What is the potential "implementability" of your research proposal or existing project?

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[1]Stanford School of Medicine, Palo Alto, CA; [2]Northwestern University Fienberg School of Medicine, Chicago, IL; Yale University School of Medicine, New Haven, CT
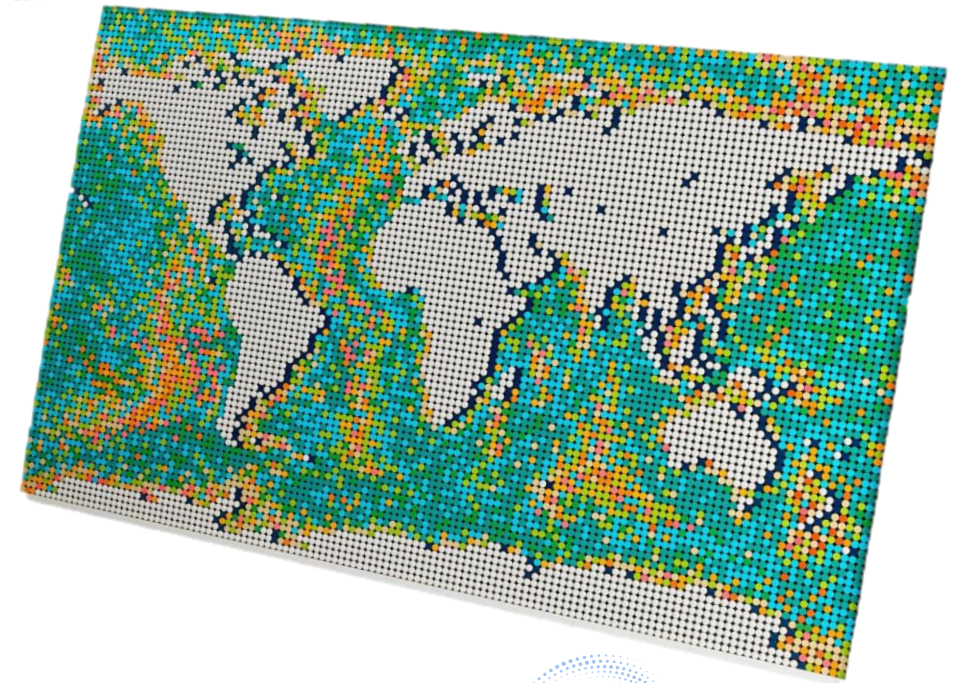
Addiction Health Services Research Conference 2024, October 16, 2024

What Implementation Science Appears to Offer

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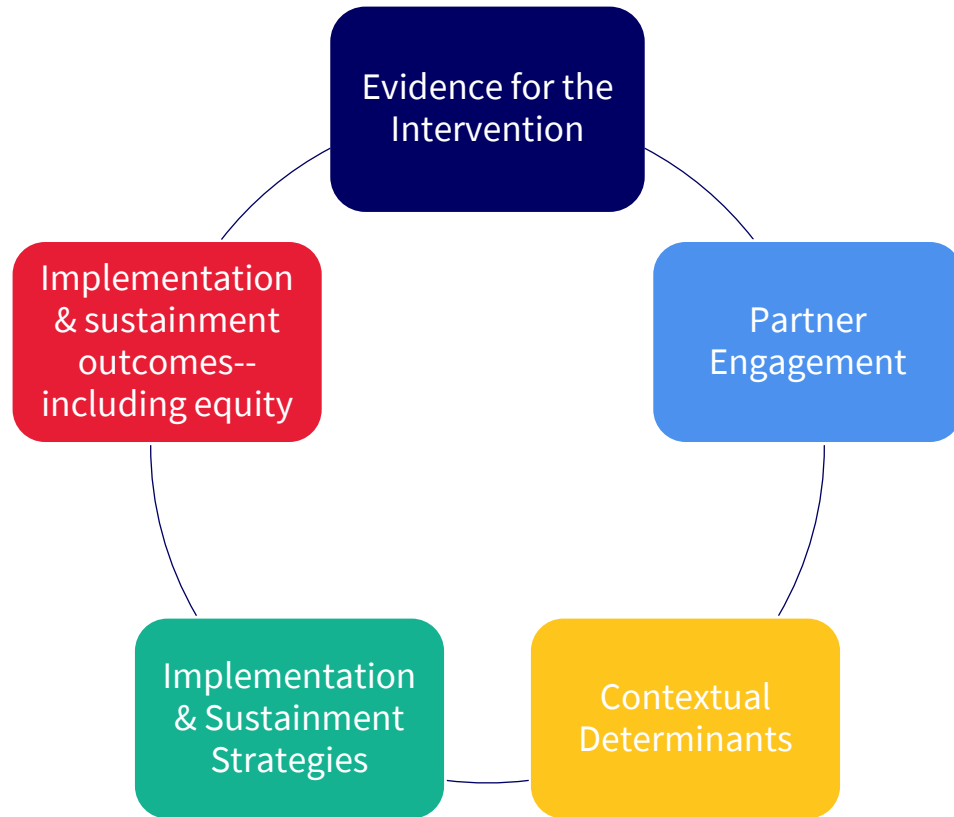

