PIRE

Dissemination and Implementation Science
Immersive Training

Real-World Examples:
RE-AIM Planning and Evaluation Framework

Module 2

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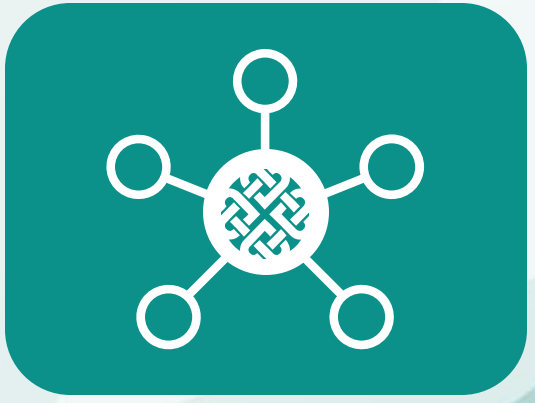
Icebreaker:

- What was interesting about the suggested readings?
- What D&I questions have you noticed since module 1?
- What is something you're looking forward to this summer?

Learning Objectives

Sources of D&I theories, models, and frameworks

Overview and examples of RE-AIM framework



Options for measuring fidelity

Why use a framework?

- Assess complex interventions
- Overcome evaluation challenges
- Impress funders
- Produce generalizable results: advance the field

Model Categories

Construct Flexibility (CF)

1: Broad — *Loosely outlined and defined constructs; allows researchers greater flexibility*

2

3

4

5: Operational — *Detailed, step-by-step actions for D&I research*

Dissemination and / or Implementation (D/I)

D only — *Focus on active approach of spreading EBIs to target audience via determined channels using planned strategies*

