

## Request for Proposals

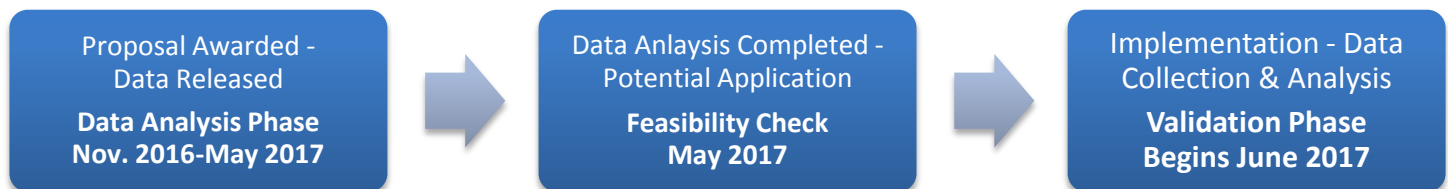
### Purpose

The purpose of the Sanford Data Collaborative is to place researchers at the forefront of healthcare innovation. Successful applicants will have access to timely healthcare data and an opportunity to inform, innovate, and ultimately drive the way healthcare is provided.

### Process

**Proposals are due no later than 5 pm CST October 3<sup>rd</sup>, 2016.** All submitted proposals will focus on at least one of the identified health research priorities listed below. Proposals will undergo a peer-review process with the potential for 3-5 projects to be awarded in the 2016-2017 cycle. Successful applicants will be provided a dataset containing specific variables identified within their proposal along with a \$1,000 monetary award.

Awarded investigators will commit to completing their proposed project within the data analysis phase (see Figure below). Pending mid and final project reports, projects with a strong potential for application will have the opportunity to collaborate with Sanford providers for further data collection and project validation.



### Research Priorities

Proposals must focus on one of the following health research priority areas and include an application for use in healthcare delivery and/or management. Examples are provided for each area.

#### **Predictive Risk**

This priority area focuses on predicting risk – including variables predictive of a specific disease (example disease areas may include diabetes, hypertension, cancer, etc.). It also includes a focus on predicting healthcare utilization such as emergency department usage and/or patient readmissions.

**Example Question:** What characteristics are predictive of type 2 diabetes (i.e., BMI, number of admissions in the past year, rural/urban locale)? How do these combine to indicate pre-diabetes risk?

**Potential Application:** Utilize a pre-disease risk score to identify patients at-risk for type 2 diabetes, increase pre-disease healthcare for this population.

**Example Question:** What is predictive of members at high-risk for recurring emergency department utilization? What is predictive of *emerging* at-risk members for high ER utilization? Is ER utilization higher among communities or populations with low access to care?

**Potential Application:** Findings provide a platform to stratify health plan members based on risk of service utilization; allows for targeted preventive interventions with emergent at-risk populations.

**Example Question:** What 30-day postoperative characteristics (i.e., age, race/ethnicity, length of stay, number of admissions in the past year) are predictive of orthopedic patient readmission?

**Potential Application:** Utilize a postoperative risk score to identify orthopedic patients at-risk for readmission and increase preventative efforts for at-risk patients.

## **Chronic Disease Management**

This priority area focuses on behaviors surrounding chronic disease management among emergent and current chronic disease patients. It also includes a focus on patient engagement within their disease and overall healthcare management.

Example Questions: How does level of patient engagement impact adherence to prescription refill among diabetic patients? What behaviors are predictive of poor diabetes management?

Potential Application: Identify behaviors predictive of poor disease management and inform preventive education efforts for the diabetic population.

Example Question: Among patients with high levels of depression, what characteristics predict active engagement in their care management (i.e., refilling prescription, high patient engagement scores)?

Potential Application: Identify ways to actively engage patients in their care management to increase prescription refill adherence and overall patient engagement.

## **Diagnostic Testing & Technology Utilization**

This focuses on the use, effectiveness, and cost-effectiveness of diagnostic testing and technology utilization.

Example Questions: Does a respiratory virus panel reduce antibiotic use or length of stay for patients hospitalized with pneumonia? Does a change in testing policy affect antibiotic use or length of stay for patients?

Potential Application: Using education and/or rules, reduce the use or availability of tests that add cost without improving patient outcomes.

Example Question: Are patients utilizing My Sanford Chart more likely to engage in prevention medicine (i.e., well checks, flu vaccination)? What are characteristics of patients actively utilizing technology in their care management?

Potential Application: Provide user education to increase technology utilization for care management.