Frameworks

Strategies

Measures

What the Field Needs

Researchers want…

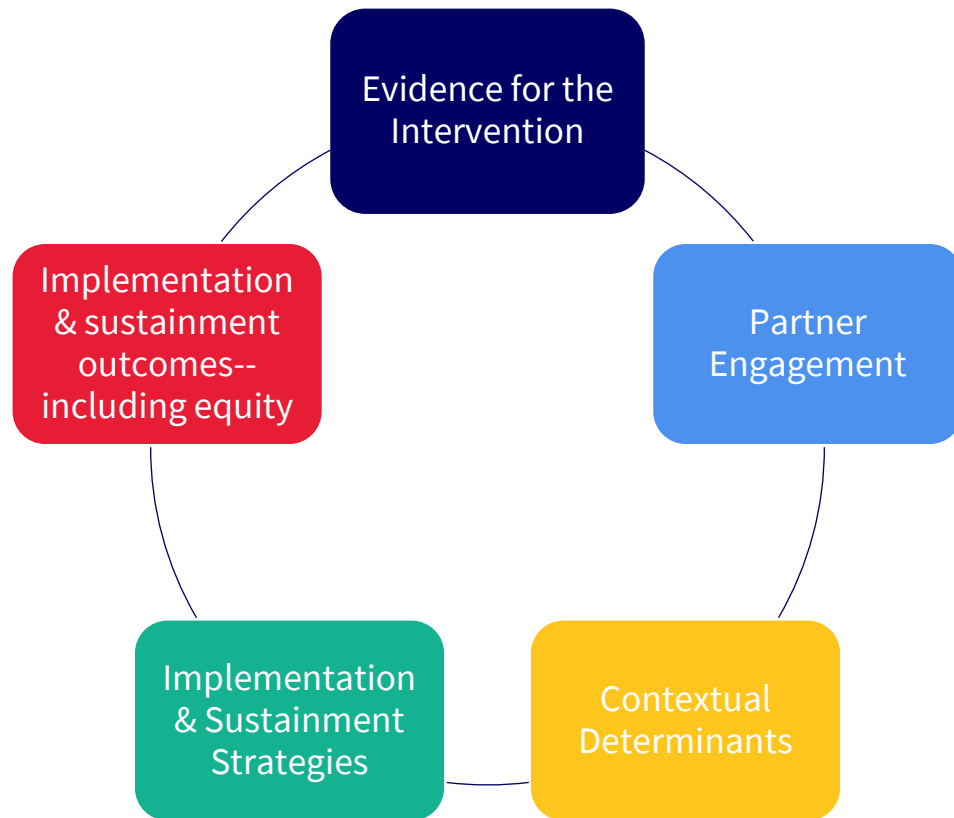- To increase the potential for translation and true public health impact

- To understand the potential real world "implementability" of their interventions

- To do more than qualitative interviews about barriers and facilitators

- Pragmatic guidance from the field of implementation science….not theories, models, and frameworks

Optimizing D&I science to improve the chance for translation: 5 key components

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- **Evidence for the Intervention:** Research supporting the intervention's effectiveness, delivery and delivery platform, and proposed adaptation

