Introducing CFIR 2.0 Updates

The Team

- Laura J. Damschroder
- Caitlin Reardon
- Julie Lowery
- Marilla Widerquist
- *CFIR Users*
    - *Survey Respondents*
    - *Authors of published articles*

Funding

VA CCMR

VA | U.S. Department of Veterans Affairs
Veterans Health Administration
Quality Enhancement Research Initiative

CFIR First Published in 2009

Implementation Science

BioMed Central

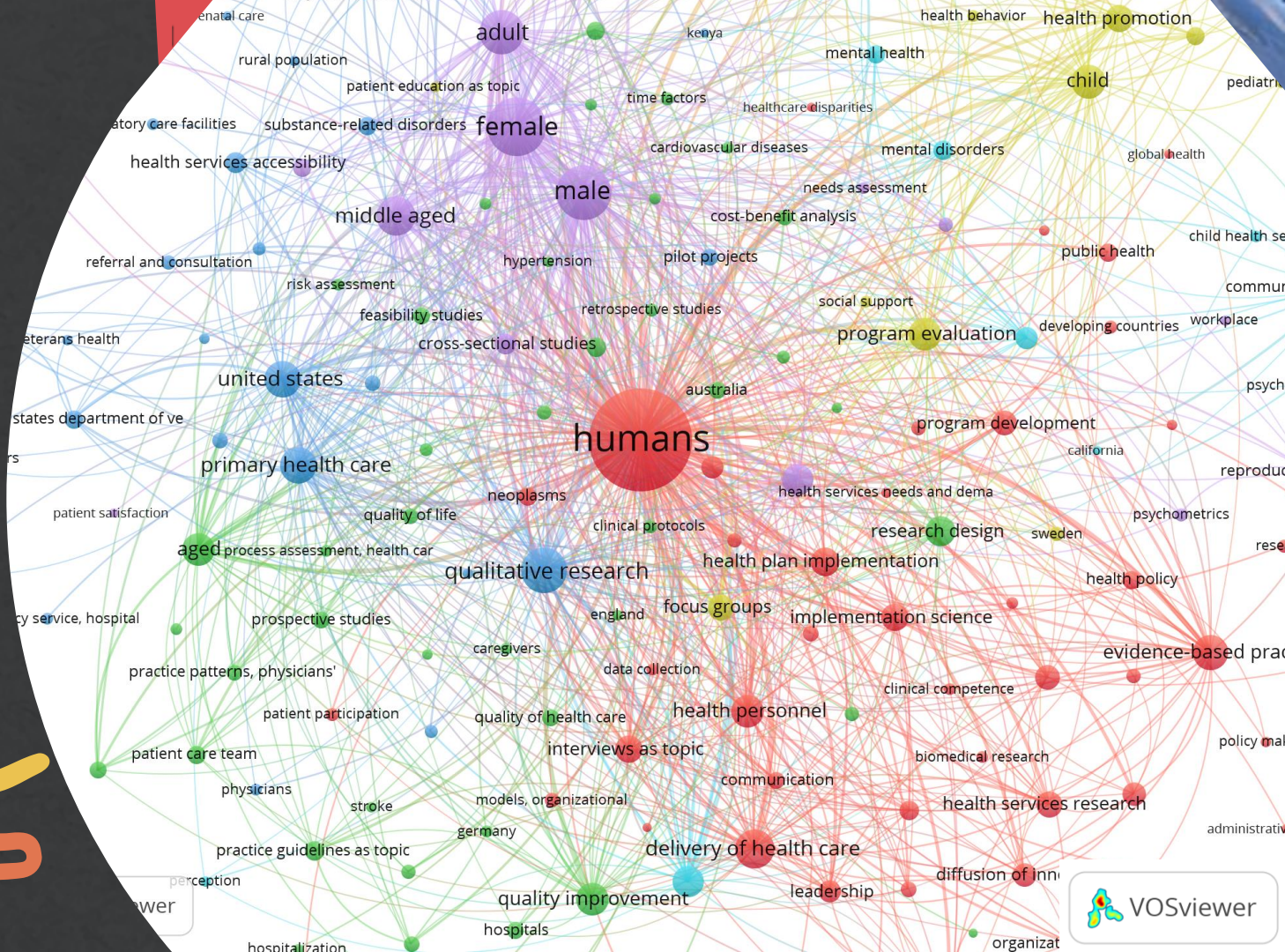
Research article

Open Access

Fostering implementation of health services research findings into practice: a consolidated framework for advancing implementation science

Laura J Damschroder*[1], David C Aron[2], Rosalind E Keith[1], Susan R Kirsh[2], Jeffery A Alexander[3] and Julie C Lowery[1]

Implementation Science 2009, **4**:50
doi:10.1186/1748-5908-4-50


adult
kenya
health behavior
health promotion
rural population
mental health
patient education as topic
child
time factors
healthcare disparities
substance-related disorders
female
cardiovascular diseases
mental disorders
global health
health services accessibility
needs assessment
male
middle aged
cost-benefit analysis
public health
referral and consultation
hypertension
pilot projects
risk assessment
social support
feasibility studies
retrospective studies
program evaluation
developing countries
workplace
cross-sectional studies
united states
australia
program development
humans
california
primary health care
neoplasms
health services needs and dema
patient satisfaction
quality of life
clinical protocols
research design
sweden
psychometrics
aged
process assessment, health car
health plan implementation
qualitative research
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focus groups
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implementation science
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practice patterns, physicians'
data collection
clinical competence
patient participation
quality of health care
health personnel
patient care team
interviews as topic
biomedical research
communication
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models, organizational
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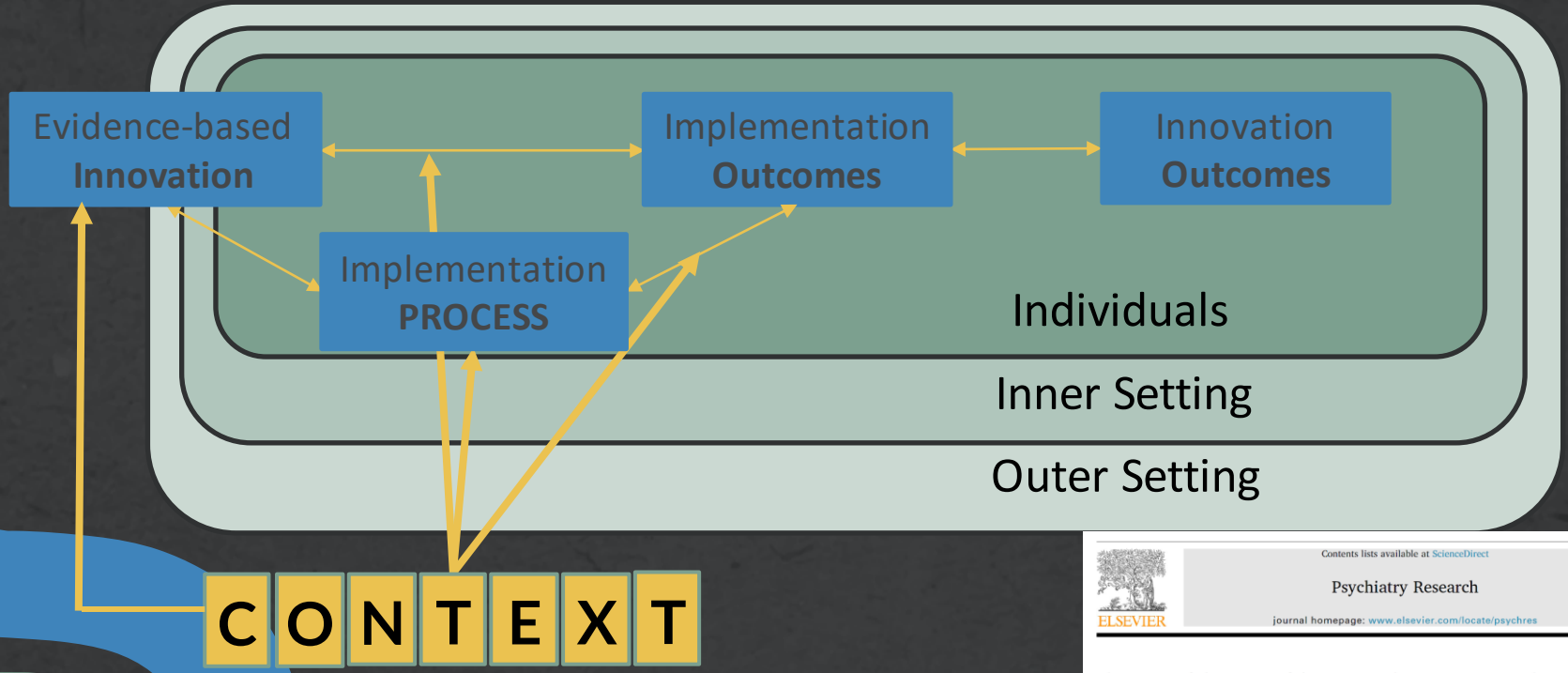
practice guidelines as topic
delivery of health care
quality improvement
leadership
hospitals
VOSviewer

