

Current and Future Directions in Health Services Research

November 29, 2023

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Many thanks to the HSR Team!

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- Robert O'Brien
- Robert Small
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HSRD is now Health Systems Research (HSR)

- ORD Reorganization: HSRD, RRD, BLRD, and CSRD → "broad portfolios" (BP)
 - In mid-2023, HSRD transitioned to the "Health Systems Research" BP
 - To better align with VA priorities, some BP funding moved from the BPs to "actively managed portfolios (AMPs)"
 - Each BP has a purview statement of scientific goals that informs their funding decisions
- HSR priorities expanded as strategic methodology areas
 - Reflect VA/VHA priority goals and NAM Quintuple Aim goals
 - Previously described in our HSR RFAs, so familiar to SMRBs and investigators
 - Do not replace but expand on the current topic areas
- Using cutting-edge science that informs how treatments, programs and policies work for Veterans and their providers, HSR/QUERI investigators are poised to inform VA strategic goals as national learning health system thought leaders







Office of Research and Development Reorganization

Updated November 29, 2023

Office of Research and Development

Veterans Health Administration





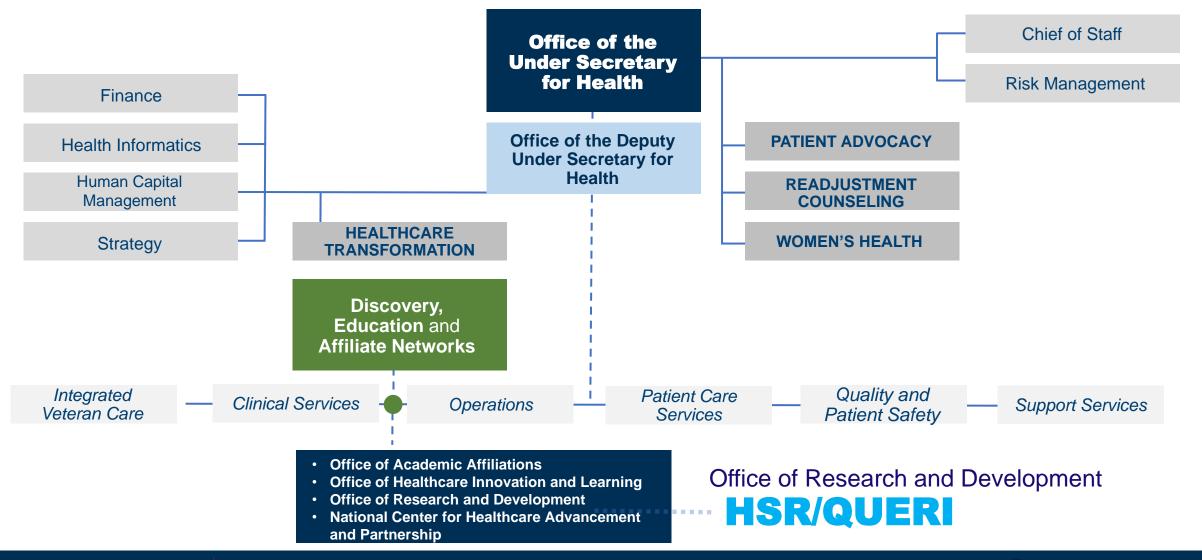
ORD Reorganization

- More efficient use of resources to enable more impactful research investments ("big studies", Veteran access to latest treatments)
 - Centralized HR, IRB, IT/data analytics, and contracting support
 - Make it easier for external organizations to partner with VA research
- New organizational units: Strategy, Informatics, and Enterprise Optimization
- Funding more aligned with Congressional priorities, focus on requirements
 - Precision oncology/cancer clinical trials actively managed portfolio (AMP) (2022)
 - Pain and Opioid Management, Suicide Prevention, TBI AMPs (2023)
 - Health Systems Research (includes QUERI) broad portfolio-BP (2023)
 - Brain, Behavioral Health, and Mental Health BP (2024)
 - BPs: Medical Health & Aging, Functional Rehabilitation, Emerging Infections, Military Exposures (2024)
- Current challenge: lower than expected VA research appropriation





VHA Organizational Chart



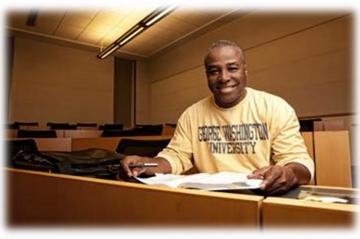




VA: Nation's Largest Embedded Research Program

- Over 9 million Veterans enrolled
- Over 1,250 facilities (>170 hospitals)
- Global budget, salaried providers, national EHR
- Integrated system: social, educational, housing and disability services
- Dedicated appropriation to research funding across the translation spectrum
- HSR emphasizes embedded research opportunities
- HSR's national research-embedded QI program (QUERI) ensures effective practices are more rapidly translated to Veterans

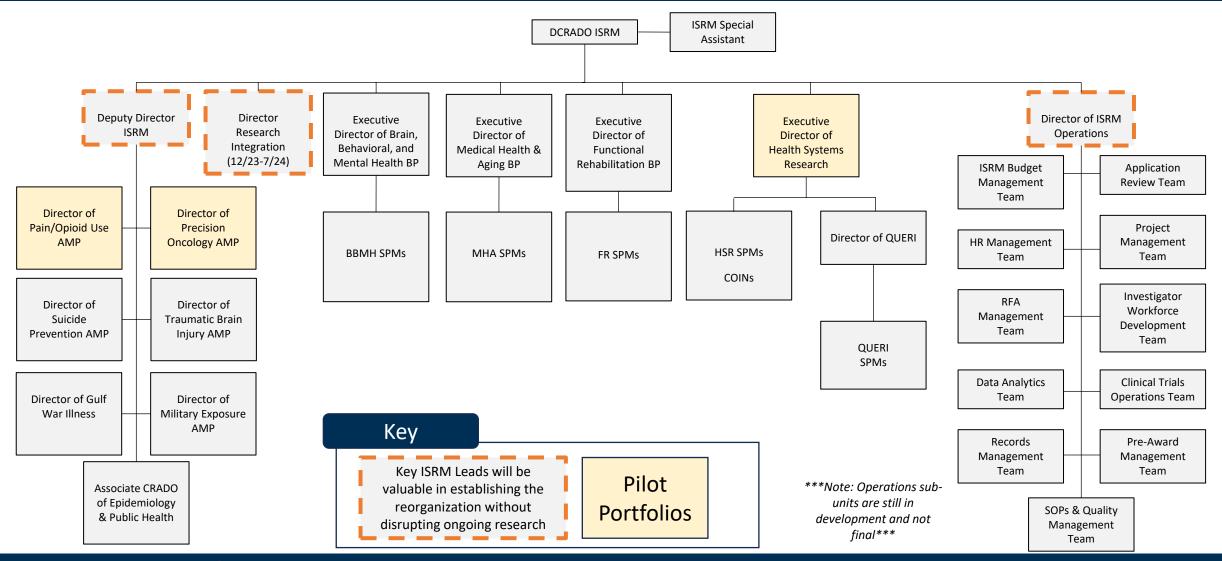








Current ORD Organizational Chart







ORD Mission and Goals

Mission

- Improve Veterans' health and well-being via basic, translational, clinical, health services, and rehabilitative research
- Apply scientific knowledge to develop effective individualized care solutions for Veterans
- Attract, train, and retain the highestcaliber investigators, and nurture their development as leaders in their fields
- Assure a culture of professionalism, collaboration, accountability, and the highest regard for research volunteers' safety and privacy

