

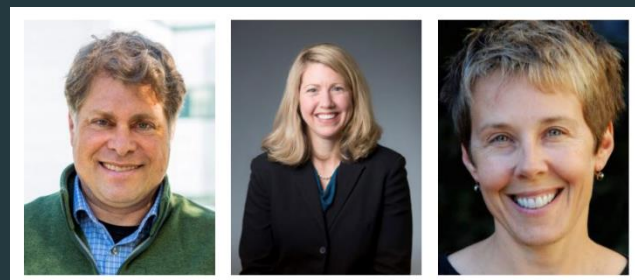


Dartmouth
GEISEL SCHOOL OF
MEDICINE

Dartmouth Center for
**IMPLEMENTATION
SCIENCE**

From Concept to Impact: Exploring Implementation Models & Frameworks

Hosted by:



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Kelly Aschbrenner, DCIS Co-Director
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From concept to impact: Exploring implementation models and frameworks

SARA MALONE, PHD, LCSW
WASHINGTON UNIVERSITY IN ST. LOUIS
MARCH 12, 2024



ABOUT ME

- Assistant Professor at Washington University in St. Louis
- Most of my work falls into 2 categories:
 - Implementation Science measurement and methods
 - Pediatric hospital care
- Licensed Clinical Social Work (Emergency Room)

ASSUMPTIONS I'VE MADE ABOUT TODAY:

- 01 You've probably heard about why we think implementation science is important.
- 02 You have heard something about implementation science outcomes.
- 03 You've likely had someone tell you about the 17 years statistic.
- 04 You have something that you're passionate about improving, making better, or using implementation science to better understand.

IMPLEMENTATION SCIENCE

We want to translate research (and use a scientific study of methods, strategies, and frameworks) to make sure that evidence based care and interventions get to *everyone* needs it.

AGENDA

Understanding Theories, Models, and Frameworks

Theoretical Foundations of Implementation Science

Models and Frameworks in implementation Science

Selecting and Applying Implementation Frameworks

Conclusion



UNDERSTANDING
THEORIES, MODELS,
AND FRAMEWORKS

REASONS TO USE

01 Conceptual Clarity

02 Planning

03 Generalizability

04 Study Design and Hypothesis Generation

05 Helps with replication

06 Advancing the field

07 Integration of findings

08 To reach impact!

A FEW NOTES:

Note 1

This is just a starting place - it's not perfect.

Note 2

Adaptation is often necessary, and normal. You can (and sometimes even really should) adapt these to apply in your setting.

Note 3

Often in implementation research, we use theories/ models/frameworks interchangeably. But... they are different. Today, I will try to create some distinction.



NILSEN HELPS US THINK ABOUT HOW TO DIFFERENTIATE TYPES OF T/M/F'S

Process

describe and guide how research gets integrated into practice, very practice oriented (Knowledge-to-Action framework); often offer guidance that is concrete, practical

Determinant

describe constructs, domains of determinants that influence implementation outcomes; usually lists of barriers and facilitators (CFIR, PARIHS)

Classic theories

Theories from other fields (often psychology, organizational theory) that have been applied within implementation science; describe change and how change occurs, often in individual level (Social Cognitive Theory, Theory of Planned Behavior)

Implementation Theories

theories developed within the field of implementation science that attempt to describe implementation (Normalization Process Theory; COM-B)

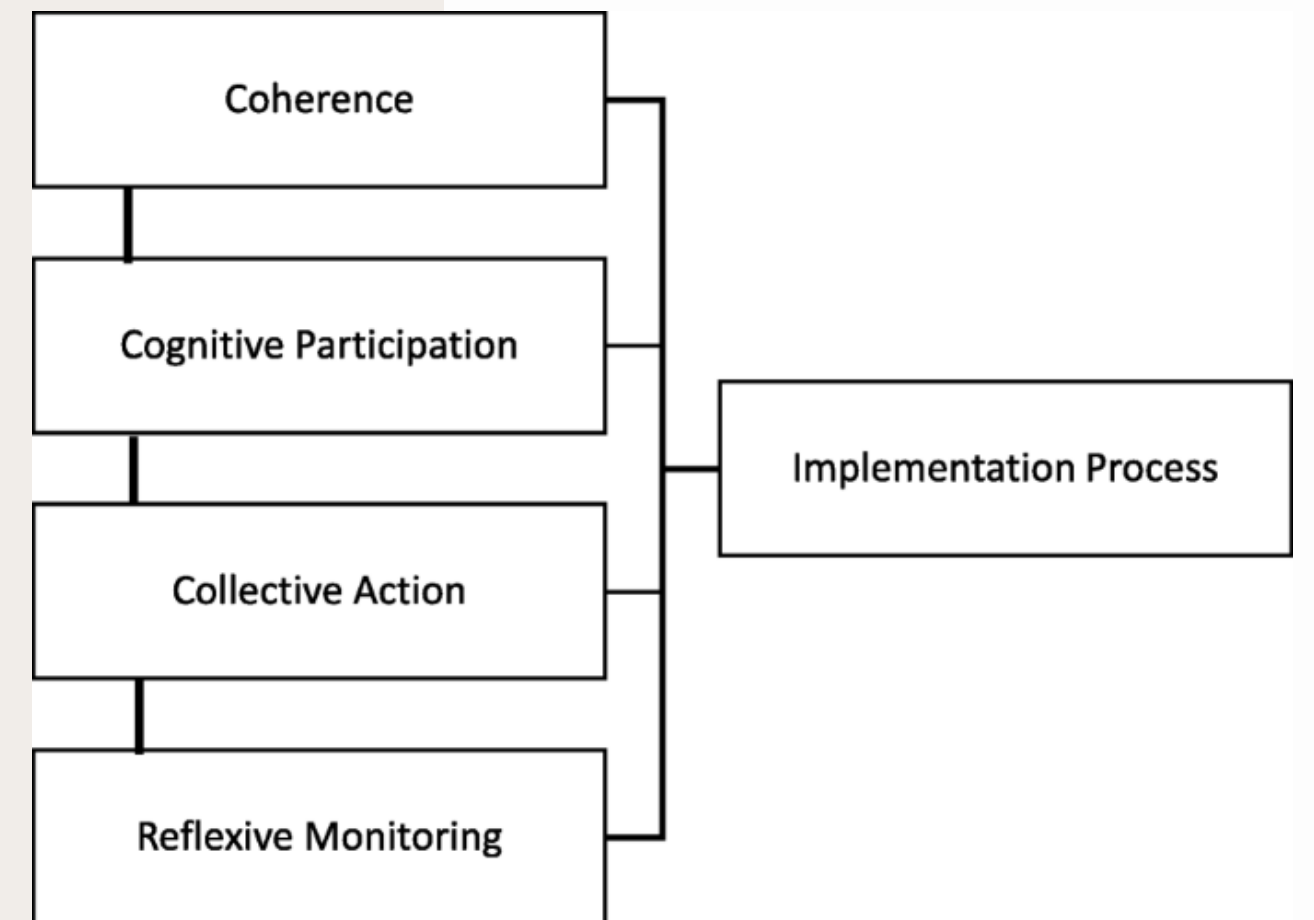
Evaluative frameworks

provide structure for evaluation and how to specify things that should be considered for implementation aspects of studies and projects (RE-AIM, Proctor et al outcomes)

