DxQI Seed Grants

DxQI Seed Grant Program
An initiative of the Society to Improve Diagnosis in Medicine

IMPORTANT DATES:

RFP Launch:
January 23, 2020

Informational Webinar:
February 21, 2020
12:00 pm EST

Application Deadline Extended Indefinitely.
Community will be notified 3 weeks before new deadline.

Award Announcement:
TBD

Site Start-up:
TBD

Site Wrap-up:
TBD

Application at a Glance

What is the purpose of the seed grant program?

The purpose of this program is to stimulate innovation in a field where quality improvement activity is lagging, and to elevate the importance of addressing diagnostic error within healthcare delivery systems. Each annual cohort (approximately 20 grantees) will receive approximately $1 million in budget-justified grants capped at $50,000 each to support specific quality improvement work directed towards improving diagnosis.

What do I need to submit?

Please submit the following materials online before ~~March 30th, 2020 at midnight EST~~.
Deadline extended indefinitely.

1. Responses to online application questions;

2. A Letter of Support from any third-party partner that is deemed critical to the success of the project; and

3. One Letter of Support from an executive sponsor e.g., department chair or an equivalent senior leadership role within your organization (additional details on page 4).

*Who is eligible to apply?

Care-delivery systems are eligible to apply and will typically come from the following list:

- Office-based primary care
- Office-based specialty care
- Clinic (e.g., Urgent, Acute)
- Other ambulatory centers (e.g., Surgical/Imaging)
- Community Hospital
- Academic Medical Center

- Psychiatric Hospital
- Rehab Facility
- VA & Military Centers
- Skilled Nursing Facility
- Federally Qualified Health Center
- Safety Net Hospitals

*PLEASE NOTE: Organizations that do not provide direct care are not eligible to apply as the lead on a DxQI project, but may partner with an eligible organization, not as the applicant, but as part of the team.

**FOR INTERNATIONAL APPLICANTS: While international locations are eligible to receive a grant, you will be asked to address the importance of the problem and its potential solution to the U.S. healthcare system in your proposal. Failure to demonstrate problem importance and intervention applicability will result in a denial.

Where can I find more information? (updated April 1)

An informational webinar was held on February 21st, 2020. View online at www.improvediagnosis.org/dxqi. For any other questions please visit https://www.improvediagnosis.org/dxqi or email: dxqiseedgrant@ImproveDiagnosis.org

DxQI Seed Grant Program

Program Background

Research has demonstrated that diagnostic errors are the most common, most catastrophic and most costly of all causes of preventable medical harm. In fact, errors in diagnosis are the most frequent cause of medical error reported by patients. In total, it's estimated that 12 million US adults experience a diagnostic error every year in outpatient settings alone. It has also been reported that failures of diagnosis result in as many as 80,000 preventable deaths every year in US hospitals. In research funded by the Society to Improve Diagnosis in Medicine (SIDM), through a grant from the Gordon and Betty Moore Foundation (the "Foundation"), researchers from John Hopkins University and CRICO Strategies analyzed more than 55,000 malpractice claims to determine how many were attributable to diagnostic error. The study found that 34 percent of all malpractice cases that result in death or permanent disability stem from an inaccurate or delayed diagnosis and resulted in $1.8 billion in malpractice payouts over 10 years. Surprisingly, 74.1 percent of diagnostic error malpractice claims were attributable to just three categories of conditions: cancer (37.8 percent), vascular events (22.8 percent) and infection (13.5 percent), referred to as the "Big 3" (David Newman-Toker, et al. Serious misdiagnosis-related harms in malpractice claims: The "Big Three" – vascular events, infections, and cancers. Diagnosis 2019; 6(3): 227–240).

Given the magnitude of diagnostic error burden, SIDM advocates for increased attention by health systems to improving the quality of their diagnostic process. This goes beyond avoiding errors and includes consideration of accuracy, timeliness, cost, and patient convenience. Designing an optimal diagnostic process will require a careful balancing among these competing demands. Given the dearth of solutions, we believe catalyzing a 'bottom up' approach, whereby frontline health professionals and patients are engaged to develop and test plausible solutions, will most likely produce the best outcomes.

SIDM applied to the Gordon and Betty Moore Foundation for funds to pursue this strategy. This resulted in a grant award that will enable SIDM to award $3,000,000 in seed grants to a minimum of 60 grantees over a three-year period.