Circular diagram with five components:
- Evidence for the Intervention
- Partner Engagement
- Contextual Determinants
- Implementation & Sustainment Strategies
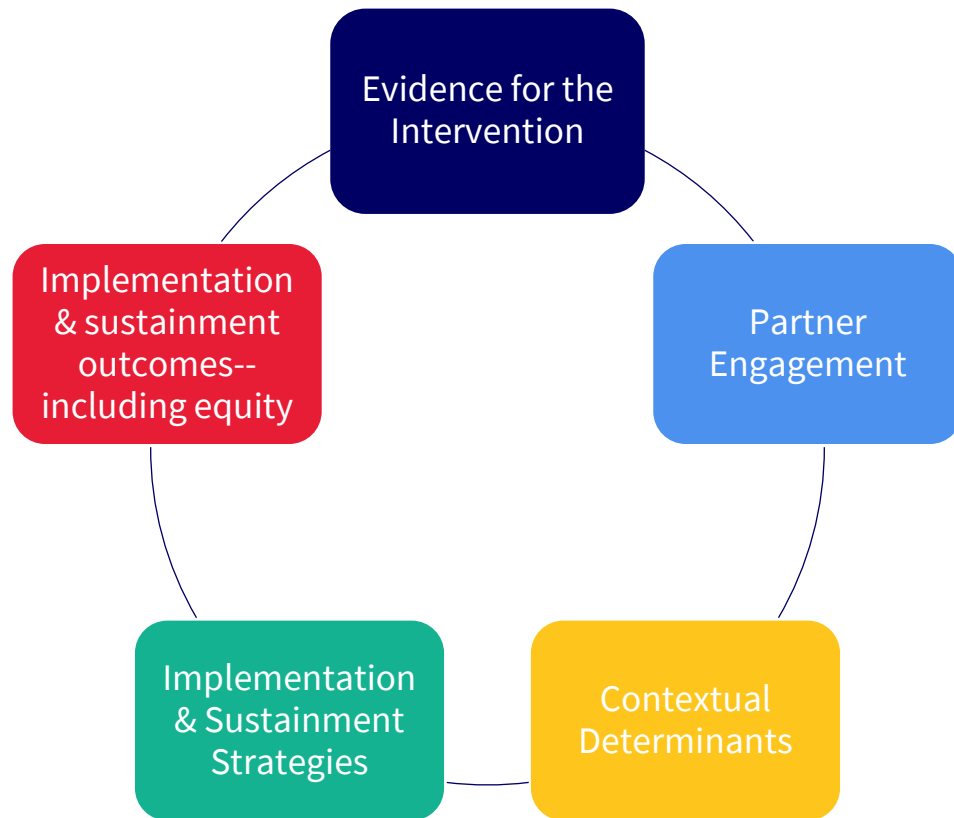- Implementation & sustainment outcomes--including equity

Optimizing D&I science to improve the chance for translation: 5 key components

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- **Partner Engagement**: Collaboration with partners (participants, sites, community) to define the population, problem, intervention & strategies

The circular diagram contains:
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- Partner Engagement
- Contextual Determinants
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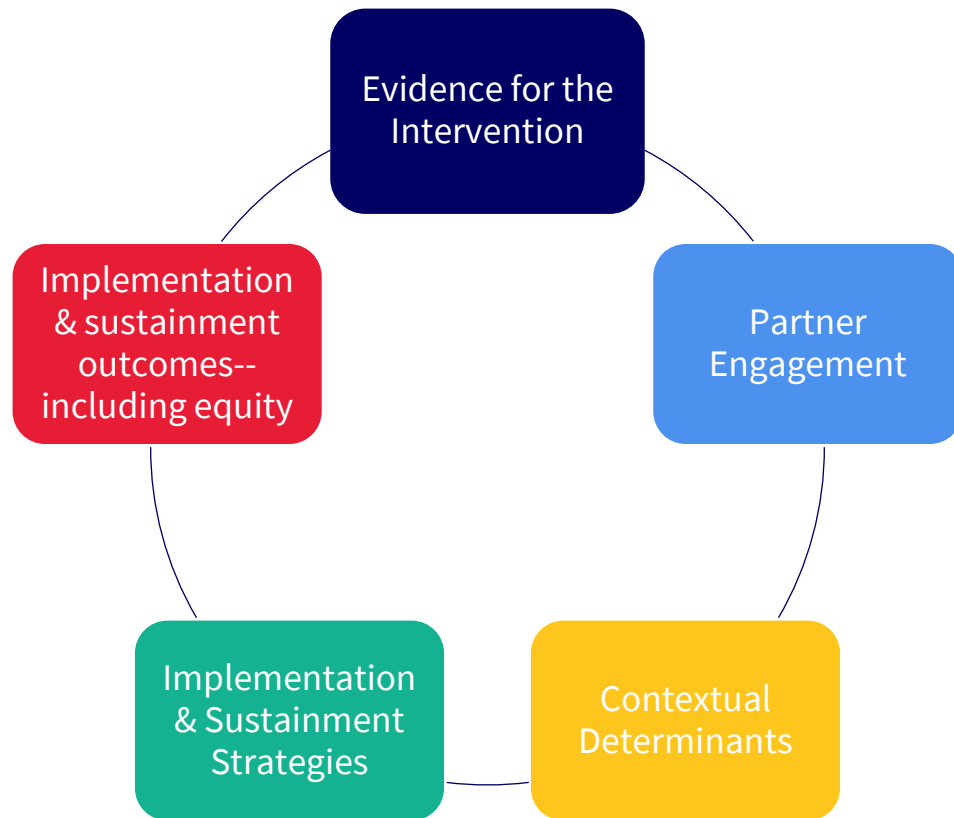- Implementation & sustainment outcomes-- including equity

