Moving from conducting 'Implementation Science' to Practice & Policy Change

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What I'd like folks to take away…

- We all want to improve lives via our research and make the world a better place

- **Implementation science** (IS) is moving us toward more impactful ways to do that (addresses the "know-do" or "research-to-practice" gap)
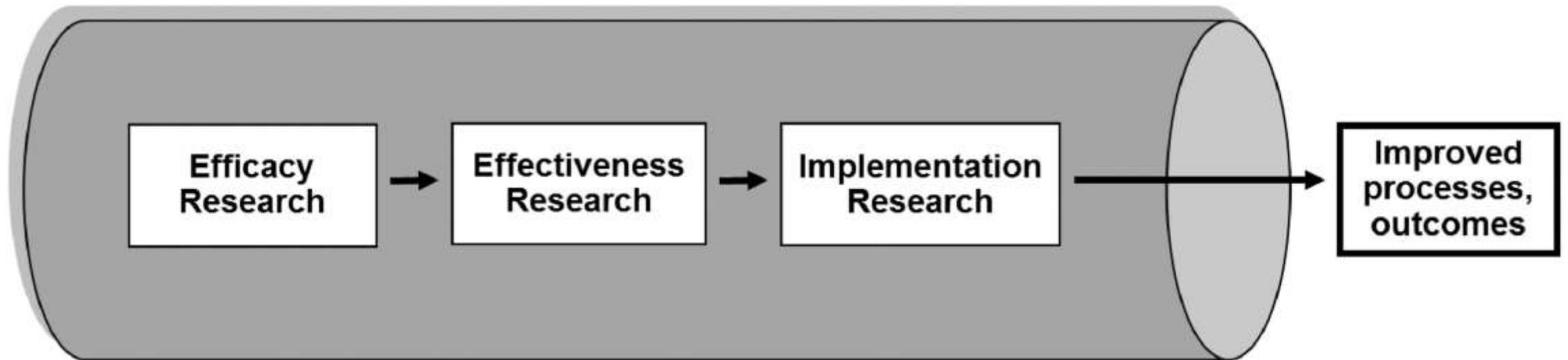
- But….

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- But….

- Do not get lost in the weeds of IS methodology, grantsmanship and publishing

- Find your focus—what implementation strategy(ies) makes the most (data-driven) sense for your innovation→ find a way to do it and see practice/ policy impact during your career

Traditional Research pipeline (Landes, 2019)

