



Evans Center for
Implementation and
Improvement Sciences

Bringing Science to Quality

Who are we?

- **Dr. Mari-Lynn Drainoni**
 - Associate Professor of Health Law, Policy & Management, BUSPH + Infectious Diseases, BUSM
 - Implementation Science Course, BUSPH
 - Mixed methods, qualitative methods, program evaluation
- **Dr. Allan J. Walkey**
 - Assistant Professor of Medicine, BUSM
 - Pulmonary Critical Care
 - Practice pattern variation, comparative effectiveness research methodology
- **Caitlin G. Allen**
 - Assistant Research Director, CIIS
 - Mixed methods research, program evaluation



What is Implementation Science?

- Field of HSR focused on moving from research to practice.
- “The investigation of methods, interventions (strategies) & variables to influence adoption of evidence-based healthcare practices... to improve clinical & operational decision making...”¹
- Focus is on “provider, organization, and policy levels of healthcare.”²

1. Titler MG, Everett LQ, Adams S. Implications for implementation science. *Nursing Research*; 2007,56(4s): S53-S59. DOI:10.1097/01.NNR.0000280636.78901.7f.

2. Bauer MS, Damschroder L, Hagedorn H, Smith J, Kilbourne AM. An introduction to implementation science for the non-specialist. *BMC Psychology*; 2015, 3:32. Doi:10.1186/s40359-015-0089-0.