THEORETICAL
FOUNDATIONS OF
IMPLEMENTATION
SCIENCE

THEORIES

- Provide the most broad understanding of a phenomena
- Identify the relationship between underlying concepts and ideas
- Attempts to explain a set of related ideas, concepts



EXAMPLE: DIFFUSION OF INNOVATIONS THEORY

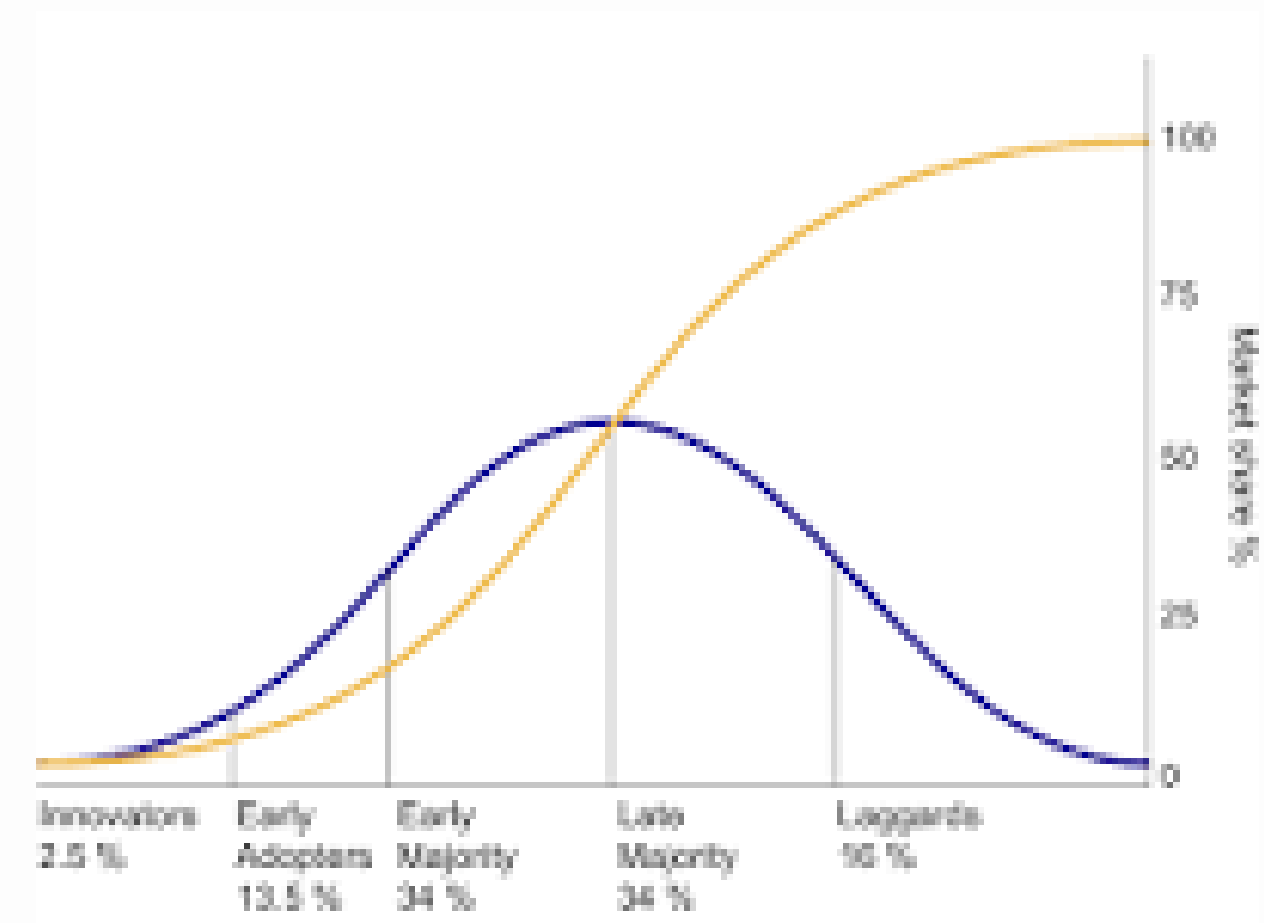
Rogers' theory that explains the basis of dissemination - how things spread, why, and who the actors are

Explain Process

background on the dynamics of adoption, identify the actors of interest

Strategy Selection

Identifying characteristics that are important for an intervention, or who ought to be targeted in the strategy, provide guidance on the communication strategies

