Who are we?

• Dr. Mari-Lynn Drainoni
  o Associate Professor of Health Law, Policy & Management, BUSPH + Infectious Diseases, BUSM
  o Implementation Science Course, BUSPH
  o Mixed methods, qualitative methods, program evaluation

• Dr. Allan J. Walkey
  o Assistant Professor of Medicine, BUSM
  o Pulmonary Critical Care
  o Practice pattern variation, comparative effectiveness research methodology

• Caitlin G. Allen
  o Assistant Research Director, CIIS
  o 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


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
  o Local wisdom → generalizable knowledge”³

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

- Efficacy
- Implementation
- Effectiveness
Actual Research Continuum

Efficacy

Implementation?

INEffectiveness
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

Facilitation - skills, style

Evidence - research, experience, data

Context - culture, leadership, resources

Implementation
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

Discovery

Innovate methods

Evaluate processes and outcomes

Disseminate findings

Implement

Re-Evaluate processes and outcomes

CIIS

Diagram showing the cycle of discovery, innovate methods, evaluate processes and outcomes, disseminate findings, implement, and re-evaluate processes and outcomes.
Selected CIIS Projects

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