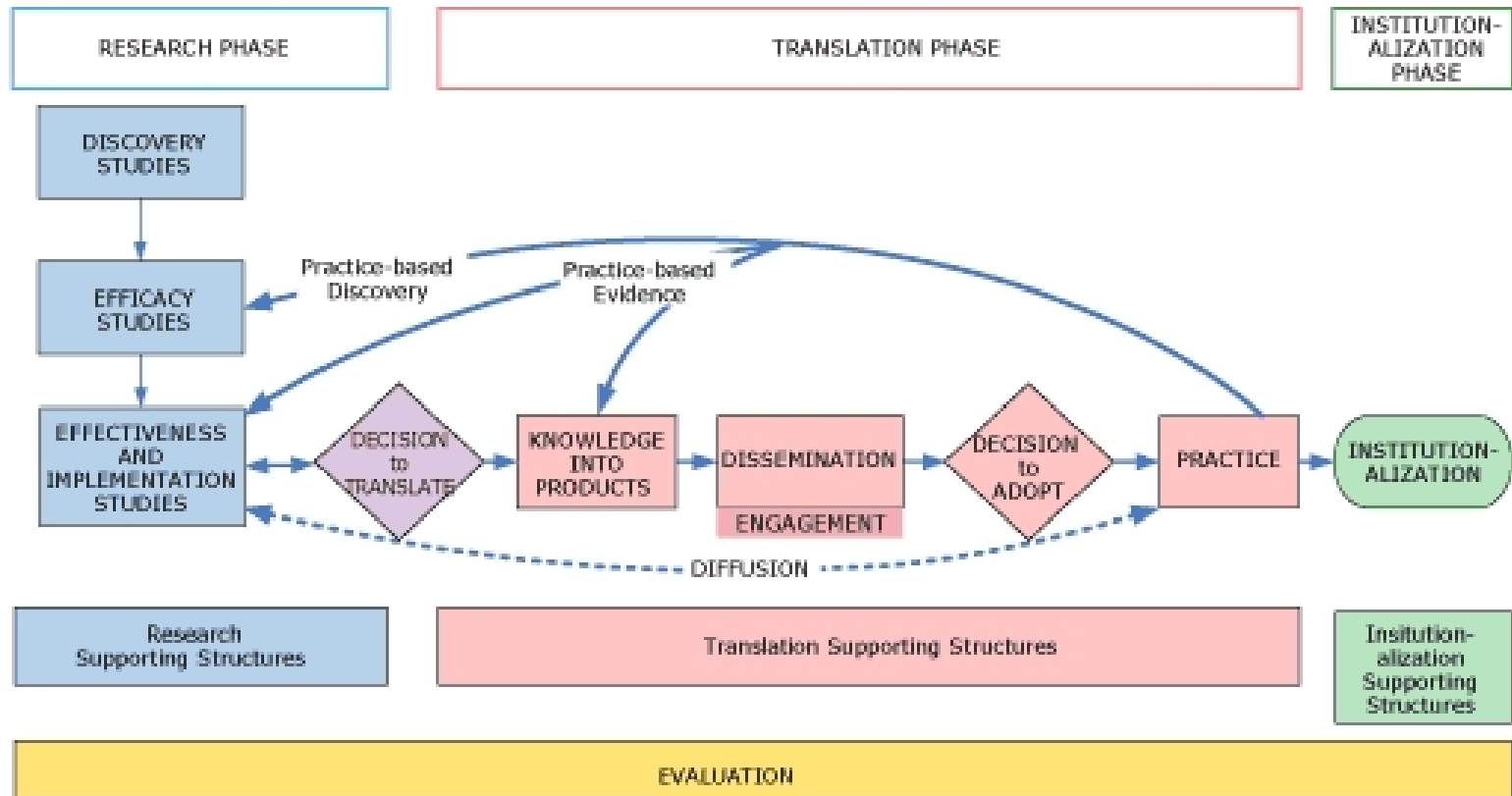


What is Improvement Science?

- Rigorously measure outcomes of efforts to improve healthcare delivery
- Questions of translation: does it work in the real world?
- Robust methods, quality data, publishable results
 - Local wisdom → generalizable knowledge”³