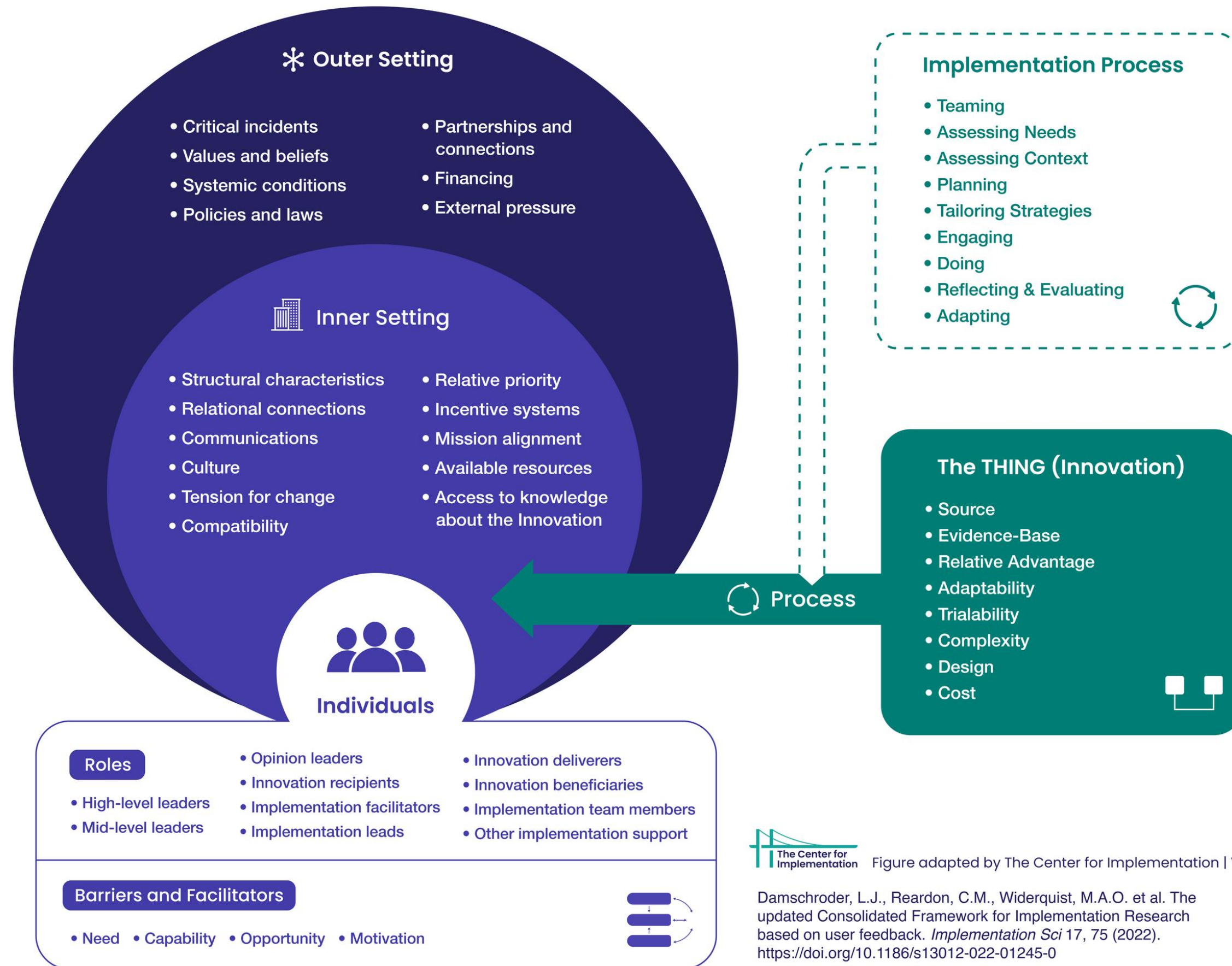


FRAMEWORKS IN
IMPLEMENTATION
SCIENCE

DETERMINANT FRAMEWORKS

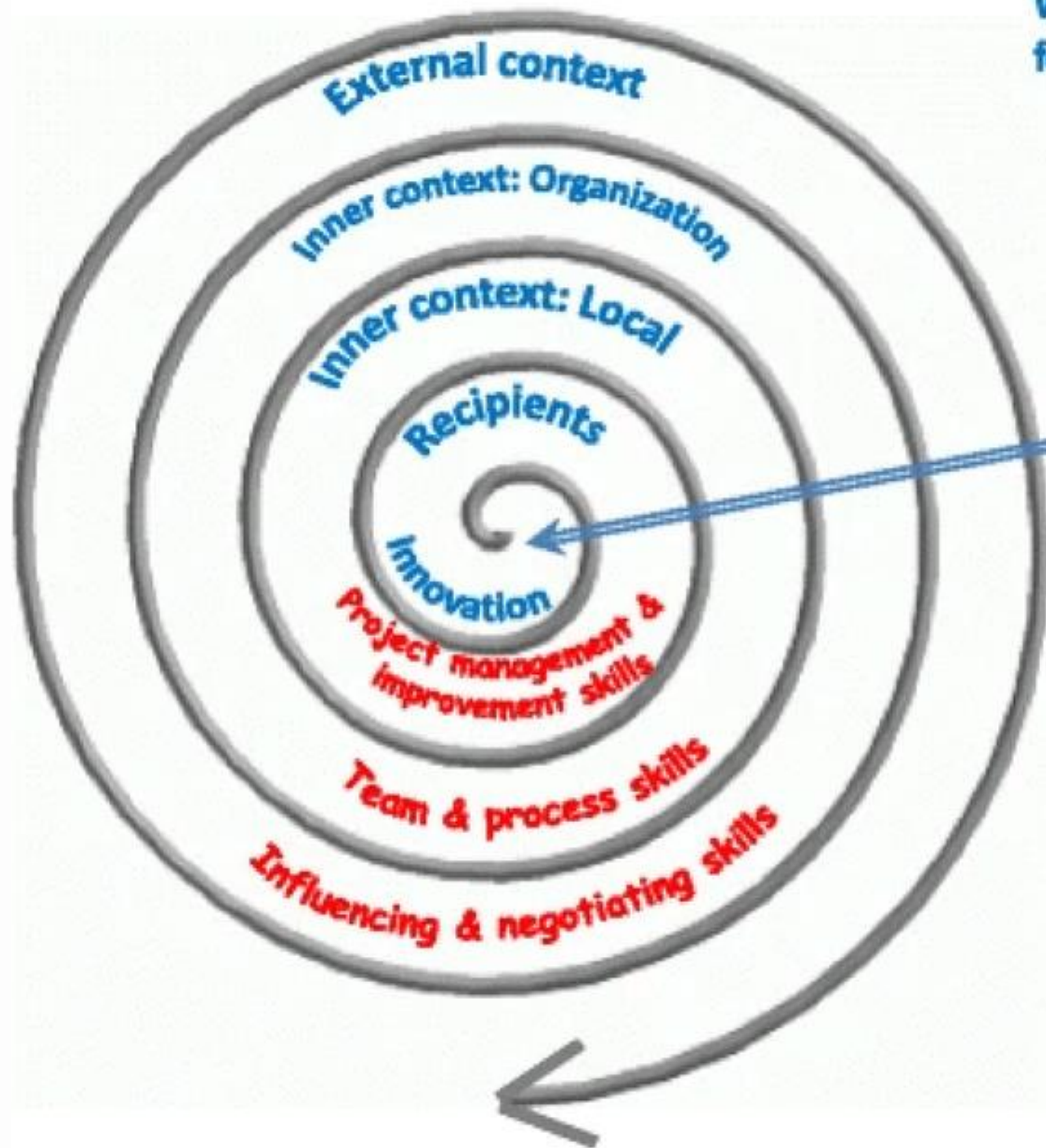
- Help us consider context
 - Inner and outer setting
- You don't have to use a framework at all levels
- Often used to assess barriers/facilitators
 - Assets and opportunities
- Consolidated Framework for Implementation Research (CFIR)
 - CFIR 2.0 - equity focus
 - Website (qualitative guidance)

Consolidated Framework for Implementation Research (CFIR) 2.0



The Center for Implementation | Figure adapted by The Center for Implementation | V2024.01

Damschroder, L.J., Reardon, C.M., Widerquist, M.A.O. et al. The updated Consolidated Framework for Implementation Research based on user feedback. *Implementation Sci* 17, 75 (2022). <https://doi.org/10.1186/s13012-022-01245-0>



What the facilitator focuses on

Facilitation:
Facilitator role/s and facilitation processes

What skills the facilitator needs

RE-AIM: AN EVALUATION FRAMEWORK

What does it do?

