

**VA Learning Health System Infrastructure Startup Award Request for
Applications (RFA)
Updated 9/18/2023**

Yellow highlighting signifies changes made since the initial release of the RFA

Purpose

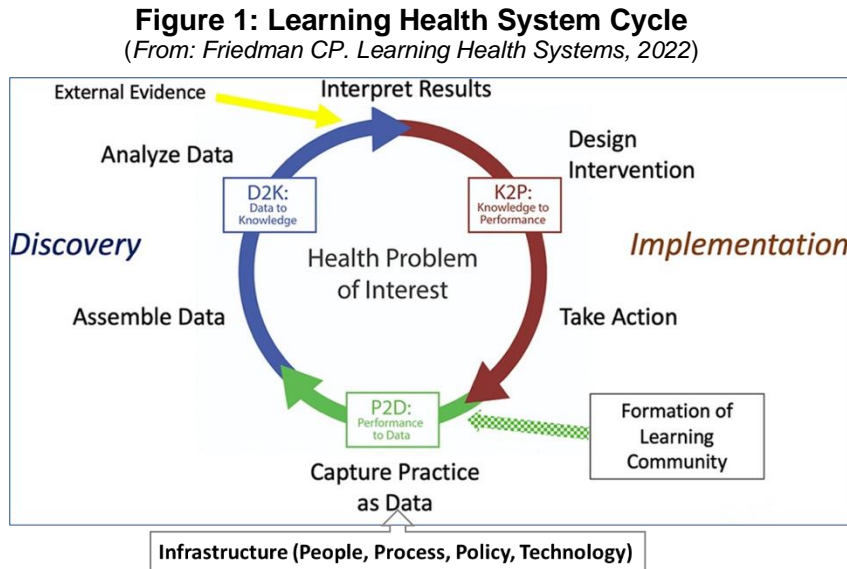
The Veterans Health Administration (VHA) Office of Research and Development (ORD) announces an opportunity for Department of Veterans Affairs (VA) medical facilities **with a currently funded Quality Enhancement Research Initiative (QUERI) Center** to compete for medical services (0160) funding to build a learning community and data infrastructure to support learning health systems that address Veteran-focused national priority goals to ultimately inform ongoing evidence-building and evaluation activities related to VA's fulfillment of the [Foundations for Evidence-based Policymaking Act \(Evidence Act: US PL 115-435\)](#).

Background

Learning Health Systems. First defined by the [Institute of Medicine](#) in 2007, a learning health system involves a “system in which science, informatics, incentives, and culture are aligned for continuous improvement and innovation, with (evidence-based) practices seamlessly embedded in the care process, patients and families as active participants in all elements, and new knowledge is captured as an integral by-product of the care experience.” These functions include formation of a **learning community**, which is a workgroup that is focused on achieving a shared health priority goal through ongoing generation and management of evidence-building and evaluation initiatives that rely on enterprise-wide sources of clinical, system, and population-based **data and infrastructure**. The infrastructure includes standard operating procedures based on organizational processes and policies for ongoing data curation and analysis that will support enterprise-wide evidence-generation and evaluation activities addressing the priority goal.

Learning health systems operate at different levels: “micro”, or individual level (e.g., use of precision medicine to inform individual clinical decision-making), “meso”, or health care setting level (e.g., providers coordinating care for patients with multiple comorbidities), or “macro,” or government/population level (e.g., implementation of national policies to deter health risk behaviors) (e.g., [Harrison and Shortell, 2020](#)). All three levels share common elements (e.g., learning community, infrastructure, continuous improvement cycles) and interact with each other. These different levels interact seamlessly when learning health systems enable co-occurrence of evidence-building (research) and evaluation (non-research, quality improvement) initiatives supported and regulated by a common socio-technical infrastructure (people, processes, policies, data/technology). For example, capturing the lived experiences of patients to inform the design and implementation of evidence-based practices in the health care setting, and in turn developing policies that promote the sustainment of these practices at the clinic level is essential for improving the health and wellness of individuals and communities.

The Learning Cycle (Figure 1) is the foundational learning health system framework for this call for applications ([Friedman 2022](#)). Central to the Learning Cycle is the formation of a learning community, infrastructure for ongoing data curation and analysis, and a repeatable process for supporting both operations and research initiatives (performance to data, data to knowledge, and knowledge to performance) that inform evidence-based practices as well as programs/policies to support their implementation.