3. Marshall M, Pronovost P, Dixon-Woods M. Promotion of improvement as a science. Lancet; 2013, 381:419-421.

Knowledge to Action Framework



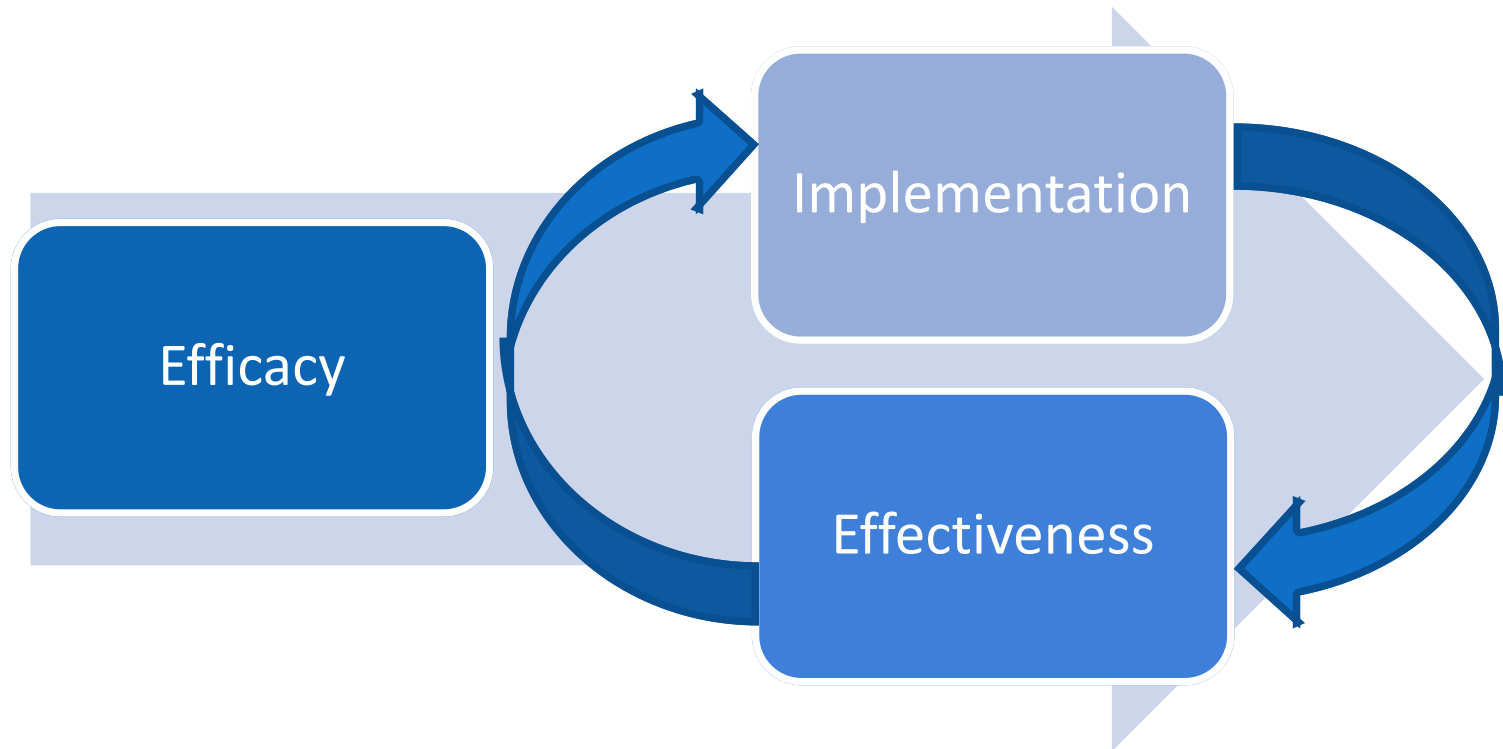
CIIS OBJECTIVES



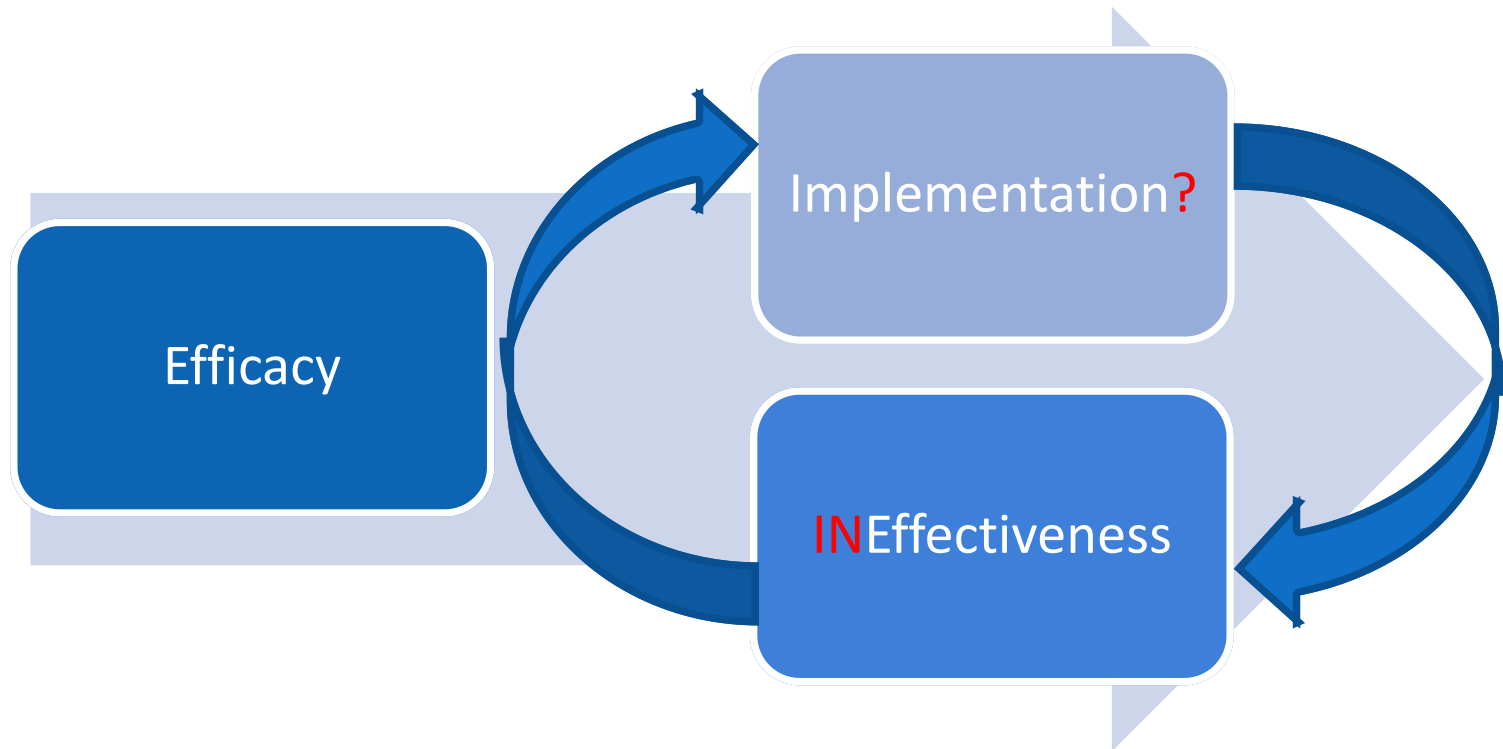
CIIS Objectives

- **Guide, support, and innovate** design of projects that rigorously evaluate the effectiveness of efforts to implement healthcare system change.
- **Identify** factors and strategies that **accelerate** the adoption and **promote sustainability** of effective healthcare interventions, especially in *safety net systems*.
- **Educate** faculty and trainees in Implementation and Improvement Sciences.