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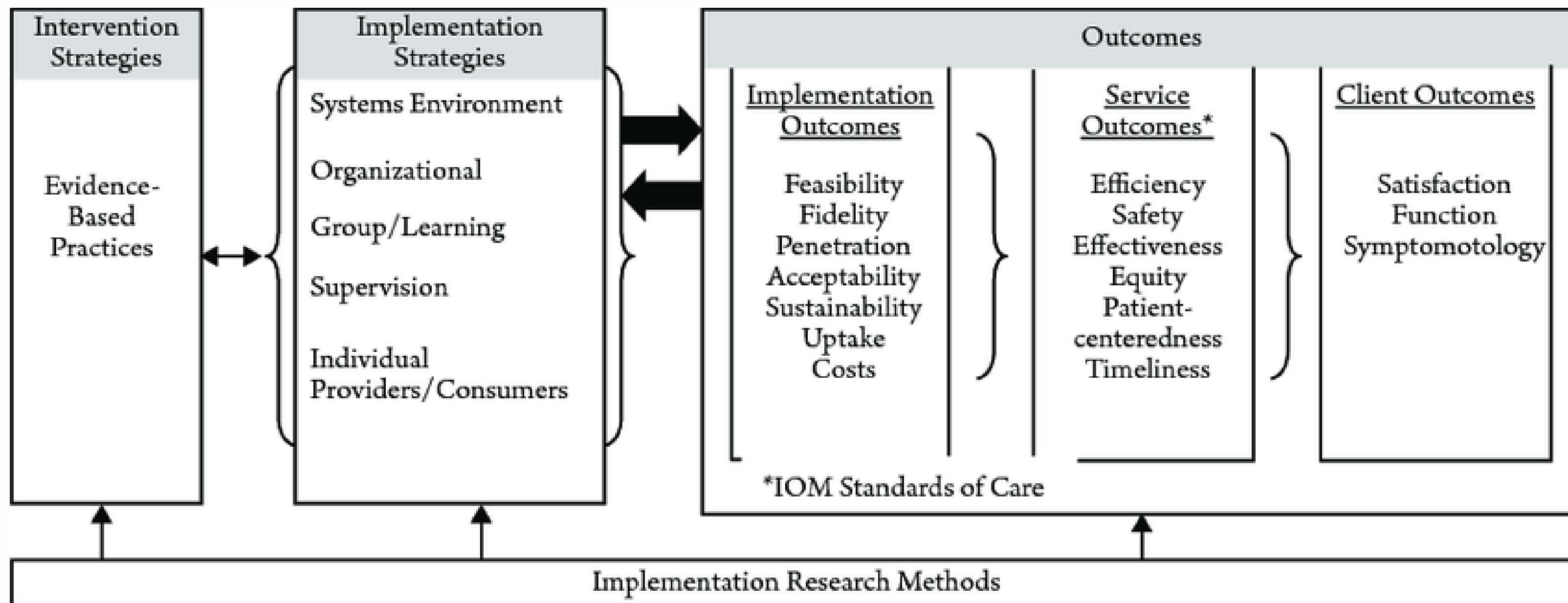
Cool things to know

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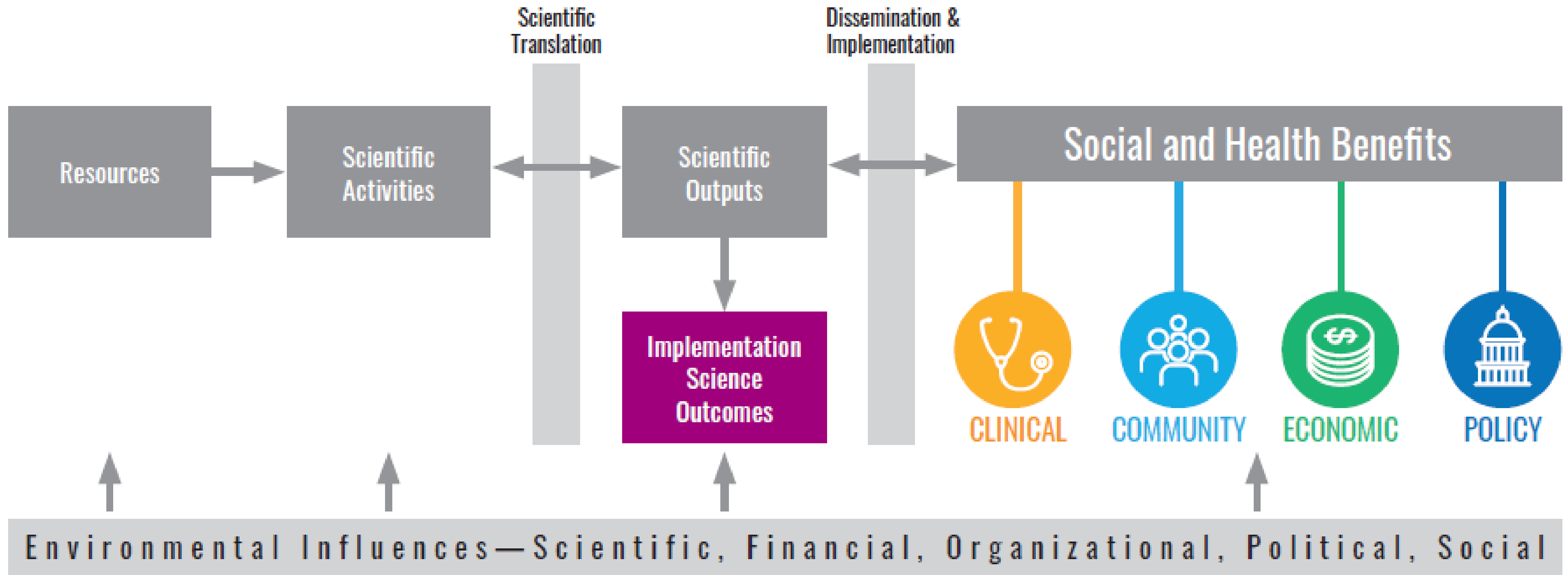
RE-AIM/PRISM & Sustainability