Generalized Implementation Theory



Contents lists available at ScienceDirect
Psychiatry Research
journal homepage: www.elsevier.com/locate/psychres
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Clarity out of chaos: Use of theory in implementation research

Laura J. Damschroder
VA Center for Clinical Management Research, Ann

DOI: 10.1016/j.psychres.2019.06.036

Damschroder *et al. Implementation Science* (2022) 17:7
https://doi.org/10.1186/s13012-021-01181-5

Implementation Science

DEBATE

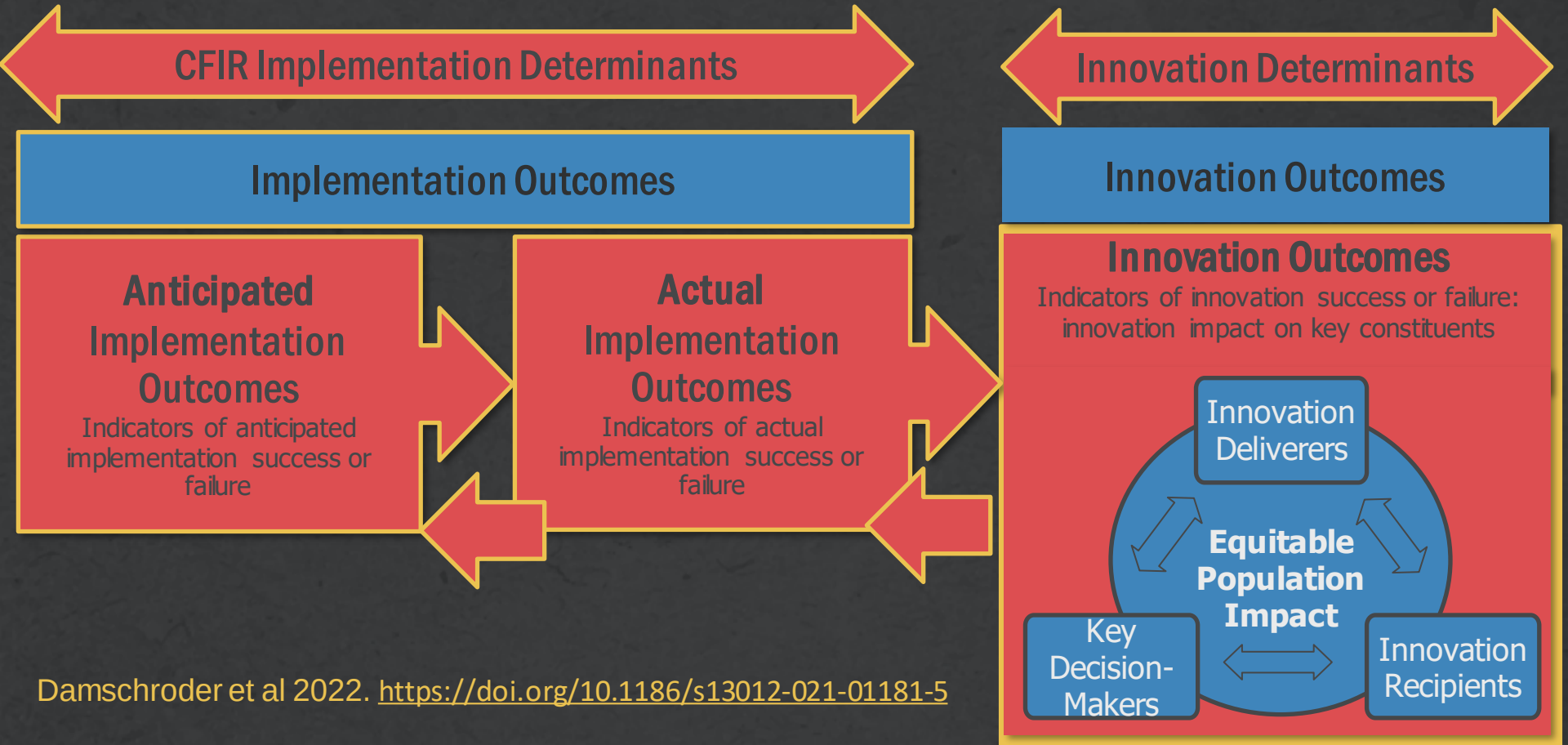
Open Access

Conceptualizing outcomes for use with the Consolidated Framework for Implementation Research (CFIR): the CFIR Outcomes Addendum

Laura J. Damschroder*, Caitlin M. Reardon, Marilla A. Opra Widerquist and Julie Lowery

Damschroder et al. Implementation Science (2022) 17:7
https://doi.org/10.1186/s13012-021-01181-5

CFIR Outcomes Addendum



Damschroder et al 2022. https://doi.org/10.1186/s13012-021-01181-5

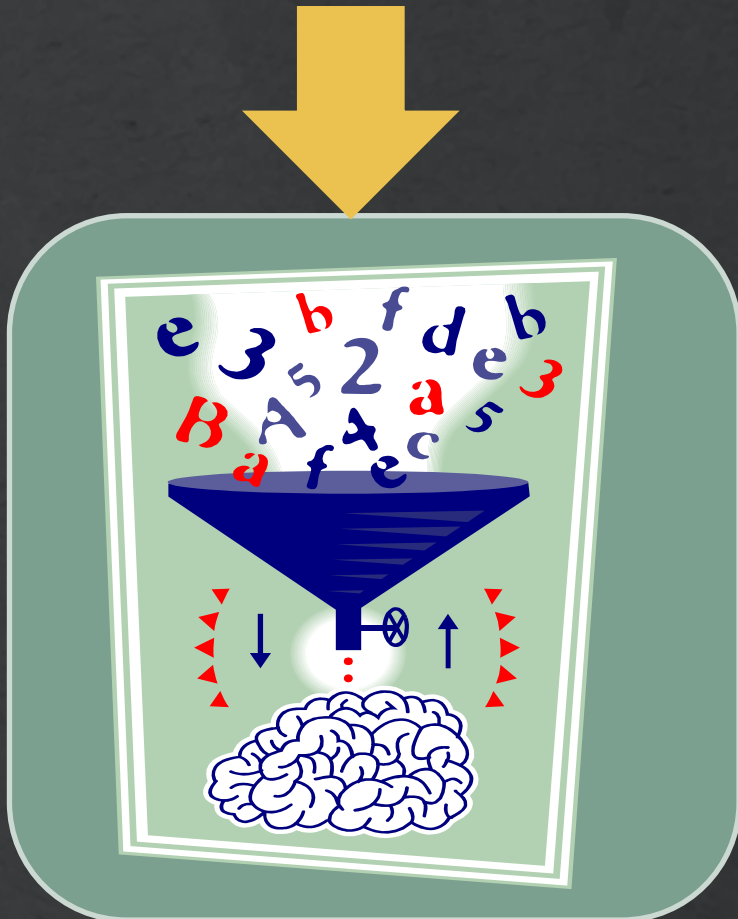
CFIR Implementation Determinants

CFIR Implementation Determinants

Power of Theory

- ✓ Provides organizing lens/framework for research
- ✓ Provides common terms & definitions
- ✓ Systematically and efficiently build collective knowledge
- ✓ CFIR Framework
  - Understand context → mechanisms of action
  - Generalize through use of CFIR
  - Enable syntheses

Critique of Theory



Context Assessment using the CFIR

Perceptions of the degree to which [*insert construct definition*] and how it may influence implementation success or failure

- Qualitative Assessments
- Quantitative Assessments

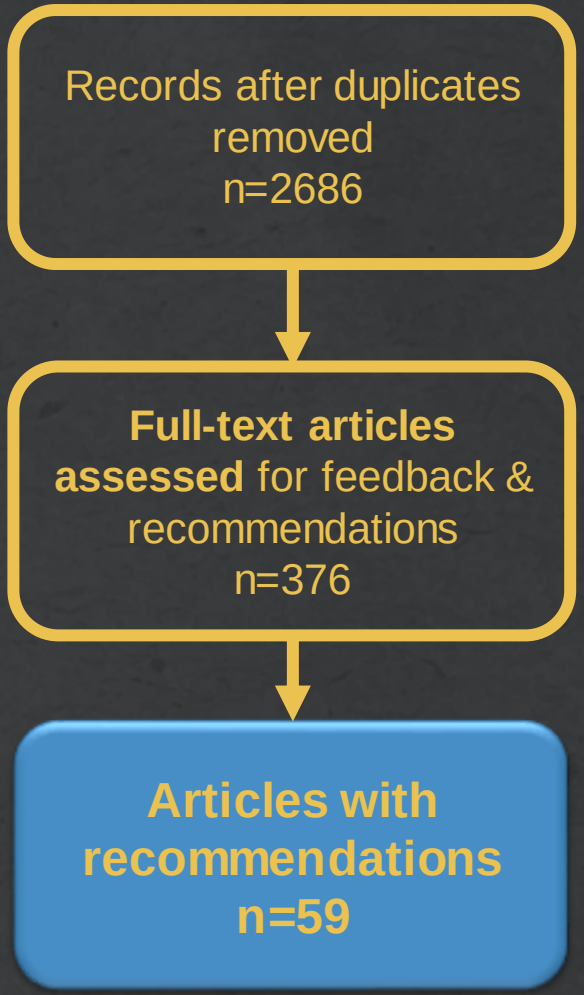
E.g., "**Relative Priority**" within the Inner Setting: Perceptions of the degree to which *[the innovation]* ***is important to implement compared to other initiatives*** and how it may influence implementation success or failure

