

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?

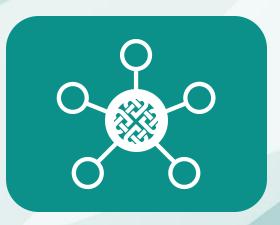
Learning Objectives



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

I > D

5: Operational

Detailed, step-by-step actions for D&I research

Dissemination and / or Implementation (D/I)

D only

D > IFocus on active approach of spreading EBIs to target audience via determined channels using planned strategies

D = I

Equal focus on dissemination and implementation

I only

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

Socio-ecological Framework (SEF)

System: Hospital system, government

Community: Local government, neighborhood

Organization: Hospitals, service organizations, factory

Individual: Personal characteristics

Theories and framework for D&I

Using an existing model versus develop a new model

Selecting a model

Using the selected model

Adapting existing model

Measuring constructs

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Resources

Submit Models

About Us

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| view | V AII | D&I | MO | • (H) |

Search D&I Models

Select

Adapt

Integrate

Measure constructs

User Name

Password

Login

Register

View All D&I Models

The list of all D&I Models and their characteristics. You can compare up to five models by selecting the check box next to the model name. Additional information on each model can be found by clicking on the Description link under each Model name.

Compare Models

| | Sort | Sort | Sort | | | Sort | | Sort | | | |
|---|--|----------|--------------------------|----------------------------|--------------|-----------|--------|--------|---------------------|---------------------|--------|
| | Model ① | D &/or I | Construct Flexibility | Socio-Ecological Levels | | | | al | Field of Origin | # Times Cited | Rating |
| | | | | Individual | Organization | Community | System | Policy | | | |
| 0 | Consolidated Framework for Implementation Research Description | I-Only | 4 | | 0 | С | | | Health services | 91 | |
| | Diffusion of Innovation Description | D-Only | 1 | I | 0 | С | | | Agriculture | 39,364 | |
| | Interactive Systems Framework Description ☑ | D=I | 2 | I | 0 | С | S | | Violence prevention | 116 | |
| | RE-AIM Framework Description 🗗 | D=I | 4 | I | 0 | С | | | Public Health | 728 | |

Compare Models

Restore Full List

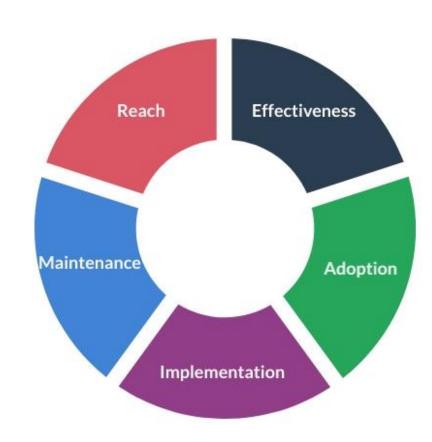
Where to find D&I models

www.disseminationimplementation.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 | | х | х | х | | | | |
| RAND Model of Persuasive Communication and Diffusion of Medical Innovation | D-only | 1 | | Х | х | х | | | | |
| Effective Dissemination Strategies | D-only | 2 | | X | х | Х | | | | |
| Model for Locally Based Research Transfer Development | D-only | 2 | | X | X | | | | | |
| Streams of Policy Process | D-only | 2 | х | Х | х | | х | | | |
| A Conceptual Model of Knowledge Utilization | D-only | 3 | Х | X | | | X | | | |

RE-AIM Basics

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



RE-AIM Planning and Evaluation Framework



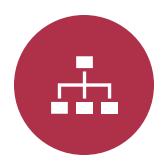
Facilitate translation of research to practice.



Balance internal and external validity.



Emphasize representativeness.



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

Two key terms for D&I

Internal validity

External validity

Causal inferences

Minimal heterogeneity Generalizability

Real-world applicability

Priority populations and settings

Large group discussion: Which food pantry intervention was successful?

Approached 10 food pantries and 5 of them participated

The food pantries implemented an average of 75% of the healthy purchasing guidelines

20 community members were served

19 of the 20 consumed more fruits and vegetables

Six months later, 10 of the 20 were still eating more fruits and vegetables

The food pantries used the guidelines for 10 years

Approached 10 food pantries and 2 of them participated

The food pantries implemented 100% of the healthy purchasing guidelines

1000 community members were served

500 of the 1000 consumed more fruits and vegetables

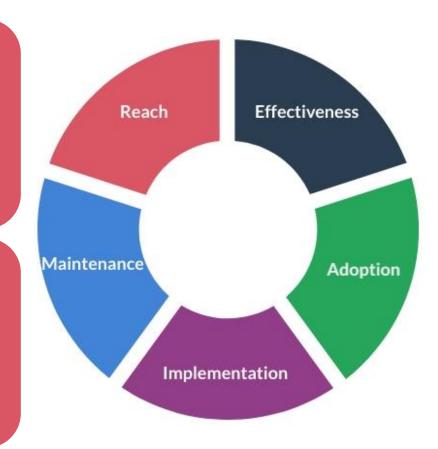
Six months later, 500 of the 1000 were still eating more fruits and vegetables