Ideal Research Continuum



Actual Research Continuum

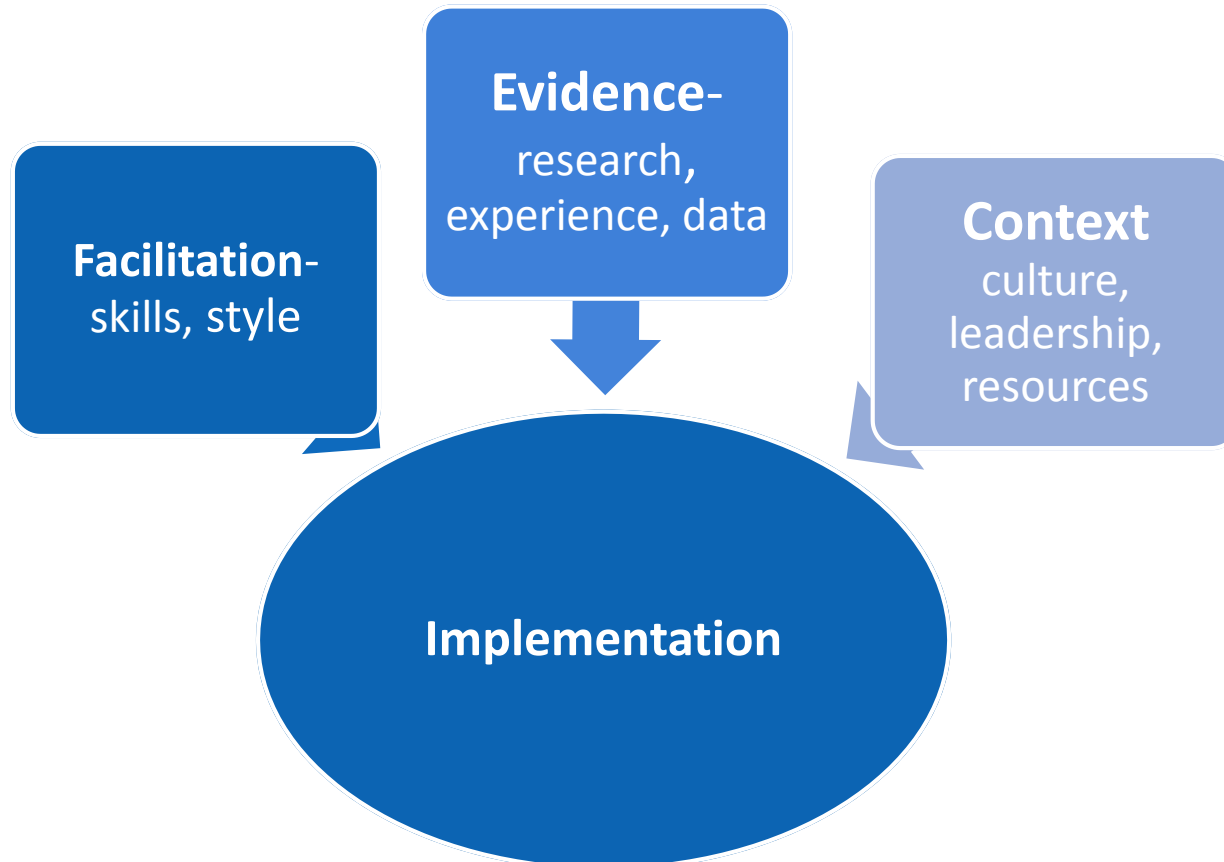


Consequence

- Can't tell what works (or doesn't) and why (or why not)?
- If we don't ask these questions then we cannot:
 - Learn from failure
 - Change course
 - Learn from successes
 - Sustain improvements
 - Identify unintended consequences
- Identifying successful programs and strategies will allow better use of resources and transfer of effective interventions across silos

Understanding Why

Using Promoting Action on Research Implementation in Health Services (PARiHS) Model to conduct formative evaluation