## **Pediatric & Women's Health**

This priority area focuses on predictors of prenatal and postnatal healthcare for women and children including factors associated with premature births and continuity of care for mothers and children.

Example Question: Is there a threshold for preventative prenatal care and its impact on birth outcomes? What maternal characteristics are predictive of seeking continued care throughout the prenatal and postnatal period? What maternal characteristics are predictive of premature birth outcomes?

Potential Application: Targeted education and resources for specific patient populations at-risk for not seeking prenatal care and/or mothers likely to not seek continued care for them and/or their child.

## **Eligibility**

Applicants with the skills, knowledge, and resources necessary to carry out the proposed research are invited to apply. Investigators may participate in more than one application per cycle, but cannot submit more than one application as the Primary Investigator of the project.

Students may be part of an application but an identified faculty mentor/collaborator must serve as the Primary Investigator. The Primary Investigator must be affiliated with an institution of higher education. Please contact the Sanford Data Collaborative (email provided below) if you have questions regarding eligibility.

## **Data Usage Agreement**

Institutions associated with awarded projects will be required to execute an agreement with Sanford outlining the project in detail, identifying the institution's specific responsibilities, and including specific requirements concerning use of the data provided.

## Application Package

One electronic version (PDF) of the proposal, organized as show below, must be received by the Sanford Data Collaborative (research-datacollaborative@sanfordhealth.org) no later than 5:00 PM on the October 3<sup>rd</sup>, 2016.

### Cover Sheet:

The cover sheet should include: project title, Principal Investigator/Co-Principal Investigator(s) contact information, applicant organization's legal address/information, Authorized Organization Representative/Signing Official Assurance contact information.

### Project Abstract: (limit 1 paragraph)

The project abstract will serve as a succinct and accurate description of the proposed work. Please state the objectives of the proposed project with reference to its potential impact on healthcare.

**Biosketch:** A NIH-style biographical sketch must be included for each project investigator.

### Research Strategy: (limit 3 pages, single spaced, font size 11pt. or higher)

1. Research Questions
  - a. Identify the specific goals/research questions for this project.
2. Innovation
  - a. Explain how the application challenges and seeks to impact current research and healthcare practice.
  - b. Describe any novel approaches or methodologies to be developed or used, and any advantage over existing methodologies or practices.
3. Implications for Practice
  - a. Describe potential impacts findings could have on healthcare delivery and practice.
4. Statistical Approach/Data Management Plan
  - a. Describe the overall strategy, methodology, and analyses to be used to accomplish the specific aims of the project. Identify specific constructs/variables necessary from database.
  - b. Discuss potential problems, alternative strategies, and benchmarks for success anticipated to achieve the research questions/goals.
  - c. Discuss briefly how the data will be handled. Proposals must indicate if they wish to merge data with an external dataset.
  - d. Describe how findings will be shared (e.g., internally, conferences, peer-review publications, etc.).

## Scoring Criteria

A peer-review board consisting of researchers and healthcare professionals will convene to discuss proposals and to make award recommendations. The review and scoring process will allow for the selection of projects while considering the following priorities:

- Project fits clearly within at least one of the identified priority areas.
- Project scope is reasonable and based on a solid scientific methodology/rationale and includes an effective plan for meeting its objectives.
- Project is innovative, with potential for further validation and sustainability.
- Project proposes clearly identified constructs available within Sanford data.
- Project has a defined application for clinical use, identifying a clear impact on healthcare delivery.

## Institutional Review Board

Prior to the transfer of any data or funds, appropriate compliance approvals must be obtained. Specifically, Institutional Review Board (IRB) and/or other appropriate approval(s) as needed are **required** prior to data release. Please keep in mind the multiple factors that affect the time required for IRB review and plan accordingly.

## **Post-Submission**

### **Progress Reports & Presentation**

Mid and final project reports will be required from applicants awarded data. Each report will be limited to two pages total and will include a description of results obtained to date, challenges or potential changes in project scope, and publications and/or presentations resulting from the work. Awardees will also present their data findings and potential implications in a format to be determined (e.g., research symposium).

### **Acknowledgement**

All publications and presentations must make the following acknowledgement in an appropriate location: "Data reported in this publication were provided by Sanford Health through the Sanford Data Collaborative. The content is solely the responsibility of the authors and does not necessarily represent the official views of the Sanford Health."

## **Contact Information**

Applicants are encouraged to contact the Sanford Data Collaborative to discuss project ideas and any potential questions that arise. Direct emails to Emily Griese, Ph.D. at: [research-datacollaborative@sanfordhealth.org](mailto:research-datacollaborative@sanfordhealth.org).