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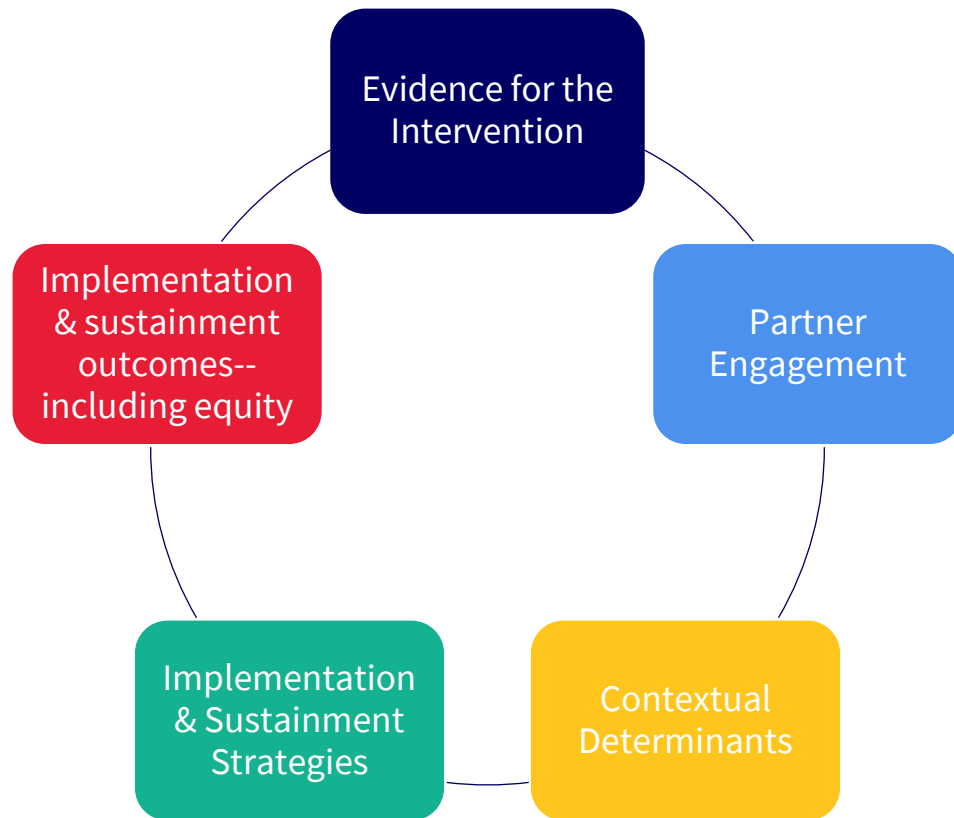

