**Improvement Scholars Program Application**

**UNC Institute for Healthcare Quality Improvement**

Program Period: Sep 1, 2023-Aug 31, 2024

Letter of Intent Due: Dec 2, 2022

Full Proposal Due: Feb 3, 2023

**Purpose**

The UNC Institute for Healthcare Quality Improvement (IHQI) Improvement Scholars Program offers experiential learning and professional development to UNC and UNC Health clinicians who want to develop improvement skills while leading clinical improvement. Using a competitive application process, IHQI selects and supports up to six Improvement Scholar projects annually.

**Improvement Scholars Program**

The Improvement Scholars Program is a structured, experiential learning program. Improvement Scholars learn clinical improvement leadership by proposing, designing, and leading a project with guidance and support from clinical improvement faculty, project managers, and peer Scholars. Improvement Scholars have come from multiple disciplines, including physicians, physician assistants, nurse practitioners, nurses, pharmacists, respiratory therapists, and others.

**Dedicated Support for Scholars**

Improvement Scholars receive training, mentorship, and guidance from IHQI. Scholars are paired with an IHQI Faculty Mentor who has substantial experience and expertise in clinical improvement. The Faculty Mentor guides, teaches, and encourages the Scholar. Scholars and Faculty Mentors meet formally once per month and communicate between meetings as needed.

A half-time IHQI Project Manager is assigned to each scholar project for 12 months. The IHQI Project Manager meets weekly or twice-monthly with the scholar and improvement team members. The IHQI Project Manager is experienced in clinical improvement and manages day-to-day project operations under the leadership of the scholar. See Appendix A for IHQI Project Manager Role and Responsibility description.

**Scholar Responsibilities and Time Commitments**

In addition to monthly coaching and weekly project team meetings, Improvement Scholars participate in three half-day Learning Sessions with other scholars (typically in Nov, Feb and May). During Learning Sessions, Improvement Scholars present project results-to-date and participate in workshop-style education about improvement methods. IHQI faculty mentors and staff plan and facilitate the Learning Sessions.

Scholars present project results at the IHQI Improvement Scholars Symposium in September, as well as at a Medical Center Improvement Council meeting. Scholars are encouraged to publish project results and present at professional conferences.

Although time commitment to the program varies throughout the year, scholars may expect to **spend at least 2 hours per week** on project-related activities. This significant investment of time requires ongoing commitment from scholars and their leadership. Please weigh other commitments and obligations when deciding to apply to participate.

**Scholar Learning**

As a result of participating in the program, Improvement Scholars gain experience with the following (see Appendix B for learning objectives):

* Quality Improvement Tools and Methods from [Lean](https://www.lean.org/WhatsLean/) and the Model for Improvement ([IHI-QI](http://www.ihi.org/about/Pages/ScienceofImprovement.aspx))
* Quality Improvement Project Leadership
* Multidisciplinary Teamwork
* Partnerships with Patients and Families to Inform Improvement
* Effective Use of Data for Improvement
* Impactful Presentation Creation and Delivery, and Strategies for Publishing Improvement Results

**Improvement Projects**

Improvement Scholars apply clinical improvement skills by leading an improvement project. Scholars identify care gaps and conduct improvement projects to close the gaps. Criteria for successful Improvement Scholar projects include:

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| Implementation of evidence-based approaches | Projects are intended to improve clinical care and outcomes for a population of patients by implementing proven and/or expert-recommended strategies and approaches. Proposals to research new interventions for efficacy and/or effectiveness will not be selected. |
| Equity prioritization | All projects must assess and address identified health disparities regardless of project focus. IHQI provides guidance and support to accomplish this. |
| Alignment with organizational improvement priorities | Projects must align with UNC Health improvement priorities. UNC Medical Center and system-level priorities are listed below. Department and unit level priorities are also considered. If you are unsure about whether your project idea aligns with an improvement priority, please contact Arianna Keil at IHQI to provide information about the priority and discuss the feasibility of IHQI support for the proposed project. |
| Small-scale testing with opportunity to expand given positive outcomes | Many Improvement Scholar projects test and refine improvements on a small-scale that are then adopted more broadly. (See Appendix C for examples.) The Improvement Scholars Program provides a prototyping and testing ground for piloting and refining effective interventions that can be spread throughout UNC Health. |
| Leadership support | Project applicants are advised to discuss project ideas and seek guidance and approval from leaders of UNC Health improvement initiatives prior to submitting a letter of intent. Although not required, applications are strengthened by commitment of additional resources from the applicant’s home department. |