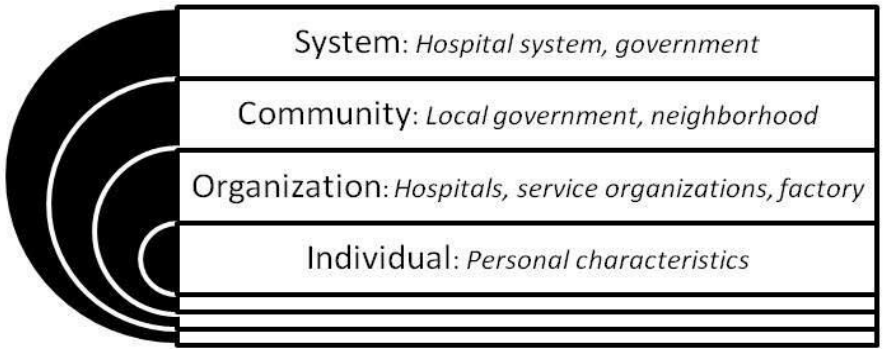
D > I

D = I — *Equal focus on dissemination and implementation*

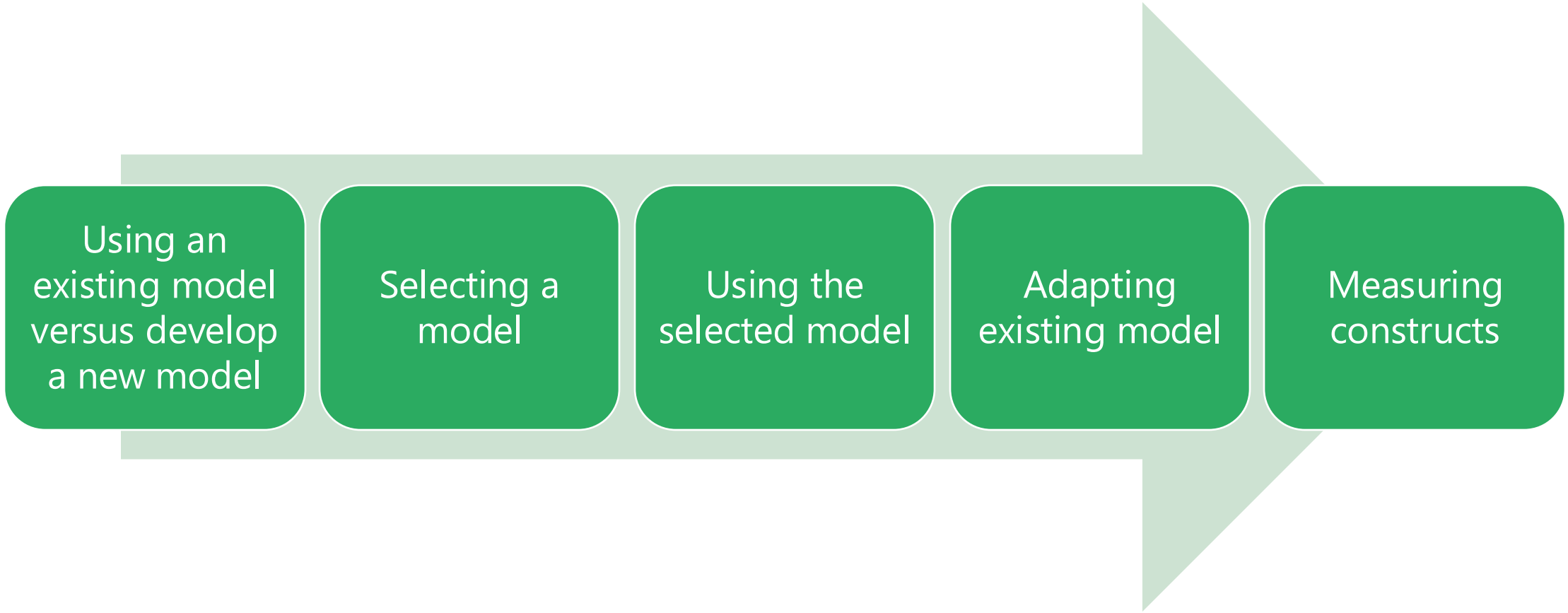
I > D