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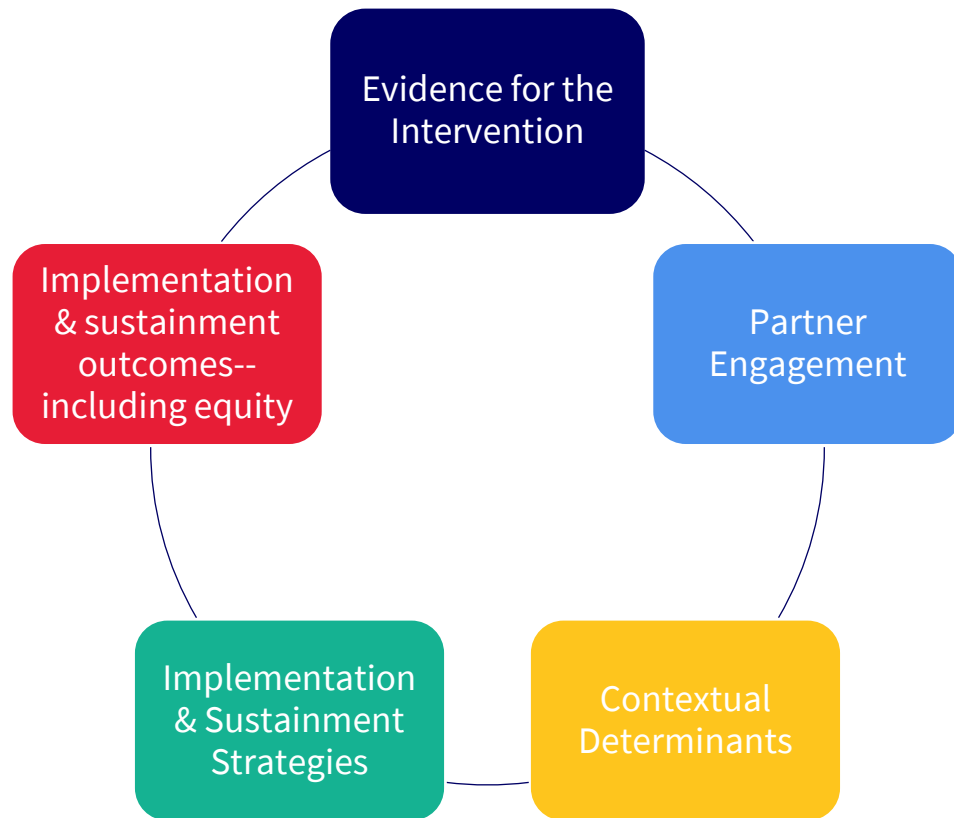

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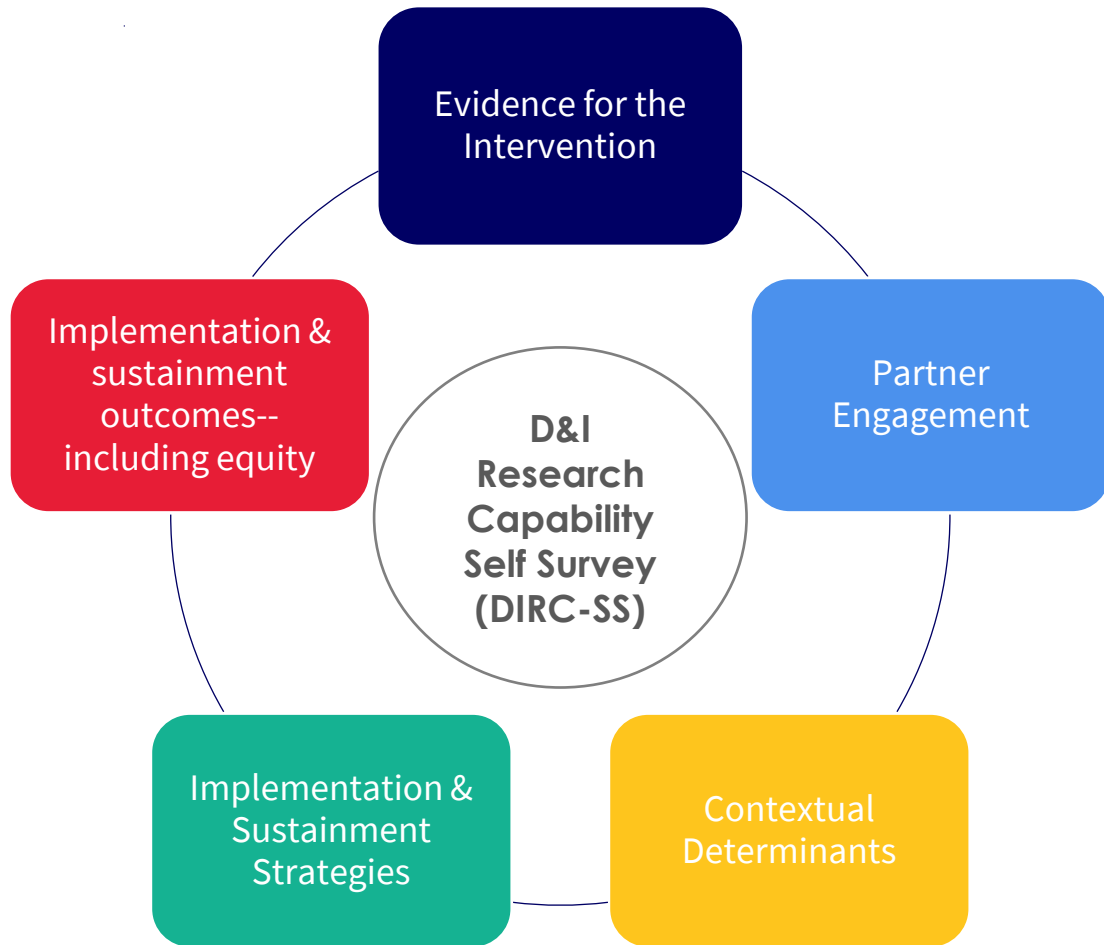
Optimizing D&I science to improve the chance for translation: 5 key components