**UNC Health Improvement Priority Areas** (example project topics listed as sub bullets)

* Health equity promotion
  + e.g., reducing racial disparities in health outcomes
* Hospital length of stay reduction
  + e.g., reducing ED/hospital use/unnecessary procedures
* Outpatient care improvement
  + e.g., improving access through virtual visits/telehealth, chronic illness prevention and treatment
* Patient experience promotion
  + e.g., supporting patients making complex health decisions
* Patient harm prevention and mortality reduction
  + e.g., patient flow/transitions between care settings, healthcare-associated infection reduction, medication safety and stewardship

**Application Process**

The first step in the application process is to submit a one-to-two-page letter of intent by December 2, 2022. If your letter of intent meets initial selection criteria, you will be invited to submit a full project proposal. Full proposals will be due February 3, 2023.

**Dates**

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| --- | --- |
| RFP Published | Oct 24, 2022 |
| Letter of Intent Due | Dec 2, 2022 |
| Invitation to Apply | Dec 12, 2022 |
| Proposals Due | Feb 3, 2023 |
| Notification of Awards | Apr 3, 2023 |
| IHQI Project Support Begins | Sep 1, 2023 |
| IHQI Project Support Concludes | Aug 31, 2024 |

**Letter of Intent** (due to Arianna Keil by December 2, 2022)

Please submit a brief letter of intent (maximum of two pages, single-spaced, minimum 11-point font, 1-inch margins) that addresses these questions:

1. Why are you interested in participating in the Improvement Scholars Program?
2. What is the problem or gap in quality you seek to improve?
3. Who are the patients impacted by this problem?
4. How has this problem been addressed successfully elsewhere?
5. Which improvement priority will your project address?
6. In what setting(s) would this problem be addressed? (e.g., hospital unit, outpatient practice setting, non-clinical setting, etc.)?

Submit your letter of intent to Arianna Keil ([arianna.keil@unchealth.unc.edu](mailto:arianna.keil@unchealth.unc.edu)) by 5pm on Dec 2, 2022. Invitations to submit a full proposal will be communicated on Dec 12, 2022 with proposals due Feb 3, 2023.

**Proposal Format and Length** (by invitation only, due to Arianna Keil by February 3, 2023).

If you are invited to submit a full proposal, please address the items below. Format proposals using 11-point font, 1-inch margins and single-spaced text. Please limit responses to items #2-#17 to a maximum of 8 pages.

1. Project Lead/Key Contact (name, email & phone number)
2. Why are you interested in participating in the Improvement Scholars Program?
3. Which UNC Health improvement priority will your project address?
4. What is the problem or gap in quality you seek to improve?
5. Describe the patient population affected, scope, and impact of the problem
6. What is the specific patient population your project will impact?
7. How many patients are in the population?
8. How frequently does the problem occur?
9. What is the impact of the problem?
10. What do you think are the underlying causes of the problem? Why do you think the problem is happening?
11. What is the history of improvement or attempted improvement at UNC Health? What work will your proposed improvement build on?
12. Please complete the “[Measures Table](https://www.med.unc.edu/ihqi/improvement-scholars/measures-table-example/)”. Please describe the anticipated outcome measure(s), 2-3 process measures, and one balancing measure. Please do not include more than 5 measures total.
13. What ideas do you have for changes that will result in improvement?
14. How has this problem has been addressed successfully elsewhere?
15. How will [high performance management](https://www.med.unc.edu/intranet/2022/10/carolina-quality) tools (Just Culture, SAFE reporting, team communication and teaming skills, huddles, and visual management boards) be used to support the work? Although use of these tools is not required, applications including them will be strengthened.
16. Please describe how your project addresses each of the 5 elements reflected in the [Quintuple Aim for Health Care Improvement](https://jamanetwork.com/journals/jama/article-abstract/2788483).