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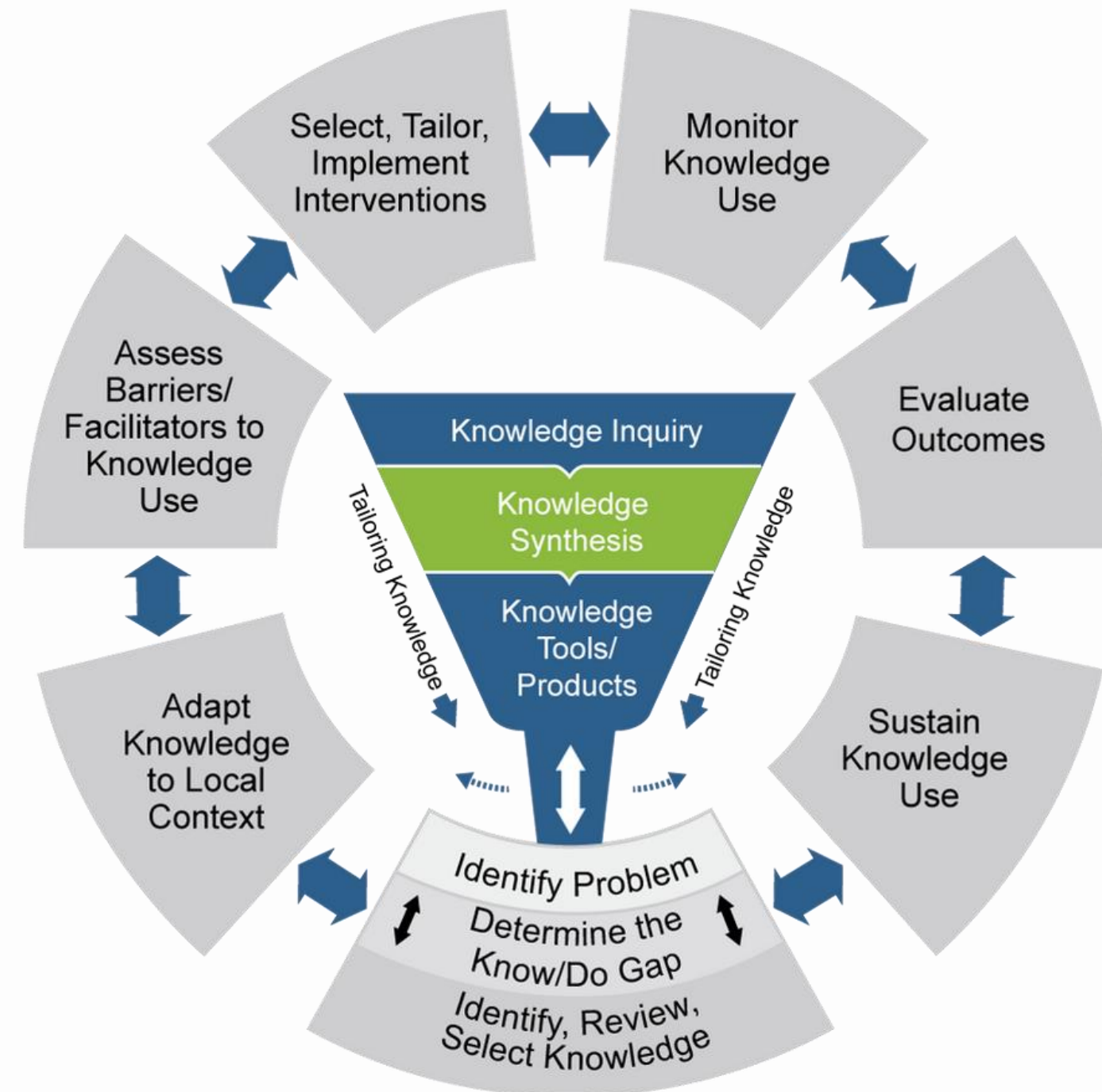