<u>Goals</u>

- 1. Increase Veteran access to highquality clinical trials
- 2. Increase the real-world impact of research
- 3. Put VA data to work for Veterans
- 4. Actively promote DEI
- 5. Build community through VA research





ORD is Funded through a Separate Congressional Appropriation

VHACO ORD primary roles are funding and policy related to research



113 Active VAMC research sites nationwide



18,475 Active research projects



6,687 Active principal investigators



10,249 Published research articles

Source: VAIRRS 11/17/23

ORD 2023 Budget: ~\$916 Million, HSR budget ~\$125 Million





Health Systems Research (HSR)

- HSR funds investigators who focus on innovative strategies that lead to accessible, high-quality, personalized, effective care for Veterans and the nation
 - Learning Health System approach that drives embedded, partnered research
 - Funding for investigator-initiated projects, career development awards and Centers
 - Cutting-edge research on organization, implementation, and delivery of clinical services informed improvements in health care quality, equity, safety, experience, value, and outcomes for Veterans over the past 3 decades
- HSR's QUERI (Quality Enhancement Research Initiative) is a unique research-clinical partnership that is funded separately by the VA clinical appropriation with the goal of improving Veteran health by more rapidly implementing research into practice at the national level





HSR Centers of Innovation (COINs)

- Provide infrastructure to support collaborative, multi-site research, QUERI
- Multi-level engagement (Program offices, VAMCs, clinicians, Veterans)
- Host Veteran engagement panels
- Methods Cores (Data, Implementation, etc.)
- Advised by partnership engagement panels including VISN and VAMC, academic affiliate and program offices, providers, and Veterans
- Compete for funding every 5 years based on current priorities and impacts





HSR Centers of Innovation Across the U.S.









Updated HSR Priorities

November 29, 2023

Health Systems Research

Office of Research and Development

Veterans Health Administration





Our Goal: Improve Veteran Outcomes Through Cutting-edge Health Systems Research

How we measure success: <u>Are Veterans getting better</u>? (Quintuple Aim)

Increase Access

Ensure Equity

Support Workforce

Improve Outcomes

Improve Value

- Research priorities reflect VA Strategic Plan, Agency Priority Goals, Performance Plans
- HSR is uniquely positioned to contribute to the science through Learning Health Systems:
 - Implementation Science
 - Data Science
 - Science of End-User Engagement
 - Systems Science
 - Policy Analysis
- Going forward: HSR / QUERI to inform VA's next Strategic Planning Process





HSR Project Outcomes Informed by Quintuple Aim

Inter-disciplinary assessment of Veteran and VA outcomes

Organizational, provider, and patient care processes (e.g., access, quality, equity), value (cost), and end-user lived experiences (e.g., Veterans, providers, communities)

Refs; Matheny M, et al: National Academy of Medicine, 2019; Nundy S, Cooper LA, Nate KS. JAMA 2022; Cahan EM, 2020

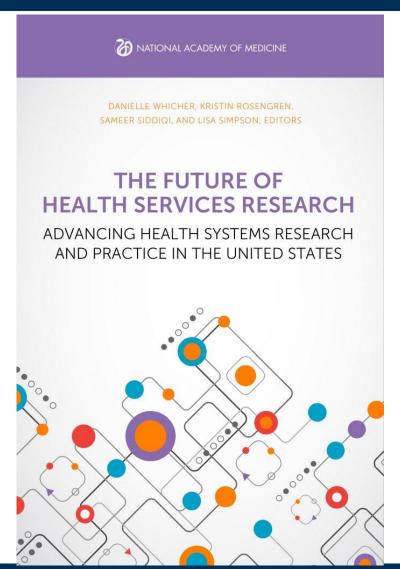






NAM Future of Health Services Research

- More <u>system-focused</u> research on practical topics and priorities faced by health care providers that includes <u>end-user</u> input
- More investment in technology and <u>data</u> <u>infrastructure</u> including community and population data
- Continued focus on <u>disparities and solutions to</u> <u>quality gaps</u> especially beyond the clinic walls
- Timely studies focused on <u>dissemination and</u> <u>implementation</u>
- Reward system, policy, and population impacts







VA Training and Funding Ecosystem

Data to Knowledge

- Examine performance gaps
- Identify best practices
- Patient/provider experiences

Post-doctoral Fellowships Investigatorinitiated

Research

Learning Hubs

QUERI QI

Collaboratives

Diffusion of

Excellence

Knowledge to Performance

- Implement, tailor best practices
- Implementation or QI playbooks
- Measure impacts

Advancing Diversity in Implementation Leadership Researchers in Residence

Performance to Data

- Data on new discoveries
- Change processes
- Actively involve interested parties

Learning Community

(e.g., Research Centers, National Program Offices, Regional Health System Leaders)

Infrastructure: Funding, Informatics, Governance, Methods

e.g., HSR National Network of Research Centers; VA national EHR and population health databases; ORD research/QI ethical standards, Methods Resource Centers

Kilbourne, Schmidt,
Edmunds, Vega,
Bowersox, Atkins, 2022



VA 2022-2028 Strategic Plan

- Developed in 2018-20; updated 2021-22
- Emphasis on underserved, at-risk Veteran populations and understanding lived experiences
- "VA will leverage research studies, innovation and partnerships to enhance understanding of Veteran needs and eliminate disparities and barriers to health, improve service delivery and opportunities to enhance Veterans' outcomes, experiences and quality of life."
- "VHA researchers, statisticians and evaluators have a well-earned reputation as thought leaders in health care and have a distinguished history in contributing both to Veteran well-being and that of all those seeking health services."
- (HSR and QUERI) are "VA's principal sources of highquality, independent, peer-reviewed evaluations"

Department of Veterans Affairs Fiscal Years 2022-28 Strategic Plan







HSR Strategic Methodology Areas



Implementation Science



Systems Science



Engagement Science



Data Science



Policy Analysis

Strategic methodology areas are based on the National Academy of Medicine Quintuple Aim goals, AHRQ Learning Health System Core Competencies, PCORI Methodology Standards, and VA Strategic Plan priorities. Quintuple Aim Outcomes: Increase Access, Ensure Equity, Support Workforce, Improve Outcomes, Improve Value

More information on HSR Priorities: https://www.hsrd.research.va.gov/funding/PriorityDomains.pdf





HSR Priorities Encompass Core Strategic Methodology

- 1. Implementation Science. Discover and optimize strategies to get effective treatments to Veterans faster and sustain their use in real-world practice
- 2. Data Science. Design, validate, and apply data science and knowledge management tools that improve Veteran health and health care
- 3. Engagement Science. Create and test novel approaches for engaging end-users (e.g., Veterans, providers, communities, etc.) that support improved outcomes
- 4. Systems Science. Design and apply new systems science methods to improve Veteran provider workforce effectiveness, satisfaction, diversity, and retention
- 5. Policy Analysis/Evaluation. Develop, assess, and improve VA and national policies to improve Veteran outcomes, with a focus on underserved populations