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- **Implementation & Sustainment Outcomes:** Effects of actions to implement the intervention including extent of use by the deliverers (adoption) and receivers (reach)

Dissemination and Implementation Research Capability – Self-Survey (DIRC-SS)

A pragmatic measure of "implementability" considerations in your research

Evidence for the Intervention

Partner Engagement

D&I Research Capability Self Survey (DIRC-SS)

Implementation & sustainment outcomes-- including equity

Implementation & Sustainment Strategies

Contextual Determinants

- Concrete, practical value

- Can be used to enhance your project at the proposal stage or to modify or augment your project if underway

- "Diagnostic & treatment planning"-- Used to self assess, guide, and enhance D&I capability in any project at any stage

C-DIAS
Center for Dissemination & Implementation at Stanford
PREPARE IMPLEMENT SUSTAIN

RASC
Research Adoption Support Center
ASSESS ASSIST ADVANCE

What is the DIRC-SS?

- Team-based self-assessment (1 hour)
- No value judgement, consensus based, no implementation science expertise necessary
- 5 dimensions, 3-benchmarks per dimension (15 items total)
- Global ratings on a 5-point scale from

    1- None

    3- Partial/Moderate

    5- Full/Comprehensive/Complete

- Honest ratings are best, using DIRC-SS to get to "5" is transparent
- Sometimes zero, sometimes significant budget impact

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① Evidentiary support for the intervention/program/service

Key Component/Activity	Rating	Description
A. The intervention itself	Select ▾	
B. Our approach to delivering the intervention, the intervention delivery platform	Select ▾	
C. Our adaptation of the intervention or delivery approach (for increased effectiveness or accessibility)	Select ▾	
Comments:		

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DIRC-SS Applied: NIH HEAL Data2Action