Adapted TSBM framework

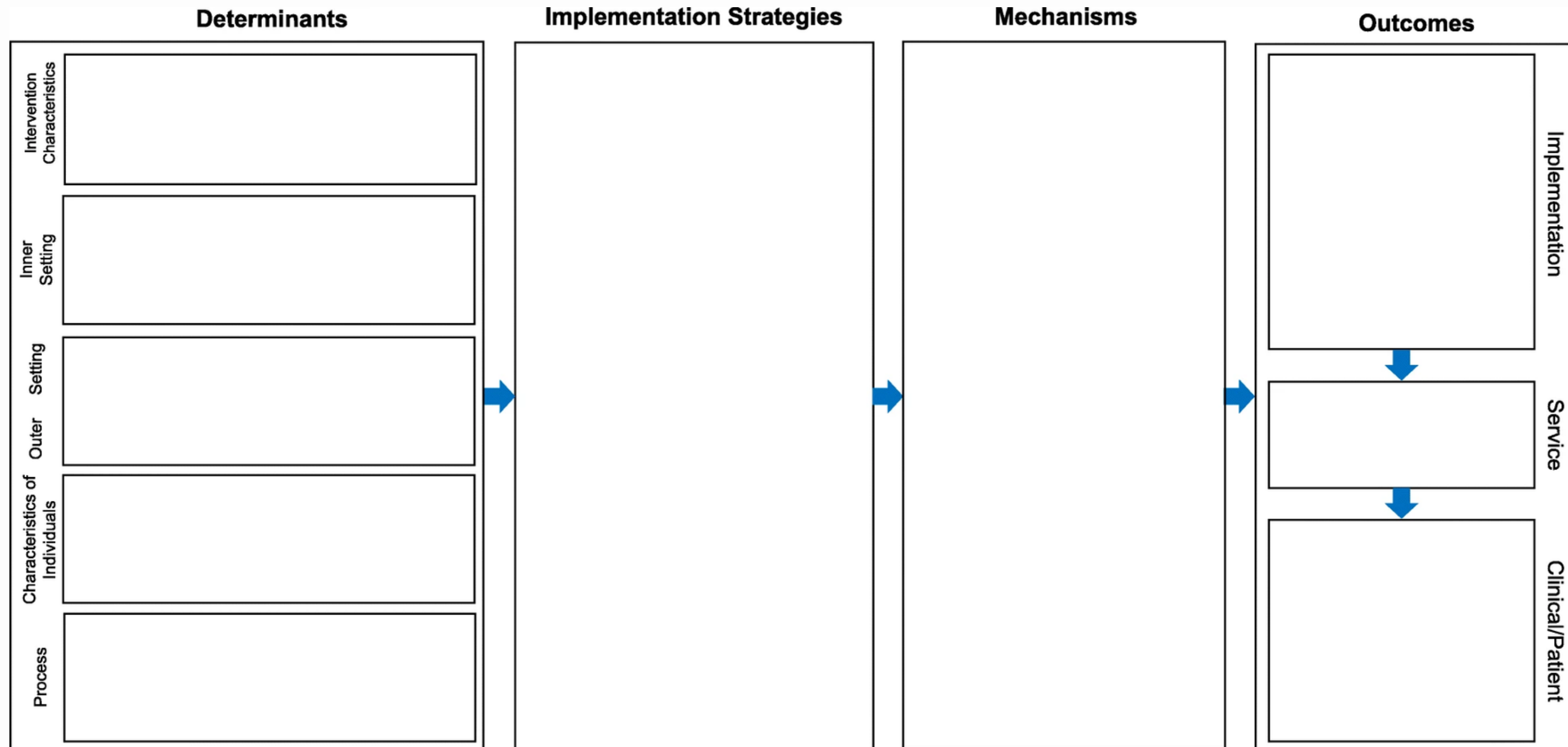


Process Frameworks



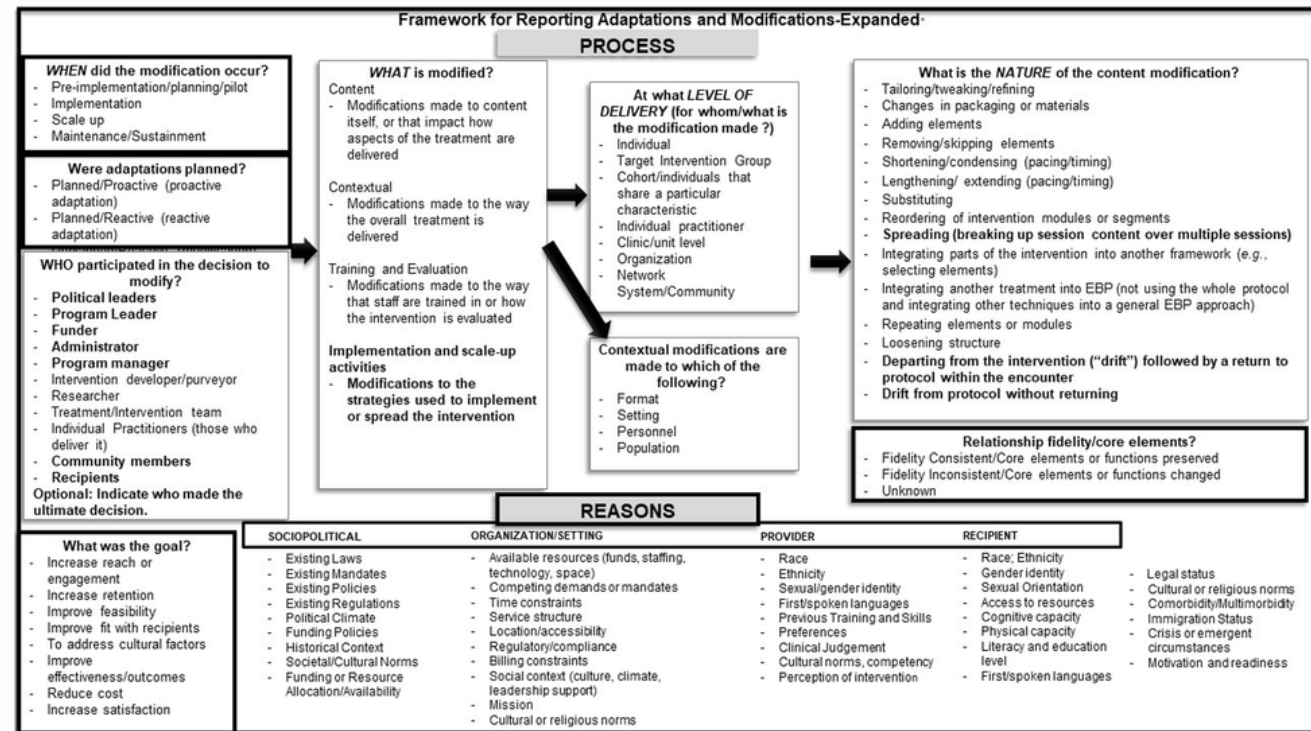
MODELS IN
IMPLEMENTATION
SCIENCE

