***NOTE: Appendix A updated April 21, 2023**

ISCCCE Pilot Program: Implementation Research on Health Equity in Community Settings
Request for Applications

A. Key Dates and Contact for Questions

James Daly, Project Manager, jdaly@hsph.harvard.edu
Maddie Davies, I-Lab Manager, medavies@mgh.harvard.edu

Key Activities	Dates
Applications Open	March 1, 2023
Orientation Webinar: 3-4 p.m. March 9, 2023 [All potential applicants are strongly encouraged to attend] Webinar zoom link; No registration required Join by telephone: +1 646 931 3860 Meeting ID: 943 1224 2542	March 9, 2023 3-4 p.m. EST
Letter of Intent Due See Appendix A for details. Send to James Daly, Project Manager, jdaly@hsph.harvard.edu	April 10, 2023, 5 p.m.
Invitations Made for Full Proposals	April 24, 2023
Community Engagement Studios See Section G. Application and Review Process for details. In-person or virtual participation is required	May 9, 2023, 12-4 p.m. (30 mins per applicant)
Full Applications Due	June 30, 2023
Awards Decisions (Pending NCI Approval)	August 1, 2023
Award Start Date	September 1, 2023

B. Participating Organizations

Harvard TH Chan School of Public Health
Harvard Medical School
All Harvard-Affiliated Institutions and Hospitals
Massachusetts League of Community Health Centers
Massachusetts Community Health Centers

C. Background

The Implementation Science Center for Cancer Control Equity (ISCCCE) is one of seven National Cancer Institute-funded Implementation Science Centers in Cancer Control (ISC^3s). ISCCCE is designed to conduct a program of research in high-priority areas of cancer control implementation science that will advance equity, as well as methods and measurement within implementation science. ISCCCE provides infrastructure to support equity-focused implementation science research in cancer prevention and control.

ISCCCE supports pilot studies that focus on ways to expedite integration of evidence-based interventions (EBIs) into real world practice, as well as methods and measurement studies that move the field forward. A key ISCCCE partner is the Mass League of Community Health Centers, which is the primary care association representing the Commonwealth's 52 community health centers (CHCs). Together we have created an implementation laboratory (I-Lab) that includes 30+ CHCs, most of whom share a common population management platform, the Data Visualization and Reporting System (DRVS), which provides an efficient way to assess patient-facing implementation outcomes. The I-Lab provides support for implementation activities within the CHCs. ISCCCE is also committed to creating knowledge about clinic-community partnerships that support social care and efforts to address social determinants of health. ISCCCE has an evaluation and

data management unit and a methods unit that support its pilot research. ISCCCE has utilized four over-arching themes to improve its impact on health equity, including: (1) articulate and integrate CHC definitions of and perspectives on health equity; (2) develop and evaluate strategies to improve equity-focused and effective use of staff time to address cancer prevention and control; (3) understand the influence of outer context on implementation process and outcomes; and (4) understand the role of CHC-community partnerships in achieving health equity.

Competitively selected pilot teams will spend 12 months conducting their projects designed to better understand the implementation context, to improve implementation measures and methods, and/or improve the implementation process to promote equitable implementation of cancer prevention and control interventions for vulnerable patients in community settings. All projects should have a long-term goal of improving equitable implementation of EBIs for key stakeholders, including patients, families, providers and/or organizations. ISCCCE mentors will work with each team to provide guidance and support throughout the funding period. Teams will have access to subject matter experts in areas such as: Implementation Theories, Models and Frameworks, Implementation Strategies, Mixed Methods Research, and Participatory Research Approaches.

The ISCCCE Methods Unit offers consultation and collaboration on methodological aspects of implementation pilots. Examples of topic areas for potential collaboration with the Methods Unit include: 1) low burden ways to conduct research at CHCs; 2) process and/or evaluation of adaptation of intervention and/or implementation strategies; 3) operationalizing and measuring sustainment of evidence-based interventions; and 4) applying user-centered design to improve the usability of interventions and/or implementation strategies. The Methods Unit is also able to facilitate learning about other implementation methods not on this list. Please reach out to the Methods Unit Director: Kelly.aschbrenner@dartmouth.edu if there are implementation methods that you are curious about and/or potentially interested in using for your implementation project.