Establishing effectiveness of an innovation does not guarantee its uptake into routine usage
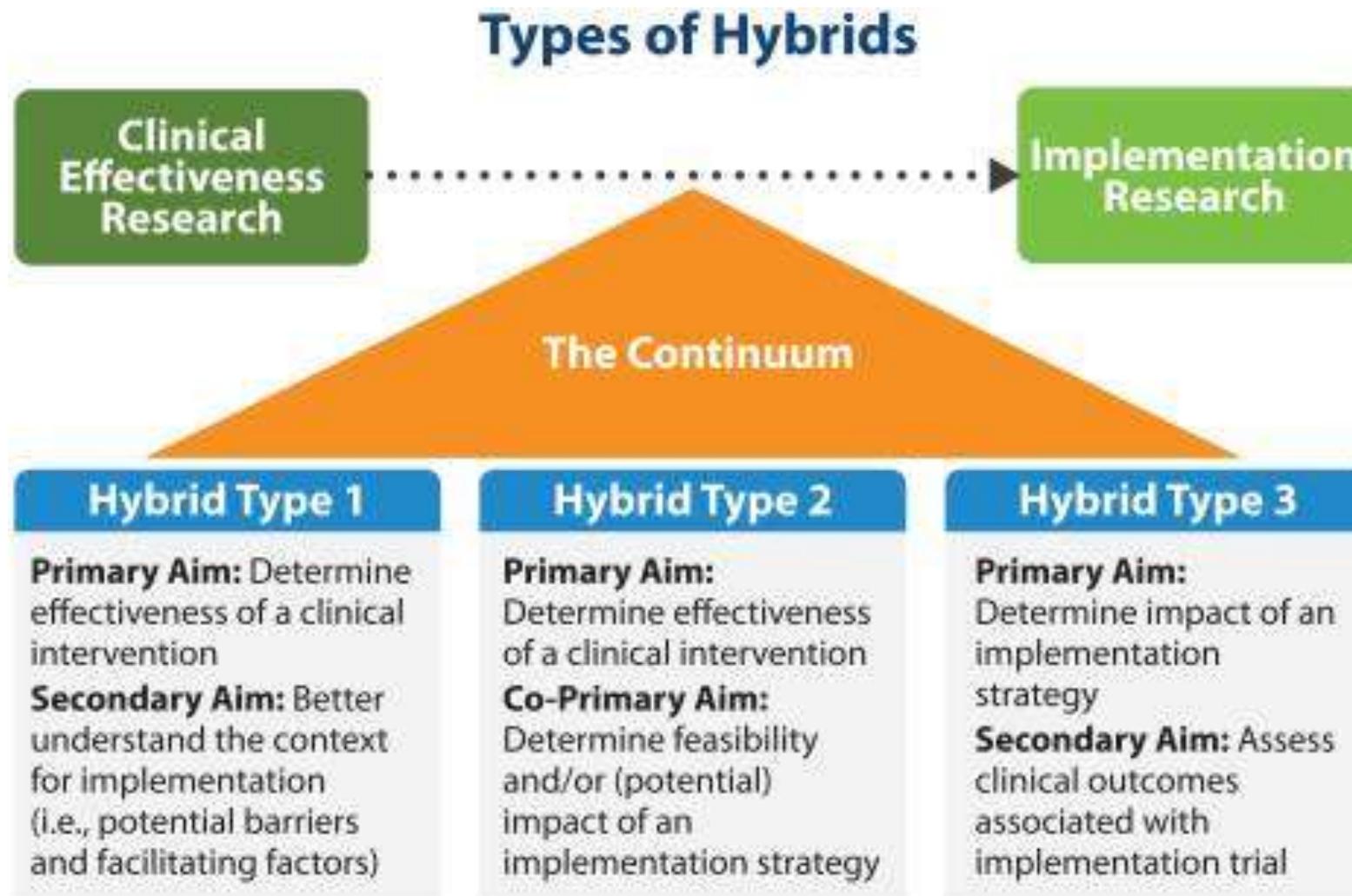
Hybrid Effectiveness-Implementation Trials to speed up the research process and increase odds of innovation adoption and fidelity

From: Goodrich DE, Miake-Lye I, Braganza MZ, et al. The QUERI Roadmap for Implementation and Quality Improvement [Internet]. Washington (DC): Department of Veterans Affairs (US); 2020. Figure 19 Adapted from: Curran, Bauer, Mittman et al. 2012 Med Care

Implementation Science *vs/and/or* Implementation Research

- **Implementation science** is the <u>*study of methods*</u> to promote the adoption and integration of evidence-based practices, interventions and policies into routine health care and public health settings to improve the impact on population health. [NIH, NCI]
  - Does organizational readiness to change matter?
  - What forms of technical assistance and training are most effective and under which conditions?
  - What is the comparative effectiveness of two different strategies for scaling program X?
  - Determining the mechanisms of action of a particular implementation strategy
  - **E.g. the innovations, methods, and conceptual issues in the science of implementation**

Implementation Research (NIH)

- **Implementation research** helps us identify barriers to, and enablers of, effective global health programming and policymaking, and leveraging that knowledge to develop evidence-based <u>innovations in effective delivery approaches</u>.

- Implementation research seeks to understand the behavior of practitioners and support staff, organizations, consumers and family members, and policymakers in context as key influences on the adoption, implementation, sustainability, scale and spread of evidence-based health interventions.