The food pantries used the guidelines for 5 years

Reach

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

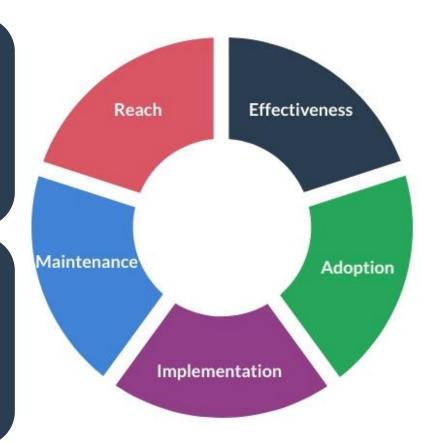
WHO actually participates or is exposed to the initiative?



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).

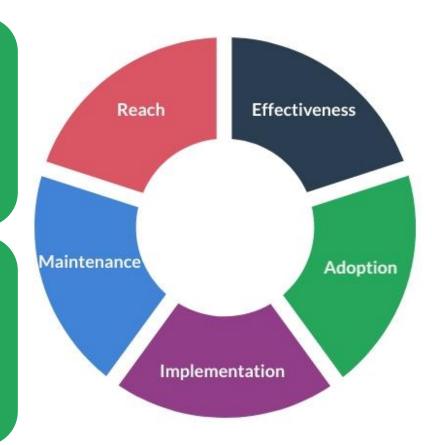
WHAT is the most important benefit you are trying to achieve and what is the likelihood of negative outcomes?



Adoption

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

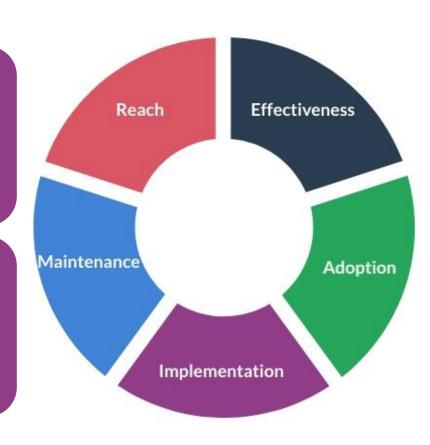
WHERE is the program applied and WHO applied it?



Implementation

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

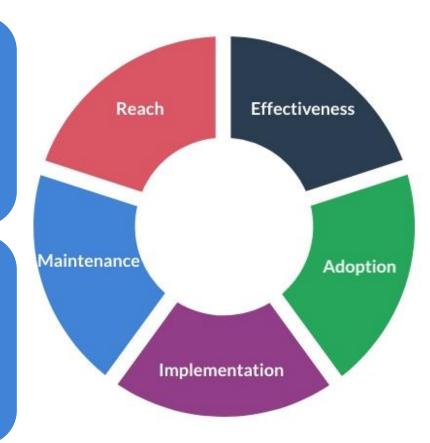
HOW consistently was the program delivered, how was it adapted, how much did it cost, and WHY did the results come about?



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

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.

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







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



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?



Process Evaluation Outcome Evaluation Impact Evaluation

Breakout Room Prompts

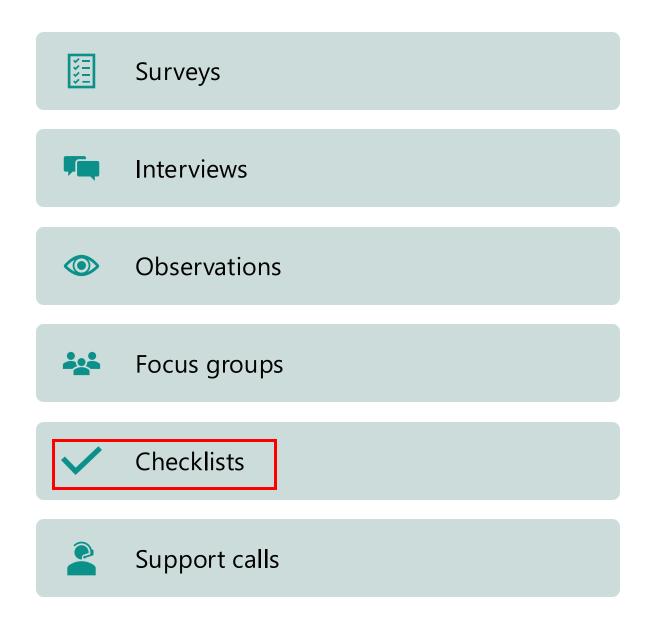


Have you used the RE-AIM framework?

If so, which dimensions have you used?

