

# Implementation & Improvement Sciences

Working together to produce socially significant outcomes



## Commonalities and Complements

	<b>Use teaming structures</b>		<b>Use a variety of data</b>		<b>Focus on systems</b>
<p>Network Improvement Communities<sup>2</sup> and Linked Implementation Teams<sup>1</sup> use data to identify needs, develop theories of action, and follow iterative cycles of improvement that prioritize implementers' voices in planning and problem solving.</p>		<p>Both sciences use data related to process, fidelity, context, organizational factors, and stakeholder input to drive problem solving and decision making.</p>		<p>Both approaches are system focused. Improvement science focuses on factors outside individuals while implementation science focuses on roles, structures, and functions that support capacity to use a practice with fidelity.</p>	
	<b>Use Improvement Cycles</b>		<b>Start small across varied contexts</b>		<b>Focus on practitioner level needs</b>
<p>Repeated Plan-Do-Study-Act (PDSA) cycles answer questions (<i>What are we trying to accomplish? How will we know that a change is an improvement? What change can we make that will result in improvement?</i>) to learn and improve practices and systems as a result of change.</p>		<p>Both sciences propose starting small with learning from PDSA cycles before scaling using either a Transformation Zone<sup>1</sup> or Improvement Project<sup>2</sup> methodology to develop capacity, refine the practice, and build readiness before scaling.</p>		<p>Both sciences emphasize use of a systemic selection process. Improvement science identifies high leverage problems and related solutions. Similarly, implementation science examines fit and need of systems, practices, and users.</p>	

### Implementation Science<sup>1</sup>

“Methods or techniques used to enhance the adoption, implementation, and sustainability” of a practice (Proctor et al., 2013).

- Systems are central focus of support for effective use of practices
- Uses bi-directional feedback loops
- Practices selected based on local need and fit
- Aligns initiative and leverages resources to meet coherent goals
- Iterative cycles of data guide improvement
- Follows a stage-based approach to change

### Improvement Science<sup>2</sup>

A methodology that uses cycles of inquiry to learn what is needed to improve practice (Bryk et al., 2015).

- Problem specific and user focused
- Address variation in performance
- Cannot improve what cannot be measured
- Anchors improvement in disciplined inquiry
- Sees the system
- Accelerates improvement through Networked Communities



“The goal is not to answer factual questions about what is, but rather to determine what is required.”

National Implementation Research Network, 2015  
**Implementation Science**

“They knew what they wanted to happen but were now trying to figure out how to get it to happen.”

Bryk et al., 2015  
**Improvement Science**