- Next steps are identifying **implementation strategies** to ensure effective delivery/scale and working with **implementation support practitioners** to make it happen

Implementation science theories & frameworks to guide the research

Outcomes in implementation research

Implementation Outcomes	Service Outcomes	Health Outcomes
Acceptability	Efficacy	*Individual-level:*
Adoption	Safety	Satisfaction
Appropriateness	Effectiveness	Function
Costs	Equity	Symptomatology
Feasibility	Patient-centeredness	
Fidelity	Timeliness	*Population-level:*
Penetration		Incidence of disease
Sustainability		Morbidity
		Mortality
		DALYS

Proctor et al., 2011

The Consolidated Framework for Implementation Research (CFIR)

Innovation characteristics: characteristics associated with the intervention including the perceived quality of the intervention, its complexity, how it is designed, and its cost.

Implementation process: the characteristics of the strategies and processes (e.g., planning, engagement, executing, and evaluating) used to facilitate the implementation of the intervention.

Five broad domains, each with corresponding constructs (see cfirguide.org);

Useful for understanding factors that impact implementation (i.e., implementation determinants)

Outer setting: the environment in which the agency exists, including "the economic, political, and social context within which an organization resides" (Damschroder et al., 2009, p.5).

Inner setting: the characteristics (e.g., agency communication, culture, climate, and leadership) associated with the organization implementing the innovation.

Characteristics of individuals: the characteristics (e.g., individuals' knowledge about the intervention and their sense of self-efficacy) of those involved in the intervention.
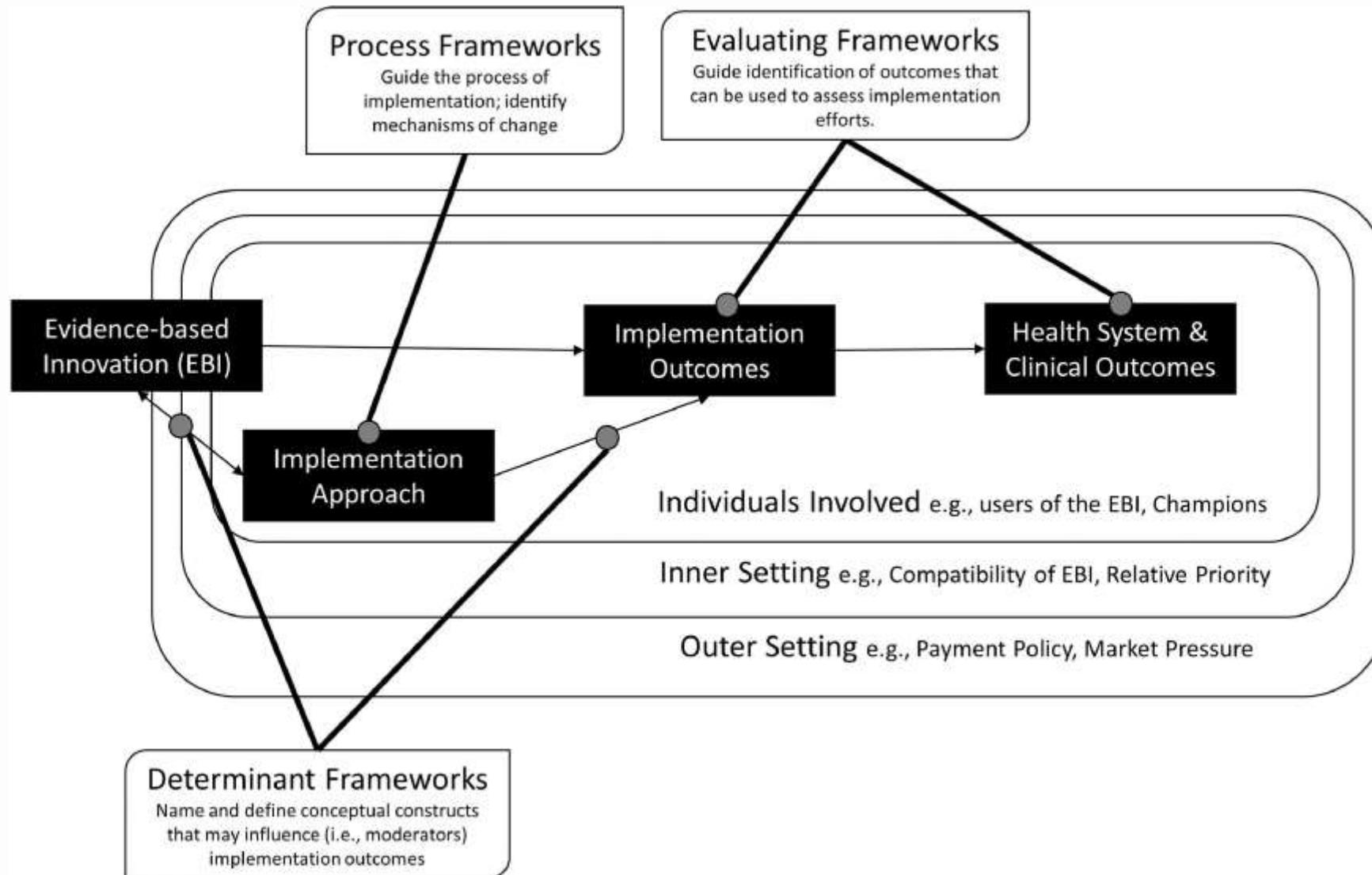
Damschroder, 2020