- 10 NIH-funded Research Projects
- Method:
    1. DIRC-SS review by Project PI and research team
    2. DIRC-SS review by Research Adoption Support Center (RASC) Expert Dyads
    3. Shared decision-making approach to develop "Implementation Support Plans"
    4. Technical assistance to achieve revised project goals
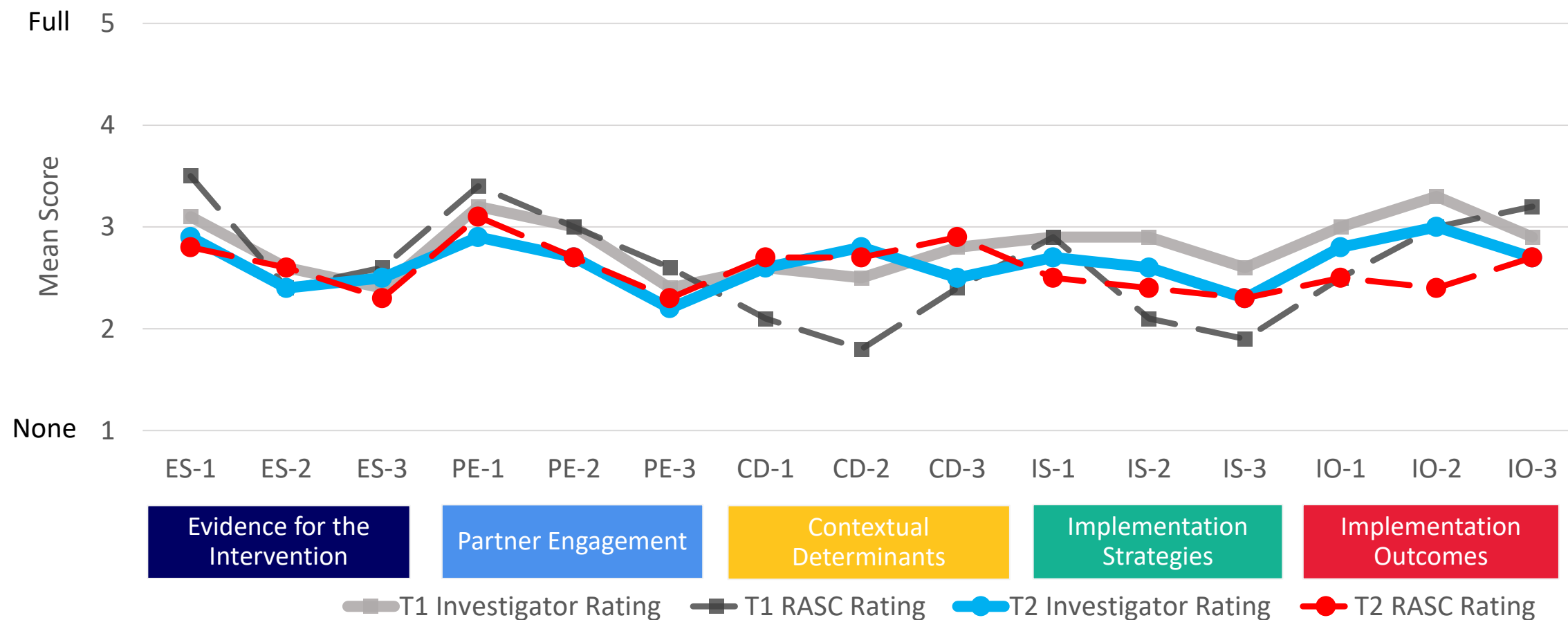- Annual reviews

DIRC-SS Applied: Reliability

Kappa's reflect the agreement between the expert dyads and project teams

- T1 (baseline)
  - Mean = 0.12, range = -0.20 – 0.82; None to slight agreement
- T2 (one year later)
  - Mean = 0.41, range = 0.20 – 0.90; Moderate agreement

DIRC-SS Applied: Findings

T1 (n=10) and T2 (n=6) mean scores across the projects and dyads

DIRC-SS Applied: Change Over Time

Changes in dyad ratings from T1 to T2 (n=6)

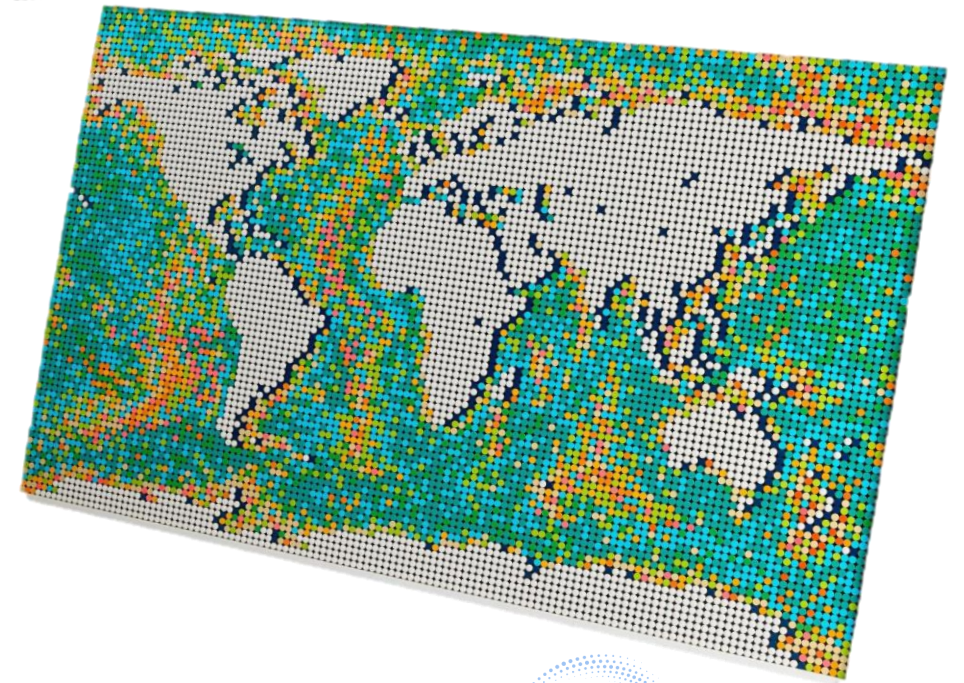| DIRC-SS	T1 M	T2 M	t	p	Cohen's d	Effect size
Total Score	2.84	3.66	3.14	**0.026**	2.12	Large
Evidentiary Support	3.11	3.61	1.38	0.226	0.73	Medium
Partner Engagement	3.11	3.83	2.01	0.101	0.62	Medium
Contextual Determinants	2.28	3.94	6.85	**0.001**	2.39	Large
Implementation Strategies	2.72	3.33	1.81	0.130	1.12	Large
Implementation Outcomes	3.00	3.56	1.27	0.259	0.67	Medium