In addition, teams will also have facilitated access to ISCCCE community partners, as well as to other NCI-funded Implementation Science Centers. Pilot teams will be required to participate in regular cross-sharing meetings with other funded pilots and ISCCCE scientific leaders to discuss study execution, progress, challenges, process outcomes and early results as well as opportunities for engagement of community partners and dissemination of lessons learned for public and academic audiences.

A list of ongoing ISCCCE pilots, including project summaries and lead investigators can be found on the pilot studies page of the ISCCCE website. More information on the I-Lab (see The Kraft Center for Community Health at Massachusetts General Hospital) and other ISCCCE collaborators can be found here. More information on the ISC^3 program is available on the NCI website.

D. Award Structure

Funding for this grant program comes from our P50 Implementation Science Center grant, as well as generous support from Harvard Catalyst. All funded grants will have access to Harvard Catalyst core resources, as well as significant resources within ISCCCE, including data analytic and evaluation support, methodologic support, and a team that supports implementation activities in the CHCs. Study teams will also have access to CHC (e.g. inner setting) and community level (outer setting) data through the ISCCCE data ecosystem for analyses. Implementation studies do not need to provide support for CHC participation (e.g. site level stipends), as ISCCCE will support their efforts through other funds. Studies that involve primary data collection from community stakeholders (e.g. surveys, qualitative interviews, and focus groups) should include compensation for their time in the budget, ideally at $50/hour.

Budget: These awards provide up to $75k direct costs for one year to support the planning of a new clinical, community, or policy implementation science research project. Note that pilot awards do not cover indirect costs. Additionally, the P50 center grant mechanism does not allow for automatic carry-forward and it is highly unlikely that any carry-forward will be possible in this 5th year of Center funding. Thus, all projects must be completed within the one-year grant period.

Pilot grants should address cancer prevention and control related topics; preference will be given to topics identified in collaboration with our community partners (see Section H, Priority Topics). We anticipate that all topics will focus on and/or contribute to our understanding of how to improve health equity. These projects could include observational designs of current implementation of an EBI in community health centers or other community settings, or testing

implementation strategies for delivering EBIs via quasi-experimental or RCT designs. The expectation is that community partners will be active members in these projects. ISCCCE staff will help investigators develop these relationships. However, given the ongoing strain on healthcare systems from the COVID-19 pandemic, pilots should be designed to be low-burden for CHC participation.

ISCCCE grants are typically used to fund developmental or early stage work and should describe a concrete plan for further steps beyond the pilot grant (e.g., how the pilot work will lead to an R01 award). Projects do not have to involve an intervention, but should produce some "public good" (e.g., toolkits, a streamlined clinical workflow, enhanced capacity). Under the Cancer Moonshot Initiative that provides ISCCCE funding, data/tools and publications from all pilots must be open access (guidance will be provided). Associated costs should be included in the pilot budget.

E. Anticipated Funding

We anticipate that up to 2 to 3 studies will be funded from this RFA.

F. Applicant Eligibility

- Any researcher who holds a Harvard University appointment as professor, assistant professor, associate professor, lecturer, instructor, research scientist, or research associate
- Community health center researchers
- Post-docs may apply with a mentor as a multi-PI team
- Co-Investigators may be from other institutions or non-faculty level
- We highly encourage investigators from underrepresented groups
- We highly encourage inclusion of trainees on the study team
- We highly encourage collaboration between Harvard-affiliated and community health center researchers
- We encourage collaborations with other NCI-funded Implementation Science Centers in Cancer Control (ISC^3) (the ISCCCE team will help facilitate if there is interest)
- Applicants may be the PI on only one LOI/proposal

G. Application and Review Process

All projects that are invited to submit a full proposal will be asked to have a consultation with members of the ISCCCE team and will have access to consultations with our methods unit, evaluation and data management unit, I-Lab, and Mass League partners.