Use of theory in implementation research—lots to choose from, depends what you need

Damschroder, 2020
See also CFIR 2.0

Table 1
Example frameworks by type.

Type	Name
Process	Knowledge to action (Graham et al., 2006)
Process	Getting to outcomes (Chinman et al., 2008)
Determinant	Adaptation framework (Stirman et al., 2019, 2013)
Determinant	Consolidated Framework for Implementation Research (CFIR) (Damschroder et al., 2009)
Hybrid: Determinant and process	Exploration, Preparation, Implementation, and Sustainment (EPIS) (Aarons et al., 2011)
Hybrid: Determinant and process	PARIHS (Harvey and Kitson, 2015)
Evaluation	Implementation outcomes (Proctor et al., 2011)
Evaluation	RE-AIM (Reach, Effectiveness, Adoption, Implementation Maintenance) (Glasgow et al., 1999)

Damschroder, 2020

Implementation strategies

University of Washington ISR training

The IS Research Pathway

1. Frame Your Question
2. Pick Theories, Models, & Frameworks
3. Select Implementation Strategies
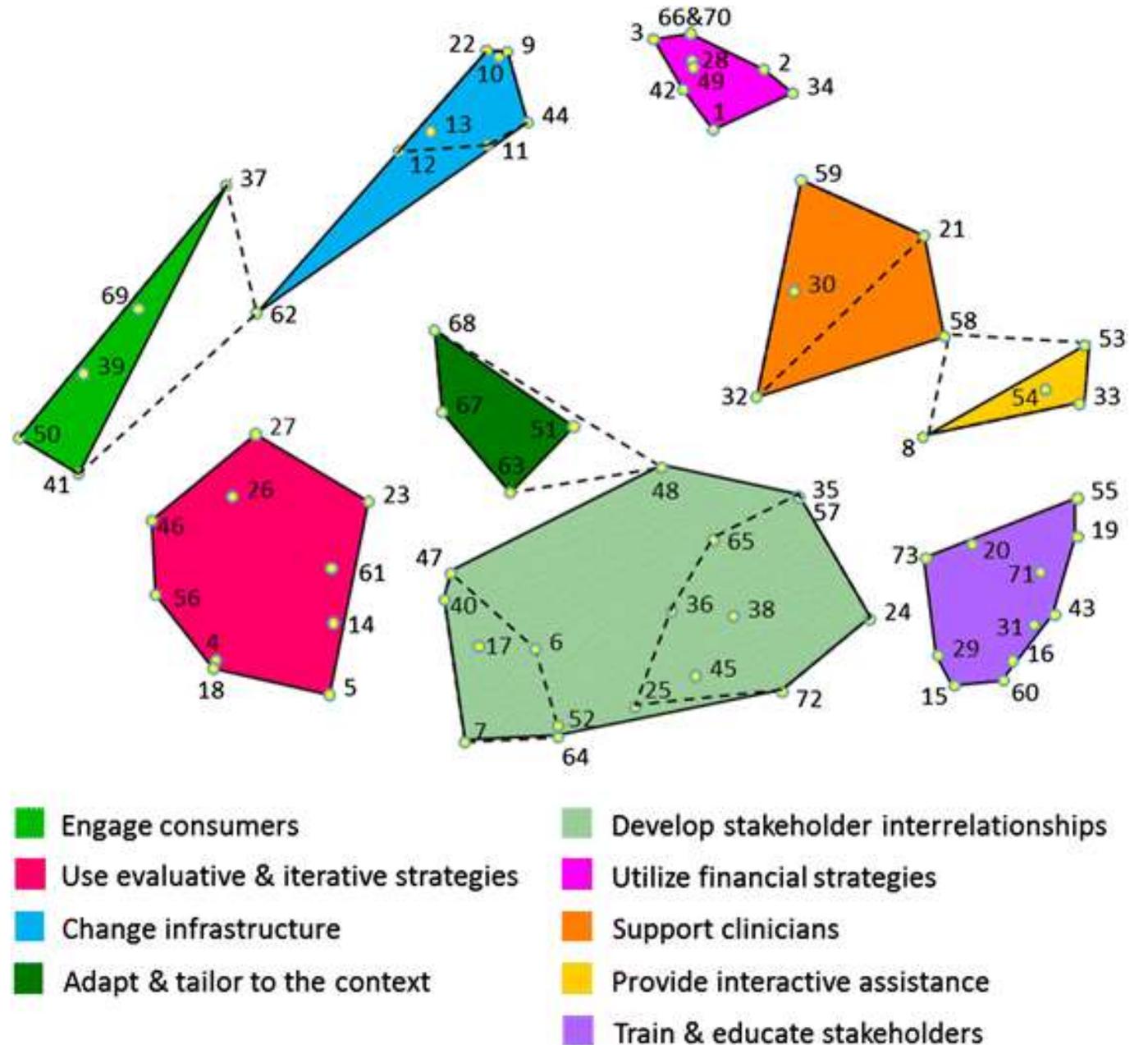4. Select Research Method
5. Choose Study Design
6. Choose Measures
7. Get Funding
8. Report Results

- **Evidence-based interventions** are programs, practices, principles, procedures, products, pills, or policies that have been demonstrated to improve health behaviors, health outcomes, or health-related environments.

- **Implementation strategies** are the actions taken to enhance adoption, implementation, and sustainability of evidence-based interventions.

https://impsciuw.org/implementation-science/research/implementation-strategies/
https://cfirguide.org/choosing-strategies/

Use of concept mapping to characterize relationships among 73 **implementation strategies** and assess their feasibility and importance: results from the Expert Recommendations for Implementing Change (ERIC) study

Engage consumers

Use evaluative & iterative strategies

Change infrastructure

Adapt & tailor to the context

Develop stakeholder interrelationships

Utilize financial strategies

Support clinicians

Provide interactive assistance

Train & educate stakeholders

Waltz et al, 2015

Financial Strategies (Waltz et al, 2015)