HSR Strategic Methodology Areas Benefit Veterans, VA Care

| Area of Scientific Inquiry | Benefit to Veterans | Key VA Priority Alignment |
|----------------------------|---|---|
| Implementation Science | Ensures "what we know is what we do" on a routine basis and that effective innovations get to Veterans more quickly | ORD Goal: Real-world Impact Congressional priority |
| Data Science | VA has extensive data that can be better leveraged to help improve Veteran care, outcomes, and experience in a way that ensures Veterans' privacy and equity | ORD Goal: Making VA Data work for Veterans Evidence Act (US PL 115-435) |
| Engagement Science | Involving Veterans, providers, and other partners ensures treatments, programs, and policies work for Veterans, and that their lived experiences are considered | VA Strategic Plan: Support Underserved, At-Risk, Marginalized Veteran Populations ORD: Build Community through Research |
| Systems Science | Health care and health go beyond condition and disease labels; it takes a wider lens to understand the moving parts of the enterprise to improve them to ensure safe and effective care | VHA Long-Range Goals (e.g., Connect Veterans to the Soonest and Best Care; Workforce, High-reliability) |
| Policy Analysis | Many health problems have determinants outside the clinic walls, need to improve alignment and effectiveness of programs, benefits, and policies to ensure optimal Veteran outcomes | VA Legislative Mandates, e.g., Evidence Act MISSION Act PACT Act, Hannon Act, STRONG Veterans Act |





HSR Strategic Methodology Areas Are Foundational to Current HSR Topics, Quintuple Aim Goals, and VA National Priorities

HSR Topic Areas

ORD BPs*

Brain, Behavior, MH (Suicide‡, TBI)

Functional Rehabilitation

Medical/Aging

Health Care
System
Organization and
Delivery

- Access/Virtual Care
- Emergency Medicine
- Women's Health
- Rural Health
- Community Care

Health Care and Clinical Management

- Primary Care Practice and Complex Chronic Disease Management
- Disabilities related to Military Exposure*‡
- Chronic Pain & Opioid Use Disorders*

Long-Term Care, Aging & Support Services

Long-term Care& Aging

Behavioral, Social & Cultural Determinants of Health

- Health Equity & Social Determinants of Health
- Ending VeteranHomelessness &Housing Insecurity‡
- Whole Health & Population Health

Quality, Safety & Value

- Quality & Safety of Health Care
- Health Care Value
- Emerging infectious diseases (COVID)*

Strategic ____ Methodology Areas

Implementation Science

Systems Science

Engagement Science

Data
Science (EHR)

Policy Analysis

VA Priority Goals‡: Workforce, Connect Veterans to soonest/best care, Promote culture of safety/learning

Veteran Quintuple Aim Goals: improve outcomes, increase access, ensure equity, decrease cost, support workforce

*New or Planned Actively Managed Portfolios, BP = New ORD Broad Portfolios, MH= Mental Health; ‡VA National Priority Goals





HSR Strategic Methodology Areas Enhance HSR Topics

HSR topics can encompass more than one strategic methodology area

- Health Care System Organization and Delivery (Access, Emergency Medicine, Women's Health)
- Mental and Behavioral Health, including Suicide Prevention
- Health Care and Clinical Management (Primary Care Practice and Complex Chronic Disease Management, Disabilities and Military Exposures, Opioid/Pain)
- Long-Term Care, Aging & Support Services
- Behavioral, Social & Cultural Determinants (Health Equity, Whole Health)
- Quality, Safety & Value

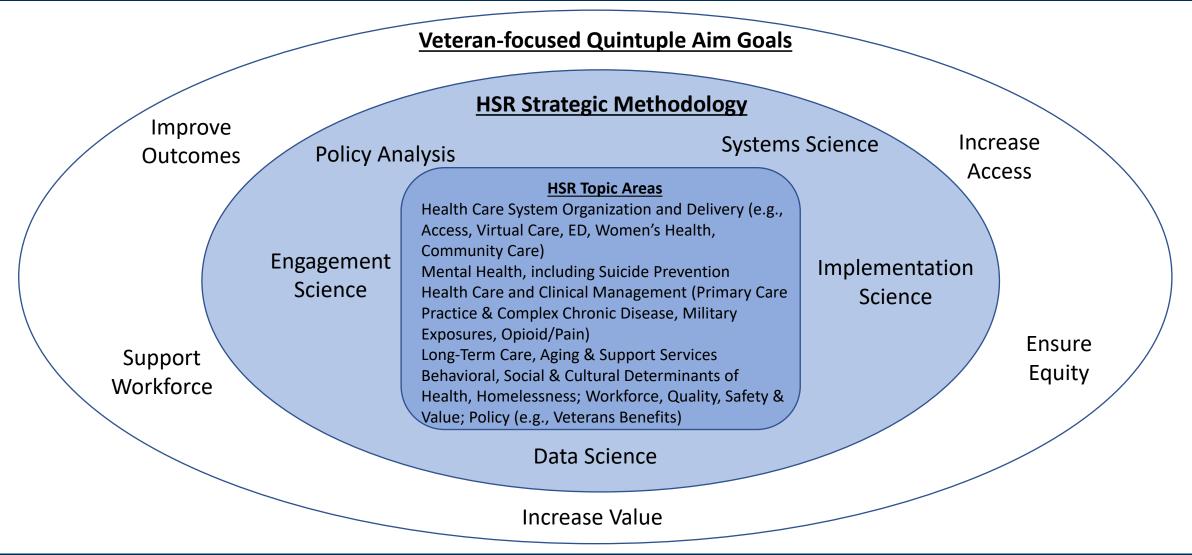
Strategic methodology areas, VA priorities also inform expanded HSR topics

- Homelessness, housing and economic security (Reduce Veteran homelessness)
- Workforce (Hire faster and more competitively, practitioner experience and well-being)
- High reliability (Culture of safety, learning, and knowledge translation)
- Policy, e.g., Veterans benefits and impact on health and social determinants (VA Strategic Plan focus)





Veteran Quintuple Aim Goals & HSR Strategic Methodology Encompass Current HSR Topics







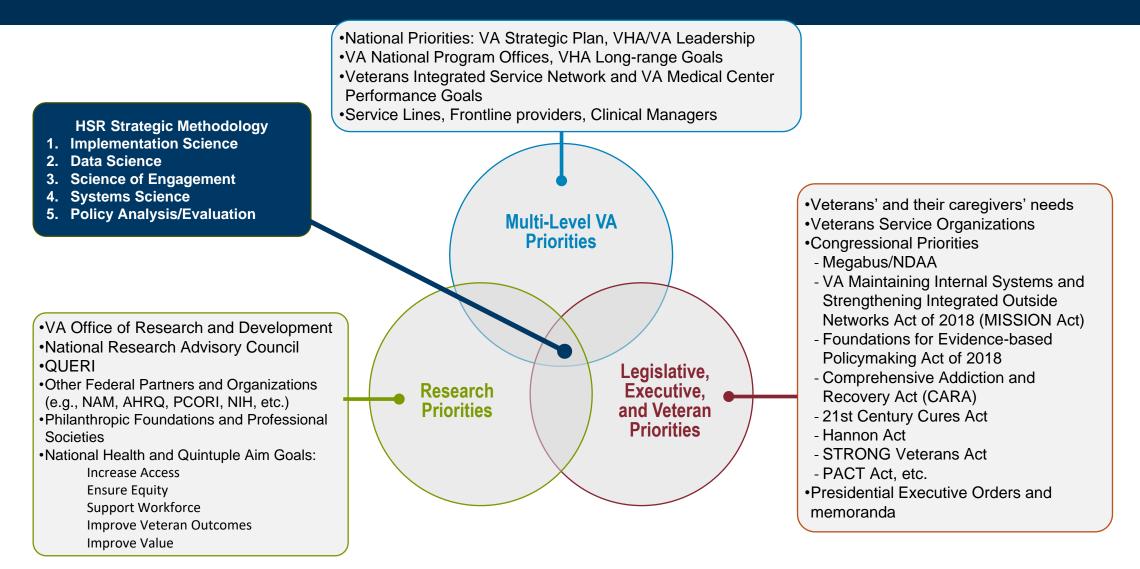
HSR Strategic Methodology Areas Foundational to Responding to Agency-wide Priorities (Source: Evidence Act Priority Survey Results)