In VA, ORD/QUERI have standard operating procedures for moving between phases (performance to data, data to knowledge, knowledge to performance), such as ethics review standards for study protocols, data use agreement formats, memoranda of understanding templates, etc. The infrastructure supports people (including the learning community), policies (governance, data use agreements), processes (e.g., completion of standard operating procedures, milestones), and technologies (e.g., data and informatics) that are foundational to the repeatable learning cycle. Core functions of the infrastructure include: 1) governance and leadership, 2) data resources, and 3) execution of initiatives towards improving outcomes aligned with the priority goal. ORD/QUERI provide additional infrastructure, including peer review of learning health system proposals and access to national data sources, where applicable.

Under people, the Learning Cycle includes the learning community members and other groups or individuals that they partner with in order to share data, resources, and responsibilities to accomplish priority goals. The policies are the norms that help shape how the work is done, as well as those that govern lanes of effort, such as funding appropriations and scientific/ethics review. Processes which stem from policies include repeatable actions, such as development of memoranda of understanding between investigators and policymakers that describe goals, milestones, timelines, data use agreements, and meeting cadences for the learning community, subcommittees, and other involved groups. Technologies include new ways to curate and create the data

needed to address research, evaluation, and quality improvement focused on priority goals. Moreover, while data infrastructure exists in VA through the national electronic medical record system, there are a number of other national sources of Veteran-, provider- and organizational-specific data that VA policymakers have curated over time for their national programs.

QUERI's Mission and Implementation of an Evidence-based Policy Learning Cycle. The mission of the VA Quality Enhancement Research Initiative (QUERI) is to improve Veteran health by accelerating the adoption of evidence-based practices in routine care settings. For more than 25 years, QUERI has led a national network of centers devoted to identifying best practices, implementing them in clinical settings, and rigorously evaluating the results of these efforts to inform VA policy and practice. QUERI investigators are leading national efforts in VA to conduct program and policy evaluations and address legislative mandates, notably through the Foundations for Evidence-based Policymaking Act of 2018 ([Evidence Act](#), US Public Law 115-435), which requires that agency budgets be supported by evidence and evaluation. QUERI and the VA Office of Enterprise Integration (OEI) are responsible for superintending VA's response to the Evidence Act, including implementing a Learning Agenda, as part of the [VA Strategic Plan for FY2022-2028](#), and [Annual Evaluation Plans](#) to promote the use of evidence and evaluation throughout the organization.

Building on QUERI's experiences with implementing learning health system goals through a systematic, enterprise-wide process for prioritizing implementation/evaluation resources ([Braganza et al 2022](#)) and the QUERI Roadmap for Implementation and Quality Improvement ([Goodrich et al 2020](#)), QUERI seeks to implement learning health systems through the formation of learning communities to lead broad evidence generation and evaluation activities that address national Veteran-centric priority goals. Each learning community works on a shared priority goal by leveraging enterprise-wide data and infrastructure to conduct enterprise-wide evidence and evaluation activities to inform VA programs and policies affecting Veterans.

Mechanism

This startup RFA is intended to support the implementation of a learning community, common data infrastructure, and standard operating procedures that enhance evidence building and evaluation activities and help achieve Veteran-centric priority goals. This startup funding opportunity lays the foundation for the continuation of ongoing evidence-building and evaluation activities over time, and successful awardees will have the opportunity to apply for additional funding beyond the 18 months to support further development and maintenance of the learning community, data infrastructure, and evidence-building and evaluation activities.

Startup applications should address one of the following Veteran-centric priorities, which are based on the [Agency Priority Goals, QUERI priority setting process and results](#), VA Strategic Plan, VHA Long-Range Plan, [OMB Evidence Act guidance](#), and U.S. Cross-Agency Priority Goals. Applicants are encouraged to support a learning health system that addresses the environmental, social, and economic determinants of health (e.g.,

policies related to Veterans benefits) in addition to health care access, outcomes efficiency, equity, and experience:

1. Improve Veteran housing and economic security outcomes, including preventing and ending homelessness
2. Prevent opioid and related substance use disorders through programs that address the underlying environmental, social, and economic determinants (e.g., employment, education incentives, justice system and incarceration diversion programs) and/or complex, co-occurring conditions
3. Improve Veteran and provider experience and outcomes related to the EHR modernization, especially through data-driven assessments and scalable information management and clinical pathway tools
4. Enhance VA workforce capacity, effectiveness, and retention, including policies that enhance employee and trainee recruitment and experience
5. Prevent Veteran suicide, especially through a combination of community and clinical-based interventions
6. Improve Veteran care access (including wait times and scheduling), quality, cost, and equity across in-person, virtual, and community care services with a particular focus on new technologies and processes
7. Improve access to and quality of aging and long-term care support for Veterans
8. Enhance caregiver support for Veterans, particularly those who are from marginalized or at-risk populations
9. Improve Veterans' experience and outcomes with disability claims, including policies that enhance equity in Veterans' benefits related to health conditions screening and means testing
10. Improve the outcomes of Veterans with military and environmental exposures through enhanced health and disability benefits and access to and quality of care for exposure symptoms

The proposed work must be designed as non-research (as defined by [Program Guide 1200.21](#)) and be co-led by at least one VA national program office leader who has direct authority in implementing budgets, programs and policies related to the selected priority goal. The application should also be endorsed by the program office's affiliated Assistant Undersecretary for Health (AUSH) level leadership. A sustainment plan to enable continued resourcing and data stewardship by the involved program office of the ongoing data expansion and curation for future evidence-building, evaluation, and quality improvement activities is also strongly encouraged.

Expected outcomes and products for the startup period include:

1. Formation of a learning community aligned with one of the 10 priority goals described above, including the development of a charter, workplan (memoranda of understanding), metrics, and milestones. Where appropriate, subcommittees can be formed to address specific initiative goals (e.g., needs assessment, cohort formation, quality improvement initiatives).
2. Identification of metrics and data sources and development of standard operating procedures (SOPs) that are specific to the learning health system and based on

common VA, ORD, and QUERI processes and policies. The SOPs should help optimize data curation, governance (including data stewardship processes), synthesis, and analysis of enterprise-wide, national data to support ongoing cohort, evaluation, and quality improvement initiatives.

3. Completion of a baseline needs assessment using initial source(s) of data of current program/policy use and Veteran outcomes.
4. Creation of a combined data set establishing the underlying cohort (denominator) to inform multiple evidence-building and evaluation projects (e.g., future cohort, intervention, quality improvement study) addressing the priority goal
5. Quality improvement initiative that involves the rapid implementation of an effective practice or policy to inform scale up and sustainment nationally
6. Refinement of SOPs based on the needs assessment, cohort development, and quality improvement initiative
7. Design and execution of a communication strategy for briefing VA program office and national leadership on predetermined milestones and metrics based on the needs assessment, cohort building, and quality improvement initiatives.
8. Development of future workplans to support ongoing national evidence-building and evaluation activities to be supported by the affected program office focused on the priority goal, including a future evidence-building activity (national intervention trial or cohort study) and evaluation (e.g., Evidence Act evaluation plan) or quality improvement initiative.

Learning Community Formation. A learning community is a group of individuals with a shared commitment to a national Veteran priority goal that leads the process of curating, managing, and analyzing data at an enterprise level. Learning community Co-Chairs include a VA investigator and a VA national operational leader with policy and budgetary authority related to the priority goal. Learning communities also include representation from clinical and operations managers, frontline providers, and Veterans, their families, and caregivers. Ideally, members should be drawn from existing groups, such as VA national provider communities of practice or standing Veteran Engagement Councils (see HSR&D [SERVE](#) and VHA [GROVE](#) programs for more information). VA provider communities of practice are national groups of provider representatives from different VA facilities and VISNs that regularly meet with national program office leadership and share a common scope of practice (e.g., Patient-Aligned Care Team representatives, substance use treatment providers, pain treatment specialists, VAMC chiefs of staff, etc.). Table 1 provides an outline of learning community members and roles.