Literature Review

Objective: Identify articles with **"Meaningful use"**

Searched articles with "**CFIR**" in Title or Abstract

- 2009 through January 7, 2020

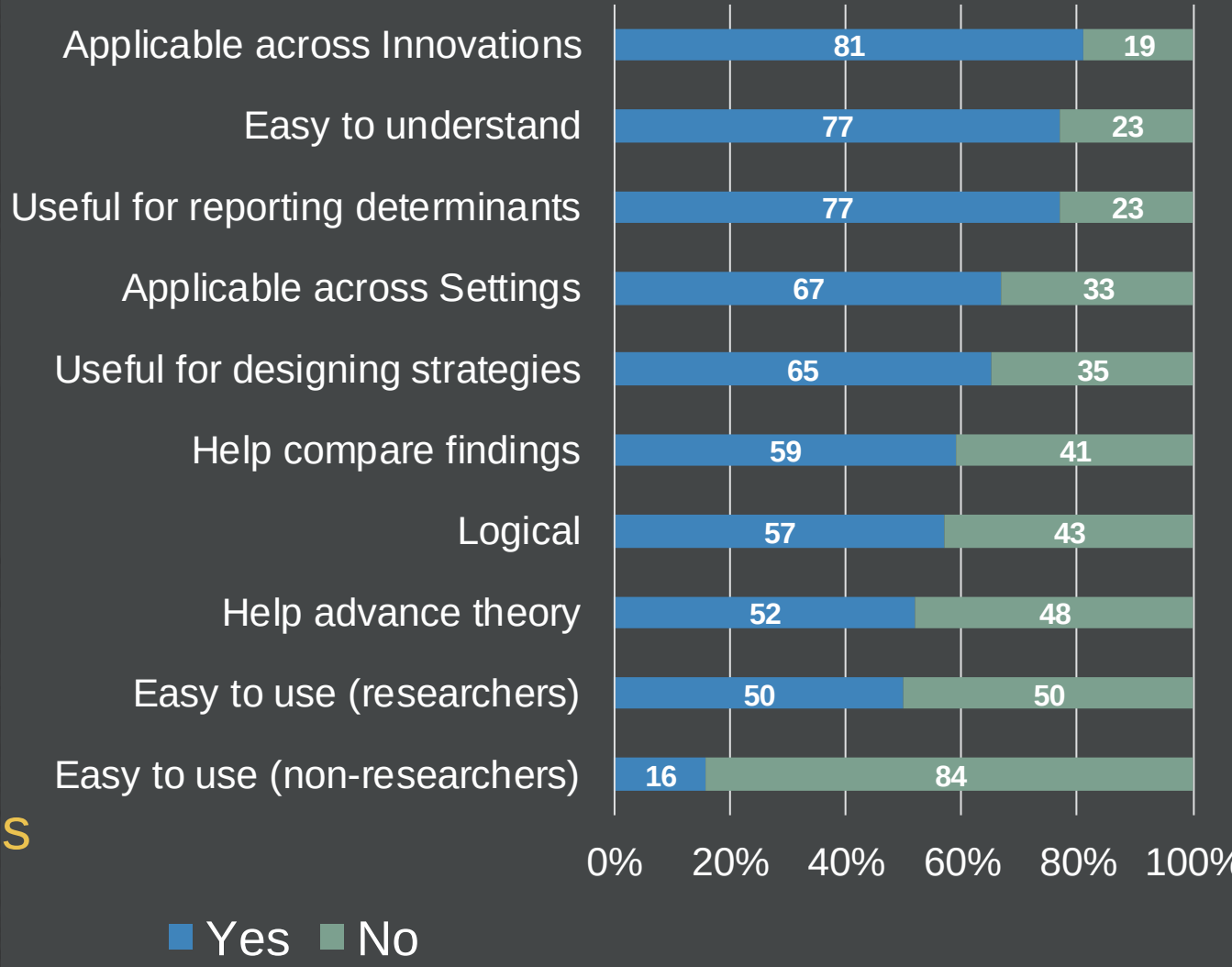


Survey of Authors

CFIR Users Surveyed
n=334

Response
n=128 (38%)

- ✓ CFIR Ratings
- ✓ Recommendations



CFIR is **far too complicated** and difficult to use. I have been learning about and trying to use CFIR for more than 5 years and **the more I use it the more difficult** and uninterpretable I find it to be.

Implementation research is challenging in itself and I see that ***the complexity of CFIR gets blamed*** *for the broader challenges*

Innovation Characteristics

*"Clarify that these constructs exist **independent** of context …and are specific to the innovation not the implementation process"*

DEFINE *your* Domains

DOMAIN	Definition/Guidance
INNOVATION Definition	Describe the [Innovation] including e.g., type, components, ideally using a standard reporting guideline.
OUTER SETTING Definition	Key attributes of [Outer Setting(s)] including e.g., boundaries, type, and nature.
INNER SETTING Definition	Key attributes of [Inner Setting(s)] e.g., function, location, size, age, boundaries.
INDIVIDUALS Who → Roles & Characteristics	Identify key roles Capture characteristics
PROCESS	Describe the overarching framework being used to guide the implementation process (i.e., "process framework"), if applicable (Nilsen2015)

Innovation Characteristics

This domain captures perceptions of constructs specific to [innovation] being implemented	
Innovation Definition	Describe the [Innovation] including e.g., type, components, ideally using a standard reporting guideline.
Innovation Source	The group that developed and/or visibly sponsored use of [the innovation] is reputable, credible, and/or trustable
Innovation Evidence Strength & Quality	[the innovation] has robust evidence supporting its effectiveness
Innovation Relative Advantage	[the innovation] better or worse than other innovations or current practice.
Innovation Adaptability	[the innovation] can be modified, tailored, or refined to fit local context or needs.
Innovation Trialability	[the innovation] can be tested or piloted
Innovation Complexity	[the innovation] is complicated, which may the nature and number of connections an
Innovation Design Quality & Packaging	[the innovation] is well designed and packa assembled, bundled, and presented.
Innovation Cost	[the innovation] purchase and operating costs are exp

*"…I find this one particularly **confusing** and not sure exactly why important [sic]."*

Innovation Characteristics

This domain captures perceptions of constructs specific to [innovation] being implemented	
Innovation Definition	Describe the [Innovation] including e.g., type, components, ideally using a standard reporting guideline.
Innovation Source	The group that developed and/or visibly sponsored use of [the innovation] is reputable, credible, and/or trustable
Innovation Evidence Strength & Quality	[the innovation] has robust evidence supporting its effectiveness
Innovation Relative Advantage	[the innovation] is better or worse than other innovations or current practice.
Innovation Adaptability	[the innovation] can be modified, tailored, or refined to fit local context or needs.
Innovation Trialability	[the innovation] can be tested or piloted on a small scale and undone.
Innovation Complexity	[the innovation] is complicated, which may be reflected by its scope and/or the nature and number of connections and steps.
Innovation Design Quality & Packaging	[the innovation] is well designed and packaged, including how it is assembled, bundled, and presented.
Innovation Cost	[the innovation] purchase and operating costs are expensive

Whose VOICE?

Individuals with influence or authority related to implementation:

- ✓ Leaders
- ✓ Facilitators
- ✓ Implementation Leads
- ✓ Implementation Team
- ✓ Other Support
- ✓ Deliverers

Voice of the Patient

“Not all receivers are called patients, some are clients, consumers, community, educators, learners”

Whose VOICE?

Individuals with influence or authority related to implementation:

- ✓ **Leaders**
- ✓ **Facilitators**
- ✓ **Implementation Leads**
- ✓ **Implementation Team**
- ✓ **Other Support**
- ✓ **Deliverers**

Voice of the Recipient

Across Domains

- INDIVIDUALS
  - ✓ Members of the Implementation Team
- OUTER SETTING
  - ✓ Recipient Characteristics
  - ✓ Socioecological Characteristics (e.g., community)
- INNER SETTING
  - ✓ Recipient-centered Culture
  - ✓ Equity Culture
- PROCESS
  - ✓ Engaging: Reach
  - ✓ Assessing Need

Whose VOICE?