- 1. Hire faster and more competitively. Improve workforce recruitment, onboarding, and retention of VA employees and trainees
- 2. Connect Veterans to the soonest and best care. Reduce direct care wait times and community care appointment scheduling times by improving clinical availability and scheduling
- 3. Promote a culture of safety, learning, and knowledge translation. Implement and evaluate programs focused on innovation, psychological safety, zero harm, and manager/leader training
- 4. Prevent Veteran suicide. Prevent Veteran suicide using a public health approach (e.g., outside the clinic walls, partnerships with community service organizations)
- 5. Serve Veterans with military and environmental exposures. Improve quality of care, including the identification and management of symptoms among Veterans with military and environmental exposures
- 6. Reduce Veteran homelessness. Ensure more at-risk and underserved Veterans receive early interventions, partnerships and supportive services to avoid homelessness





Strategic Methodology Areas Ensure Alignment with Emerging Veteran, VA Priorities







HSR/QUERI Systematic Priority-Setting Process in VA Strategic Plan

QUERI also facilitates VA fulfillment of the Evidence Act, which requires VA to justify budgets using evidence

Evidence Act is Law (US PL 115-435)

- Influences agency budgets
- Requires annual evaluation plans on top priorities that inform policies and resource allocations
- Evaluation plans can be HSR or QUERI projects and are made public
- Help leverage other legislative mandates and funding sources

Local, regional, and national VA leaders identify priorities via qualitative discussions, national survey National leaders vote and concur on top priorities. informing QUERI Requests for **QUERI** reports **Applications** progress to VA leaders, benchmarking on QUERI **Impact** Framework metrics. eRA commons VA investigators, in partnership with health system **QUERI** peer leaders, submit applications that reviews and funds undergo peer teams with the review highest quality applications that address priorities

Priorities will inform VA, ORD, HSR and QUERI Initiatives:

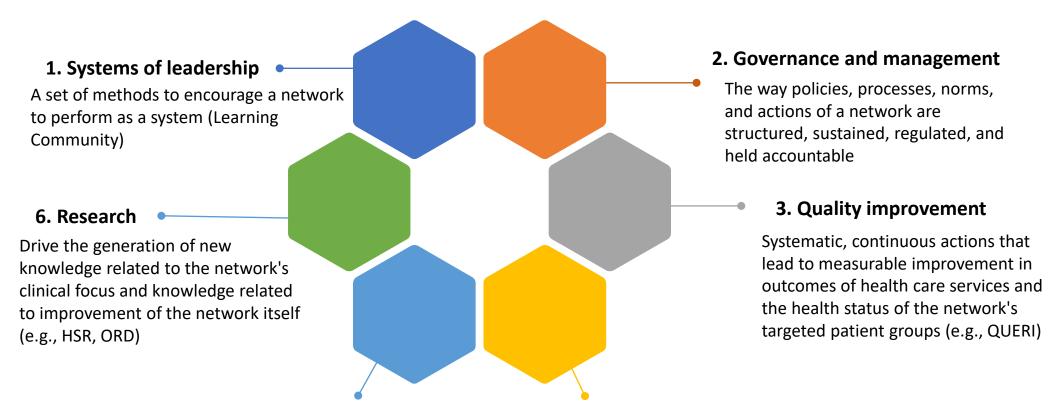
- **V Evidence Act National Evaluations**
- ✓ QUERI Rapid Response Teams
- Advancing Diversity in Implementation Leadership (ADIL)
- HSR Merit and QUERI
 Partnered Evaluation
 Centers
- ✓ ORD AMPs/BPs
- ✓ VA Strategic Plan

Braganza, Kilbourne et al., HSR 2022





HSR Priorities Inform ORD's Learning Health System Components



5. Data and analytics

Activities (SOPs) to collect, validate, organize, and standardize data relevant to a network's mission and making these data available to all network stakeholders for clinical care, improvement, research and learning

4. Community-building and engagement

Governance, structures and processes that enable all stakeholders to act on their inherent motivations and become involved in the network

Lannon et al - A maturity grid assessment tool for learning networks -Learning Health Systems - June 2020; Updated: R. Ramoni, 2023





How ORD Envisions Using LHS Components in its AMPs

ORD Research



VHA Clinical Program Offices Lung
Precision
Oncology
Program



Executive Steering Committee



Workgroups

- Veteran Engagement
- Lung Cancer Screening Outcomes



Sub-workgroups

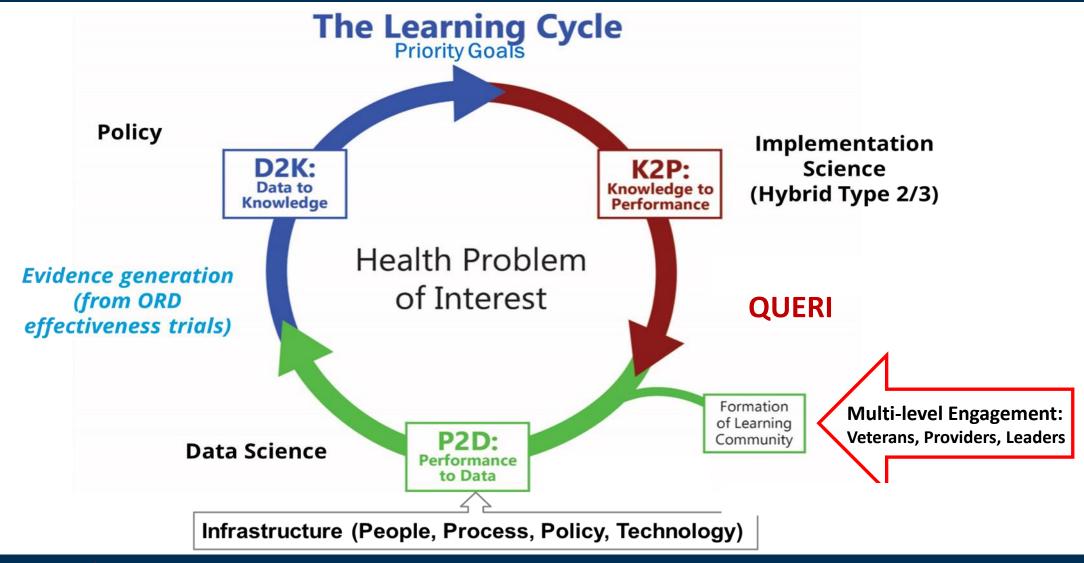
- LCS Scientific Radiomics
- LCS Clinician & Scientific Outcomes