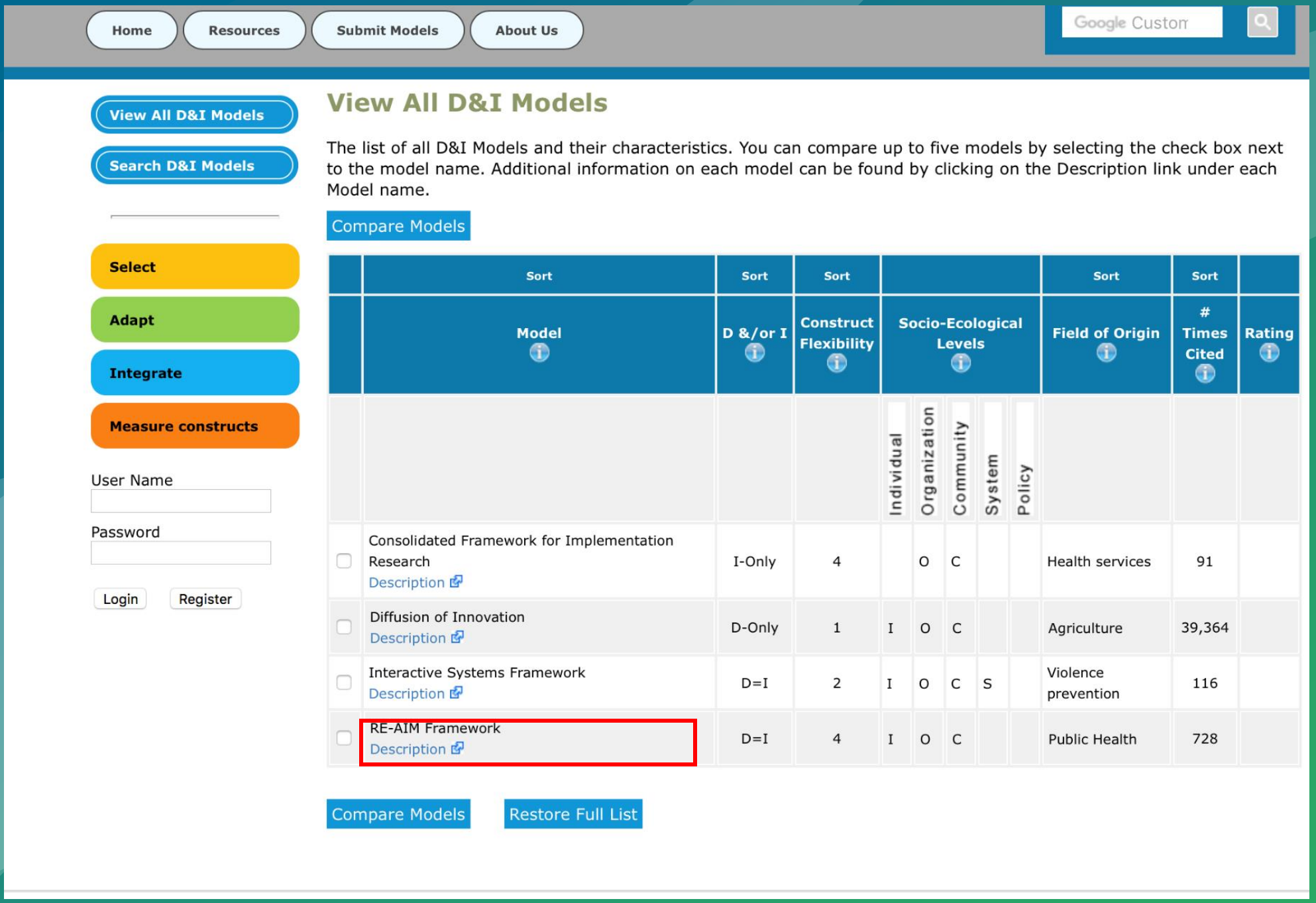
I only — *Focus on process of putting to use or integrating evidence-based interventions within a setting*