Individuals with influence or authority related to implementation:

- ✓ Leaders
- ✓ Facilitators
- ✓ Implementation Leads
- ✓ Implementation Team
- ✓ Other Support
- ✓ Deliverers

Individuals

Deliverers & Recipients

E.g.,
- Providers who refer
- Clinicians who treat
- Teachers who educate

E.g.,
- Patients
- Children in schoolroom
- Community health worker
- Peer coach

Individuals

This domain needs "…*to be "focused more on who the individuals are and their underlying characteristics…"*

Deliverers & Recipients

Individuals

Deliverers & Recipients

Specify:
[Inner Setting]
[Outer Setting]

- **Roles**
  - ✓ Leaders
    - High-level (executive, VP)
    - Mid-level (managers, supervisors)
  - ✓ Opinion Leaders
  - ✓ Facilitators
  - ✓ Implementation Leads
  - ✓ Implementation Team Members
  - ✓ Other Implementation Support
  - ✓ Deliverers

Individuals

Deliverers & Recipients

- **Characteristics**

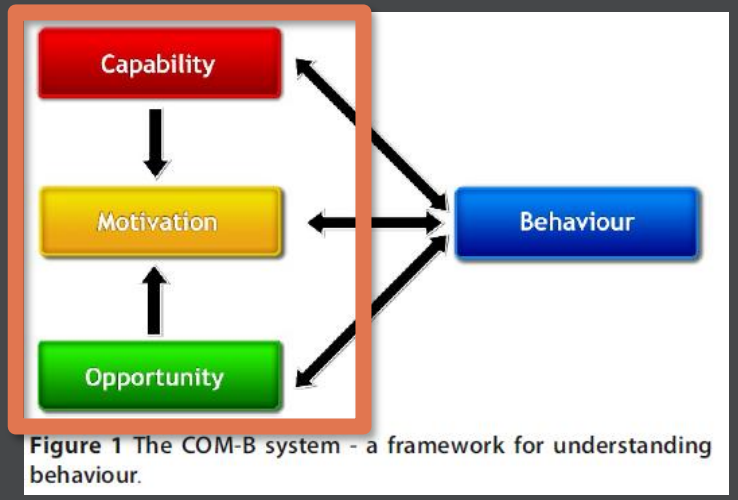


Figure 1 The COM-B system - a framework for understanding behaviour.

Michie et al 2011. DOI: 10.1186/1748-5908-6-42

Individuals

Deliverers & Recipients

+ Characteristics based on specific theories

- **Characteristics**
  - **Capability**
    Individual has the necessary intrapersonal competence, knowledge, and skills to fulfill the role.
  - **Opportunity**
    Availability of individual(s), allocation of time, assignment of authority and other factors conferred to the [Role], needed to fulfill the [Role]
  - **Motivation**
    Individual is committed to fulfilling role.

Inner Setting

Inner Setting

Deliverers &
Recipients

Inner Setting

"…more guidance needs to be provided"

"Create subcodes"

- **Structural Characteristics**
  - Physical Infrastructure
  - Work Infrastructure
  - IT Infrastructure

Inner Setting

“I would separate this construct into two as it feels a bit double-barreled”

- **Relational Connections**
- **Communications**

Inner Setting

"Way too broad. Ends up becoming my 'I don't know where else this fits' bucket."

- **Culture**
  - Recipient-centeredness
  - Deliverer-centeredness
  - Learning -centeredness
  - Human Equality-centeredness

Inner Setting

…

- Tension for Change
- Compatibility
- Relative Priority
- Incentive Systems

Inner Setting

"This one is double barreled."

"… local staff tend to mix this up with Reflecting & Evaluating"

- **Mission Alignment**

*Implementing and delivering [the innovation] is **in line with** the overarching commitment, purpose, or goals of [the Inner Setting].*

Inner Setting

"I break this out into subcodes."

- **Available Resources**
  - Funding
  - Space
  - Materials & Equipment

Inner Setting

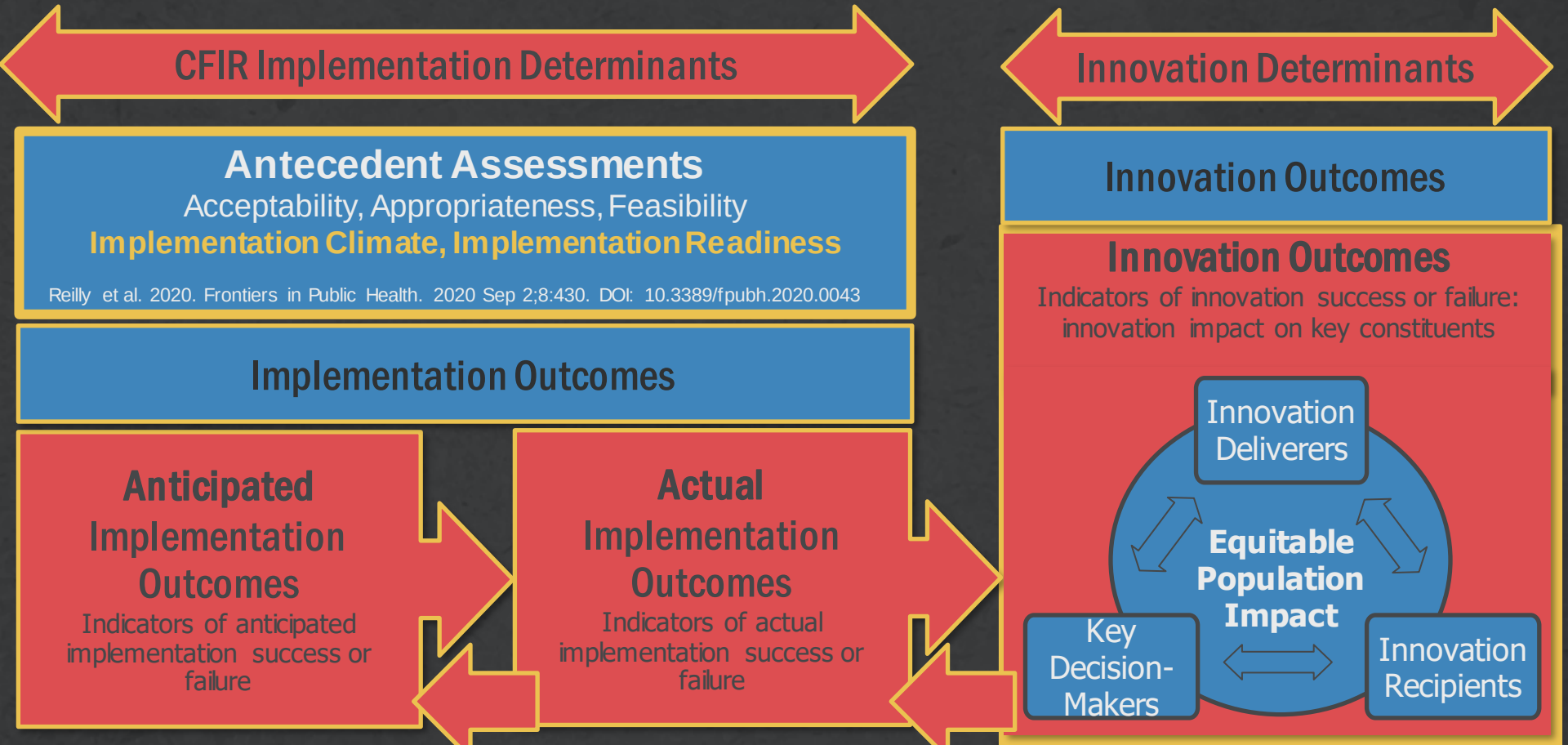
"I struggle with the nesting of the Implementation Climate and Readiness for Change constructs and sub-constructs."