Program Overview

Each year, approximately 20 grantees will be awarded grants to carry out 12-month diagnostic quality and safety improvement projects. Grantees will be asked to identify opportunities for improvement and potential interventions, evolve the interventions through small tests of change to increase their effectiveness, build the level of evidence supporting the intervention's effectiveness, and, where appropriate, increase impact through further opportunities to "scale and spread" utilization. There will be three distinct award cycles (annual cohorts).

Stipend disbursement, described in the contract, will be divided into two payments with 50% up front and 50% after submission and acceptance of a six-month report. The executed contract will require that each grantee budget for and send at least one team member to two half-day QI summits adjacent to SIDM's annual conference and also to register for the conference. The first required summit will

occur approximately six months into the grant and will allow each member of the cohort to report on mid-year project progress. The second required summit will occur approximately six months after the grant concludes and will allow each member of the cohort to report on final results, address sustainability of the intervention, and identify potential next steps.

Additionally, grantees will submit simple bi-monthly status reports and will be invited to virtual quarterly meetings to share challenges and review progress with the entire cohort or with topically similar subgroups e.g., grantees focused on stroke or closing the loop on test results.

Areas for Improvement

While any topic related to improving diagnosis is eligible for an improvement award, two areas in particular will receive increased attention and a minimum allocation of awards. They are:

- **THE BIG THREE** (see David Newman-Toker, et al. [Serious misdiagnosis-related harms in malpractice](#) [claims: The "Big Three" – vascular events, infections, and cancers](#). Diagnosis 2019; 6(3): 227–240)

- **DIAGNOSTIC QUALITY DISPARITIES:** proposals focused on how and when the visible factors of age, race/ethnicity, and/or sex, as well as other social determinants of health, influence the risk of diagnostic error.

Fifty percent of the annual awards will be directed to projects that target improvement in one of the "Big 3" categories. Twenty percent of the annual awards will be directed to project that target reduction in diagnostic errors associated with disparities. Thirty percent of awards will be directed to the OPEN category, i.e. not one of the priority areas.

Program Support

- SIDM will moderate an online community established for grantees which will serve two purposes:

    » Support shared learning across sites as challenges and barriers are identified by individual QI teams

    » Allow participating sites to download/upload documents and engage with the SIDM QI Program Manager who will act as a virtual improvement advisor to the community for the lifecycle of the program

- Educational webinars on QI techniques applied to the diagnostic field will be made available.

- Limited support will be made available through ad hoc calls to help grantees overcome potential QI barriers.

Program Requirements

Each organization selected will be expected to:

- Designate appropriate team members to be part of the QI Core Project Team
- Attend a cohort kick-off webinar
- Submit bi-monthly status reports describing:
  » What barriers/challenges have you faced?
  » What unanticipated consequences did you encounter with this month's tests?
  » How did you overcome those?
- Submit formal six-month mid-project and year-end final reports
- Participate in quarterly calls
- Participate in the online community
- Attend two designated QI Summits at future SIDM International Conferences
- Recruit an Executive Sponsor who will be required to submit a letter of support
- Confirm no additional external funding is available to do this work
- Ensure the IRB is aware of the proposed project, if required, and appropriate authorization will be obtained prior to the start of the project

What are we looking for?

A qualifying proposal will meet the following criteria:

1. The project lead represents a facility where healthcare is delivered.

2. The proposed intervention can be described by one of the four categories below:
   a. A well-defined problem and discovery period followed by adequate time for a to-be defined intervention that will be tested and improved
   b. A well-defined intervention that will be tested and improved
   c. An implemented, but unevaluated intervention with a well-defined evaluation plan and an opportunity to improve
   d. An implemented, evaluated intervention that will be tested and improved in a novel setting or with a novel population

3. We are looking for interventions to reduce important sources of diagnostic error that might include (but are not limited to) cognitive interventions in patient care settings such as checklists or decision support; systems interventions to change diagnostic processes or workflow in practice; or educational interventions where the targeted outcomes of the study are practice change in diagnosis. We are NOT looking for studies that measure the burden or causes of diagnostic error without an intervention; that develop new interventions in "lab" setting without testing them for patient care outcomes; or that are limited to studying new diagnostic tests without an emphasis on reducing error.

4. The team includes meaningful stakeholder involvement including patient or family input or an adequate explanation of why the team would not benefit from patient or family input on this proposed project.