DIRC-SS Applied: Key Takeaways

- The DIRC-SS gathered systematic information from 10 research projects
- The DIRC-SS stimulated ideas about potential pragmatic opportunities to enhance the implementation aspects of the project

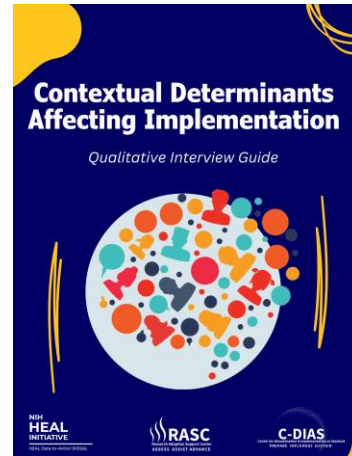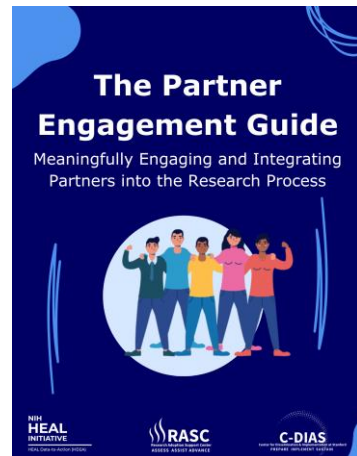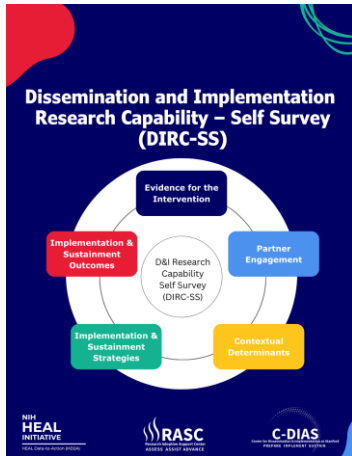| T1 Contextual Determinants Rating			T2 Contextual Determinants Rating		
Key Component/Activity	Rating	Description	Key Component/Activity	Rating	Description
B. We have methods to assess the barriers to implementing our intervention/program/service in our study site organizations—such as factors related to leadership, workflow, workforce, readiness, resources, and overall fit with patients (or consumers).	2	Not formally planned	B. We have methods to assess the barriers to implementing our intervention/program/service in our study site organizations—such as factors related to leadership, workflow, workforce, readiness, resources, and overall fit with patients (or consumers).	4	We have significant experience with quantitative measures of CDS acceptance rates and provider actions. We are well experienced in methods to make iterative adjustments to our CDS tools based on user feedback.
	2	Not formally planned		4	Team has done significant qual data collection on context which has informed current modifications in implementation (i.e., firing logic, etc.)

Note: Dyad ratings and comments are in red.

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What the Field Needs

Available Now!

Dissemination and Implementation Research Capability – Self Survey (DIRC-SS)

The Partner Engagement Guide
Meaningfully Engaging and Integrating Partners into the Research Process

Contextual Determinants Affecting Implementation
Qualitative Interview Guide

Integrating Implementation Outcomes into Effectiveness Studies

Strategies Timeline, Activities, & Resources (STAR) Log

Download here:

www.hd2arasc.org/implementation-guides-and-measures

Scan me!

Thank you!

Questions? Feel free to reach out!

Briana Patrick

briptrck@stanford.edu

Scan Me