- ~~**Implementation Climate**~~
- ~~**Implementation Readiness**~~

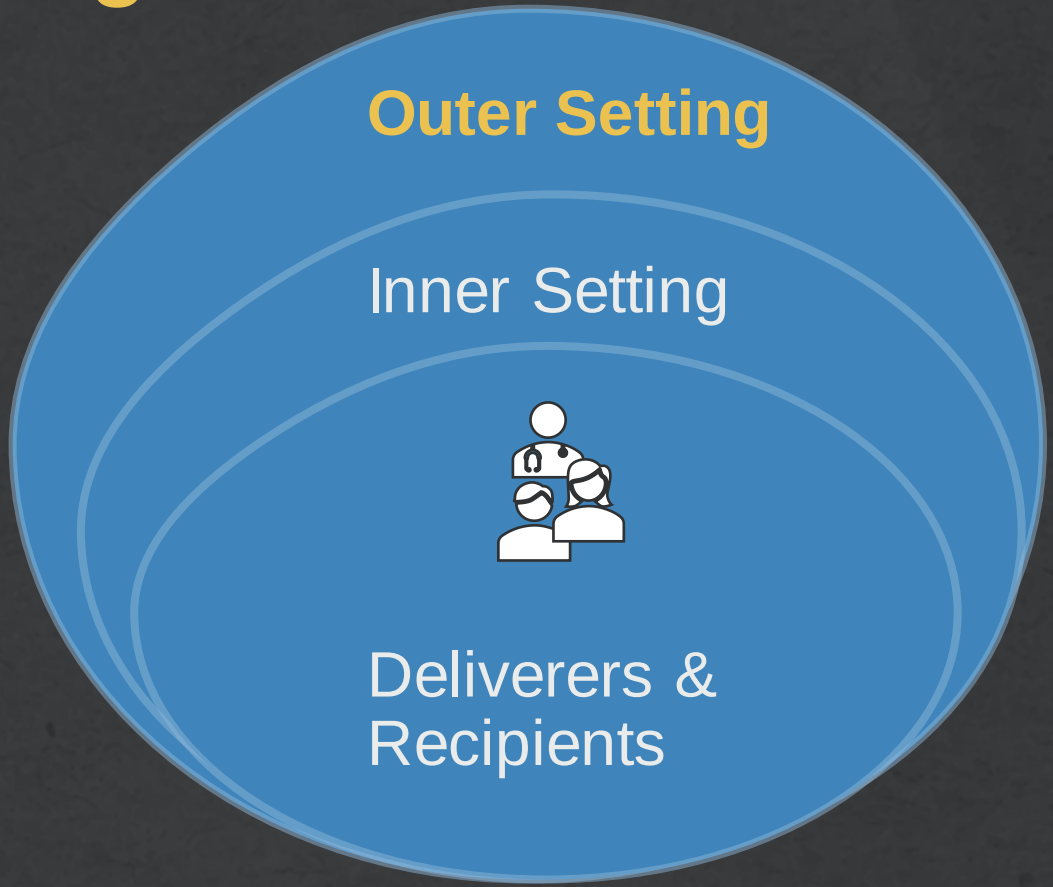
- *"…there is little consensus on their role within implementation theories."*

Damschroder LJ, Reardon CM, Opra Widerquist MA, Lowery J. Conceptualizing outcomes for use with the Consolidated Framework for Implementation Research (CFIR): the CFIR Outcomes Addendum. Implementation Science. 2022 Dec;17(1):1-0.

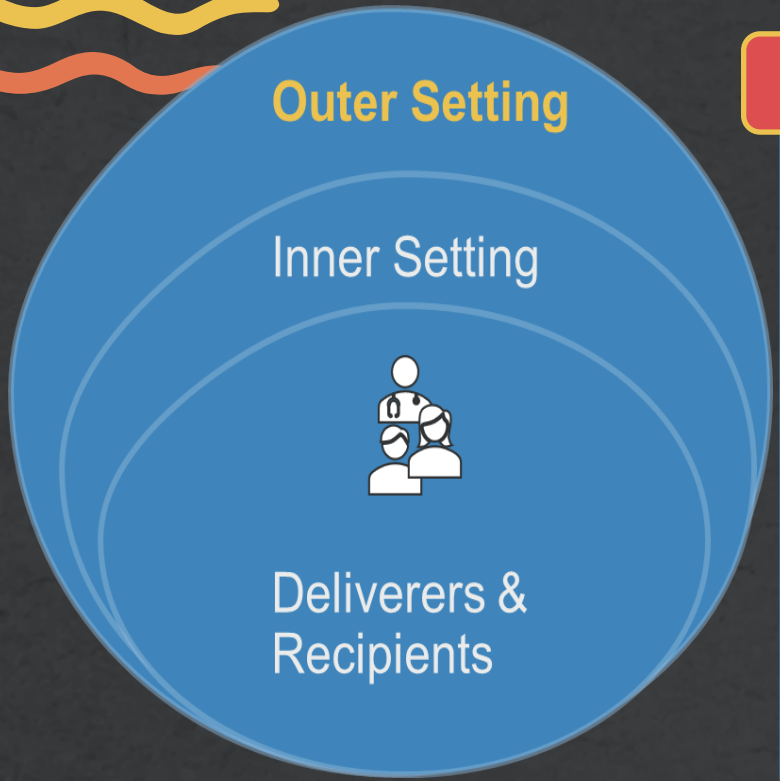
CFIR Outcomes Addendum



Outer Setting



Outer Setting



NEW

- **Critical Incidents**

  Salient large-scale, often unanticipated events, (e.g., pandemic, flood, mergers, buy-outs)

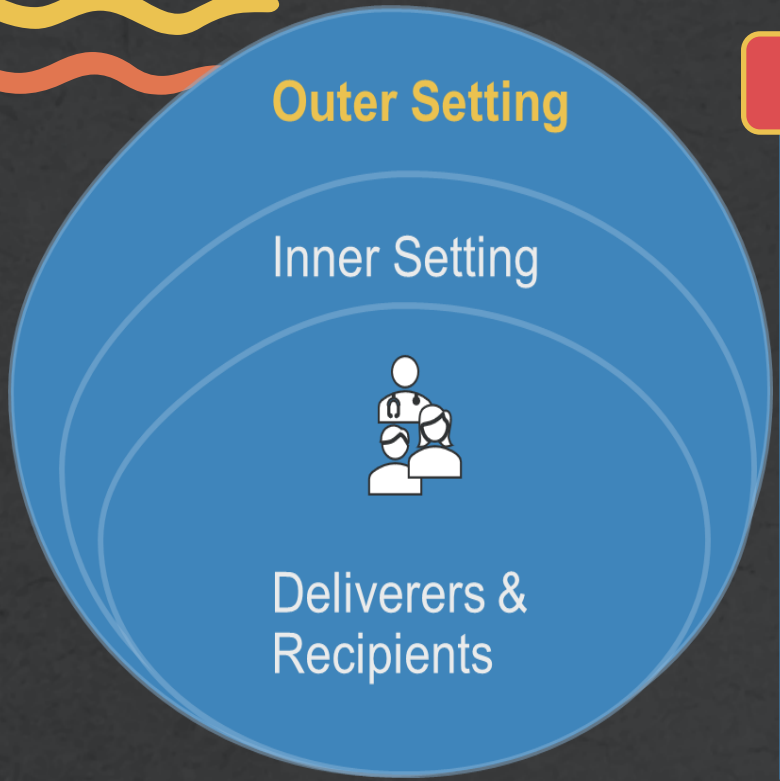
Pandemics

Buy-outs

Acts of god

Outer Setting

"…it is very important to have a description of the community/state…Is it poor, predominantly minority, underserved, housing costs, etc."



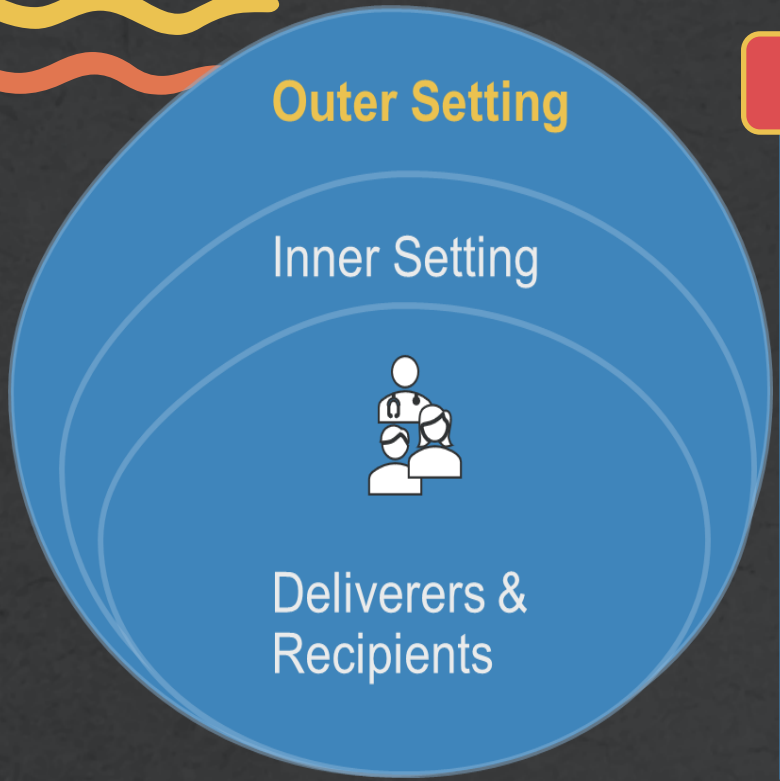
NEW

- **Socioecological Characteristics**

  Economic (e.g., affluence), cultural (e.g., racism, ableism), and political (e.g., governance) beliefs, systems, and structures