- Fund and contract for the clinical innovation

- Access new funding

- Place innovation on fee for service lists/formularies

- Alter incentive/allowance structures

- Make billing easier

- Alter patient/consumer fees

- Use other payment schemes
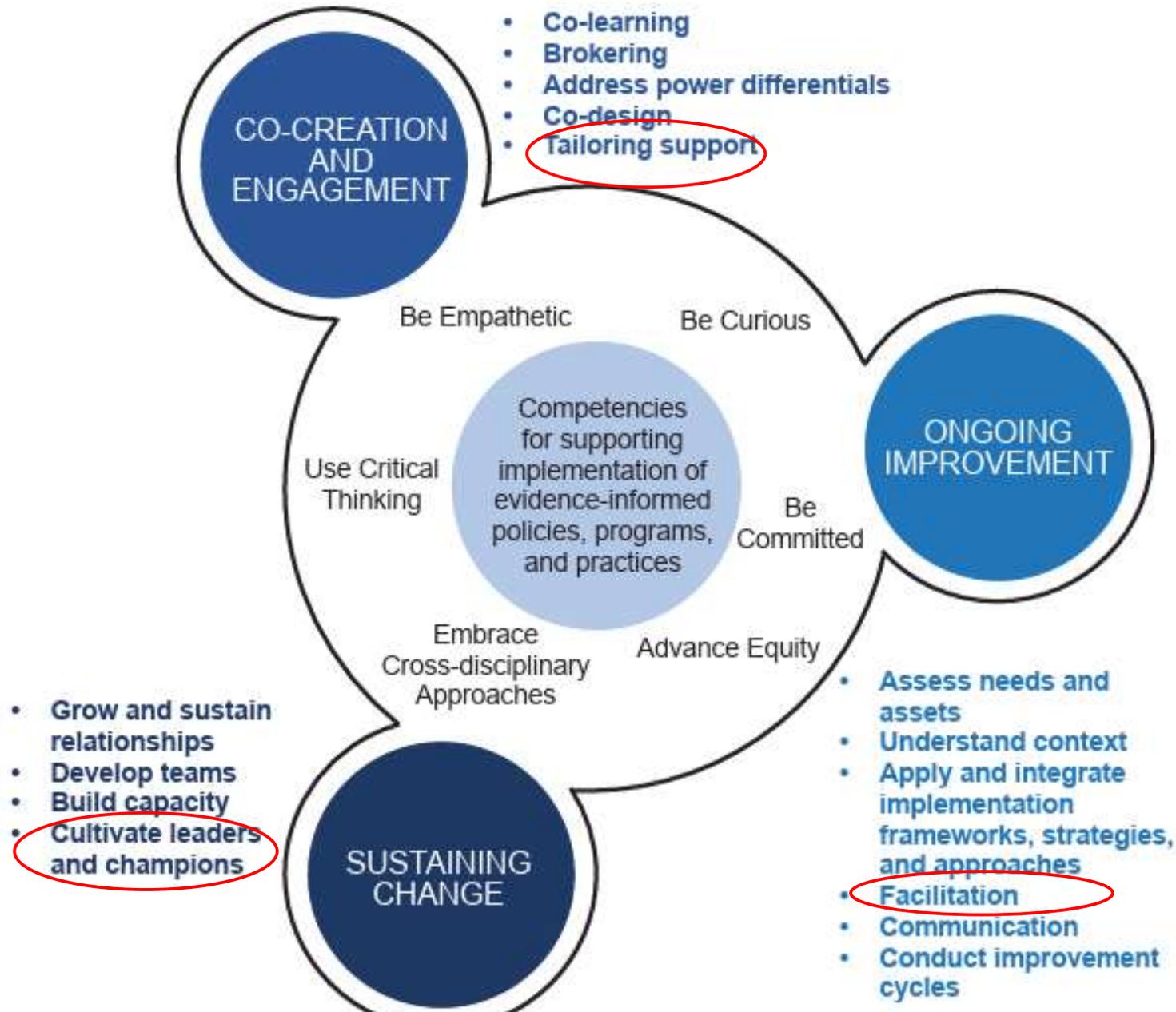
- Develop disincentives

- Use capitated payments

Implementation support practitioners

Implementation Support Practitioners (ISPs)

- ISP → Professional role for supporting the use of research-supported practices, policies, & programs in human service sectors
  - Often called: coaches, improvement advisors, technical assistance providers, facilitators, consultants, mentors, and implementation specialists.

