

EVMS-Sentara Healthcare Analytics and Delivery Science Institute

Round 4b Pilot Grant 2019 Request for Proposals (RFPs)

Focus on Health Disparities

Health disparities are preventable differences in the burden of disease, injury, violence, or opportunities to achieve optimal health experienced by socially disadvantaged populations.

Description

The EVMS-Sentara Healthcare Analytics and Delivery Science Institute (HADSI) pilot grant is made available through a partnership between EVMS and Sentara. The goal is to develop a collaborative framework for conducting focused and prioritized research in healthcare analytics and delivery, translational research, population health, clinical trials, community health disparities and other high priority areas in Hampton Roads and are recommended by the Institute's Joint Governance Board. Partnerships between clinical faculty and those with population health expertise are strongly encouraged. Proposals will be reviewed by blinded reviewers, identified by the EVMS-Sentara HADSI Steering Committee, who will then provide recommendations on funding based on reviewers' comments. The final decision of funding will be made by the EVMS-Sentara HADSI Joint Governance Board. To review HADSI's vision, mission and, goals and previously funded projects, visit the HADSI website at www.evms.edu/hadsi.

Purpose

This grant program aims to support exploratory and developmental research projects to improve health outcomes and healthcare quality, address issues related to healthcare disparities, including access to healthcare, affordability, efficiency and cost effectiveness of health service delivery systems across the continuum of care for adult health and well-being. HADSI recognizes the significant health disparities facing Hampton Roads and identifies potential areas of focus for this RFP.

Research Topics of Interest to HADSI

The research topics of interest for this round of pilot funding are **health disparities related to the high priority areas of HADSI**. **HADSI's five high priority areas are:**

1) Opioid Crisis

e.g. In 2017, in the state of Virginia, 34 deaths were due to prescription opioid overdoses compared to 16 deaths in Norfolk; 14 deaths in Chesapeake; 11 deaths in Portsmouth; 3 deaths in Suffolk (Source: Virginia Department of Health)

2) Cancer

e.g. From 2008-2012, the 5-year average rate of death per 1,000 persons was 306.9 in Norfolk black males compared to 210.4 per 1,000 persons in Norfolk white males; 176.2 per 1,000 persons in Norfolk black females; 153.3 per 1,000 persons in Norfolk white females (Source: Virginia Dept. of Health)

3) Cardiovascular Health, including hypertension, diabetes and obesity

e.g. HTN – In 2015, 38.1% of adults 20 years old and older in Portsmouth had a blood pressure of 140/90mmHg or higher compared to 29.5% in Virginia Beach and 3.9% in the US (Source: CDC-500 Cities Project)

e.g. Diabetes – In 2016, 12.6% of adults 20 years old or older in Suffolk have been diagnosed with diabetes compared to 9.2% in Virginia Beach and 9.6% in Virginia (Source: CDC)

e.g. Obesity – In 2016, 39.1% of adults 20 years old or older in Portsmouth were obese (BMI \geq 30) compared to 26.7% in Virginia Beach; 27% in Virginia and 39.6% in the US (Source: CDC)

4) Maternal and Child Health

e.g. In Virginia, there were 427 maternal deaths with chronic diseases from 1999-2012: 140 maternal deaths were in the Eastern Region (Greater Hampton Roads); 100 maternal deaths in the Central Region; 80 maternal deaths in the Southwest Region; 60 maternal deaths in the Northern Region and 47 maternal deaths in the Northwestern Region (Source: Virginia Dept. of Health)

e.g. In 2017, the infant mortality rate for black infants in Norfolk was 18.2/1,000 live births compared to 3.4/1,000 live births in white infants and 6.9/1,000 live births for “other” infants as well as 5.8/1,000 live births in Virginia and 5.8/1,000 live births in the US (Source: Virginia Dept. of Health)

5) Mental Health

e.g. In 2017, there were 33 adult suicide deaths in Virginia Beach; 33 suicide deaths in Norfolk; 29 suicide deaths in Chesapeake; 12 suicide deaths in Portsmouth; and 10 suicide deaths in Suffolk (Source: Virginia Dept. of Health)

Applications focusing on health disparities related to any of the above-mentioned HADSI research priorities will be deemed highly responsive. Healthcare disparities refer to differences in access to, or availability of, services. Health disparities refer to the preventable variation in rates of disease occurrence and disabilities between socioeconomic and/or geographically defined population groups. Health disparities research can include the 1) development of illness or disability, 2) ability to obtain and utilize healthcare, and 3) health and healthcare outcomes.

Social and demographic factors contributing to health disparities include but are not limited to:

- Poverty and rural-urban status
- Education status
- Race and ethnicity
- Gender
- Insurance status

Care Categories for Evaluation to Consider

- Pre-Hospitalization (e.g., Advanced Care Planning, Wellness Care Plans, Chronic Disease Management, Screening Rates)
- In-Patient Hospitalization (e.g., Hospital-acquired Infections and Conditions, Clinical Process Measures)
- Post-Hospitalization (e.g., Access to Care, Transitional Care Management, Advance Care Planning, etc.)