Socio-ecological Framework (SEF)



Theories and framework for D&I





Where to find D&I models

www.dissemination-implementation.org

			Socio-Ecological Level				
Model	**Dissemination and/or Implementation**	**Construct Flexibility: Broad to Operational**	**System**	**Community**	**Org**	**Individual**	**Policy**
Diffusion of Innovation	D-only	1		x	x	x	
RAND Model of Persuasive Communication and Diffusion of Medical Innovation	D-only	1		x	x	x	
Effective Dissemination Strategies	D-only	2		x	x	x	
Model for Locally Based Research Transfer Development	D-only	2		x	x		
Streams of Policy Process	D-only	2	x	x	x		x
A Conceptual Model of Knowledge Utilization	D-only	3	x	x			x

RE-AIM Basics

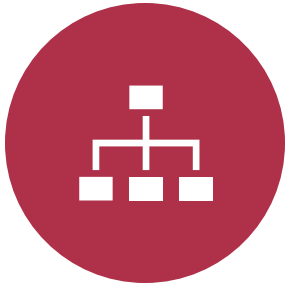
- Reach = Who
- Effectiveness = What
- Adoption = Where
- Implementation = How
- Maintenance = When

RE-AIM Planning and Evaluation Framework

Facilitate translation of research to practice.

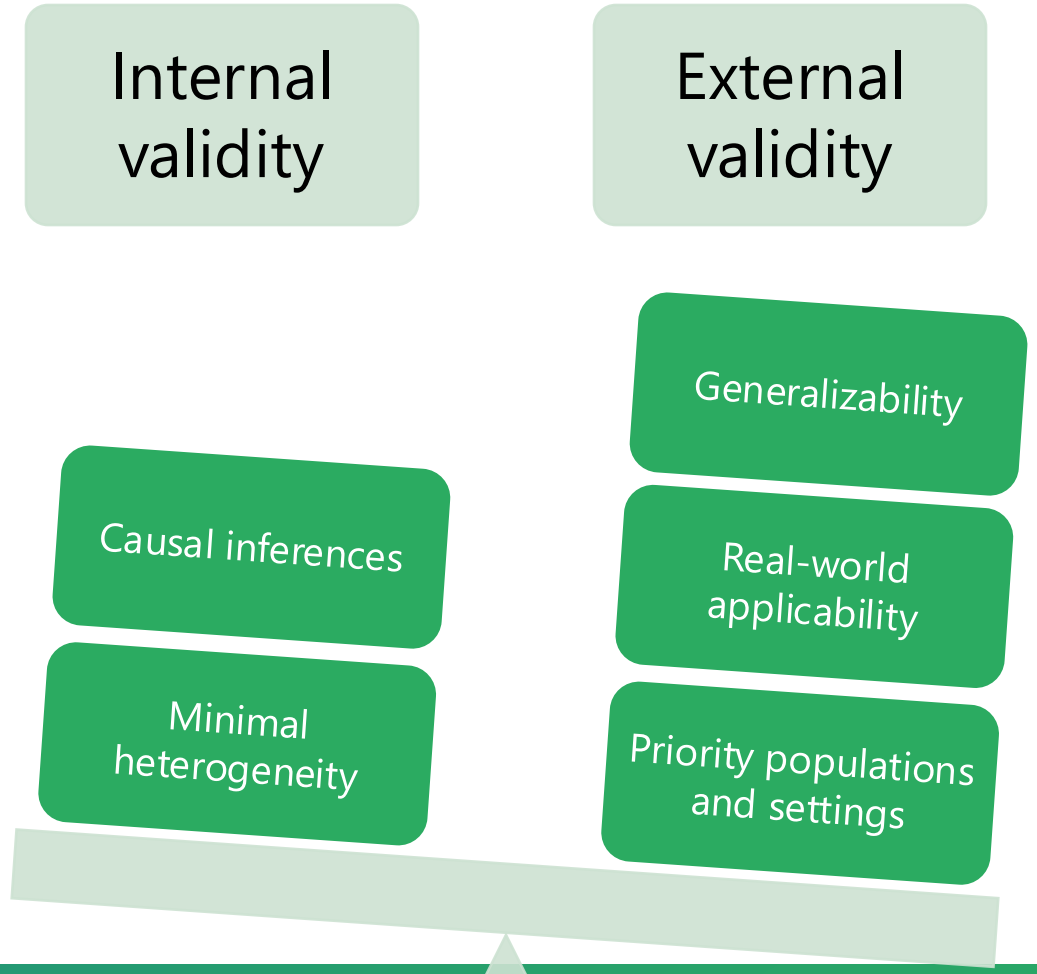
Balance internal and external validity.

Emphasize representativeness.



Address multi-level factors: individual, organizational, system: experimental and observational.

Two key terms for D&I



Large group discussion:
Which food pantry intervention was successful?

Approached 10 food pantries and 5 of them participated	Approached 10 food pantries and 2 of them participated
The food pantries implemented an average of 75% of the healthy purchasing guidelines	The food pantries implemented 100% of the healthy purchasing guidelines
20 community members were served	1000 community members were served
19 of the 20 consumed more fruits and vegetables	500 of the 1000 consumed more fruits and vegetables
Six months later, 10 of the 20 were still eating more fruits and vegetables	Six months later, 500 of the 1000 were still eating more fruits and vegetables
The food pantries used the guidelines for 10 years	The food pantries used the guidelines for 5 years

Reach

The absolute number, proportion, and representativeness of individuals who participate in an intervention, and the reasons why (qualitative).

WHO actually participates or is exposed to the initiative?

Effectiveness

The impact of an initiative on outcomes, including potential negative effects, quality of life, and economic outcomes as well as the reasons why (qualitative).

WHAT is the most important benefit you are trying to achieve and what is the likelihood of negative outcomes?

Adoption

The absolute number, proportion, and representativeness of settings and agents willing to initiate a program, and the reasons why (qualitative).

WHERE is the program applied and WHO applied it?

Implementation

Fidelity to the intervention protocol, and including adaptations, time, and cost as well as the reasons why (qualitative).

HOW consistently was the program delivered, how was it adapted, how much did it cost, and WHY did the results come about?

Maintenance

The extent to which a program becomes institutionalized at the setting level or sustained at an individual level as well as the reasons why (qualitative).