Outer Setting

Names are
“not intuitive”
“hard to explain”

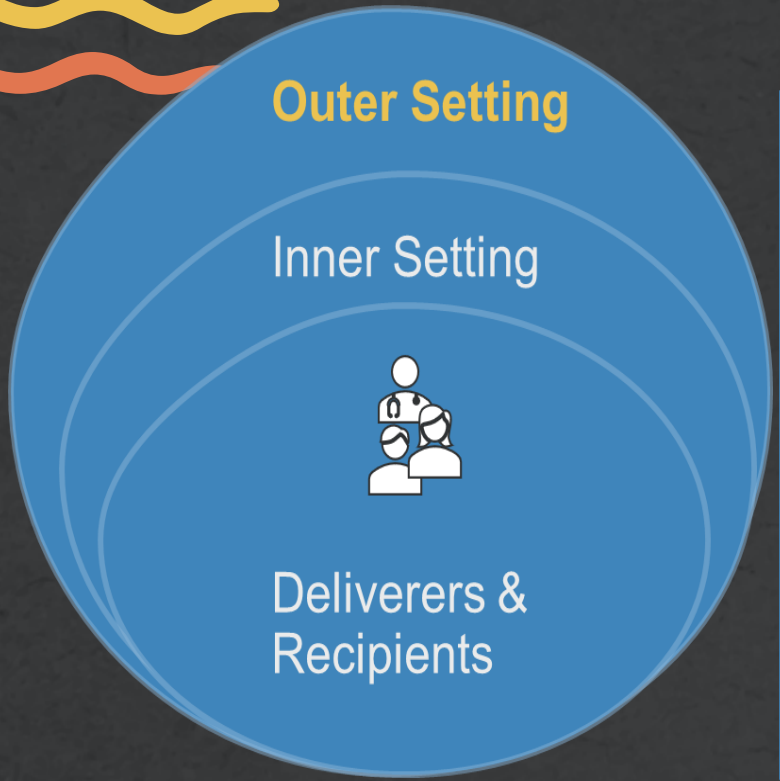


RENAMED

- **Recipient Characteristics**
  - *was* Patient Needs & Resources
- **Partnerships & Connections**
  - *Was* Cosmopolitanism
- **Market Forces**
  - *was* Peer Pressure

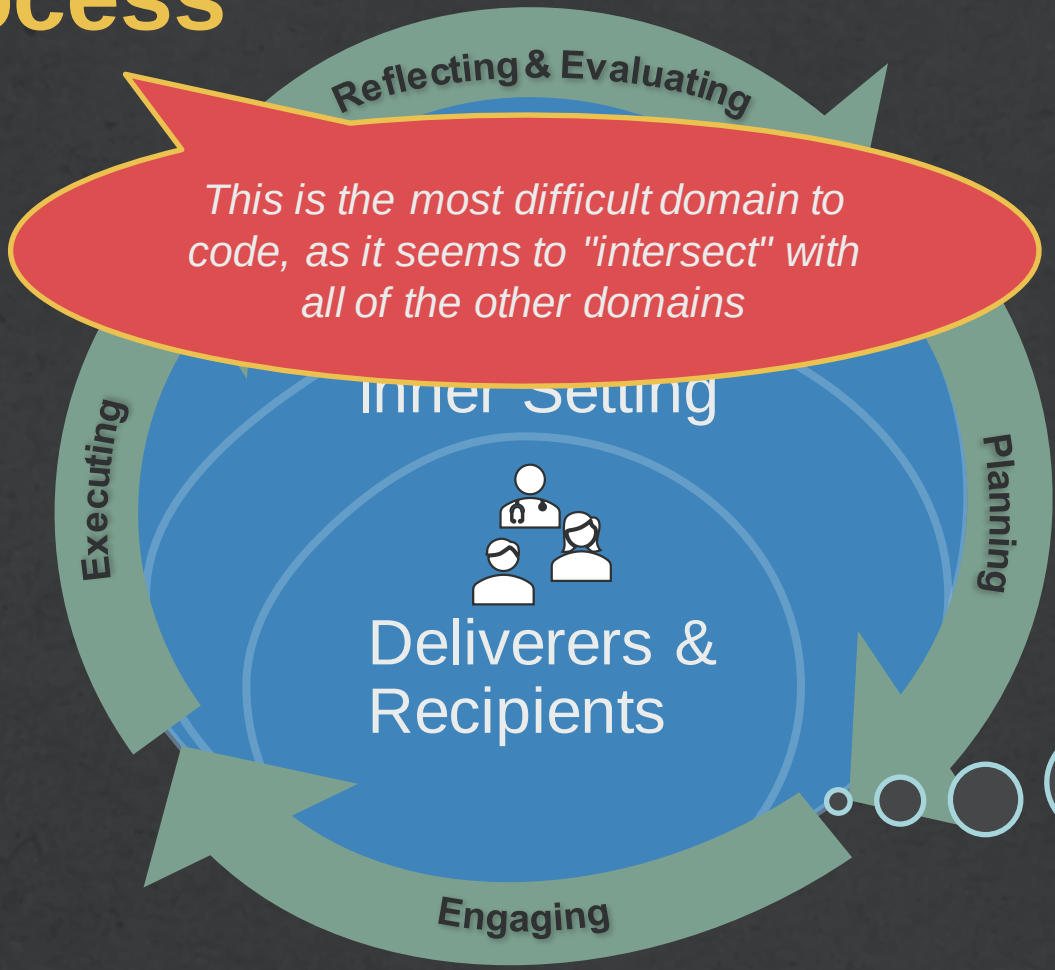
Outer Setting

"This is very broad and could be broken down further."



- **Policies**
- **Performance Goals**
- **Financing**

Process



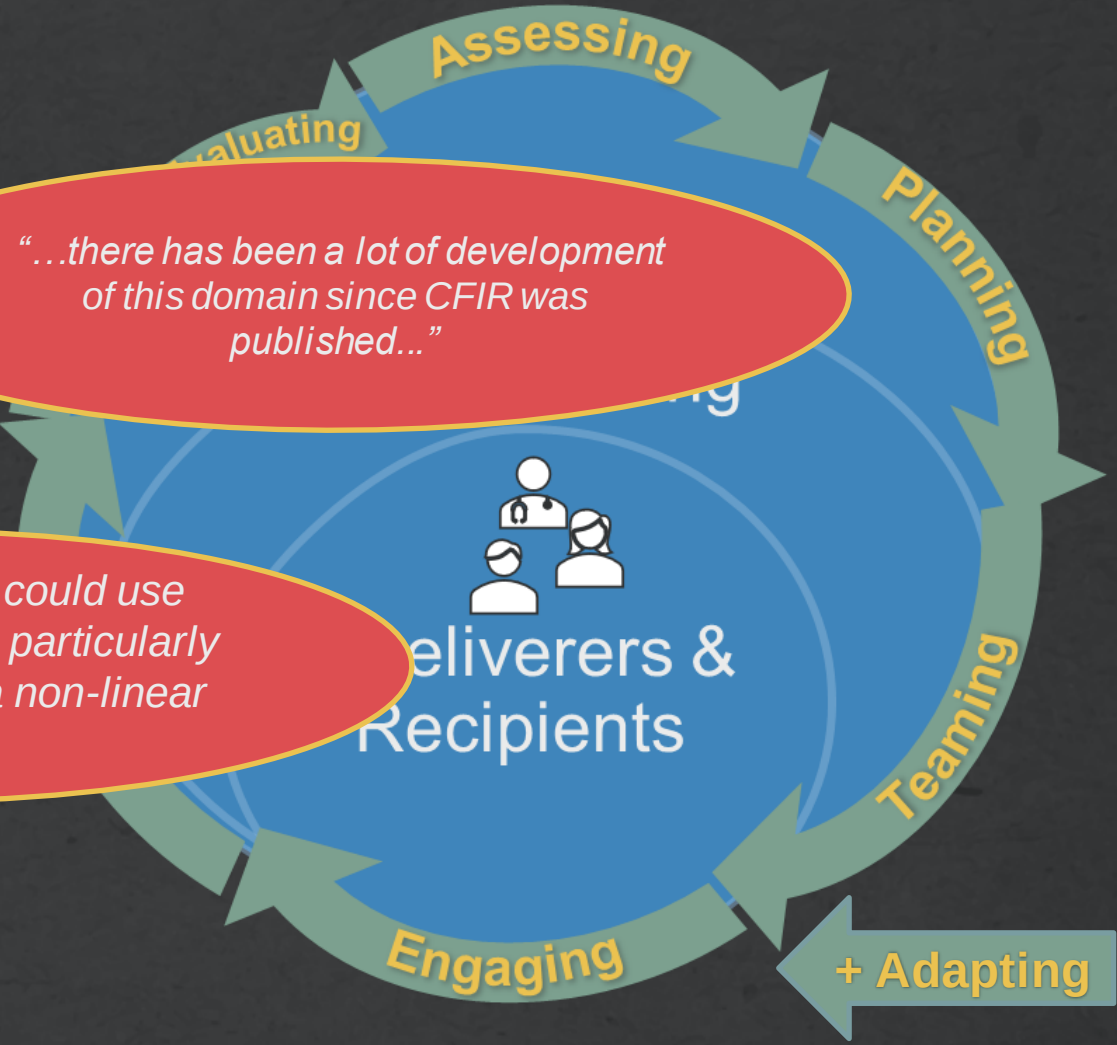
This is the most difficult domain to code, as it seems to "intersect" with all of the other domains