Implementation Research Logic Model

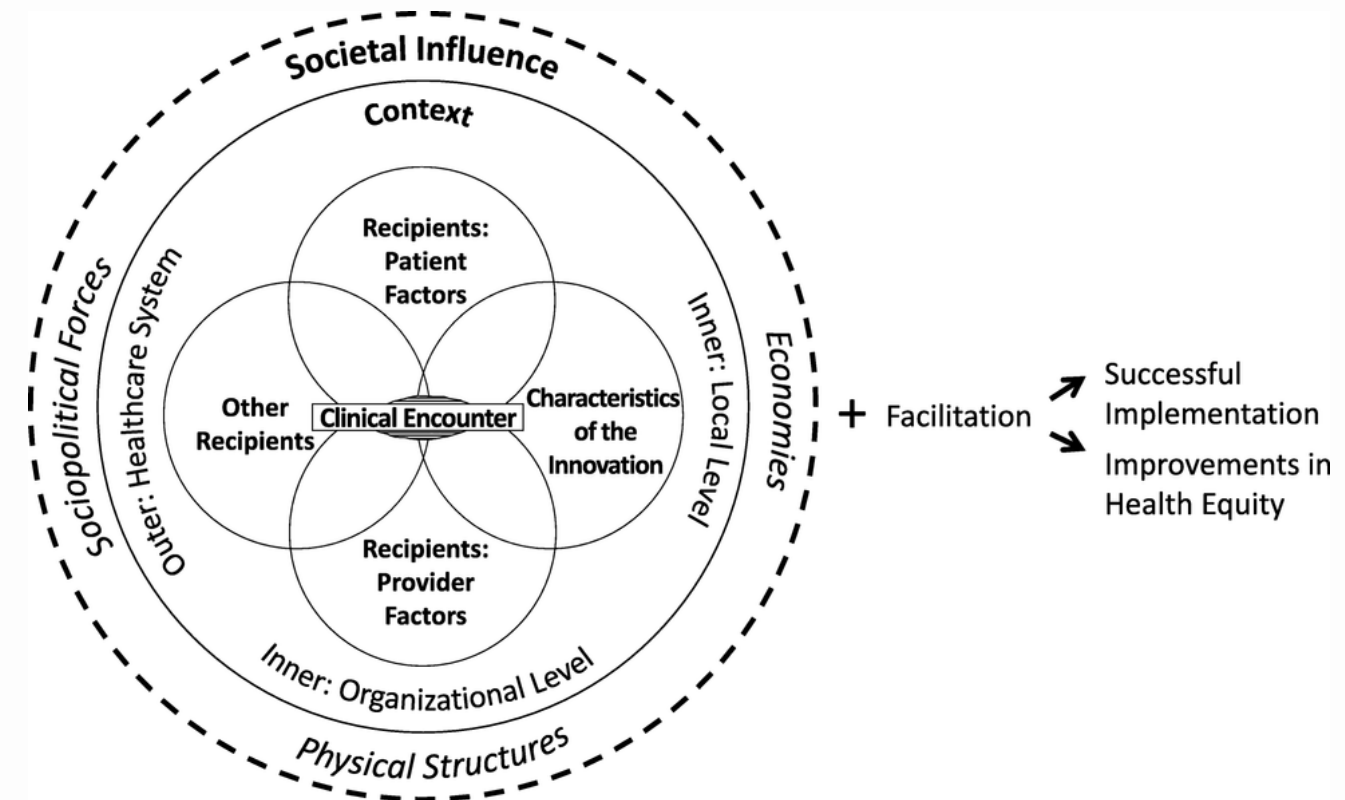


Emerging Frameworks

Adaptation

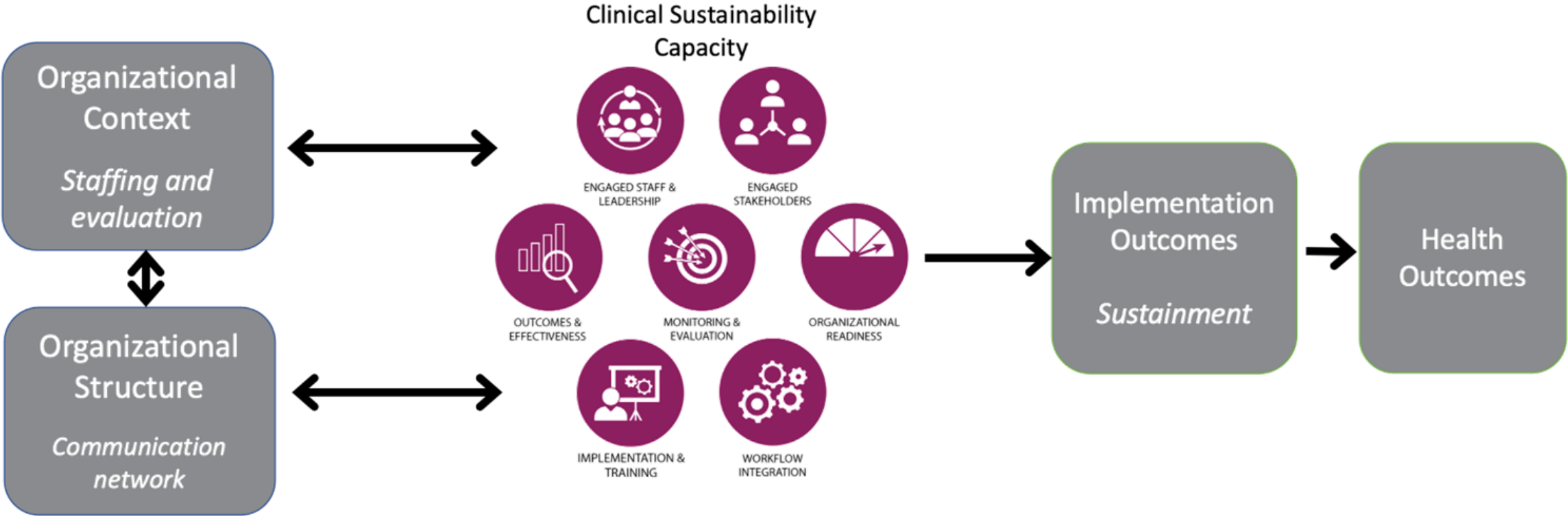
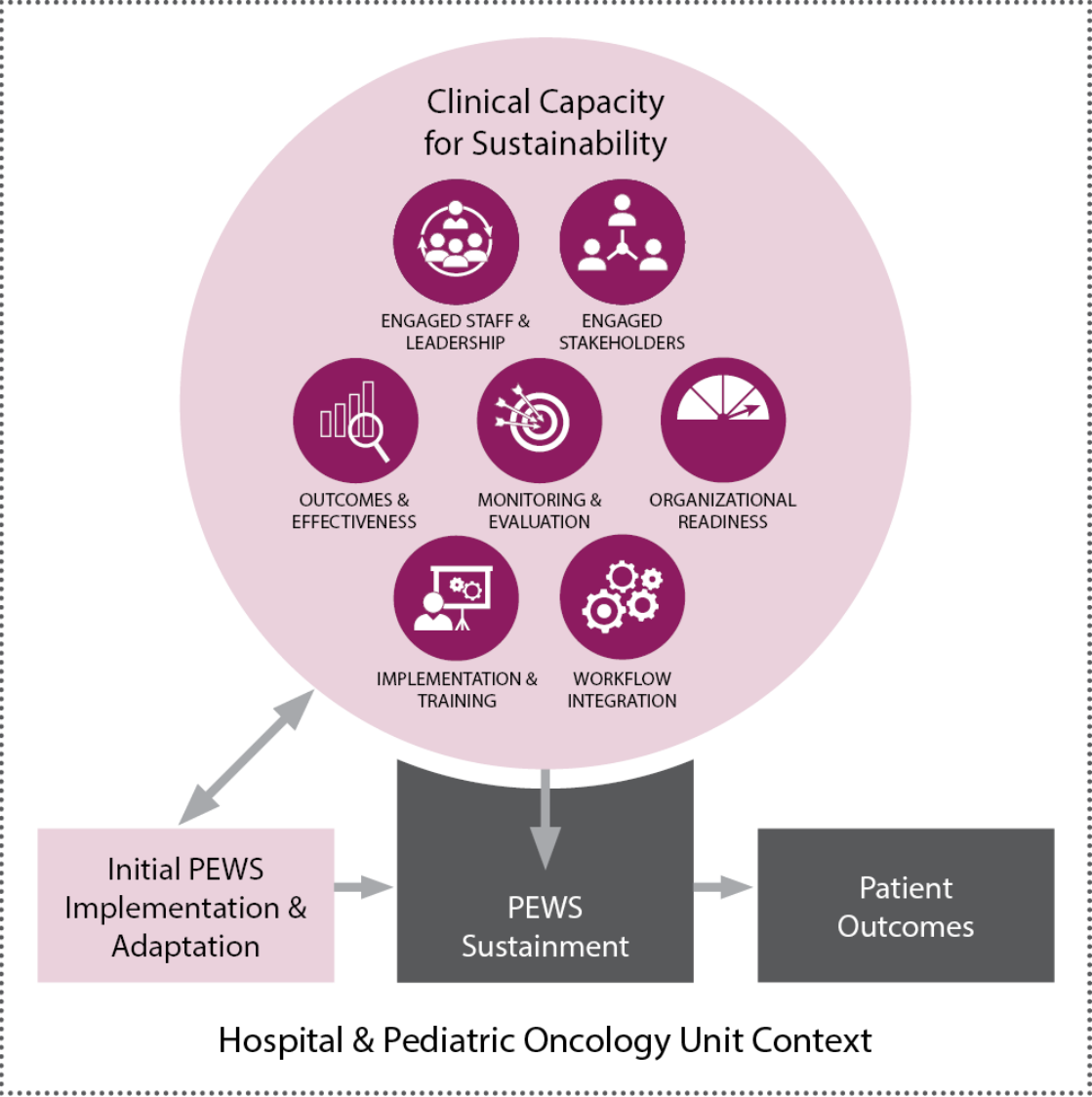


