GETTING STARTED WITH IMPLEMENTATION SCIENCE

IMPLEMENTATION SCIENCE (IS) aims to accelerate the adoption and integration of evidence-based practices, interventions, and policies into routine health care and public health practice to improve the impact on population health. By using implementation science, researchers can help bridge the divide between research and practice—and bring programs that work to communities in need. Applying implementation science may help you understand how to best use specific strategies that have been shown to work in similar settings.[1] Dissemination refers to the intentional process to spread information and interventions to a defined target audience, while Implementation is the process of integrating a specific intervention into practice within an organization or system.

EVIDENCE-BASED INTERVENTIONS (EBIs) are the subject of dissemination and implementation efforts with proven efficacy and effectiveness. These include programs like the Diabetes Prevention Program, practices like cervical cancer screening, and policies like smoke-free housing rules. It is important to evaluate the existing evidence for a given intervention before engaging in implementation and dissemination efforts.

IMPLEMENTATION STRATEGIES are the specific means for adopting, integrating, and sustaining evidence-based interventions – the "how to" components of change. IS researchers have identified a range of implementation strategies.[2] Examples include capacity building trainings and patient navigation.

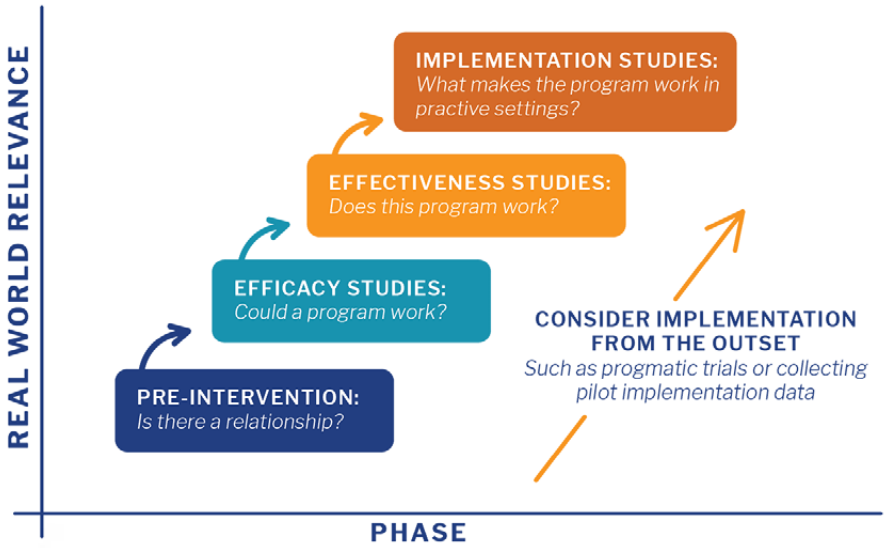
RESEARCH CONSULTS

The Harvard Catalyst Community Engagement program offers consults with researchers and community stakeholders to support your community engaged research projects. This includes supporting linkages between researchers and community partners, providing tips on developing community advisory boards, identifying strategies for building community engagement into study design, and providing feedback on community-engaged grant proposals.

Please email community@catalyst.harvard.edu to set up a brief consult.

WEBSITE: https://catalyst.harvard.edu/programs/communityengagement/communityresources.html

TRANSLATIONAL RESEARCH CONTINUUM



[1] https://cancercontrol.cancer.gov/IS/docs/NCI-ISaaG-Workbook.pdf
[2] https://implementationscience.biomedcentral.com/articles/10.1186/s13012-015-0209-1

EXEMPLAR IMPLEMENTATION SCIENCE RESEARCH QUESTIONS

- What strategies are best to integrate an EBI into a healthcare or community setting?
- What factors influence intervention success?
- How can interventions be designed to become embedded in organizations for sustained impact?
- How can we adapt effective interventions to fit different settings?
- What levels of intervention implementation yield acceptable levels of change?

Some terms you might hear when getting started with Implementation Science

Adoption: the decision of an organization, community, or other actor to initiate an EBI

Adaptation: intentional changes to the EBI to increase impact and relevance

Fidelity: the degree to which an EBI is implemented as originally described

Sustainability: the extent to which an EBI can deliver its intended benefits over an extended period of time

MODELS & FRAMEWORKS

Models and frameworks in implementation science help us to understand the mechanisms of successful implementation and can guide our planning, implementation, and evaluation, including defined constructs for measuring impact of an EBI. Selecting a framework will depend on your research questions. For example, some frameworks focus on how to evaluate implementation **outcomes** such as acceptability, costs, feasibility, and fidelity (e.g. The Proctor Model); while others focus on how **determinants** within varying contextual domains influence implementation outcomes (e.g. Consolidated Framework for Implementation Research).

More information on selecting a model or framework for your research can be found here.

OTHER RESOURCES

- Introduction to Implementation Research: Harvard Catalyst's eight-week online course offers an opportunity for investigators who want to understand and apply implementation science methods to their research.
- Implementation Science at a Glance: This guide designed for practitioners provides an excellent introduction to the field and offers strategies for engaging stakeholders and partners and balancing adaptation and fidelity.
- Implementation science made too simple: a teaching tool: Provides a brief overview of Implementation Science and how it relates to effectiveness research using "very non-scientific language".
- Training Institute for Dissemination and Implementation Research in Cancer (TIDIRC): For more in-depth learning, try these open access modules.
- Implementation Science Webinars series and Research to Reality: To keep up with the latest in Implementation Science, check out this webinar series from the National Cancer Institute.
- An Introduction to Effectiveness, Dissemination and Implementation Research: This resource manual includes recommendations to enhance integration of research and practice.
- In addition to traditional literature reviews, resources that may support your selection of an EBI include The Community Guide, United States Preventive Services Task Force, Evidence-Based Cancer Control Programs, SAMHSA Evidence-Based Practices Resource Center, Blueprints for Healthy Youth Development, PEW Research First Database, and AHRQ Innovations Exchange.
- PCORI Dissemination and Implementation Framework and Toolkit: These companion resources focus on dissemination and implementation of comparative effectiveness research and patient centered outcome research findings with potential to have considerable impact on health and healthcare decision making.