WHEN was the program operational and how long are the results sustained?

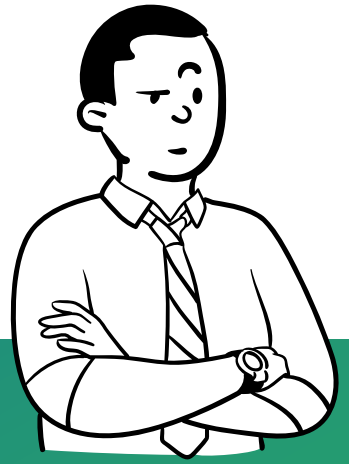
Large group discussion:
Which RE-AIM dimension is each real-world challenge?

The program's supposed to be 4 weekly classes, but that's too much driving… I just combined it all into a Saturday workshop

We used to do that program and I think it worked, but it just cost too much to continue

I had this great food rescue program going, but the delivery drivers didn't want to pick up the produce

They asked me to teach this class, but no one showed up.



RE-AIM can help us answer:

How many people came, were they those most in need of the intervention?	What were the health impacts of my program (changes in eating patterns and health)?	How many settings did I approach? How many participated? What were the barriers of the setting/facilities that declined?	How challenging or easy will this be to implement? What resources are available to help me?	Do I want to maintain this intervention?

Even if 100% effective, impact depends on:

1) Adoption
2) Training
3) Fidelity (Implementation)
4) Access (Reach)
5) Sustainability (Maintenance)

50% threshold for each step=
.5*.5*.5*.5*.5=
3% benefit

(Rothwell, 2005)

Traditional, highly-controlled RCTs versus real-world settings.

“Voltage drop” of effectiveness.

What is most relevant to the interested parties?

Qualitative Approaches to RE-AIM

Reach	• What factors contributed to participation/non-participation? • Focus groups, interviews
Effectiveness	• What factors contributed to the outcomes? • Ethnography, key informant interviews.
Adoption	• What barriers prevented adoption? • Key informant interviews.
Implementation	• How was the intervention implemented over time? • Photovoice, observation, critical incident analysis.
Maintenance	• What is sustained, discontinued, or adapted—and why? • Interviews, observation.

Process evaluation?

Breakout Room Prompts

Have you used the RE-AIM framework?

If so, which dimensions have you used?

If not, how could you apply it to your work? Which dimensions would you use?

Fidelity and adaptation:

Data collection methods

- Surveys
- Interviews
- Observations
- Focus groups
- Checklists
- Support calls

(Harden et al., 2015)

Fidelity and adaptation:

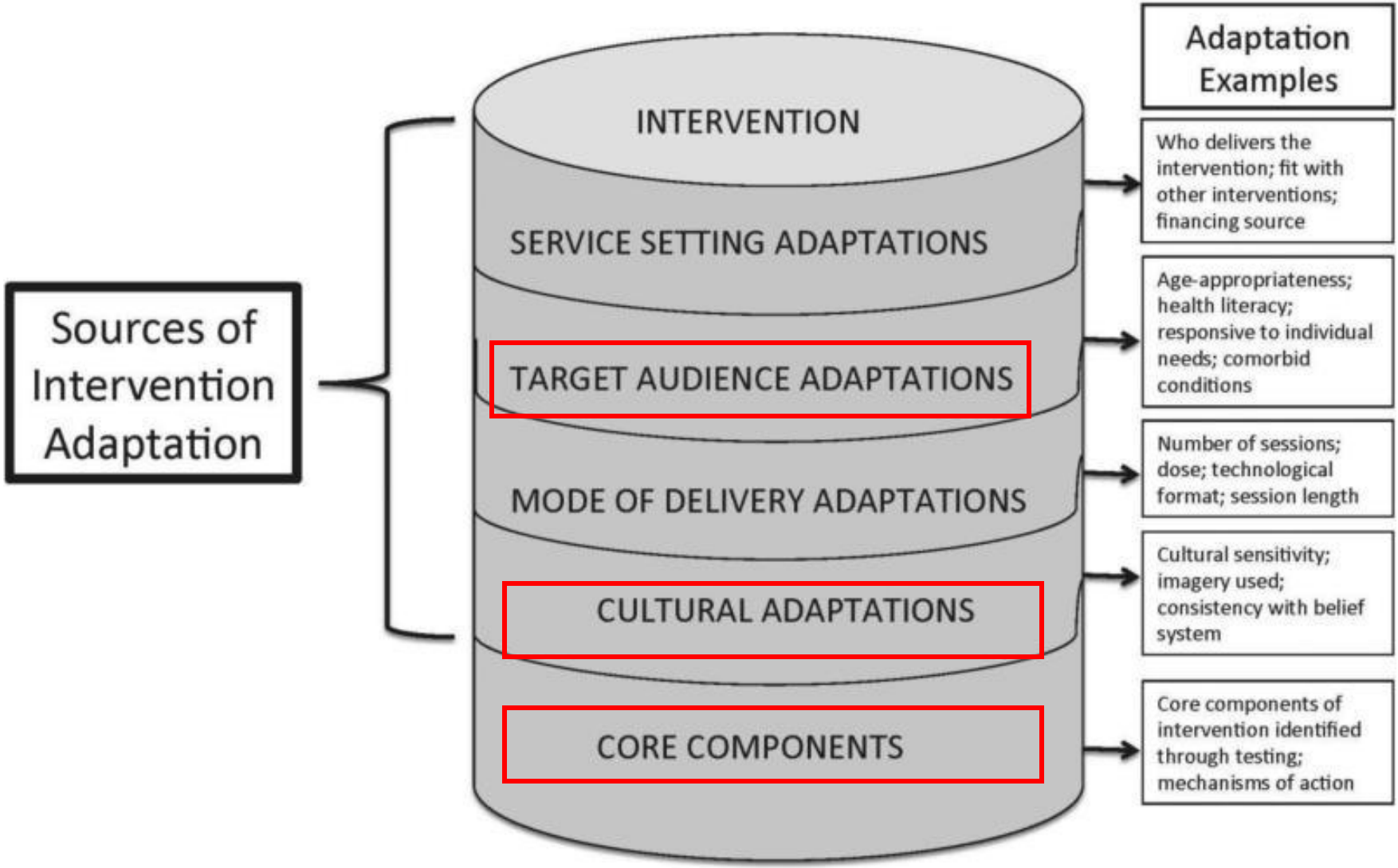
Data collection methods

Dining with Diabetes lesson number:	1	2	3	4	Follow-up
Date:					
# of participants registered:					
# of participants present:					
Class start time:					
Class end time:					
Did a Registered Dietitian, Registered Nurse, or Certified Diabetes Educator teach the lesson?	▫Yes ▫No	▫Yes ▫No	▫Yes ▫No	▫Yes ▫No	n/a
If no, did one of these professionals provide assistance in some other way?	▫Yes ▫No	▫Yes ▫No	▫Yes ▫No	▫Yes ▫No	n/a
If yes, please explain:					
Were Dining with Diabetes recipes used?	▫Yes ▫No	▫Yes ▫No	▫Yes ▫No	▫Yes ▫No	▫Yes ▫No
If no, what recipe sources were used?					
Were healthy cooking techniques demonstrated?	▫Yes ▫No	▫Yes ▫No	▫Yes ▫No	▫Yes ▫No	▫Yes ▫No
Did participants sample healthy food?	▫Yes ▫No	▫Yes ▫No	▫Yes ▫No	▫Yes ▫No	▫Yes ▫No
Were recipes provided to participants?	▫Yes ▫No	▫Yes ▫No	▫Yes ▫No	▫Yes ▫No	▫Yes ▫No
Were suggested handouts provided to participants?	▫Yes ▫No	▫Yes ▫No	▫Yes ▫No	▫Yes ▫No	▫Yes ▫No
Were all PowerPoint slides of the presentation taught?	▫Yes ▫No	▫Yes ▫No	▫Yes ▫No	▫Yes ▫No	n/a
If no, what changes were made? Be specific for each lesson.					n/a

(Balis et al., 2022)