Dynamic interplay between Process (ACTION) and multi-level, ripple effects of **CONTEXT**

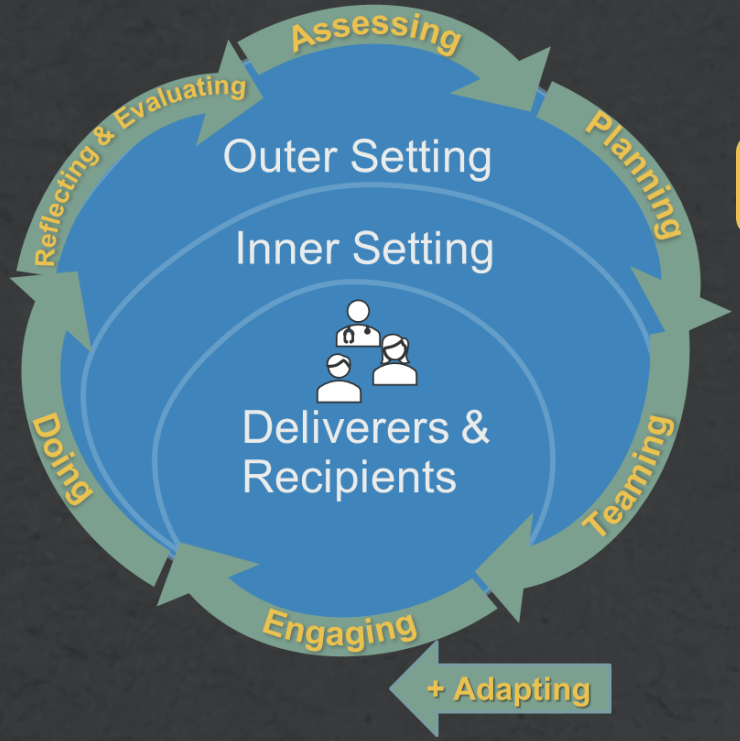
Process

"…there has been a lot of development of this domain since CFIR was published..."

The process domain could use additional fleshing out, particularly as it relates to being a non-linear process.



Process

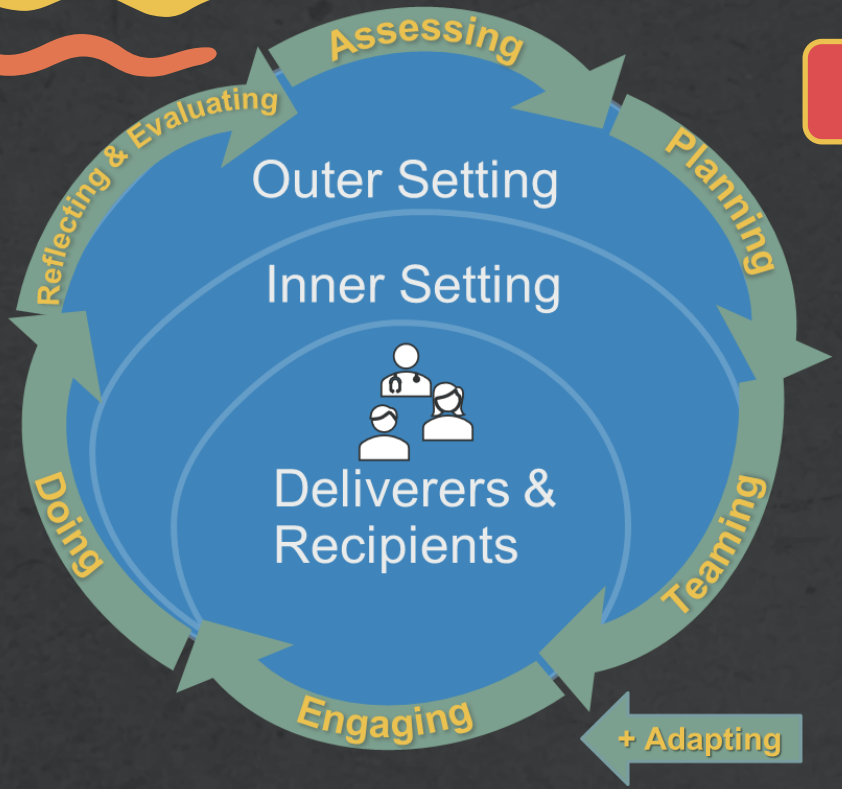


NEW

Teaming

…join together, intentionally coordinating and collaborating on interdependent tasks

Process



NEW

- **Assessing**

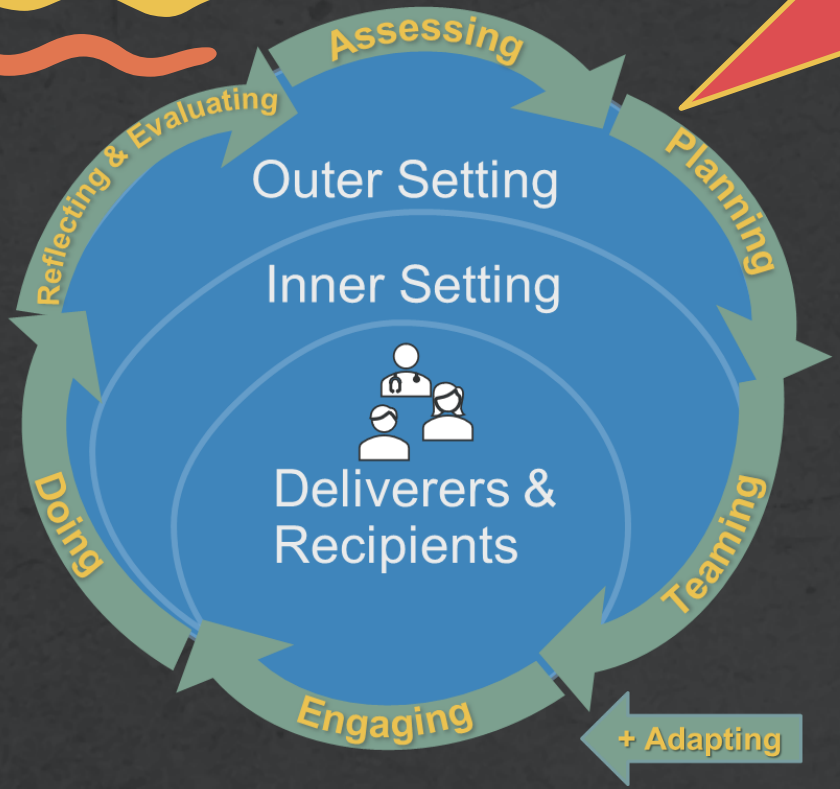
  …Needs

  - ✓*Deliverers*
  - ✓*Recipients*

  …Context

Process

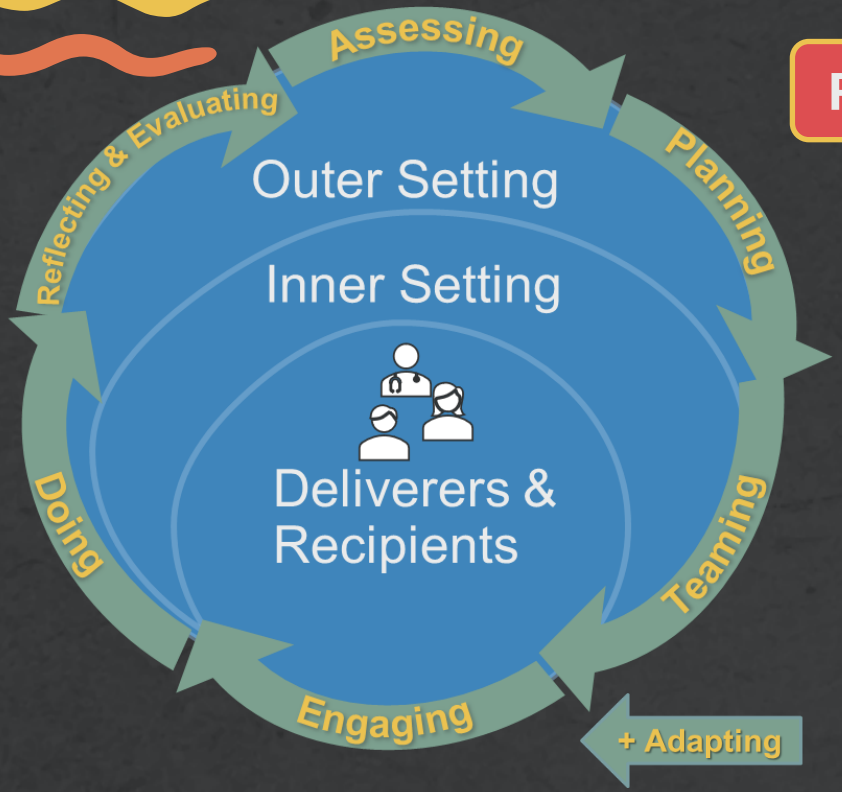
planning/developing PDSA cycles, setting implementation goals (see OCM), planning pilots/incremental approaches