Table 1: Outline of Learning Community Member Roster and Roles

Operational Champion (Co-Chair)	Direct report to VA National Leadership, has policy and budget-making authority including access to data resources in the program office that is primarily responsible for priority goal-related programs
VA Investigator (Co-Chair from QUERI center)	Scientific lead for the work related to the priority goal affiliated with a currently funded QUERI center
LHS Program Manager	Coordinates all aspects of the Learning Community, including partnerships with VBA, VEO and other relevant VA entities, develop standard operating procedures, project workplans, milestone tracking, meeting, management of subcommittees, etc.
Operations Manager	Serves as liaison across program offices and helps ensure the alignment of goals across program offices through memoranda of understanding
Informaticist	Leads clinical data extraction from VHA (e.g., EHR), VBA, VEO, and other sources, partners with other IT/data stewards to ensure data use agreements, authorities to operate, and documentation of usable data for analysis and cohort building. Designs data governance, management, and extraction workflows.
Methodologist	Lead study design and methods expert for evidence-building activities
Quality Improvement Specialist	Identifies opportunities for quality improvement and designs QI initiatives using data to assess outcomes
Veteran	Ideally a member of an existing Veteran Engagement Council who can speak from lived experience as well as represent other groups
Frontline Provider	Representative from VA national community of practice who can speak to lived provider experiences as well as represent other frontline providers through national role

Learning Community Core Responsibilities. The Learning Community manages ongoing evidence-building and evaluation initiatives addressing the priority goal. Specifically, they are responsible for the data curation and management and standard operating procedures based on VA policies, including data use agreements, workplan development, memoranda of understanding between investigators and operations partners, formation of subcommittee for specific projects, and assessment and tracking of metrics and milestones. Initiatives include short-term (e.g., needs assessments, quality improvement interventions) and longer-term (e.g., national cohort or evaluation studies, large-scale intervention studies) projects. The learning community also incorporates knowledge from ongoing research and evidence syntheses to determine further research and quality improvement directions.

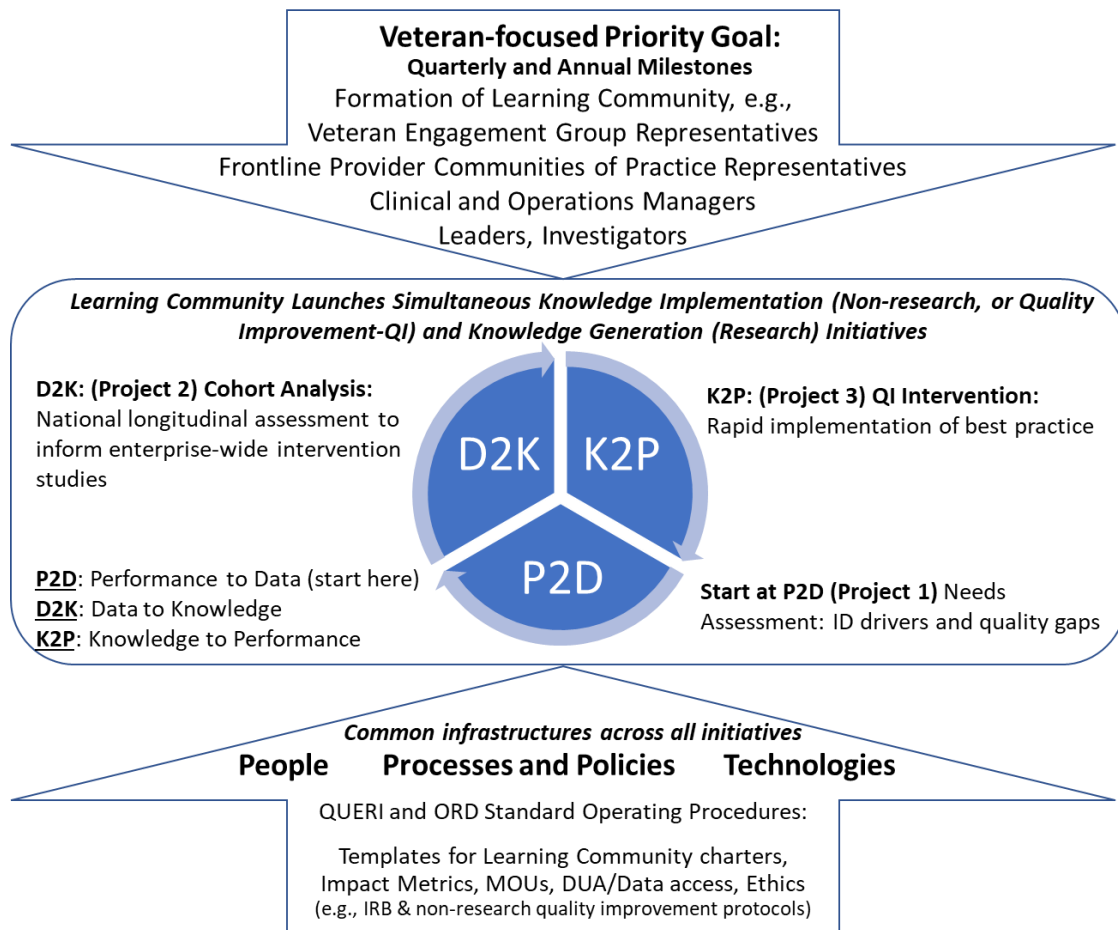
Learning Cycle Phases. The learning community is formed during the Learning Cycle performance to data phase and works through the data to knowledge and knowledge to performance phases of the cycle for each initiative. In the data to knowledge phase the learning community garners support for the assembly of data, develops governance in partnership with QUERI and VA leadership to further curate and share data, and reviews current data and evidence, including information from outside the organization such as evidence syntheses to determine further research and quality improvement initiatives. The knowledge to performance phase includes simultaneous evidence-building and evaluation initiatives that also include determination of the best implementation strategies and policies to improve effective practice and knowledge uptake that are communicated back to VA leaders to inform program and policy recommendations for sustainment. Many of the knowledge to performance steps are articulated in the [QUERI Roadmap for Implementation and Quality Improvement](#).