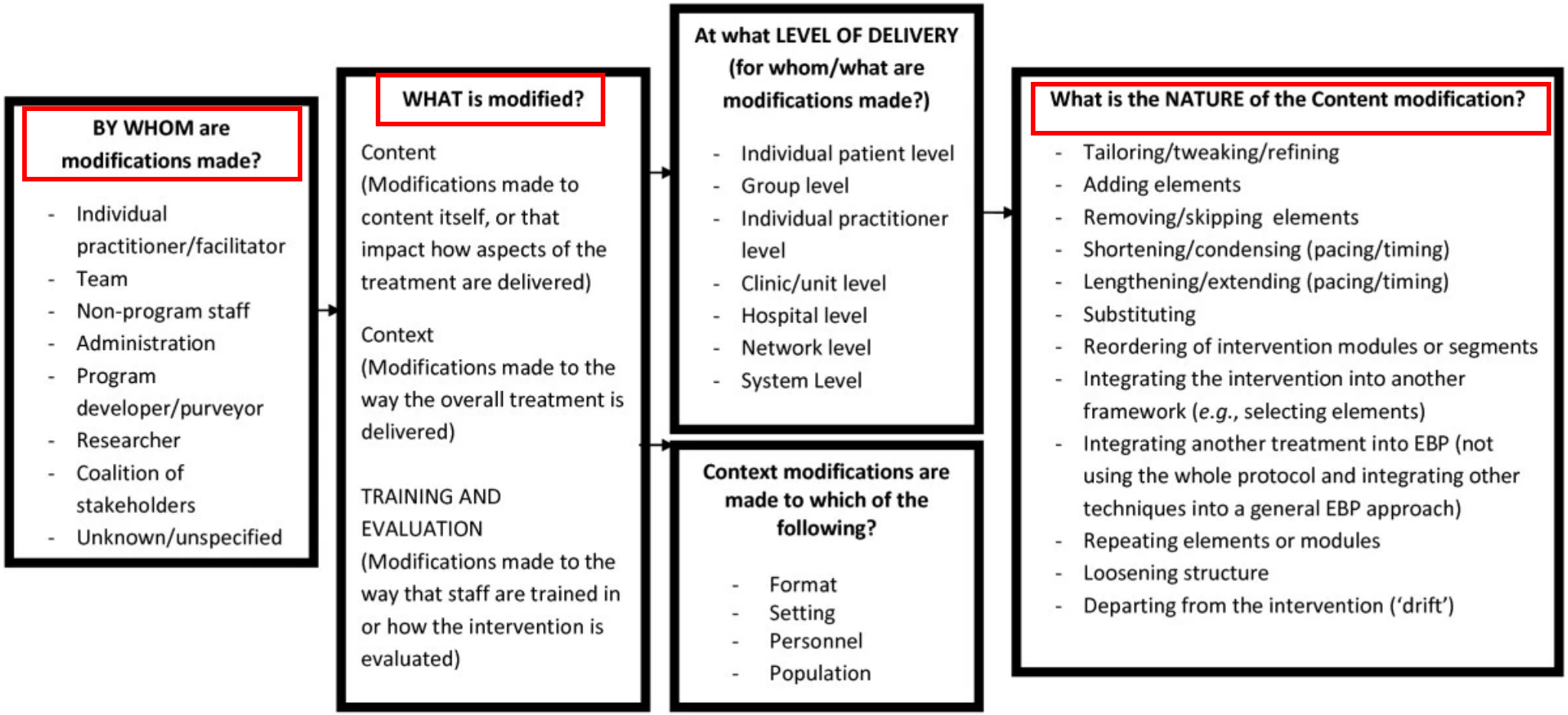
Fidelity and adaptation:

Frameworks



(Chambers & Norton, 2016)