* Improved health
* Enhanced patient experience
* Enhanced clinician and staff experience
* Health equity
* Reduced costs

1. Please describe the support and engagement you have from leadership for the work you are proposing. Please indicate leaders with whom you have consulted about this proposal.
2. Who will comprise the project team? List names and roles of team members, describe how the project team will function and how the team’s work impacts other teams/units and/or is impacted by other teams/units. Successful improvement project teams are interprofessional, multidisciplinary, and often include patient and family members. Although not required, applications listing interdisciplinary co-leads (e.g., nurse and provider co-leads, or pharmacist and provider co-leads) will be strengthened. Access this link to learn additional [helpful information about improvement teams.](http://www.ihi.org/resources/Pages/HowtoImprove/ScienceofImprovementFormingtheTeam.aspx)
3. How will you ensure sufficient time to dedicate to the project over the scholar year? Although time commitment to the program varies throughout the year, Scholars may expect to spend at least 2 hours per week (with range from 1 hour minimum to 5 or more hours a week) on project-related activities.
4. What factors do you anticipate will foster and hinder improvement?
5. What ideas do you have for sustaining the improvement? How do you see the work you start with IHQI’s support continuing?
6. Implementation Timeline
7. References
8. Letters of Support: Two letters of support are required. One from the project sponsor (defined below) and one from your supervisor. Submit both letters with the application.
9. Project Sponsor (required letter of support, first of two)

The project sponsor (e.g., Division Chief, Service Leader, Department Chair, Nursing Supervisor, Vice President, etc.) has executive authority and provides liaison with other areas of the organization, serves as a link to senior management and the strategic aims of the organization, and provides resources and removes barriers on behalf of the team.

The Improvement Scholar and project team are accountable to the Project Sponsor for project results. The sponsor is not a day-to-day participant in team meetings and testing. The sponsor reviews the team's progress on a regular basis. The sponsor must meet at least quarterly with the project team.

The project sponsor’s letter of support should describe his/her commitment to supporting change within the unit and working to facilitate changes outside the unit as needed.

1. Supervisor (required letter of support, second of two)

The supervisor’s letter of support should describe his/her commitment to ensuring that the Improvement Scholar will have sufficient time to:

* + - Conduct the improvement project
    - Attend IHQI meetings and just-in-time training (see page 1)

**IHQI Support**

IHQI intends to support up to six projects in the Improvement Scholars Program for the period Sep 1, 2023 – Aug 31, 2024. IHQI provides the following support to Improvement Scholars:

* IHQI Improvement Project Manager (.50 FTE)
* IHQI Faculty Mentor
* Up to $1,500 for non-personnel project expenses (e.g., meetings, educational materials)

The Improvement Scholars Program does not provide salary funding. Typically, Improvement Scholars use academic or administrative time to lead project work and rely on the half-time IHQI Project Manager to manage day-to-day project operations (see appendix for Project Manager Role description).

Improvement Scholars dedicate an average of 2 hours per week over the course of the year. This time commitment should be discussed with the Improvement Scholar’s supervisor during the application process to reach a shared understanding of time available for the project. Recipients who hold clinical leadership positions such as medical, program, or service line director positions may integrate Improvement Scholars program participation with their existing leadership role. If you anticipate needing additional non-clinical administrative time to lead an IHQI Improvement Scholars Project, please approach your supervisor about salary support.

Applications will be strengthened by commitment of additional resources from the applicant’s home department. Such an investment is not required but is desirable as a demonstration of departmental support of the proposal.

**Review Process**

Each project proposal will be evaluated by three reviewers. IHQI leaders will make final project selection decisions.

Review criteria include:

1. Likelihood of sustainable improvement in clinical care and outcomes
2. Potential for developing clinician capacity to lead healthcare improvement
3. Impact on equity, patient experience, clinician and care team member satisfaction, and cost stabilization or reduction
4. Planned use of interdisciplinary team and [high performance management](https://www.med.unc.edu/intranet/2022/10/carolina-quality) strategies
5. Clarity of the improvement strategy, and alignment with system priorities.

**Application Procedure**

Please submit a one-to-two-page letter of intent by 5pm on Dec 2, 2022 to Arianna Keil ([arianna.keil@unchealth.unc.edu](mailto:arianna.keil@unchealth.unc.edu)).

