designated to provide information

• Repeated qualitative interviews
  + Building rapport, understanding variability in implementation approach, identifying facilitators, barriers and innovative ideas, able to explore new insights
  - Labor intensive, quality of information could vary depending on participants
Use of Multiple Methods

- Administrative data: TMS, Service Utilization
  + Relatively easy to access, provide more global/population-level view
  + Use of multiple data sources led to critical questioning of reliability → informed multiple quality improvement efforts
    - Reliability of data in the medical record is only as good as the consistency in coding across sites
    - Reliability requires significant investment, continuous monitoring, and a broad range of implementation strategies
    - As training moved from a national to local effort, TMS became a less comprehensive measure
Improving Administrative Data

Info on What Sites are Offering

Review of Utilization Data in WH Dashboard

Data pulled from CDW for Patient outcomes

Audit-Feedback on Coding

Equal Sign

Coding

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Use of Multiple Methods

- Site Visits
  + Provided opportunity to see the “big picture”
  + Opportunity to talk with and observe providers, patients, leadership and gain a sense of the cultural environment
  + Significantly influenced our understanding of the strengths and gaps in our data collection; rethinking about stages of transformation
  - Time and cost intensive
  - COVID restrictions on travel
Rapid Assessment

- Rapid assessment was the only feasible way of meeting the multiple needs of the larger evaluation team and OPCC & CT

- Small team data collection and synthesis combined with larger group review and discussion recommended
  - Rubric plus discussion necessary for consistency across multiple teams and sites
  - Small and large group discussion fostered deeper understanding of trends, approaches, facilitators and barriers
  - Very time intensive (~5 hours per site in total, 90 hours in total for 18 sites per data collection period)
Sharing Data: Member Checking

- Prepared bi-annual brief reports to each site, highlighting our determination of implementation progress, overall and by component

- Invited feedback, opportunity to call attention to discrepancies in understanding or data

  + Supported transparency and trust

  + Improved quality and accuracy of our data and understanding

  + Reports had a variety of uses, including informing strategic planning and reporting to leadership

  - Brief reports had an unexpected political life in some sites

  - Time consuming to create
Brief Introduction: This brief report provides an overview of information the EPCC Evaluation Team has collected or accessed over the last 6 months to understand your facility’s implementation of the Whole Health System of Care (WHSCC). Data comes from monthly implementation tracking surveys, quarterly interviews with site leads, service utilization data from the UM Data Gate, and SW training data from TWS and Implementation Tracking Survey. When reviewing this report please note that the data presented are based on current reporting systems, which for many sites are still under development.

Core Components that Make Up Overall Stage of Implementation (as of April 2013)

**INFRASTRUCTURE**
- Steering Committee: 17 member; SC meets once a month
- Hiding of Key Staff: Clinical Directors, Program Manager, and Administrative Support have been identified; Education Champions haven’t started; no Program Evaluation Assistant; some core staff do not appear to have been trained in WHSCC data
- Communication Strategies: Developing strategic data; currently use 9 strategies each for reaching patients and employees, including an experiential retreat for staff
- Space: Have sufficient space for some whole health services, lacking in additional space

**ORIENTATION**
- Status: Orientation to WHSCC has been offered for 2 years and is currently available 3 times a week

**PATHWAY**
- Taking Charge of My Life and Health: Offer 3 groups per week
- Referral Process to Pathways: Have a CRPS consult as their referral system
- Clinic Codes: STOP and CHAMPA codes are set up
- Staffing: in process of identifying partners, have 3 volunteer veterans (not trained) to co-facilitate groups

**WELL-BEING**
- LIFES: Currently offer Yoga and Meditation on a regular basis; offer monthly Yoga Self-Care group and acupuncture Self-Care group once a month
- Clinic Codes: STOP and CHAMPA codes set up for CMH and MEntE Being Classes
- Referral to OMRA: CRPS consult used for referrals to CMH and Well-being centers

**CLINICAL CARE**
- Strategic Plan: Developing plan for rollout to outpatient primary care, specialty care, and mental health
- Champions: In process of identifying champions
- Primary Care Training: Working on getting providers completely involved in PHP process
- Personal Health Planning: PC teams not doing PHPs with veterans; in process of creating a timeline to CRPS to share plans with other providers

**COACHING**
- Hiding: Have 6 people providing coaching services to up to 30 veterans per week
- Referral Process: Referral process untested
- VISTA: Facilities trained in coaching; will hire more coaches to provide services by phone

Participation in Core Whole Health Trainings Recorded in TWS (as of April 25, 2013)

| Training | Est. # of Core Trainees | Est. # of Core Staff | Est. # of Staff
<table>
<thead>
<tr>
<th></th>
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<tbody>
<tr>
<td>Total</td>
<td>122</td>
<td>23</td>
<td>21</td>
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Additional Implementation Information

- Plan to spread Whole Health to 5 [SITE A] PICs sites by the end of FY13. This spread will include Whole Health Interventions, Whole Health Support and Coaching, Food as Medicine, Yoga, and Tai Chi, Mindfulness Meditation classes, and Acupuncture and or therapeutic services.
- Aim to have 2 coaches and a program director assigned to each CRPS and join teams 1x/week and then patients could be referred for individual coaching.
- Working to establish partnerships with community organizations to have activities offsite.

Utilization Data for Whole Health Services FY 1/1-3/31, 2013-2014

<table>
<thead>
<tr>
<th>WH Approach</th>
<th>Estimated Unique Patients</th>
<th>Total Encounters</th>
<th>Observations of Utilization Data</th>
</tr>
</thead>
<tbody>
<tr>
<td>WH Education</td>
<td>48</td>
<td>55</td>
<td>Site has 33 types of Whole Health approaches appearing in utilization data.</td>
</tr>
<tr>
<td>WH Coaching - Individual</td>
<td>83</td>
<td>96</td>
<td>In utilization data not represented by site. Acupuncture, EVP Whole Health, EVP Med, EVP Mindfulness Movement.</td>
</tr>
<tr>
<td>WH Coaching - Group</td>
<td>17</td>
<td>17</td>
<td>Reported by site but not in utilization data. Acupuncture.</td>
</tr>
<tr>
<td>Acupuncture</td>
<td>103</td>
<td>241</td>
<td>Unifor or what is being used to document TCM groups.</td>
</tr>
<tr>
<td>Yoga</td>
<td>50</td>
<td>255</td>
<td></td>
</tr>
</tbody>
</table>
Sharing Data: VA as a Learning Organization

- Provided regular updates to OPCC & CT on implementation findings
- Helped to identify:
  - Additional guidance and resources sites needed for implementation
  - Quality improvement efforts, most notably with coding in the medical record
  - Variation in implementation and approach, which prompted reflection on and refinement of Whole Health model
  - Prompted the development of additional implementation strategies
Balance between Flexibility and Consistency

Realist evaluation approach was essential for the study

+ Close working relationship with OPCC & CT staff provided ability to check “fidelity” to Whole Health model
+ Good communication about evaluation findings led to improvements in guidance and support for the field

- Constantly negotiating new approaches or services not originally accounted for in implementation rubric
- Time invested in coming to consensus about elements of the rubric to change/refine and impact on measuring change
Key Ingredients for Partnered Research

- Large system changes to improve healthcare is only possible through collaboration
  - Researchers, healthcare providers, policymakers and others

- Frequent communication between evaluators and program office is critical for cultural transformation
  - Use of rigorous methods, communicated in ways that partners can understand and use
  - Honest reflection, respectful communication, and trust
Impact of Partnered Research

- Data from the Flagship Whole Health Evaluation reported to Congress March 2020
- Data from evaluation reported to VACO Governance Board
- Support for expansion of Whole Health throughout VHA
  - Inclusion of Whole Health Care as a lane in the VHA Modernization Plan
- Office leading Whole Health, Primary Care, Mental Health, and others created Integrated Project Team to facilitate implementation across VHA
  - Implementation findings used to inform this work
Thank you! Questions?
Contact information

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Next session:
November 16th at 12 pm Eastern

QUERI SHAARK Partnered Evaluation of VHA Diffusion of Excellence: Sustaining Partnerships & Using Mixed Data Sources

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Additional Resources
<table>
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<tr>
<th>Quick links for VA data resources</th>
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<tbody>
<tr>
<td><strong>Quick Guide: Resources for Using VA Data:</strong></td>
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<tr>
<td><strong>VIReC:</strong> <a href="http://vaww.virec.research.va.gov/Index.htm">http://vaww.virec.research.va.gov/Index.htm</a> (VA Intranet)</td>
</tr>
<tr>
<td><strong>Archived cyberseminar: Meet VIReC: The Researcher’s Guide to VA Data</strong></td>
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<tr>
<td><strong>VIReC Cyberseminars (overview of series and link to archive):</strong></td>
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<tr>
<td><strong>VHA Data Portal (data source and access information):</strong></td>
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<tr>
<td><strong>Quality Enhancement Research Initiative (QUERI):</strong> <a href="https://www.queriresearch.va.gov">https://www.queriresearch.va.gov</a></td>
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<td><strong>QUERI Implementation Network Archived Cyberseminars:</strong></td>
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<td><strong>Center for Evaluation and Implementation Resources (CEIR):</strong> <a href="https://www.queriresearch.va.gov/ceir/default.cfm">https://www.queriresearch.va.gov/ceir/default.cfm</a></td>
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VIReC Options for Specific Questions

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