CIIS OFFERINGS

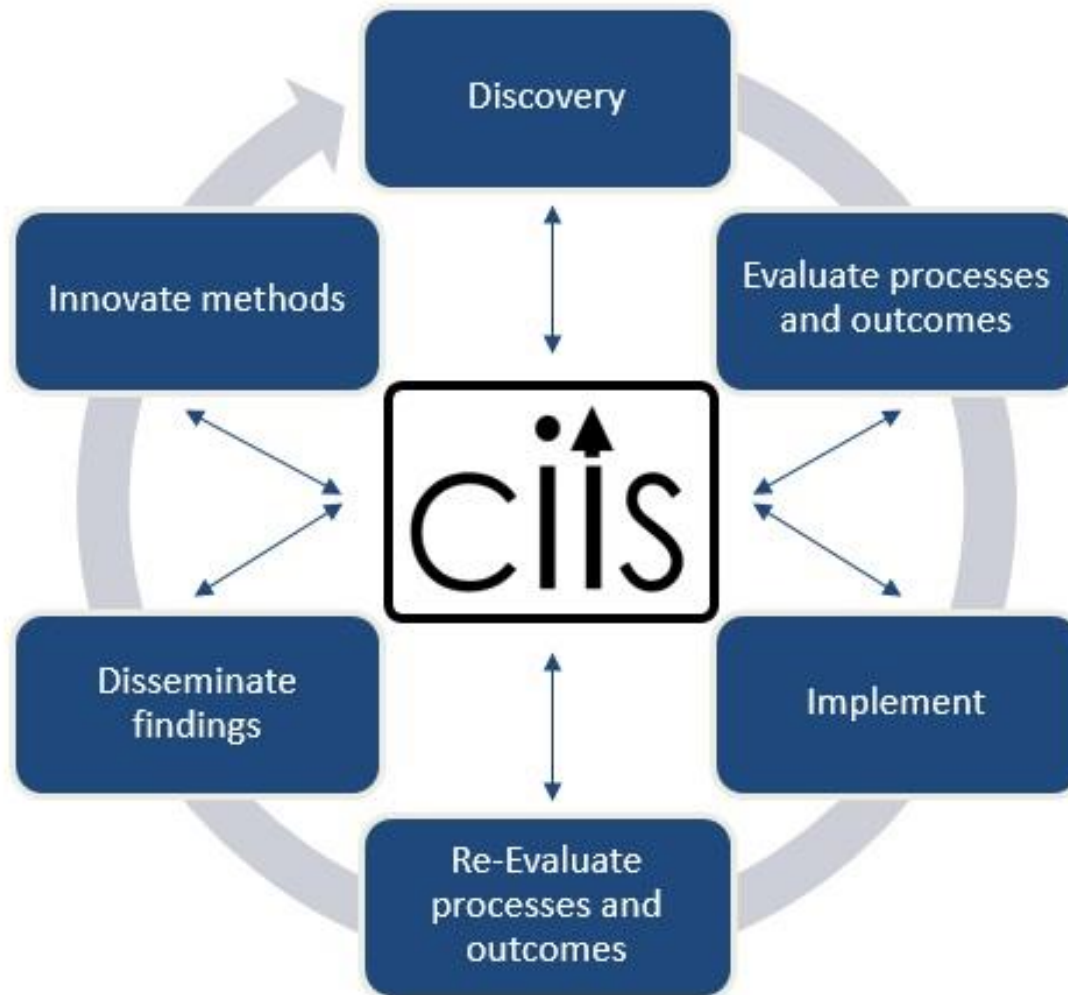


What can CIIS do?

- Offer input on evidence-based interventions and implementation strategies to test/use
- Assist with theoretical framing and design of quality improvement projects and studies
- Consult on design and analysis for validity and publication
- Provide linkages to additional expertise; promote collaborations
- Provide seed grants, pilot data, writing assistance
- Help us and others learn from our experience



Turning the Wheels of Quality



Selected CIIS Projects

- Evaluating the Implementation of a Memory Disorders Clinic
- Studying the Implementation of Readmission Intervention
- In-patient Smoking Cessation Program
- Choosing Wisely

http://sites.bu.edu/ciis/

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Center for Implementation and Improvement Sciences (CIIS)



Bringing Science to Quality

The **Evans Center for Implementation and Improvement Sciences (CIIS)** is a **methodological hub** for the scientific evaluation of efforts to improve healthcare delivery that integrates key components of implementation and improvement sciences with a focus on care within safety net systems.

What are Implementation and Improvement Sciences?

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Questions?

Thank you!