5. The executive sponsor provides a letter of support that confirms
   a. There is organizational support for the project aims
   b. The team is appropriate to meet the project aims
   c. The budget is sufficient to meet project aims on time and within scope
   d. Required people and resources to meet project aims will be available
   e. Data necessary for project completion will be accessible and available
   f. The sponsor will assist in overcoming unanticipated barriers/challenges that pose a threat to project completion

6. Short bibliography of key articles that support the importance of the problem and/or the suitability of the intervention, if available.

How To Apply

STEP 1 | VIEW INFORMATIONAL WEBINAR
An informational webinar was held on February 21st, 2020. View online at www.improvediagnosis.org/dxqi.

STEP 2 | APPLY ONLINE
Applications must be submitted online. Deadline extended indefinitely.

To submit application, please go to www.improvediagnosis.org/dxqi.

Applications should include complete responses to application questions, project team roster and roles, budget explained in the narrative and an uploaded Letter of Support (PDF format).

Awards will be announced **TBD**

Application Questions

1. Describe the aim(s) of the project using SMART attributes (Specific, Measurable, Achievable, Realistic, Timely). Refer to FAQ for examples of SMART aims.

2. Describe the problem you are trying to solve supported by whatever data demonstrates the magnitude of the problem and its importance to improving diagnosis. Your comments should address the importance for both your site and the nation-at-large. International locations, in particular, must address the importance of the problem to the U.S. healthcare system. Cite key literature that demonstrates what is known about the problem relative to the targeted population (you will have an opportunity to upload a short bibliography later in the application process).

3. Describe the intervention and the rationale for selecting this intervention indicating your theory of change or logic model and how it relates to the factors that you believe cause the problem. If you have indicated your application will address a priority category (Big 3, Disparities), ensure your rationale indicates how it will impact the priority area. Cite key literature, if any is available, that demonstrates what is known about this intervention (you will have an opportunity to upload a short bibliography later in the application process).

4. Define the population, whether patient, family or clinical staff, that will be exposed to the intervention (inclusion/exclusion criteria). If the project will be limited to one portion of a facility, e.g. memory unit, ICU or ER, include that in your description of the population.

5. Describe how the intervention will be tested and improved. Include a description of the roles for healthcare professionals that are not part of the core project team but involved in implementing the intervention.

6. How will you measure the effectiveness of your intervention? What is the comparator? If different from the diagnostic outcomes you are seeking to impact, how do your measures relate to the targeted outcomes? What type of evaluation is proposed (e.g. pre/post, control group) to determine if desired change(s) occurred? Where will the data come from?

7. Improvement activities can have unintended consequences, both positive and negative. Describe the negative consequences you have considered and what balance measures you will use to evaluate whether any negative consequences occur.

8. Please list your major milestones and associated deliverables including pre-intervention phase (start-up work) e.g. root cause analysis or training, the intervention phase, and the assessment phase. Do you expect multiple improvement cycles? If so, describe how many cycles you hope to accomplish during the grant period.

9. Describe why this team is well-suited to successfully carry out this improvement project.

10. How will you involve key stakeholders (e.g. patients or families) in your project? If you do not plan to involve patients, please explain why not.

11. If this intervention requires data access that is not already readily available, describe how you will ensure necessary access to these resources.

12. All projects experience challenges, and the most successful projects anticipate and plan for likely challenges. What types of challenges do you imagine facing in project operations and what strategies do you have to address them? (Please note, challenges described here should refer to the global project and not to the intervention itself).

13. Indicate the dollar amount requested and describe the use of those dollars.

The DxQI Seed Grant Program is an initiative of the Society to Improve Diagnosis in Medicine made possible with the generous support of the Gordon and Betty Moore Foundation.

About the Society to Improve Diagnosis in Medicine (SIDM)
The Society to Improve Diagnosis in Medicine catalyzes and leads change to improve diagnosis and eliminate harm from diagnostic error. We work in partnership with patients, their families, the healthcare community and every interested stakeholder. SIDM is the only organization focused solely on the problem of diagnostic error and improving the accuracy and timeliness of diagnosis. In 2015, SIDM established the Coalition to Improve Diagnosis to increase awareness and actions that improve diagnosis. Members of the Coalition represent hundreds of thousands of healthcare providers and patients—and the leading health organizations and government agencies involved in patient care. Together, we work to find solutions that enhance diagnostic safety and quality, reduce harm, and ultimately, ensure better health outcomes for patients. Visit http://www.improvediagnosis.org to learn more.