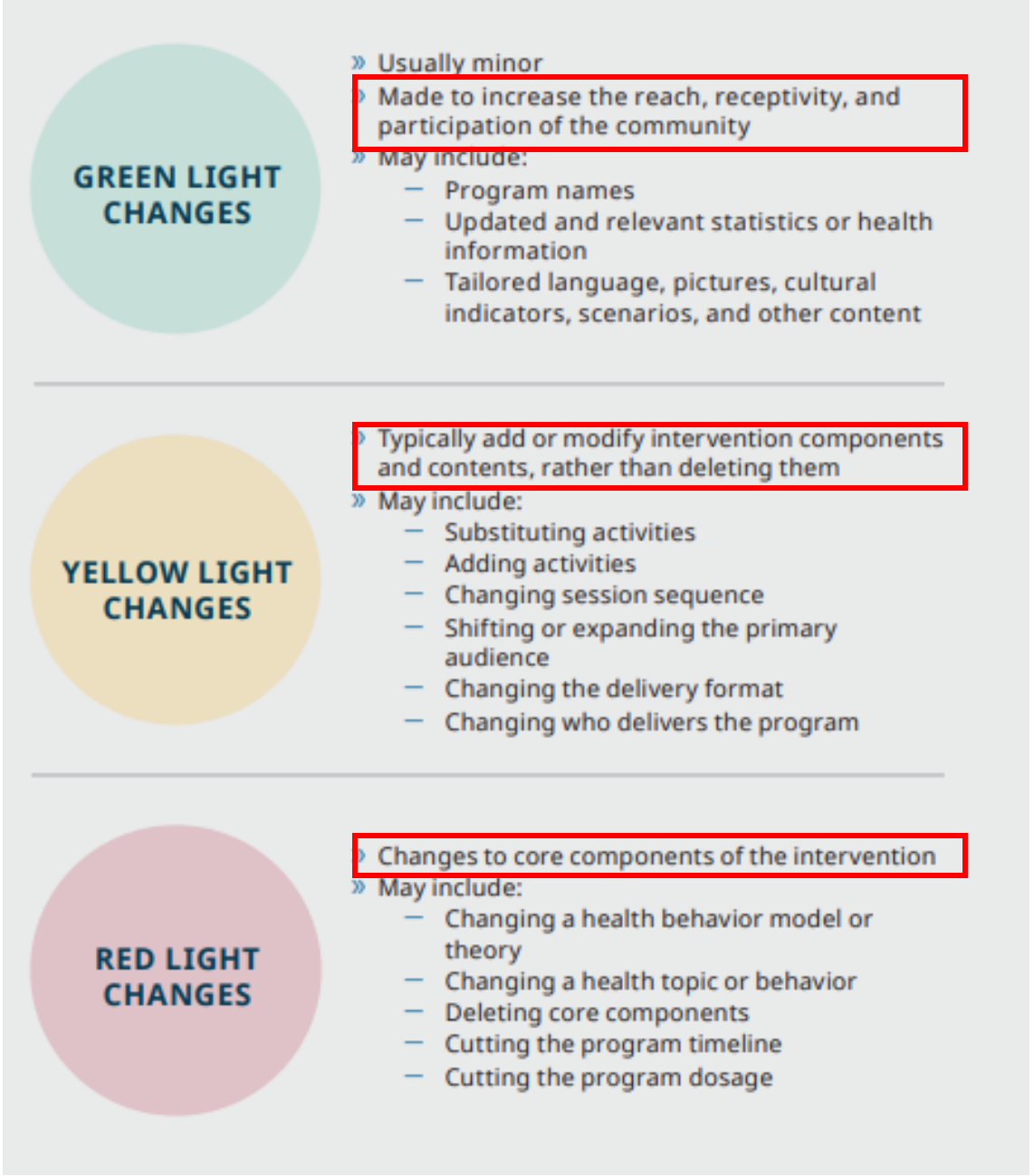
Fidelity and adaptation: Frameworks



(Wiltsey Stirman et al., 2013)

Fidelity and adaptation:

Frameworks



(National Institutes of Health)

Breakout Room Prompts

Have you measured fidelity to an intervention?

If yes, what measure did you use?

What fidelity measure would work best for your projects?

Where are we going?

- Theories, models, and frameworks
- Implementation strategies and how to measure them
- Partnerships and logic models
- Resources and next steps

Questions?