Community Engagement Studios (CES): All applicants invited to submit a full proposal will be **required** to participate in Community Engagement Studios on May 9, 2023 either in-person or virtually. These CES will provide researchers with a real-time opportunity to share their research concepts and goals with community health center partners and to receive direct feedback and guidance via a facilitated conversation. The CES will be held in-person at the inaugural Research Day at Mass League's Community Health Institute in North Falmouth, MA. While we encourage applicants who are able to attend in-person, there will be a virtual option available as well. Each applicant will participate in a 30-minute studio session between 12-4 p.m. Please hold this time on your calendar. The schedule will be determined when invitations for full proposals are made on April 24.

Proposals that will engage CHC partners will be connected with potential partners by ISCCCE. All applications will be reviewed by a team of experienced scientific reviewers and our community partners. Final funding decisions will be made by the ISCCCE leadership team. Awardees must submit all JIT materials (e.g., IRB approval), meet all compliance requirements, and receive approval from NCI prior to receiving funds.

H. Priority Topics

ISCCCE works closely with MA League leadership, as well as CHC clinical leaders and staff. We also host quarterly meetings of the Implementation Learning Community (ILC), in which we explore CHCs' interests and priorities. Through these various venues, the following priorities have emerged under the overarching themes of centering equity and being low-burden for CHCs. Note that this list is not meant to be exhaustive, and other ideas are welcome.

Improving Uptake of Evidence-Based Cancer Control Services

- Engaging behavioral health (BH) teams to address patient fears around cancer screening and diagnosis (e.g. cross-training BH providers to discuss cancer screening needs, or developing ancillary communication materials)
- Identifying and testing implementation strategies that improve coordination of bundled care to address multiple screening or health needs (e.g. address multiple preventive health or screening needs in a single outreach)
- Improving evidence-based cancer prevention and control in co-morbid populations (e.g. behavioral health, diabetes, other chronic diseases)
- Improving understanding of how to shift from deferred care to patient self-management of care with CHC support (e.g. learning from the FIT, Cologuard, and COVID home tests experience to inform implementation of other self-testing strategies like HPV self-sampling)
- Evaluating implementation strategies to task-shift cancer prevention/early detection efforts to ancillary providers
- Identifying implementation strategies to support sustainability of evidence-based interventions (e.g. task-shifting or defining roles (i.e. determining who has responsibility for each step of a given process) to support sustainment following turnover)
- Exploring the impact of social needs (e.g. reliable transportation) on cancer screening rates
- Evaluating implementation strategies to automate patient outreach (e.g. use of text messages or other outreach technology)
- Testing implementation strategies to increase follow-up after abnormal cancer screening

Methods

- Evaluating strategies for improving data capture and quality of data related to cancer screening and outcomes
- Developing strategies to increase usability of equity dashboards and performance metrics
- Measuring the value of implementation science for community health centers

Community and Policy:

- Identifying & implementing best practices for addressing cancer prevention and screening through community partnerships both in and outside of MA
- Identifying models for community partnerships that have been successful to address social needs that could be harnessed for cancer prevention
- Developing and testing strategies to inform or enhance evidence-based policy implementation related to cancer prevention and control

Useful Resources:

- Consolidated Framework for Implementation Research (CFIR) (https://cfirguide.org/)
- Promoting Action on Research Implementation in Health Services (PARIHS): Kitson A, Harvey G, McCormack B. Enabling the implementation of evidence based practice: a conceptual framework. Qual Health Care. 1998;7(3):149–58; Bergström, A., Ehrenberg, A., Eldh, A. et al. The use of the PARIHS framework in implementation research and practice—a citation analysis of the literature. Implementation Sci 15, 68 (2020). https://implementationscience.biomedcentral.com/articles/10.1186/s13012-020-01003-0#citeas
- Nilsen and Bernhardsson (2019). A Scoping Review of Determinant Frameworks https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6432749/)
- EPIS Framework https://episframework.com/
- Nilsen and Bernhardsson (2019). A Scoping Review of Determinant Frameworks https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6432749/)