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

Data collection methods



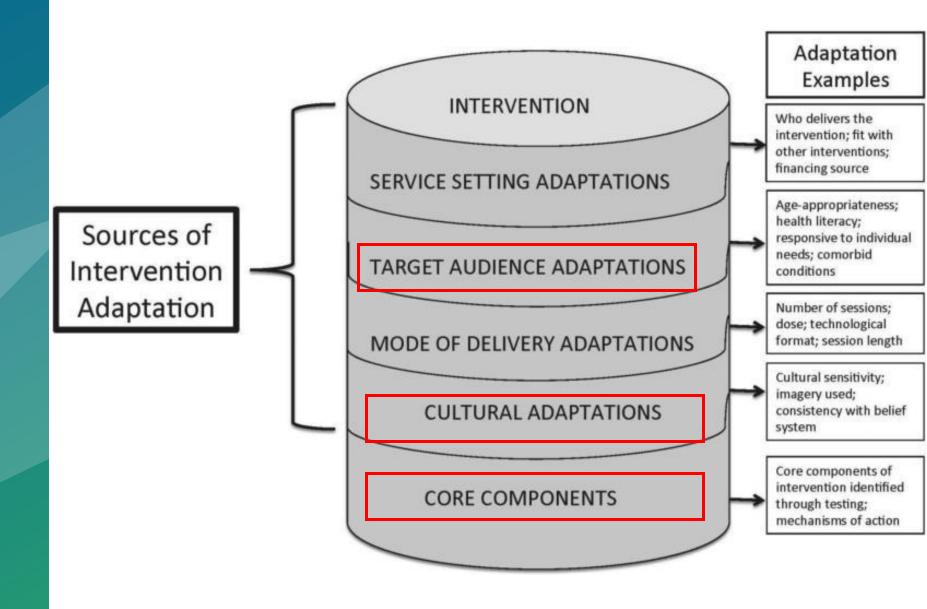
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Data collection methods

| 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 | □Yes | □Yes | □Yes | □Yes | n/a |
| Certified Diabetes Educator teach the lesson? | □No | □No | □No | □No | |
| If no, did one of these professionals provide | □Yes | □Yes | □Yes | □Yes | n/a |
| assistance in some other way? | □No | □No | □No | □No | |
| If yes, please explain: | | | | | |
| Were Dining with Diabetes recipes used? | □Yes | □Yes | □Yes | □Yes | □Yes |
| were 2 ming with 2 maseres recipes usen. | □No | □No | □No | □No | □No |
| If no, what recipe sources were used? | | | | | |
| Were healthy cooking techniques | □Yes | □Yes | □Yes | □Yes | □Yes |
| demonstrated? | □No | □No | □No | □No | □No |
| Did participants sample healthy food? | □Yes | □Yes | □Yes | □Yes | □Yes |
| | □No | □No | □No | □No | □No |
| Were recipes provided to participants? | □Yes | □Yes | □Yes | □Yes | □Yes |
| | □No | □No | □No | □No | □No |
| Were suggested handouts provided to | □Yes | □Yes | □Yes | □Yes | □Yes |
| participants? | □No | □No | □No | □No | □No |
| Were all PowerPoint slides of the presentation | □Yes | □Yes | □Yes | □Yes | n/a |
| taught? | □No | □No | □No | □No | |
| If no, what changes were made? Be specific for each lesson. | | | | | n/a |
| | | | | | |

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Frameworks



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Fidelity and adaptation: Frameworks

BY WHOM are modifications made?

- Individual practitioner/facilitator
- Team
- Non-program staff
- Administration
- Program developer/purveyor
- Researcher
- Coalition of stakeholders
- Unknown/unspecified

WHAT is modified?

Content

(Modifications made to content itself, or that impact how aspects of the treatment are delivered)

Context

(Modifications made to the way the overall treatment is delivered)

TRAINING AND EVALUATION

(Modifications made to the way that staff are trained in or how the intervention is evaluated)

At what LEVEL OF DELIVERY (for whom/what are modifications made?)

- Individual patient level
- Group level
- Individual practitioner level
- Clinic/unit level
- Hospital level
- Network level
- System Level

Context modifications are made to which of the following?

- Format
- Setting
- Personnel
- Population

What is the NATURE of the Content modification?

- Tailoring/tweaking/refining
- Adding elements
- Removing/skipping elements
- Shortening/condensing (pacing/timing)
- Lengthening/extending (pacing/timing)
- Substituting
- Reordering of intervention modules or segments
- Integrating the intervention into another framework (e.g., selecting elements)
- Integrating another treatment into EBP (not using the whole protocol and integrating other techniques into a general EBP approach)
- Repeating elements or modules
- Loosening structure
- Departing from the intervention ('drift')

Frameworks

GREEN LIGHT CHANGES

» Usually minor

Made to increase the reach, receptivity, and participation of the community

- » May include:
 - Program names
 - Updated and relevant statistics or health information
 - Tailored language, pictures, cultural indicators, scenarios, and other content

YELLOW LIGHT CHANGES

Typically add or modify intervention components and contents, rather than deleting them

- » May include:
 - Substituting activities
 - Adding activities
 - Changing session sequence
 - Shifting or expanding the primary audience
 - Changing the delivery format
 - Changing who delivers the program

RED LIGHT CHANGES

Changes to core components of the intervention

- » May include:
 - Changing a health behavior model or theory
 - Changing a health topic or behavior
 - Deleting core components
 - Cutting the program timeline
 - Cutting the program dosage

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