An example of AMP functionality in practice





HSR Foundational Framework: Making LHSs work for Veterans







HSR Learning Health System Framework Informing ORD Enterprise-Wide Initiatives (CSP Implementation Plan)

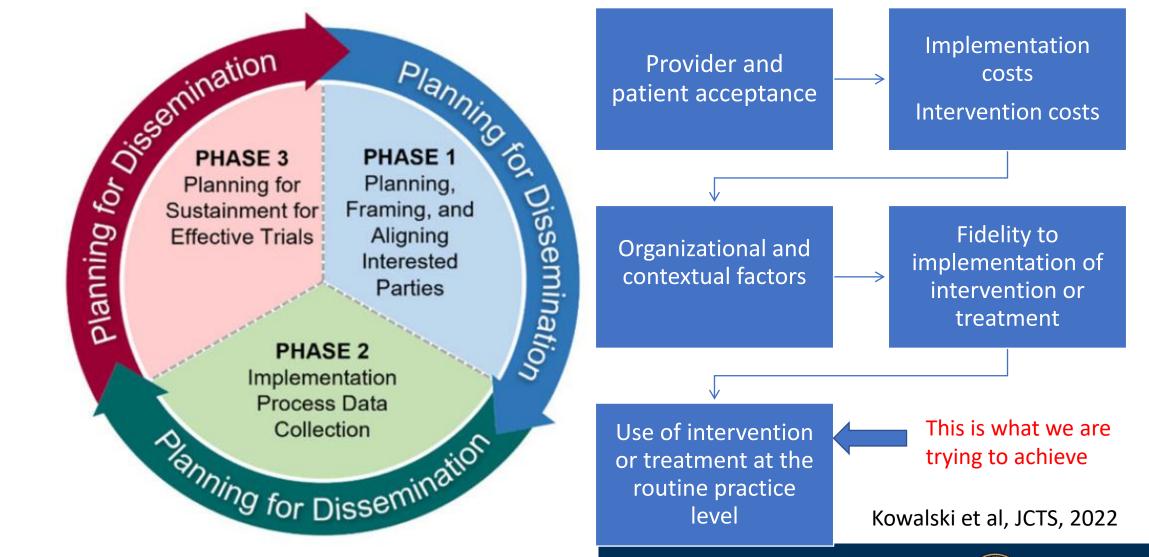
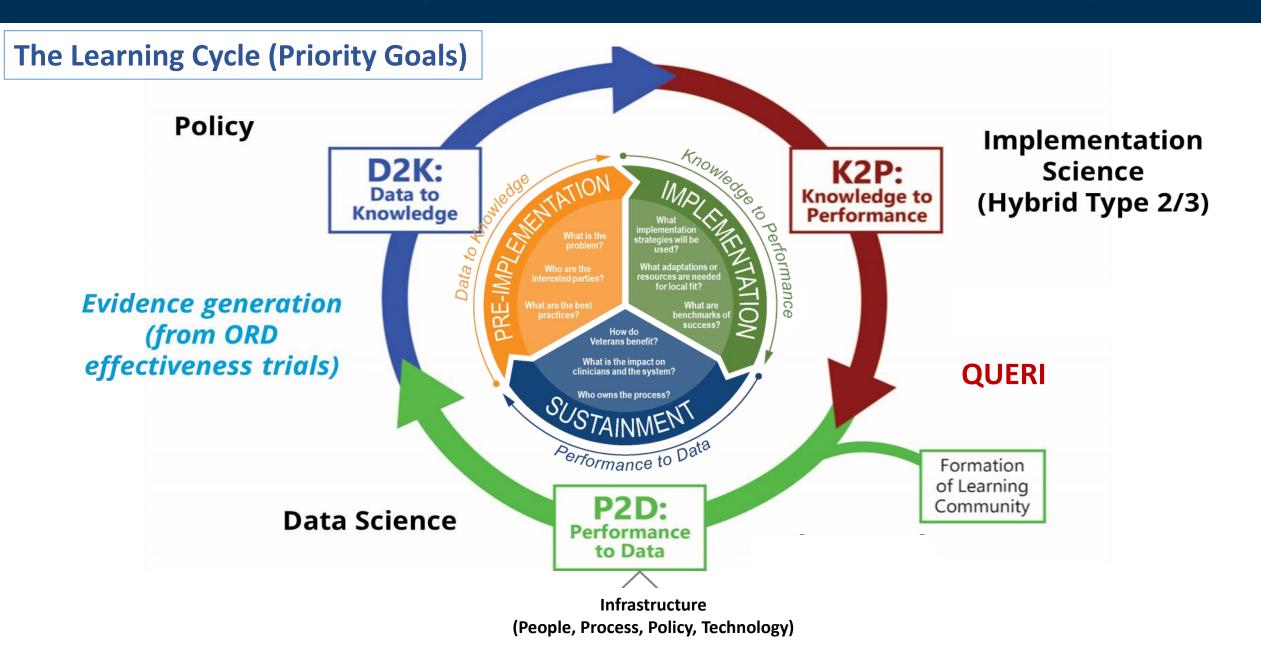


Fig. 1. Framing for the Implementation Planning Assessment Tool.



HSR LHS Cycle Supported by QUERI Roadmap



QUERI Implementation Roadmap

- Problem-focused: Multi-level operations input, Learning Community
- Infrastructure: Data, practice networks, peer-review
- Agile: Projects on retainer to take on time-sensitive VA priority work
- Research & QI protocols coexist
- Investigator <u>and</u> staff implementation and evaluation training opportunities
- Sustainment plan: business case, implementation playbooks



CyberSeminar on the QUERI Implementation Roadmap

Link for recording
Link for slide deck

Link for QUERI Implementation Roadmap Guide





Examples of HSR Research Topics Aligned with LHS and VA Priorities

- <u>Develop and test implementation or change strategies</u> to improve scale-up and spread of effective treatments for Veterans (or de-implement low-value care), e.g., precision audit & feedback, credentialing, simulated learning
- Develop, validate, and test novel data science methods that <u>optimize application of Veteran-centered data</u> in real-world settings, e.g., machine learning, AI (including ethical issues), social media, conversational analysis
- Develop and validate <u>systems science or engineering models</u> to enhance the effectiveness, quality, safety, and efficiency of health care for Veterans in different settings (NAM HSR Report)
- Assess impacts of <u>health care workforce</u> recruitment and retention initiatives, policies on Veteran access to care
- Develop and test novel strategies to optimize the <u>science of end-user engagement</u>, e.g., Veterans, caregivers/families, providers, communities, etc., e.g., deliberative democracy, community research studios
- Implement and assess impact of programs for <u>underserved and at-risk Veteran populations</u> (VA Strategic Plan)
- Develop and evaluate programs or <u>policies addressing health equity and social determinants</u> of health, e.g., Veterans benefits, legislative mandates, national clinical standards of care, Veterans justice programs





Research That Does Not Fit in HSR

- Clinical interventions that are still regarded as experimental (e.g., efficacy studies)
- Studies involving interventions or treatments for a specific condition or disease that still require approval for use in VA routine clinical settings (these studies while not under the purview of HSR are encouraged to have an implementation feasibility secondary aim- See Cooperative Studies Program Implementation Planning Assessment Tool)
- Epidemiology studies focused on describing the clinical course of disease and not processes of care
- Research studies on the effectiveness of actual screening and treatments relating to prospective clinical trials
- Data science studies that exclusively focus on molecular, physiologic, or genomic modeling
- Computer software development efforts without a focus on their direct application in routine care settings
- Efficacy or effectiveness studies where the primary outcomes focus exclusively on physiologic processes
- Studies emphasizing specific functional outcomes related to individual disabilities
- Studies where behavioral health interventions target specific mental health diagnoses such as anxiety disorder or depression in specialty mental health care
- Studies requiring primary data collection of patient outcomes using specialized rather than general instruments