LHS Milestones. The following milestones listed below must be completed during the startup award period. The learning community launches initiatives aligned with the specific aims of the priority goal including a needs assessment (performance to data: e.g., determine gaps in quality and best practices to mitigate gaps), development of a broad data cohort of Veterans to inform enterprise-wide data curation and analysis addressing evidence building and quality improvement questions related to the priority goal, and initiation of quality improvement projects to implement improvements in programs and polices addressing the priority goal. In doing so, the learning community implements the following steps:

1. Form learning community/subcommittees focused on the priority goal, develop learning community charter and finalize membership. Operationalize the shared priority goal into specific aims, metrics, and milestones to be accomplished each year. Identify the knowledge gaps and Veteran and provider-focused outcomes to be assessed.
2. Identify the metrics and data sources to accomplish specific aims, including the population (denominator) in which the evidence-building and evaluation activities will commence. Create standard operating procedures (SOPs) to optimize data curation, governance (including data stewardship processes), ethics (non-research) review/approvals, synthesis, and analysis of enterprise-wide, national data to support specific aims, including for large cohort studies, national evaluations, and quality improvement initiatives. Data sources include VA and non-VA electronic data, organizational/system data, survey, interview, social media, user interactions, geographic and economic data, and other sources.
3. Specify the steps to accomplish the specific aims, starting with the baseline needs assessment to identify drivers of quality gaps, development of the cohort analysis, and implementation of the quality improvement intervention to rapidly assess and/or deploy new programs or policies. Describe how these steps will inform additional data and variables needed for the national cohort study to identify drivers of better Veteran and provider outcomes in order to inform enterprise-wide intervention studies. Where possible, use standardized evaluation tools and frameworks to enable benchmarking and comparison across initiatives.

4. Launch the national data cohort study: clean, combine data sets that establishes the underlying cohort (denominator) to inform the cohort study and multiple evidence-building and evaluation projects.
5. Launch a quality improvement initiative that involves the rapid implementation of an effective practice or policy to inform scale up and sustainment nationally.
6. Analyze the data, develop publications/briefings, refine the SOPs based on the needs assessment, cohort development, and quality improvement initiative.
7. Assemble impacts, based on the [QUERI ACTION framework](#), across the aims and apply communication strategy to brief VA program office and national leadership based on milestones and metrics, communicate impacts to frontline providers, Veteran groups, investigators, and operational leaders.
8. Identify opportunities for new initiatives, including future evidence-building activities (e.g., national intervention trial or cohort study), evaluation plans for VA Evidence Act submission, and/or quality improvement initiatives.

Figure 2: Learning Health System Initiative Framework



Eligibility. This QUERI funding opportunity is open to investigators who are **affiliated with a QUERI center. Any QUERI center (QUE, PII, PEC, EBP, QIS) that is active, as of when this RFA was first released (September 1, 2023), is eligible.** The

proposed principal investigator must be a currently funded QUERI investigator, as this award will be attached to a QUERI-funded merit award. Any currently funded QUERI center (Program – QUE, VISN Partnered Implementation Initiative – PII, Evidence-based Policy Evaluation Center – EBP, Partnered Evaluation Initiative – PEC, Learning Hub – QIS) is eligible. **A QUERI center can only submit one application in response to this RFA. The application must be co-sponsored with the primary national program office or entity that is primarily responsible and has budgetary authority regarding the priority goal of interest.**

Budget and Duration. Awards will be considered supplements to currently funded QUERI centers, and funding is available for up to **\$500,000 in FY24 and \$250,000 in FY25 for a total of 18 months of funding.** QUERI funds **do not** roll over between fiscal years. The number of applications selected for funding will depend on the volume of applications received and the availability of QUERI funding. Successful awardees will have the opportunity to apply for additional funding beyond the 18 months to support further development and maintenance of the learning community, data infrastructure, and evidence-building and evaluation activities.

Table 2. Timeline for Learning Health System Infrastructure Startup Awards

Application Due Date	Notification of Review Outcome	Earliest Potential Start State
October 2, 2023	Before November 1, 2023	November 1, 2023

Application Format and Content. Applications should be single-spaced, 11-point Arial font, with at least 0.5-inch margins. **Applications should not exceed 7 pages,** excluding references and budget documents. All applications must be submitted via the [application link](#) as a single PDF that includes the following sections.

1. Non-research Proposal (7-page limit)

- a. **Specific Aims (1 page):** Describe the priority goal to be accomplished; the specific aims (one for each initiative: needs assessment, cohort, and quality improvement, see Figure 2); and the learning community and available infrastructures, including any innovative data sources.
- b. **Proposed Plan (4-5 pages):** Describe the work to be done to accomplish the aforementioned eight LHS Milestones, including needs assessment, cohort, and quality improvement initiatives. Include descriptions of proposed data sources and operational partnerships, expected products, and communication strategy.
- c. **Learning Community Members (1-2 pages):** List the Learning Community members and other key participants, their VA roles, background, and experience.

2. References (NOT included in the 7-page limit). References are not included in the page limit and can use any standard format (e.g., NLM, APA, AMA, MLA).

3. **Budget Table and Justification (NOT included in the 7-page limit).** Provide a summary budget worksheet and budget justification for the project **following QUERI's budget guidance and** using the QUERI budget and justification format found on the [QUERI SharePoint site](#). Note: There are two tabs – an itemized and a site-level budget worksheet – in the summary budget spreadsheet; make sure to complete both worksheets.

Note: Letters of support (from operations partners and research offices) are not required and should not be submitted as part of the application. Submit **only** the materials listed above; additional items/appendices will **not** be accepted. All applications must be self-contained (i.e., without the use of URLs/hyperlinks), within specified page limits. The use of URLs/hyperlinks is prohibited except in the References. Any submission with URLs placed anywhere else except in the References will be withdrawn from review. Waivers are prohibited for URLs/hyperlinks.

General Criteria for Review and Scoring of Applications. Applications will be reviewed and awarded based on the following criteria.

1. Composition of the Learning Community/subcommittee membership, including relevant expertise and representation of those responsible for policies, budgets, and decision-making related to the priority goal, scientific, program management and data expertise, and inclusion of relevant program office, frontline provider, and Veteran representation.
2. Comprehensiveness, innovation, and feasibility of the proposed data sources including data external to VHA health care services
3. Soundness in the development of policies, processes, and procedures related to standard operating procedures including ethical review, data sharing, dissemination and implementation of program impacts, etc.
4. Strength of the proposed methods especially related to the needs assessment, cohort development and analysis, and quality improvement work
5. Potential to achieve impacts on select priority goal and to sustain a repeatable process of continuous investigation and improvement (evidence-building and evaluation activities) for the affected Veteran population

A recording of the RFA informational cyberseminar that provided an overview of this funding opportunity is available [here](#). For more information on [Program Guide 1200.21](#) and how QUERI operationalizes this guidance, please refer to the two Cyberseminars below.

- [Everything You Need to Know about VA Non-Research Protocols](#): overview of non-research protocols in VA
- [Everything You Need to Know about QUERI Non-Research Protocols](#): QUERI non-research documentation

Applicants are encouraged to consult HSR&D's [VA Information Resource Center](#) (VIREC; virec@va.gov) for data resources and considerations [using this form](#). If you have any questions regarding the RFA, please contact vacoqueri@va.gov with the subject line "QUERI LHS RFA".