- **Planning**
  …Choosing Strategies

  …Setting Goals

Process



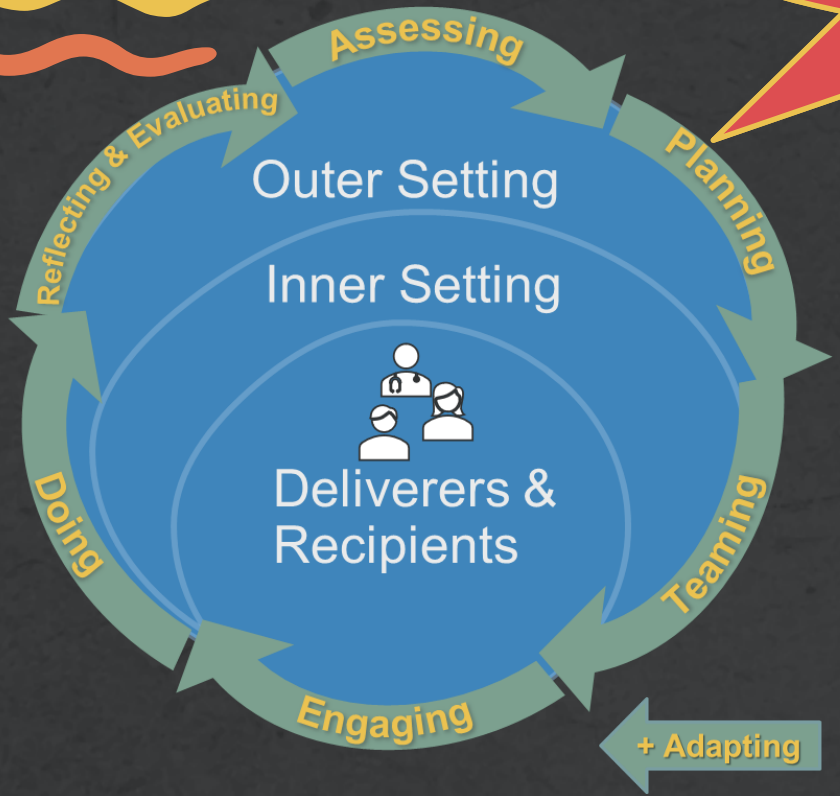
RENAMED & REDEFINED

- **Doing**

  Implement in small phases, steps or cycles of change that cumulatively build, before scaling up more broadly with continued optimization until [Innovation] becomes routine.

Process

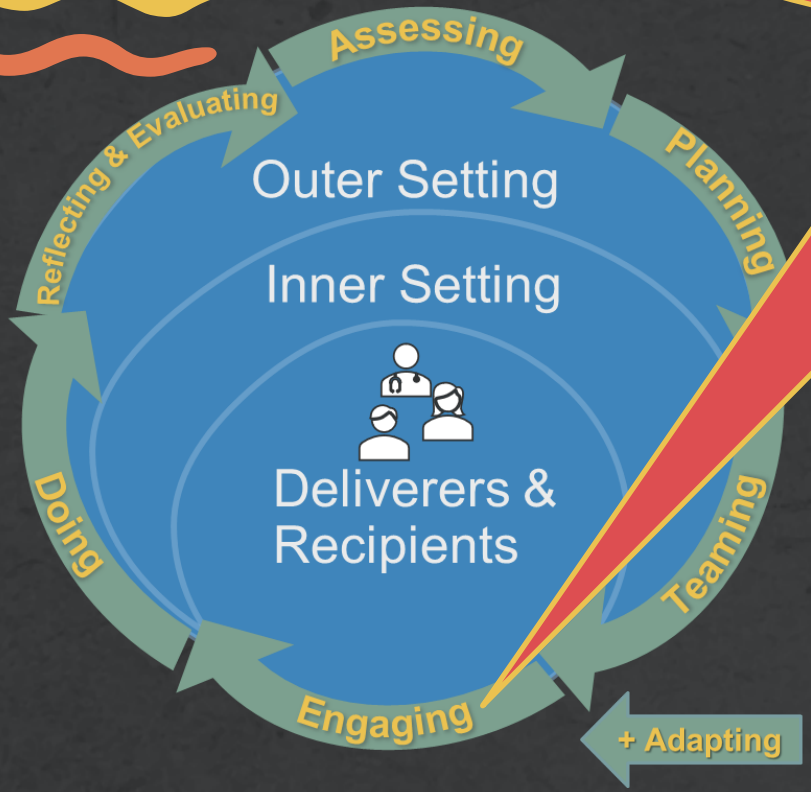
"…when I present this project - I always talk about the time and effort it takes for leaders to allow staff and other reflect and evaluate what's going on. I think there needs to be more emphasis on this construct."



- **Reflecting & Evaluating**
  - Implementation Progress
  - Innovation Progress

Process

"Hard to know how to use these or operationalize them--some confusion with champion, implementation leaders, and opinion leaders, and [Inner Setting] leader engagement"

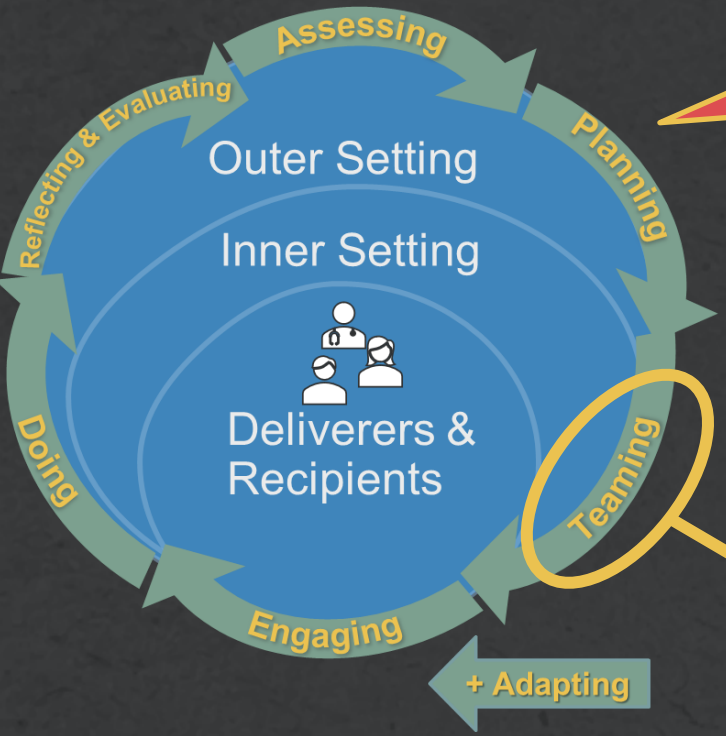


ngaging

- Deliverers
- Recipients

All other [Roles] moved to INDIVIDUALS

Process



consider using prescriptive frameworks…because CFIR is deterministic not prescriptive

Question Stem:

The degree to which [Roles]…

EXAMPLE

Teaming

…join together, intentionally coordinating and collaborating on interdependent tasks

Key Themes

1. Increased Centering of Humans
2. More inclusive language
3. Equity & Teams
4. Codebook inclusion/exclusion guidance for qualitative data
5. Published OUTCOMES Addendum: Damschroder et al 2022
6. Guiding questions:

Innovation — What is the "**thing**" being implemented? What are perceptions about its **properties**?

Inner Setting — **Where** will implementation occur? From where will the Innovation be delivered?

Individuals — Who are the **individuals** most likely to **influence** or have **authority** over implementation?
Who will **deliver** the Innovation?

Outer Setting — **Where** does the Outer Setting begin?

Process — To what extent do [Roles] do the **actions** necessary for sustained implementation?

Thank You