Invitations to submit a full project proposal will be extended by Dec 12, 2022.

If you are invited to submit a proposal, please submit by email to: [arianna.keil@unchealth.unc.edu](mailto:arianna.keil@unchealth.unc.edu) by 5pm on Feb 3, 2023.

Late applications will not be reviewed.

Please address questions about the Improvement Scholars Program to Arianna Keil, [arianna.keil@unchealth.unc.edu](mailto:arianna.keil@unchealth.unc.edu), 608-225-7249.

**Appendix A**

**IHQI Project Manager Responsibilities**

A half-time IHQI project manager will be assigned to supported projects for twelve months. The IHQI Project Manager works very closely with and under the direction of the Project Lead/Improvement Scholar. The IHQI Project Manager’s responsibilities include:

* Develop and monitor project plan including deliverables, milestones, tasks, and timeline
* Plan, coordinate, facilitate and document meetings and improvement activities including, but not limited to, project team meetings, sponsor updates, advisory meetings, and training sessions.
* Communicate with project stakeholders and team members regarding project status, tasks, implementation challenges, etc. during and between meetings and improvement activities
* Create project documents and materials based on input from the project team (including but not limited to):

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| --- | --- |
| * Project Charter * Stakeholder communication * Driver Diagram * PDSA Tracker * Run charts and statistical process control charts * Visual management boards (VMBs) | * Standard work * Training materials * Tools to support clinical operations * Implementation guides * Progress reports * Presentations |

* Identify and facilitate resolution of project issues involving resource constraints, project delays, and conflicts
* Coach project team and clinical staff to apply improvement methods and tools
* Collect, track, analyze, and report data to monitor improvement (working closely with data analyst as available and appropriate)
* Manage project budget and expenditures
* Facilitate NC MOC application process
* Assist with IRB application, presentations, and manuscripts

**Appendix B**

**Improvement Scholars Program Learning Objectives**

At the end of the engagement with IHQI, Improvement Scholars will be able to:

1. Define the problem, its importance, and root cause(s)
2. Create an aim statement
3. Ensure patient rights and privacy are protected
4. Form and lead a multidisciplinary, interprofessional improvement team
5. Identify and manage relationships critical to improvement success
6. Partner with patients and families to support improvement
7. Assess and take action to reduce healthcare inequities
8. Design and oversee execution of improvement measurement strategy
9. Leverage data resources to support improvement
10. Identify and mitigate risks of project failure and barriers to improvement
11. Direct and oversee project management
12. Select and apply appropriate quality improvement tools and processes
13. Select and apply appropriate tools and processes to monitor and sustain improvement
14. Plan for and support spread of improvement
15. Present project results to local and national groups
16. Author manuscripts reporting project results

**Appendix C**

Many projects supported through Improvement Scholars have been sustained and spread across the Medical Center and UNC Health. Examples include:

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| Screen and Treat Depression in Primary Care | When UNC Physician Network primary care practices began systematic depression screening, Sarah Smithson and Li Zhou worked out early systems for primary care-based depression treatment by piloting in UNC General Internal Medicine Clinic and Knightdale Family Practice. The processes they tested and refined helped with the rollout of primary care-based depression treatment the following year. |
| Patient Sleep and Hospital Noise | Christine Hedges’ Improvement Scholars project “Quiet Time” established a systematic approach to measuring, implementing, and sustaining quiet hours to support patient rest. |
| Enhanced Recovery after Surgery | Lavinia Kolarczyk and HJ Kim conducted the initial pilot of Enhanced Recovery after Surgery (ERAS), now an enterprise-wide effort. |
| Antibiotic Time Out | Zach Willis and the Antibiotic Stewardship Team tested processes for and began Medical Center rollout of systematic antibiotic timeouts as part of Improvement Scholars. |
| Precision Opioid Prescribing in Postpartum Women | Christine McKenzie tested and refined processes for postpartum standard opioid prescribing schedule (SOPS) at the Medical Center. That work helped inform the system-wide SOPS that are part of UNC Health’s System Opioid Stewardship Program Group. |

Descriptions of all previous IHQI Improvement Scholars projects are on [IHQI’s website](https://www.med.unc.edu/ihqi/programs/improvement-scholars/).