- Beidas, Marcus, Wolk, et al. (2016). A Prospective Examination of Clinician and Supervisor Turnover Within the Context of Implementation of Evidence-Based Practices in a Publicly-Funded Mental Health System. Adm Policy Ment Health (2016) 43:640–649
- Kerkhoff, A.D., Farrand, E., Marquez, C. *et al.* Addressing health disparities through implementation science—a need to integrate an equity lens from the outset. *Implementation Sci* **17,** 13 (2022). https://doi.org/10.1186/s13012-022-01189-5

Appendix A. Submission Requirements

Letter of Intent Requirements - 1 page maximum (up to 550 words)

1. Focus of research (implementation study or methods study)
2. Descriptive title of proposed research
3. Overall study design, and aim(s)/hypothesis
4. Description of how the research will fill a gap in cancer control implementation science
5. Research location
6. How health equity is being addressed
7. Please indicate if you are interested in using any of the following methodological approaches that could be facilitated by the ISCCCE Methods Unit: 1) low burden ways to conduct research at CHCs; 2) process and/or evaluation of adaptation of intervention and/or implementation strategies; 3) operationalizing and measuring sustainment of evidence-based interventions; and 4) applying user-centered design to improve the usability of interventions and/or implementation strategies
8. PI name, position, contact information, and general demographic information
9. Other key personnel names, position, contact information, and general demographic information

Full Proposal Requirements

1. *Cover Letter:* PHS 398 form- include grants administrator contact information and signoff on this form.

2. *Biosketch:* Please provide a standard NIH Biosketch for all key personnel.

3. *Budget and budget justification.*

4. *Research Plan* - maximum of 5 single-spaced pages, not including references. Use Arial 11 point font size or larger; minimum 0.5 inch for all margins for all pages.

    A. Specific Aims: State concisely the specific aim(s) and any hypothesis or research questions to be answered. The aims must be reasonable to achieve during the one-year budget period.

    B. Research Strategy:

        i. *Significance*: Explain the importance of the problem, how it addresses equity and community needs, and how it will drive the field forward. Identify the evidence-based approach to be utilized (for implementation pilots) and methodologic gaps to be addressed (methods pilots).

        ii. *Innovation*: Explain how the application will challenge and shift current research, community-level interventions or clinical practice paradigms, and will apply novel approaches to address health equity. Describe any novel theoretical concepts, strategies, or methods to be developed or used.

        iii. *Approach*:
            - Describe the overall strategy, methodology, and analyses to be used to accomplish the specific aims of the project. Describe how the data will be collected, analyzed, and interpreted.
            - Explain how your approach will utilize the ISCCCE infrastructure.
              Explain how your approach will engage with the relevant community partners in collaborative, equitable ways.
            - Discuss potential problems, alternative strategies, and benchmarks for success anticipated to achieve the aims.
            - Describe any strategies that will be used to establish feasibility, and address the management of any high-risk aspects of the proposed work.
            - Describe any resource sharing plan, as appropriate.
            - Describe how feedback from the Community Engagement Studio was incorporated into the research plan.

        iv. *Public Goods:* Identify public goods that will be developed as result of the project (e.g. toolkit, new measures, enhanced capacity).

v. *Next Stage Funding*: Identify potential funding sources for the next stage of this project, including anticipated date of submission.

5. *Bibliography and References Cited*: Provide a bibliography of any references cited in the Research Plan.

Appendix B. Requirements for Pilot Award Recipients

- Acknowledge ISCCCE support on all publications and presentations related to Pilot and Methods Studies (P50CA244433).
- Follow ISCCCE publication policies and procedures, which include inclusion of community partners in scholarly products and compliance with NIH and Moonshot public policies: https://www.cancer.gov/research/keyinitiatives/moonshot-cancer-initiative/funding/public-access-policy
    - Immediate open-access for publications. Center will cover expenses related to these publications.
    - Public Data Sharing from projects (typically aggregate data).
- Every study should produce some form of "public good."
- Awardees will be expected to participate in ISCCCE related activities (e.g., quarterly Implementation Learning Community, retreats, update presentations, reporting requirements, Annual ISC^3 meeting, center evaluation efforts, dissemination activities). ISCCCE is part of a well-funded network of Implementation Centers that provides significant access to resources for IS research.