- ISPs can reside *outside* the service systems they work in (e.g. technical advisor from an NGO) but may also operate from *within* a service system (e.g. health facility manager) when those systems have internal processes designed to support innovation, implementation, improvement and/or scaling efforts.

- Professionals who provide implementation support describe *relationships* as key to heart of what they do to support evidence use, but how to develop *trusting* relationships and addressing power differentials rarely featured in implementation science

Metz et al 2021

Implementation support practitioner competencies

Metz et al, 2021

Implementation practice

Who has a professional story about an evidence-based intervention that has yet to be implemented/scaled?

Joy Noel's examples of a success, a failure, and a pleasant surprise

Implementation Strategies for Impact

- **FP-VCT integrated services in Kenya** (MOH, FHI 360, USAID)
  - ERIC Strategy—change record systems (indicators)

- **FP-CTC integrated services in Tanzania** (NACP, MOHSW, FHI 360, USAID)
  - ERIC Strategies—needs assessment, educational meetings, education trainings, consensus discussions, champions, etc.

- **Provider job aids for contraceptive re-injections during grace period in South Africa** (MOH, WHO, FHI 360, USAID)
  - ERIC Strategies—needs assessment, Advisory board, champions, mandate change

- **Including mental health as part of obstetric fistula care in Mali** (Duke, IntraHealth)
  - ERIC Strategies—academic partnership, needs assessment, consensus discussion, technical assistance

Evidence for Policy Impact

- Mental health needs of obstetric fistula patients in Mali

- Facilitated Duke—IntraHealth collaboration to move NIH-funded research evidence into on-the-ground USAID-funded programming

- 3 years of unfunded research to practice efforts resulted in policy change

- Mental health screening and treatment now included in the Malian government's 5-year Strategic Plan (2018-2022) for the elimination of obstetric fistula

MINISTERE DE LA SANTE
ET DE L'HYGIENE PUBLIQUE

REPUBLIQUE DU MALI
Un Peuple – Un But – Une Foi

DIRECTION NATIONALE DE LA SANTE

DNS – N'Tomikorobougou – BP 233
Tel. 20 22-64- 97 – 20 23-33 –52- Fax: 20 22-36-74

PLAN STRATEGIQUE POUR L'ELIMINATION DE LA FISTULE OBSTETRICALE AU MALI 2018-2022

Version finale

UNFPA   USAID
FROM THE AMERICAN PEOPLE

Watt MH, Nguyen T-V, Toure C, …Baumgartner JN. Integrated mental health screening for obstetric fistula patients in Mali: From evidence to policy. *PLoS One* 2020;15(9):e0238777.

Translating Evidence to Policy (Watt et al, 2020)

"…this national policy level impact most likely came to fruition not only because of the data itself but because IntraHealth played the role of technical expert, implementer and **knowledge broker*** for communicating these data-based results…the university partners on this project were not involved in the policy advocacy beyond summarizing the study results in a brief report accessible to non-researchers…IntraHealth partners were able to present the data in clinical context and further engage in discussions for how a revised policy could be put into practice..."

*Ward et al, 2009

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When defining implementation science, some <u>very</u> <u>non-scientific language</u> can be helpful...

- The intervention/practice/innovation is **THE THING**
- *Effectiveness* research looks at whether **THE THING** works
- *Implementation* research looks at how best to help people/places **DO THE THING**
- Implementation strategies are the <u>stuff we do</u> to try to help people/places **DO THE THING**
- Main implementation outcomes are **HOW MUCH** and **HOW WELL** they **DO THE THING**