HSR Strategic Methodology: Summary

- Enable HSR to better respond to emerging VA and Veteran priorities
- Encompass current HSR topics while also <u>expanding HSR's reach</u> across different operations partners to support VA national priorities related to Veteran care improvement
 - HSR/QUERI to inform next VA Strategic Planning process
- Reflected in current HSR RFAs (e.g., implementation, data science, engagement)
- <u>Differentiate</u> HSR from newly created ORD Actively Managed Portfolios and Broad Portfolios
- Ensure investment of cross-cutting Learning Health Systems research with a Veteran focus
- Based on established scholarship and <u>priorities</u> from the HSR community, e.g.,
 - Patient-Centered Outcomes Research Institute (PCORI) Methodology Standards
 - Agency for Healthcare Research and Quality (AHRQ) Learning Health System Core Competencies
 - National Academy of Medicine's Future of Health Services Research report







HSR Impacts

November 29, 2023

Health Systems Research
Office of Research and Development
Veterans Health Administration





Congratulations to our Recent HSR Awardees!

2022 Under Secretary's Award for Outstanding Achievement in Health Services Research



Sanjay Saint, MD, MPH

2022 Daniel Deykin Award Outstanding Mentor



Sarah Krein, PhD, RN

2022 Health System Impact Award



Laura Damschroder, MS, MPH

2022 Best Research Paper Awardees



Kritee Gujral, PhD







Dave Oslin, MD

NEW! HSR Special Recognition Awards

- Open to HSR staff and Investigators
- Significant and longstanding contributions with key roles on research projects and/or within the research enterprise more broadly
- Nominees are field-based staff or investigator with a role in an HSR, QUERI or operationally partnered initiative
- Nominations due December 19, 2023
- More information and nomination link here:

https://www.hsrd.research.va.gov/for researchers/awards/staff-investigator-award.cfm





Health Systems Research Impacts

HSR and QUERI impacts were featured in the Government Accountability Office (GAO) 2020 report on VA's Efforts to Prioritize and Translate Research into Clinical Practice

https://www.gao.gov/products/gao-20-211

Many thanks to our HSR investigators, staff, and our Veteran and provider partners for their work to improve the health and healthcare of the Veterans we serve!





Overall Assessment of HSR/QUERI Impacts (ACTION)

Essential in reporting impacts to VA and ORD Budget Justifications, Congress

| Domain | Key Measures | |
|---|---|--|
| <u>A</u> lignment | How is the initiative aligned with specific VA priority goals? What specific VA metrics is the study tracking? | |
| <u>C</u> ommitment | Is the study receiving financial or non-financial (e.g., FTE, data) support from the operations partner? Did the study develop new tools, software, products, etc., to be disseminated? | |
| <u>T</u> ailoring to local context | Reach and Adoption (e.g., RE-AIM) Number of sites involved, patients/providers enrolled | |
| <u>I</u> nforming the field | Were leaders with policy and financial influence briefed on study impacts? | |
| Observing healthcare change and generating New projects | To what extent did the study lead to or shape new VA programs or policies? Did Veterans get better? | |

Braganza et al. 2020





Examples of HSR and QUERI Impacts

In collaboration with VA operational partners

- Suicide prevention national outreach programs
- Opioid and pain care evidence-based practices (EBPs)
- Medical home model for at-risk Veterans (patient-aligned care teams)
- National health equity dashboard
- Antibiotic stewardship
- Veteran functioning and long-term care
- Optimizing surgical care
- Innovation





Examples of Recent Impacts

Suicide prevention

- Caring Contacts sends messages to Veterans at high risk of suicide → implemented in over 22 VA sites
- Caring letters reached over 200,000 Veterans
- QUERI national evaluation for Transitioning Servicemembers

National rollout of guideline-based opioid use prescribing

- Stepped Care for Opioid Use Disorder Train the Trainer (SCOUTT): >200% increase
 in patients with OUD receiving evidence-based treatment
- Stratification Tool for Opioid Risk Mitigation (STORM) medication safety dashboard resulted in over 20% reduction in mortality from opioid use disorder
- Consortium to Disseminate and Understand Implementation of Pain & Opioid Use Disorder Treatment (CONDUIT): 7 EBPs for pain implemented in >60 sites





Examples of Recent Impacts (cont'd)

Patient-aligned Care Teams Tailored for Homeless Veterans (H-PACT)

Enrolled Veterans had fewer VA and non-VA hospitalizations

Health Equity Dashboard

The VHA Primary Care Equity Dashboard has nearly 1,000 users at 119 VAMCs

Antibiotic Stewardship: Spread of Best Practices

 HSR has funded more than a dozen studies on curbing antibiotic over-prescribing, one study resulted in more than 8,000 fewer days of antibiotics

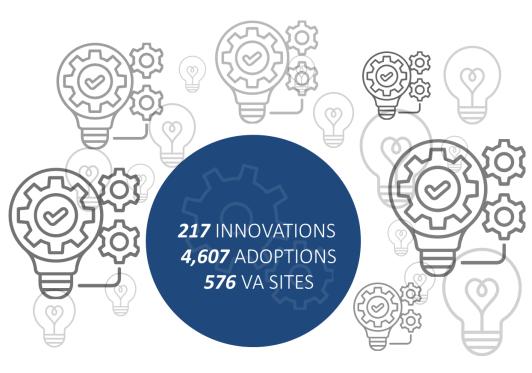




Diffusion of Excellence and HSR/QUERI Partnership Impacts

- 6-year partnership to scale-up, spread, and sustain evidence-informed practices, e.g., support for 6 National Diffusion Practices:
 - TeleWound: Veterans saved an average of 303 miles in travel with a cost savings of \$170
 - FLOW3: 157 facilities; 30,000 complete prostheses or socket replacements for 17,621 Veterans
 - VIONE:133 facilities; 15,895 providers; 694,826
 Veterans
- Rigorous evaluation of the Diffusion of Excellence and development of products to enhance the program impact, e.g., QuickView, Wishlist
 - Shark Tank→ 99% VHA parent health systems/facilities submitted 3,281 applications; 88 Promising Practices:
 1,440+ adoptions; 56% facilities sustaining

Diffusion Marketplace Impacts







HSR Strategic Methodology Impacts

Engagement Science

- Surgical Pause (Diffusion of Excellence) optimizes care for frail Veterans before surgery
- Strengthening Excellence in Research through Veteran Engagement (SERVE) Toolkit

Systems Science

- Advancing Comprehensive Diabetes Care (with Diffusion of Excellence, Office or Rural Health)
- Cooperative Pain Education and Self-Management (COPES) national CBT program for pain

Implementation Science

- Change strategies adopted by VA national program offices, e.g., Implementation Facilitation and Leadership for Organizational Change and Implementation (LOCI)
- STRIDE inpatient walking program: Over **40 medical centers** impacting more than **7,000 Veterans**
- CSP Implementation Planning Assessment Tool





HSR Strategic Methodology Impacts (cont.)