Health Equity

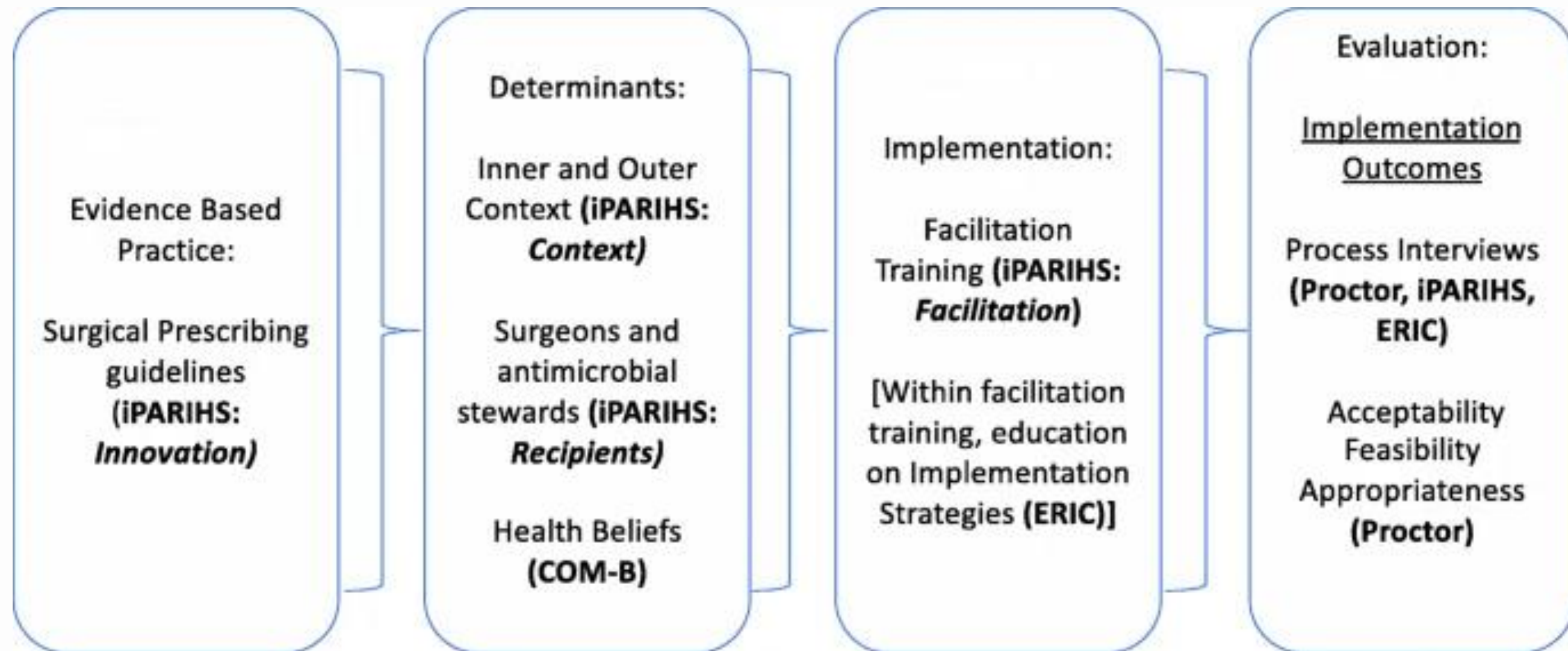


EXAMPLES AND
APPLICATIONS

Clinical Sustainability



Example of using multiple T/M/F





SELECTING AND
APPLYING THEORIES,
MODELS, AND
FRAMEWORKS

SELECTING T / M / F

- Understand the level at which your study is intervening, assessing
- Consider the extent to which you are assessing dissemination or implementation
- Are there common theories for your setting or research topic?
- *Be open to using different frameworks!* None of them are perfect.



WHERE TO USE T/M/F IN YOUR WORK

- Planning
- Practice (projects) or carrying out a project
- Reporting findings
- Should be used and integrated throughout
 - Aims
 - Design
 - Measurement and outcome selection
 - Evaluation and Analyses
- Using a T/M/F is not innovative, but it can help you consider innovation

DISSEMINATION-IMPLEMENTATION.ORG



AN INTERACTIVE WEBTOOL TO HELP YOU USE D&I MODELS

D and/or I: [i](#)

I-Only

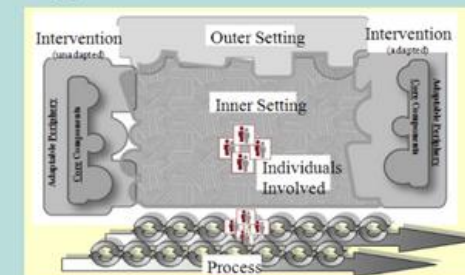
Socio-Ecological Levels: [i](#)

Individual
Organization
Community
System
Policy

Number of Times Cited: [i](#)

2980

Figure:



Field of Origin: [i](#)

Health services

Practitioner/Researcher: [i](#)

Constructs: [i](#)

Adaptation and evolution, Adopter/implementer/decision maker characteristics, Champion/field agent, Communication, Communication channels, Compatibility, Complexity, Context – Inner setting, Cost, Engagement, Evaluation, Implementation, Innovation characteristics, Knowledge and Knowledge Synthesis, Readiness, Trialability, Patient/target audience characteristics and needs, Process, Relative advantage, Stakeholders, Health Equity

Website: [i](#)

<https://cfirguide.org/>

Citations: [i](#)

Damschroder LJ, Aron DC, Keith RE, Kirsh SR, Alexander JA, Lowery JC. Fostering implementation of health services research findings into practice: a consolidated framework for advancing implementation science. *Implement Sci* 2009;4:50.

Examples: [i](#)

Allen M, Wilhelm A, Ortega LE, Pergament S, Bates N, Cunningham B. Applying a Race(ism)-Conscious Adaptation of the CFIR Framework to Understand Implementation of a School-Based Equity-Oriented Intervention. *Ethn Dis*. 2021 May 20;31(Suppl 1):375-388. doi: 10.18865/ed.31.S1.375. [Read this resource](#) [View Case Study](#)

Gordon EJ, Lee J, Kang RH, Caicedo JC, Holl JL, Ladner DP, Shumate MD. A complex culturally targeted intervention to reduce Hispanic disparities in living kidney donor transplantation: an effectiveness-implementation hybrid study protocol. *BMC Health Serv Res*. 2018 May 16;18(1):368. doi: 10.1186/s12913-018-3151-5.

Hartzler B, Lash SJ, Roll JM. Contingency management in substance abuse treatment: a structured review of the evidence for its transportability. *Drug Alcohol Depen* 2011;122(1-2):1-10.

Lash SJ, Timko C, Curran GM, McKay JR, Burden JL. Implementation of evidence-based substance use disorder continuing care interventions. *Psychol Addict Behav* 2011;25(2):238-51.



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Learning Opportunities

Fundamentals Series

Monthly on the 2nd Tuesday

12:00-1:00 PM

Virtual



Works in Progress Series

Monthly on the 4th Tuesday

12:00-1:00 PM

In Person & Virtual



 geiselmed.dartmouth.edu/dcis

 linkedin.com/company/implementation-science

 twitter.com/dartmouthimpsci

 implementation.science@dartmouth.edu



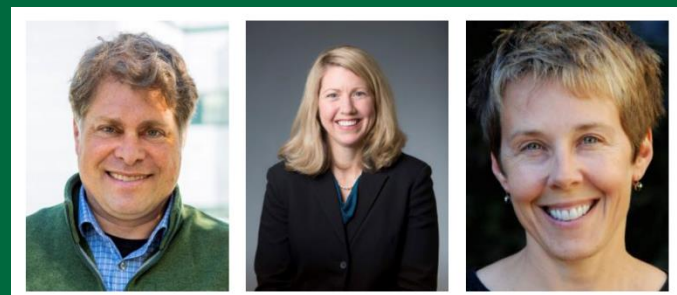
Join Our Network



Dartmouth Center for
**IMPLEMENTATION
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Fundamentals

2024 Implementation Science Seminar Series



Hosted by:

Jeremiah Brown, PhD, DCIS Director
Kelly Aschbrenner, PhD, DCIS Co-Director
Sarah Lord, PhD, DCIS Co-Director

Monthly on the 2nd Tuesday*

(*Note: 4th Tuesday for April only)

April

Measuring Context, Process, and Implementation

Katie Rendle, PhD
University of Pennsylvania

Tuesday, April 23*

May

Implementation Frameworks: PRISM & RE-AIM

Tina Studts, PhD
University of Colorado
Samantha Harden, PhD
Virginia Tech

Tuesday, May 14

Recent Sessions

Available at:
geiselmed.dartmouth.edu/dcis/past-events/

Five Considerations for Formulating an Implementation Science Research Question

Kelly Aschbrenner, PhD
February 2024
[Recording](#) | [Slides](#)

Master of Implementation Science: Overview of the Proposed Program

Jeremiah Brown, PhD
January 2024
[Recording](#) | [Slides](#)



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