Potential Project Outcomes to Consider

Target project outcomes include, but are not limited to, the following:

- Disease-related outcomes
- Readmission rates (preventable and overall)
- Mortality rates
- Cost of care and/or over utilization
- Continuity of care
- Complications of care

Funding

The maximum allowed funding per approved proposal is \$25,000. Additional funding may be provided and will be decided by the HADSI Steering Committee and approved by the EVMS-Sentara HADSI Governance Board.

Proposal Guidelines

- All applications **must** be jointly prepared by EVMS and Sentara investigators and **must** include investigators from **both** EVMS and Sentara on the proposed research team. Without PI's from both EVMS and Sentara, the application will be incomplete and **will not be accepted**.
- Full-time EVMS faculty, Sentara employees, or community-based physicians with a defined leadership role at EVMS are invited to submit proposals. Multiple investigators from the same discipline may apply. However, participation by investigators with complementary areas of expertise from different disciplines is strongly encouraged.
- An investigator may submit only one proposal as principal investigator (PI), but may be a collaborator on other proposals.
- Projects should be for new areas of research to expand extramural funding opportunities of the investigators within their areas of expertise.
- PI's will be responsible for obtaining data requiring chart reviews or case reports.
- PI's should explain the proposed study's data source and indicate the hypotheses and analytical plan of the study.
- If the project currently receives external funding, the PI's should explain why additional funding is needed.

Review Criteria

Grant awards will be based on the following criteria:

Significance

- Project is consistent with the Institute's goals

- Project addresses important health outcome problem(s)
- Overall project goals will advance scientific knowledge
- Successful project completion will support obtaining extramural funding for future research initiatives

Investigator(s)

- PI's, collaborators, and other researchers provide evidence of expertise in the research area
- For collaborations, the unique skill(s) of each collaborator enhances the possibility of success

Innovation

- Project incorporates novel concepts, approaches, or methodologies
- Project supports the use of health analytics to improve or change clinical decisions and reduce healthcare cost
- Refinement, improvement, or new application of approaches or methodologies are proposed

Approach

- Overall strategy, methodology, and analyses are well-reasoned and appropriate to accomplish the specific project aims
- Potential problems, alternative strategies, and benchmarks for success are presented
- How the findings will enhance the ability to obtain extramural funding and support the objectives of the Institute are clearly defined

Collaboration

- Intrinsic, intellectual merit, scope, and potential impact of the project on the research field
- Feasibility of the project, appropriateness of the research plan and reasonableness of the budget
- Collaborative nature of the work
- Potential for securing new grants

Environment

- Scientific environment contributes to the probability of project success
- Resources available to the investigators are adequate for the project proposed

- The project will benefit from unique features of collaborative arrangements
- The project leverages existing data resources

Budget Restrictions

The maximum allowed budget per proposal submission is \$25,000. Allowable expenses may include direct research support. A sample HADSI budget template is available with this RFP.

Application Process and Requirements

Step One: Letter of Intent

A one-page letter of intent (LOI) is required before submitting a full proposal (LOI template provided with RFP). **Please submit a PDF of the one-page LOI to overtocz@evms.edu.**

LOI's are due by 5:00 pm EST, Friday, October 11, 2019.

Step Two: Submission of a Full Proposal

LOI's will be screened for relevance to the RFP. Investigators with selected LOI's will be invited to submit a full proposal. All PI's of selected LOI's will attend "Think Tank" meetings with the HADSI Research Support Team to determine the feasibility of the project, availability of the requested data variables in the datasets, and IRB considerations etc. The HADSI Research Support team consists of members from the IRB, Office of Research, HADSI-EVMS and HADSI-Sentara staff, and the HADSI Director.

If invited to submit a proposal, a completed proposal package, including the signed Project Approval Form, must be submitted as one single PDF to overtocz@evms.edu before 5:00 pm EST on Friday, December 6, 2019.

Conflict of Interest (COI)

All investigators will be required to follow their own institution's COI policy.

Reports

An interim report will be requested 6 months after a grant award and a final report at the end of one year.

Required Documents for the Research Proposal Package

The research proposal must be typed, single-spaced, have margins of at least 1.0 inch, and use Times New Roman 12-font. Proposal length is 12 pages maximum (including figures/tables and references), with pages numbered. The proposal consists of the following:

- Scientific Abstract: (**maximum 300 words**)
- Specific Aims: (**maximum 1 page**)
- Significance and Innovation: Explain the importance of the problem addressed by the proposal, and the application of the proposed work to the development of new knowledge in the research area. Describe how expected results will make a clear and significant contribution to the field of scientific knowledge, technical capabilities and/or clinical practice. Describe any novel concepts or approaches used or developed by the proposed work, and any new applications/improvements in methods, instrumentation or interventions (**maximum 1 page**).
- Research Approach: Describe the overall strategy, methodology and analyses used to accomplish the specific aims of the proposal, integrating any preliminary (or published) data into the discussion of the specific aims. Discuss any pitfalls and outline contingency plans and anticipated results and timeline. Outline the scientific and scholarly opportunities made possible through any collaborations proposed. Any figures/tables used must be included within the 12-page limit (**maximum 3 pages**).
- Institute Goals: In a separate paragraph, outline how this proposal fulfills the Institute's goals (**maximum 200 words**).
- References: Provide pertinent empirical studies published within the past 5 years (no page limit).
- Biosketch: NIH style bio-sketches must be provided for all investigators (**maximum 5 pages each**). A template is available at the HADSI website, www.evms.edu/hadsi Biosketch pages do not count toward total proposal page count.
- Budget: A detailed, itemized budget must be provided. Justification of all budget items is required (**maximum 1 page**).
- Roles and Interaction of PI and Collaborators: Describe in detail the roles of each member in the project and how collaboration will enhance the scope

and/or ensure completion of the project (**maximum 1 page**).

- Project Approval Form for EVMS-Sentara Healthcare Analytics and Delivery Science Institute Pilot Grant Program: All investigators must be listed on the form. **The completed form must be signed by all parties.**

Important Dates

- **LOI's are due by 5:00 pm on 10/11/2019** (send to overtoz@evms.edu)
- If applicants have questions related to the RFP, please contact Dr. Sunita Dodani at dodanis@evms.edu with copy to Carter Overton at overtoz@evms.edu.
- Accepted LOI decision announced by **10/15/2019**
- Full proposals due by **5:00 pm on 12/06/2019** (send to: overtoz@evms.edu)
- Announcement of Grant Awards by **01/10/2020**
- Award period, one year - January-December 2020 (No cost extension allowed)

Application Documents

Application documents can be obtained from the HADSI website under:

HADSI Round 4b Pilot Funding at www.evms.edu/hadsi - HADSI Resources

Please contact HADSI for support on the LOI and/or full proposal writing. We encourage you to contact HADSI early in the process. Listed below are some of the HADSI resources available to you. A full list of resources are available on the HADSI website under **HADSI Services**, which can be provided after filling out a Request Form available on the HADSI website www.evms.edu/hadsi.

- **Data extraction** (EPIC, NCDR, STS, Cancer Registry) – Partnership with the Sentara Quality Research Institute allows HADSI to provide Sentara data to the researcher.
- **Statistical analysis** - Using SAS 9.4, R, and SPSS, HADSI team members have the ability to analyze any type of data for research studies, grants, and collaborations.
- **VHI data** - Collaborating with the EVMS Brock Institute, HADSI has access to de-identified 2008-2016 VHI inpatient hospital data.

- **Spatial analysis** - HADSI uses ArcGIS to model and analyze data spatially and geographically.
- **Research methodology and study design** - At any stage in the research process, the HADSI team will provide expert advice on research methodology and study design from proposal drafting to IRB submission.
- **Grant writing and reviewing** - HADSI provides comprehensive edits and technical review of grant proposals, as well as writing services for submission and collaboration.
- **Survey development and database design (REDCap)** - Online surveys and databases are created using the secure web application, REDCap. REDCap can be utilized to collect any data for online and offline research.
- **Manuscript development** - HADSI provides review, edits, writing, and submission of manuscripts at any stage in the research process.
- **Sample size calculation and power analysis** - Combining statistical analysis and study requirements, our HADSI team will help derive the optimal sample size for your study, as well as the statistical power needed to detect an effect.

For more information, please visit the HADI website at www.evms.edu/hadsi.

Questions

Direct questions regarding the proposal application process to Dr. Sunita Dodani, HADSI Director, at dodanis@evms.edu or contact the HADSI office at (757) 446-7991.

**EVMS-Sentara Healthcare Analytics and Delivery Science Institute Grant – Round 4b
PILOT FUNDING - LETTER OF INTENT (LOI)**

Project Title:

PI/PI's and affiliation(s):

Team/Co-I's and affiliation(s):

(Please do not exceed one page)

Background and contribution to field:

Study Objective/Hypothesis:

Design/Methods (including data source):

List of study variables, statistical analysis, and description/evidence that data is available:

Brief justification of budget:

Sincerely,

PI/PI's: signature block

PI contact:

EXAMPLE:

John Smith, MD

Assistant Professor of None

ABC School of Foundation Medical University

HADSI Round 4b Pilot Funding One Year Budget Template (only needed for application selected to move forward)

(Please provide a budget justification of all costs provided in the budget on a separate sheet)

Personnel Name	Role	% Effort	Fringe	Total Amount Requested
Personnel Subtotal				
Equipment/ Software				
Equipment/ Software Subtotal				
Patient Related Cost				
Patient Related Cost Subtotal				
Material & Supplies				
Material & Supplies Subtotal				

Travel Support				
Travel Support Subtotal				
Other Expenses (if any)				
Other Expenses Subtotal				
Grant Total				