Policy Analysis

- Several HSR and QUERI investigators involved in Reduce Employee Burnout and Optimize Organizational Thriving (REBOOT) initiative to evaluate **VA workforce well-being policies**
- National evaluations of recent legislative mandates related to women's health, access to care for underserved communities, mental health, and Veterans benefits

Data Science

- Machine learning to enhance detection of Veterans at risk of homelessness
- Improving value and safety of cancer pharmaceutical use
- Predictive modeling to better evaluate progression to liver cirrhosis among Veterans







HSR Future Directions

November 29, 2023

Health Systems Research
Office of Research and Development
Veterans Health Administration





Looking Ahead

- HSR/QUERI to inform the next VA Strategic Planning process
- Greater integration with QUERI, ORD, and VA to support priority-setting and interdisciplinary research and evaluation in a learning health system (LHS)
- Expanded opportunities for LHS infrastructure support
- Empower our investigator and staff workforce to leverage opportunities across VA operations (beyond the research appropriation)

HSR & QUERI to Inform Next VA Strategic Plan

VA's Strategic Plan informs its ~\$1 trillion in spending, including VHA, ORD budgets and emerging areas for research and evaluation



HSR and QUERI to support VA's Office of Enterprise Integration's update to the VA Strategic Plan by informing priority areas based on multi-level input process

Rapid Approach to Identifying VA Strategic Plan Priorities

(Beck et al, QUERI Priority Setting process)

Existing reviews inform focus group, survey questions

Phase I: Identify care gaps and unanswered questions (e.g., environmental scan, evidence inventories or reviews, VA program office strategic plans)

General principles:

- 1. Priorities should reflect the range of services provided to Veterans (total \$1T)
- 2. In-depth feedback from focus groups to identify priorities not previously realized
- 3. Broad representation across interested parties via surveys, voting on top priorities
- 4. Emphasis on perspectives from the field

Phase II: Refine priorities
using concurrent
processes: national
surveys/live voting & focus
groups with Veteran,
provider, leader,
investigator groups

Candidate priorities for VA Strategic Plan Measures of Impact

Ongoing Input

Survey and focus group input inform Delphi panel discussion with representatives from different groups

Phase III: Delphi consensus panel with interested party representatives rank priorities on urgency, impact, feasibility, identify impact metrics

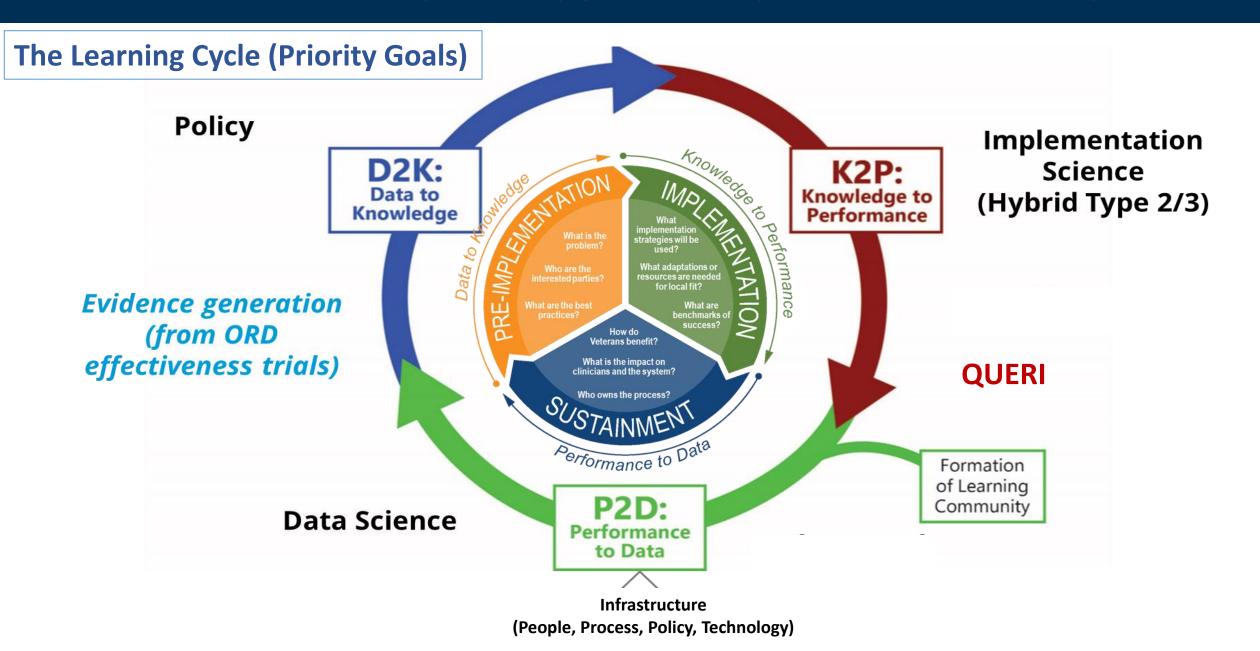
References:

- Aligning quality improvement efforts and policy goals in a national integrated health system - Braganza - 2022 -Health Services Research - Wiley Online Library;
- 2. <u>Health System Research Priorities for Children and Youth With Special Health Care Needs PubMed (nih.gov)</u>,
- 3. Research Lifecycle to Increase the Substantial Real-world Im...: Medical Care (Iww.com)





HSR LHS Cycle Supported by QUERI Roadmap



At a Glance: HSR vs. QUERI

| | HSR | QUERI |
|---|--|--|
| Aims/Goals | Investigator-initiated research, hypothesis- driven, long-term, generalizable | Non-research driven by time-sensitive operations needs, implementation or evaluation of national-level initiatives |
| Operations Partner Involvement, Funding | Collaborative | Directive |
| | Research Appropriation | Clinical Appropriation, Matched funding/resources often required |
| Study Design | Hypothesis-driven, pre-specified interventions or implementation strategies to inform national scale-up | Rigorous evaluations often within operations time constraints, national level, exploratory |
| Approach | Development of intervention, development or testing of implementation strategies, validation of methods, metrics, etc. | Implementation/evaluation of an evidence- based program addressing VA priorities and sponsored by a Program Office or VISN |





How HSR and QUERI Align to Address VA Priorities

The most recent QUERI RFA supports investigator-operational partner teams to deploy the data and governance infrastructure to launch research and non-research projects responsive to Veteran-centric goals

Source: QUERI LHS RFA

Veteran-focused Priority Goal:

Quarterly and Annual Milestones

Formation of Learning Community, e.g., Veteran Engagement Group Representatives

Frontline Provider Communities of Practice Representatives

Clinical and Operations Managers

Leaders, Investigators

D₂K

Learning Community Launches Simultaneous Knowledge Implementation (Non-research, or Quality Improvement-QI) and Knowledge Generation (Research) Initiatives

K2P

D2K: (Project 2) Cohort Analysis:

National longitudinal assessment to inform enterprise-wide intervention studies

K2P: (Project 3) QI Intervention:Rapid implementation of best practice

P2D: Performance to Data (start here)

People

D2K: Data to Knowledge

K2P: Knowledge to Performance

P2D Start at P2D (Project 1) Needs

Assessment: ID drivers and quality gaps

Common infrastructures across all initiatives

Processes and Policies Technologies

QUERI and ORD Standard Operating Procedures:

Templates for Learning Community charters, Impact Metrics, MOUs, DUA/Data access, Ethics (e.g., IRB & non-research quality improvement protocols)

Summary of HSR and QUERI Funding Pathways



HSR Pilots

HSR Researchers in Residence

HSR & QUERI Career Development (ADIL)

QUERI Rapid Response Teams

Research & Evaluation

Scale-up, Sustain

List of current funded projects:

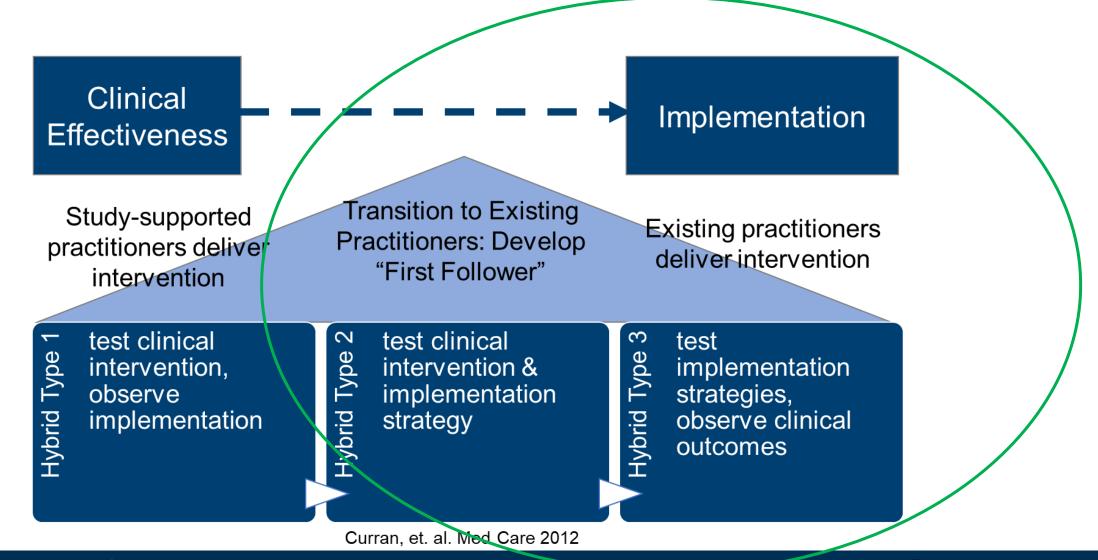
Current HSR studies

Quality Enhancement Research Initiative (QUERI) brochure





HSR Funds Implementation Research (Real-World Care)







QUERI Projects are Non-Research

- QUERI projects are non-research because of the funding source (medical administration) and their focus on improvement within VA
- Protocols involving data collection are nonresearch if the data are fed back to providers or operations leaders to directly improve care and/or other VA processes
- Documentation of non-research QUERI projects by sponsoring program office lead in an MOU
- In situations when a QUERI project wants to collect additional data above and beyond VA improvement efforts, obtain determination through the IRB (VAEDA)

CyberSeminar: Everything You Need to Know About VHA Non-research Protocols

Link to Recording

CyberSeminar: Everything You Need to Know About QUERI Non-research Protocols

Link to Recording





HSR Priorities and Future Directions: Bottom Line

HSR prioritizes research that addresses at least one of the strategic methodology areas

Implementation Science Data Science Engagement Science

Systems Science Policy Analysis

Research priorities also address impacts on Quintuple Aim goals

Increase Access Ensure Equity Support Workforce

Improve Outcomes Improve Value

Research priorities are aligned with VA national priorities

Hire Faster & More Competitively Connect Veterans to Soonest, Best Care

Promote a Culture of Safety, Knowledge Translation Prevent Veteran Suicide

Serve Veterans with Military & Environmental Exposures Reduce Veteran Homelessness

• National thought leader in cutting-edge health systems research that is responsive to the changing needs of Veterans and the VA that serves them





Questions Received from the Field

- How will CDA applications be impacted by the transition to broad portfolios?
 CDA applications will still be reviewed by HSR-specific panels, and the priorities related to career
 - CDA applications will still be reviewed by HSR-specific panels, and the priorities related to career development align with those for HSR more broadly.
- Will the transition benefit projects with multiple operations partners?
 - Projects that bring together a coalition of operations partners will benefit from the updated crosscutting HSR priorities especially if they focus on VA priority goals, and where appropriate, the AMPs as well. One of the goals of the AMPs is to strengthen collaborations between research and operations partners for specific disease-focused areas of high priority to VA and Congress.
- Can you clarify what types of software/algorithm studies fall under HSR priorities?
 - Development of software or algorithms can still fit under the broader HSR strategic methodology priorities if the research involves ongoing partnerships with end-users, especially patients, providers, and clinical operations partners (e.g., use of engagement science), clinical processes (e.g., systems science) and/or aims that focus on feasibility and dissemination planning (implementation science).





Questions Received from the Field (cont.)

• Does HSR plan to provide training opportunities to staff akin to QUERI?

HSR strongly supports more training opportunities for staff especially in specific skills related to the LHS core competencies. One avenue is through AcademyHealth which has trainings in Communicating for Impact. We can also investigate leveraging QUERI training opportunities, and COINs also receive a set amount of funds annually to support professional development. Moreover, academic partners are increasingly offering training opportunities for staff professional development.

• What is the vision to help support the field of HSR researchers- particularly early career investigators?

In QUERI we have a saying that our investigators "triple-major:" as subject matter experts, methodologists, and scientific partners working with operations (see LHS core competencies). To this end it is important for early-career investigators to not only pursue a topic that they are passionate about, but to also grow expertise in a methodology that can be applied across areas of research, e.g., one of the five strategic methodology areas. It would also be important to take advantage of HSR and QUERI leadership training opportunities especially in how to work with operational partners (see <u>Kilbourne</u>, et al LHS, 2022).





HSR Priorities—Key Reference Documents

- Patient-Centered Outcomes Research Institute (PCORI) Methodology Standards
- Agency for Healthcare Research and Quality (AHRQ) Learning Health System Core Competencies
- How the VA is training the Next-Generation workforce for learning health systems Learning Health Systems
 Wiley Online Library
- VA Quality Enhancement Research Initiative (QUERI) Roadmap
- National Academy of Medicine's Future of Health Services Research report
- VA Strategic Plan (including Appendix D, highlighting HSR Priority-Setting)
- VA Agency Priority Goals
- Learning Health System Cycle (<u>Friedman, 2022</u>), Maturity model (<u>Lannon et al, 2020</u>)
- VHA Medical Center and Network Director Performance Plan
- HSR Priorities Document: https://www.hsrd.research.va.gov/funding/PriorityDomains.pdf





HSR and QUERI Funding Opportunities

HSR Investigator Initiated Research (IIR) Research Career Development Program:

https://www.hsrd.research.va.gov/for_researchers/ https://www.hsrd.research.va.gov/cdp/

HSR Updated Priority Domains:

https://www.hsrd.research.va.gov/funding/PriorityDomains.pdf

HSR Funding:



Quality Enhancement Research Initiative (QUERI) implementation training:

https://www.queri.research.va.gov/training_hubs/

QUERI Advancing Diversity in Implementation Leadership (ADIL) Initiative queri.research.va.gov/QUERI-ADIL.pdf

QUERI Funding:





