Rigorous Implementation Research
The Implementation Research Logic Model and Key Design Considerations

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Goals

• Implementation research questions
• Designs to test implementation research questions
  • Basics of within-site, between-site, and within- and between-site designs
  • Key design considerations
  • Selecting the appropriate design
• Introduction to the Implementation Research Logic Model (IRLM)
  • Uses: Planning, Executing, Reporting, Synthesizing
  • Principles and resources for use of the IRLM
Let’s Start Very Non-Scientific

• The intervention/practice/innovation is **THE THING**
• Effectiveness research looks at whether THE THING works
• D&I research looks at how best to help people/places **DO THE THING**
• *Implementation strategies* are the **stuff we do** to try to help people/places **DO THE THING**
• Implementation outcomes are **HOW MUCH** and **HOW WELL** they **DO THE THING**

Curran, 2020, *Implementation Science Communications*
Implementation Research Has a Different Emphasis Than Clinical Research

Effectiveness vs. Implementation

System to Support Adoption and Delivery with Fidelity

Health Outcomes

Intervention

System to Support Adoption and Delivery with Fidelity

Implementation Strategies

Implementation Outcomes

Smith & Hasan, 2020, *Psychiatry Research*
Common Implementation Research Aims

1) understand barriers and facilitators to implementation
2) adapt an EBI
3) evaluate the impact of an adapted EBI
4) select/develop/adapt implementation strategies
5) evaluate the feasibility/acceptability of strategies
6) evaluate the impact of a strategy
7) compare the impact of implementation strategies

Smith et al. 2020, AIDS and Behavior
Illustrations of Implementation Research Questions

- Derived from the research-to-practice gap
- Implementation research should allow us to answer questions like:
  - Is delivery of PrEP more effective when PrEP is provided within the clinic versus referring to a PrEP provider outside the clinic?
  - Under what conditions does implementation Strategy A work better, faster, more efficiently than Strategy B for getting patients on PrEP and maintaining adherence over time?
  - What contextual barriers are related to low adoption of new intervention X in Y setting?
Premise for Example IR Study

- A large health system with 54 primary health care clinics in a high HIV prevalence urban area wants to increase PrEP uptake by 50%.

- Leaders in the health system have decided to compare whether referring potentially-eligible patients to specialty STI/HIV clinics for PrEP or providing PrEP in their clinics will result in better outcomes.

- Health system has partnered with an implementation scientist to devise a study to test this question.
Research Question

Does training primary care physicians to identify and prescribe PrEP as part of routine preventive care lead to provider adoption and to reaching more eligible patients compared to referring them to specialty STI/HIV clinics?
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Implementation Strategies
Research Question

Does training primary care physicians to identify and prescribe PrEP as part of routine preventive care lead to provider adoption and to reaching more eligible patients compared to referring them to specialty STI/HIV clinics?

Implementation Outcomes

Other implementation outcomes that might be of interest?
Research Question

Does training primary care physicians to identify and prescribe PrEP as part of routine preventive care lead to provider adoption and to reaching more eligible patients compared to referring them to specialty STI/HIV clinics?

Comparison-based trial design
Specific Aims

1. Train primary care physicians to identify and prescribe PrEP as part of routine preventive care.
2. Increase primary care provider adoption of PrEP screening and prescribing.
3. Identify the most effective practice for reaching PrEP eligible patients (i.e., integrated within routine care or referral to specialty STI/HIV clinics).
Designs for Implementation Research

Within-site, between-site, within- and between-site designs
Experimental/non/quasi, randomized/non-randomized
Design Terminology

• As used here, **design** refers to the planned set of procedures to
  o select subjects or larger units for study
  o assign these to or measure their naturally chosen conditions
  o assess measures before, during, and after assignment in the conduct of a study.

Hwang, Birken, Melvin, Rohweder, & Smith, 2020, *JCTS*
Community and Organizations Need to be Involved in Design Decisions and their Ownership

• Legal responsibility
• Moral responsibility
• Ethical responsibility

Key Areas

- developing and maintaining partnerships with diverse stakeholders
- recognizing under-resourced communities or other vulnerable populations have substantial historical trust concerns
- leadership is within a partnered participatory research framework
- methodological and design strategies that may apply when D&I research is conducted from a participatory, stakeholder perspective

Mensah, Cooper, Siega-Riz, Cooper, Smith, Brown et al. 2018, Circulation Research
Implementation Preparation

Implementation preparation: research in preparation for a formal evaluation or test

1) understand implementation processes and barriers/facilitators
2) explore the feasibility/acceptability of novel strategies
3) develop or tailor novel strategies
4) adapting an EBI
5) modeling that has potential to inform IR

Common Methods: field study, observational, CBPR, dynamic systems modeling, surveys, key stakeholder interviews/focus groups

Smith et al. 2019, AIDS and Behavior
Characteristics and Challenges of Implementation Research Trials

- External validity > internal validity
- Minimize disruptions to and burden on the systems
- Randomization occurs at “higher levels” of the service system (e.g., provider, clinic, county, etc.)
  - Often have a small number of “units”
  - Nesting within multiple levels of the system(s)
  - Interactions between levels
- Experimental Designs: The implementation strategy/strategies are manipulated (serve as the independent variable)

Hwang, Birken, Melvin, Rohweder, & Smith, 2020, JCTS
• Within-Site Designs
  • Evaluating change within a single site

• Between-Site Designs
  • Compares outcomes between 2 or more sites

• Within- and Between-Site Designs
  • Sites Begin as One Implementation Condition and Move to Another
Within-Site Design Types and Definitions

• Post Design
  o Only measure implementation outputs after a new EBP is adopted
  o Common in quality improvement

• Pre-Post Design
  o Compare implementation outputs before and after a new strategy is used to deliver an EBP

• Interrupted Time-Series
  o Single unit experiments with multiple baselines
  o Single site can demonstrate feasibility and initial impact
  o Multiple sites for full evaluation

• Rarely randomized (but possible when multiple units/people)

• Simple and useful

• Best for local knowledge/QI-type questions
Between-Site Design Types and Definitions

• Novel implementation strategy vs routine practice
  o Non-Randomized or Randomized

• Head-to-Head Implementation Trial
  o Two novel implementation strategies for the same clinical/preventive intervention (7 Ps)
  o Equipoise
  o Randomization increases internal validity
Novel Implementation Strategy vs Routine Practice using a Non-Randomized Implementation Design

Group A

Implementation Strategy: External Partnership with PrEP Provider

P: Referral for PrEP

Group B

No Partnership with PrEP Provider

P: Referral for PrEP

Group A determined through self-selection/readiness, selective invitation, RFA
- High potential for introduction bias due to capacity/readiness
Design for a Clinic-Level Randomized Comparative Implementation Trial

- Eligible and Willing STD Clinics Randomized
- Integrating a PrEP Provider in the STD Clinic
  - PrEP Delivery System
  - PrEP Uptake & Adherence
- Referral: Partnership with External PrEP Provider
  - PrEP Delivery System
  - PrEP Uptake & Adherence

Implementation Strategy
Design for a Comparative Implementation Trial Involving Within-Arm Patient-Level Randomization

Smith et al 2018, Implementation Science
Testing and Optimizing Implementation Strategies: SMART Designs

• Sequential, multiple assignment, randomized trial (SMART)
• Optimization of dynamic and adaptive multicomponent implementation strategies

• SMART designs allow implementation strategies to be evaluated while responding to clinic's failure to achieve impact
  o Adapt to address differential response to implementation strategies
  o Randomization required (twice!)

SMART Design for PrEP Implementation in STD Clinics

Willing and Ready STD Clinics

In-House PrEP

Referral to PrEP

Low Uptake

High Uptake

Continue

Randomize

Referral to PrEP

Provider Training

Provider Training

In House PrEP

Low Uptake

High Uptake

Continue

Randomize

Randomize
Within- and Between-Site Designs
Roll-Out Designs for Implementation Research

• Stepped Wedge, Dynamic Wait-List Design
• All assign units randomly to when and what implementation strategy is used
• Benefits of roll-out designs
  o Reduce the logistic demands in delivering new implementation strategies across multiple units
  o Equity (benefits for earlier and later start)
  o Beneficial to statistical power by using within and between comparisons of impacts
Randomized **Stepped Wedge** Implementation Trial Comparing Two Strategies (n=20 STD clinics)

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- Cohorts of 4 STD Clinics each (2 Refer to PrEP Provider, 2 provide in-house PrEP)
- Implementation staggered by 6 months for successive cohorts
Randomized Roll Out Implementation Trial Design (modified stepped wedge)
7 clinical oncology units in a single health system

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Smith et al. 2020, *American Society for Clinical Oncology*
Choosing a Design

• What design type is required to answer your implementation research question(s)?
  o Consider at what level in the system the primary outcome is measured (aligned with the level the strategy is targeting)

• Do you have sufficient units to answer your implementation research question(s)?

• Can you randomize the units?

• Is “implementation as usual” acceptable to your community/clinical partners?
Fundamental Challenges

• Developing a strong design that satisfies the needs and obligations of key stakeholders
  o Building and maintaining partnerships

• Sufficient statistical power
  o Smarter ways to:
    ▪ Balance
    ▪ Randomize
    ▪ Analyze

• How to conduct an implementation trial
Hybrid Effectiveness-Implementation Designs
Why Hybrid Designs?

• Don’t wait for “perfect” effectiveness data before moving to implementation research

• We can “backfill” effectiveness data while we test implementation strategies

• How do clinical outcomes relate to levels of adoption and fidelity?
  – How will we know this without data from “both sides”?

Curran, Landes, & Smith, 2019, *AcademyHealth ARM*
Remember…

- All effectiveness trials use “implementation strategies” to support the delivery of the intervention; we just usually don’t call them that…
- The are normally resource-intensive
  - Paying clinics, paying interventionists, paying for care, frequent fidelity checks and intervening when it goes south…
- We “know” that some/many the strategies used in effectiveness trials are not feasible for supporting wide-spread adoption
- BUT, we can learn from the use of those strategies during the trial!
Application/Purpose of Each Type

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<tr>
<th>Type</th>
<th>Primary Aim:</th>
<th>Secondary Aim:</th>
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<tr>
<td>Type I</td>
<td>Determine effectiveness of an intervention</td>
<td>Better understand context for implementation</td>
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<tr>
<td>Type II</td>
<td>Determine effectiveness of an intervention</td>
<td>Determine feasibility and/or (potential) impact of an implementation strategy</td>
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<tr>
<td>Type III</td>
<td>Determine impact of an implementation strategy</td>
<td>Assess clinical outcomes associated with implementation</td>
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- Power and level of randomization are key considerations

What Hybrids are NOT

- Hybrids are **NOT** “the way” that the intervention/implementation will be tested/evaluated—only tells you what you will focus on (or the relative focus between the two) and extends to what is measured
- Always accompanied by a quasi/experimental/observational trial/study design (e.g., cluster RCT, SMART)
The Implementation Research Logic Model (IRLM)

A tool for increasing rigor and reproducibility of implementation research

Smith, Li, & Rafferty, 2020, *Implementation Science*
An IR specific logic model is needed

• Integrating the necessary conceptual elements of implementation research, which often involves multiple models, frameworks, and theories, is an ongoing challenge

• Transparency, Rigor, Openness, Specification, & Reproducibility
  • Rigor—the strict application of the scientific method to ensure robust and unbiased experimental design, methodology, analysis, interpretation and reporting of results
  • Improving the specification of phenomena in implementation research is necessary to inform our understanding of how implementation strategies work, for whom, under what determinant conditions, and on what implementation and clinical outcomes (Smith, Li, & Rafferty, 2020)
  • Testable way of explaining phenomena by specifying relations among variables, thus enabling prediction of outcomes (Glanz & Bishop, 2010)
Theory and Elements of the IRLM

• Generalized theory of the IRLM:
  • (1) implementation strategies selected for a given EBP are related to the implementation determinants (context-specific barriers and facilitators)
  • (2) strategies work through specific mechanisms of action to change the context or the behaviors of those within the context
  • (3) implementation outcomes are the proximal impacts of the strategy and its mechanisms, which then relate to the clinical outcomes of the EBP

• IRLM: Aid in the specification of the relationship between foundational elements of an IR study

  Determinant(s) → Implementation Strategy → Mechanism of Action → Outcomes
IRLM Formats
The Implementation Research Logic Model (IRLM)

Determinants

Implementation Strategies

Mechanisms

Outcomes

© Smith, J.D. 2019
IRLM for Comparative Implementation

Determinants

Implementation Strategies

Mechanisms

Outcomes

© Smith, J.D. 2019
IRLM for Multi-Context Implementation of Single Intervention

Determinants
- Context #1
- Context #2

Implementation Strategies
- Strategies for Context #1
- Strategies for Context #2

Mechanisms

Outcomes
- Implementation
- Service
- Clinical/Patient

© Smith, J.D. 2019
IRLM for Implementation Optimization Trial (4 clusters; 1 setting)

Determinants

Implementation Strategies

Mechanisms

Outcomes

Process

Characteristics of individuals

Inner Setting

Characteristic Intervention Characteristics

Outer Setting

Strategy Package #1

Strategy Package #2

Strategy Package #3

Strategy Package #4

Implementation Service

Clinical/Patient

© Smith, J.D. 2019
IRLM with Clinical Intervention

Determinants
- Inner Setting
- Characteristics of Individuals
- Process
- Intervention Characteristics

Implementation Strategies

Mechanisms

Outcomes
- Service
- Clinical/Patient
IRLM with Clinical Intervention and Intervention Mechanisms

Determinants
- Inner Setting
- Outer Setting
- Characteristics of Individuals
- Process

Implementation Strategies
- Clinical Intervention

Strategy Mechanisms
- Intervention Mechanisms

Outcomes
- Implementation
- Service
- Clinical/Patient
Using the IRLM

Guiding Principles
Principles-driven Approach to IRLM

• **Principle 1: Strive for Comprehensiveness**
  • All determinants, strategies, and outcomes

• **Principle 2: Indicate Key Conceptual Relationships**
  • Notations indicating relationships between elements in alignment with the specific theory of change

• **Principle 3: Specify Critical Study Design Elements**
  • Primary outcome(s), strategies in experimental condition(s), use the design-specific IRLM format
# Completed Hypothetical IRLM

## Obesity Management Intervention implemented in Community Health Centers (CHCs)

### Determinants

- **Intervention Source** +2
  - Care +2
- **Relative Advantage** +2
  - Adoption (-1) B, C
- **Evidence Strength & quality** +2
  - Design quality & packaging
  - Evidence Based +1
  - Appropriately in primary

### Implementation Strategies

1. **Training**
   - a. Training modules +2
   - b. Learning collaborative +1

2. **Community Resources Engagement** – capturing local knowledge + C

3. **Engaging CHC Leadership** D

4. **Engaging External, state-level organizations, national organizations** +2

5. **Ongoing meetings** +2
   - a. Technical Assistance
   - b. Local CHC Champions

6. **Fidelity monitoring – quarterly checklist** 6

7. **Data monitoring and feedback** 11

8. **Utilize financial strategies** +1
   - a. Making billing easier
   - b. Accessing funding?

9. **Quality Improvement** +2

10. **Identify and form new clinical teams** +2

11. **Clinician reminders (BMI alerts, labs, counseling, referrals)** +2

### Mechanisms

1. **Knowledge and skill set improved for clinic staff (complexity)** + B, D, J, K, F, L
2. **Self-efficacy improved of clinic staff** + B, D, J, K, F, L

3. **Flexibility of the package is continually adapted (adaptability, complexity)** + D, J

4. **Internal structural barriers are reduced (competing demands)** + D, J

5. **External support for patient needs are identified, leveraged, and made available (external policy and incentives)**

6. **External policies and incentives for reimbursement are accessed** + E, I

### Outcomes

- **Reach** + B, D, J, I
  - + A
  - + C
  - + D
  - + E
  - + F
  - + G
  - + H
  - + I
  - + J
  - + K
  - + L

- **Adoption** + A
  - + B
  - + C
  - + D
  - + E
  - + F
  - + G
  - + H
  - + I
  - + J
  - + K
  - + L

- **Acceptability (program, strategies)** + A, B, C, D, E, F, G, H, I, J

- **Feasibility (program, strategies)** + A, B, C, D, E, F, G, H, I, J

- **Fidelity (program, strategies)** + A, B, C, D, E, F, G, H, I, J

- **Maintenance/Sustainability** + A, B, C, D, E, F, G, H, I, J

- **Retention Rate (program)** + A, B, C, D, E, F, G, H, I, J

- **Budget Impact Analysis** + A, B, C, D, E, F, G, H, I, J

### Behavioral Obesity Management Program

1. **Individual/group visits**
2. **Multidisciplinary team**
   - a. Centralized case management
   - b. Clinician champion
3. **Bluetooth-enabled home scales**
4. **2-way Automated Text Messaging**
5. **On-site recruitment/enrollment**
6. **Online Community Resources Guide**
7. **Online Self-Guided Nutrition Resources**
8. **EHR support tool build**
   - a. BMI alert
   - b. BMI longitudinal tracking
   - c. Alerts for labs
   - d. Physical Activity/Nutrition Counseling

### Implementation

#### Service

- **Clinical/Provider
  - A, B, C, D, E, F, G, H, I, J

#### Clinical/Patient

- **BMI
  - A, B, C, D, E, F, G, H, I, J

- **BMI**
  - A, B, C, D, E, F, G, H, I, J

- **Quality of Life**
  - A, B, C, D, E, F, G, H, I, J

- **Home health routines**
  - A, B, C, D, E, F, G, H, I, J

- **Binge Eating**
  - A, B, C, D, E, F, G, H, I, J

- **Stress**
  - A, B, C, D, E, F, G, H, I, J

- **Acceptability (program, strategies)**
  - A, B, C, D, E, F, G, H, I, J

- **Feasibility (program, strategies)**
  - A, B, C, D, E, F, G, H, I, J

- **Satisfaction (program)**
  - A, B, C, D, E, F, G, H, I, J

- **Retention/Completion**
  - A, B, C, D, E, F, G, H, I, J

- **Cost Effectiveness**
  - A, B, C, D, E, F, G, H, I, J
Supporting Text and Resources

- Data re: determinants
  - Measures
  - Strategy specification (Proctor, Powell, & McMillen, 2013)
  - “Paths” supported by theory (e.g., Lewis et al. 2018)
  - Trial design description and methods
  - Implementation plan/process model (e.g., EPIS)

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By utilizing superscripts, subscripts, color, and other notations within the IRLM, it is easy to refer to (a) hypothesized causal paths in theoretical overviews and analytic plan sections; (b) planned measures for determinants and outcomes; and (c) specific implementation strategies in text, tables, and figures.
Using the IRLM for Different Purposes and Stages of Research

Planning, Executing, Reporting, Synthesizing
• **Planning**
  - Often begins with the known parameter(s) of the study
    • Working from the two “bookends” of the IRLM (context and outcomes often known; strategies, mechanisms, and even the EBP often are not)
    • Work with community partners and/or organization stakeholders to fill in the implementation strategies

• **Executing**
  - Completed IRLM serves as ”protocol” and can form the basis for ongoing tracking of what occurs, what is altered, deviations, etc.

• **Reporting**
  - Show what happened during the study; reporting of the hypothesized relationships that were observed; facilitates communication of findings

• **Synthesizing**
  - draw conclusions for the implementation of an EBP/similar EBPs in a particular context (or across contexts) that are shared and generalizable to provide a guide for future research and implementation
Acceptability and Usability of the IRLM

Results of a Post-Training Survey of EHE Planning Project Grantees
ISC$^3$I’s *Ending the HIV Epidemic* Summit

- Coordinating and technical assistance center for grantees funded under the national *EHE* plan
- 2-day in-person training in Chicago, IL, in October 2019
- $N=132$ participants from 63 projects
  - $n=129$ pre-training survey
  - $n=66$ post-training survey 6 weeks after
    - 42 investigators, 24 implementation partners; 68.2% women
    - 44.6% indicated having completed a full draft of the IRLM for their project
- 10 items related to the IRLM plus one about the general logic of implementation research
  - Rated on a 4-point scale from 1 (*not at all*) to 4 (*very much*)
IRLM was either “moderately” or “very” helpful in:

1) Improving the rigor and reproducibility 77.7%, $M=3.05$
2) Serving as a “roadmap” for the project 74.0%, $M=3.08$
3) Clearly reporting and specifying the project plan 67.8%, $M=2.94$
4) Understanding connections between determinants, strategies, mechanisms, and outcomes 66.3%, $M=2.92$
5) Identifying gaps in the IR logic of their project 64.2%, $M=2.86$
6) Deepening their knowledge of IR methods 62.9%, $M=2.83$
7) Planning the project 61.3%, $M=2.82$
8) Developing consensus and understanding of the project among diverse stakeholders involved 58.8%, $M=2.75$
9) Identifying gaps in research questions/analyses 51.3%, $M=2.54$

Note. All $SDs = 0.89–1.09$
Additional Results

• 74.1% (M=3.02, SD=.886) said the worksheets provided during the summit were “moderately” or “very” helpful in completing the IRLM

• 77.6% (M=3.18, SD=.827) said their knowledge on the logic of implementation research increased “moderately” or “very much” after the two-day training
Resources for Using the IRLM

Quick Reference Guide, Worksheets, Templates, Examples

IRLM Website
Quick Reference Guide

**Determinants**
- Factors that might prevent or enable improvements (barriers & facilitators). May act as moderators, effect modifiers, or mediators, indicating that they are links in a chain of causal mechanisms.

**Implementation Strategies**
- Interventions on the system to increase adoption of evidence-based innovations into usual care.
  - A theory- or logic-driven connection should link an implementation strategy to (a) the barriers it will attempt to overcome and/or (b) the facilitators it will attempt to leverage.

**Mechanisms**
- Processes or events through which an implementation strategy operates to affect desired implementation outcomes (Lewis et al. 2018)

**Outcomes**
- The effects of deliberate actions to implement an EBI.

**Types**
1. Reach; Adoption; Implementation; Maintenance (RE-AIM; Glasgow et al., 1999)
2. Acceptability; Adoption; Appropriateness; Cost; Feasibility; Penetration; Fidelity; Sustainability (Proctor et al., 2011)
3. Speed and Quantity (Chamberlain, Brown, & Saldana, 2011)

**Some potential mechanisms:**
1. Altering the status of a determinant.
2. Changing the behavior or attitude of an implementer (i.e., a proximal outcome that precedes an implementation outcome)

**Note.** Although mediation analysis can be informative, mediators identified statistically are not necessarily mechanistic.

**Characteristics of Individual**
- Knowledge/beliefs about intervention; Individual stage of change; Self-efficacy; Individual identification with the organization; Other attributes

**Process**
- Engaging; Planning; Executing; Reflecting and Evaluating

**Intervention Characteristics**
- Intervention source; Evidence strength and quality; Relative advantage; Adaptability; Trialability; Complexity; Design quality and packaging; Cost

**Inner Setting**
- Structural characteristics; Networks and communication; Culture; Implementation climate; Readiness for implementation

**Outer Setting**
- Patient needs and resources; Cosmopolitanism; Peer pressure; External policies and incentives

**Service**
- Efficiency; Safety; Equity; Effectiveness; Patient-centeredness; Timeliness (IOM Standards of Care, 2006)

**Clinical/Patient**
- Satisfaction
- Functioning
- Symptomatology
- *...many others*
<table>
<thead>
<tr>
<th>Process</th>
<th>Service outcomes</th>
<th>Expert Recommendations for Implementing Change (ERIC; Powell et al., 2016; Waltz et al., 2016)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. From the list of inner setting to your project.</td>
<td>- Assess for readiness and identify barriers and facilitators</td>
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<tr>
<td>2. Circle any determinants of implementation</td>
<td>- Audit and provide feedback</td>
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<tr>
<td>3. For each determinant go through the RE-AIM Framework</td>
<td>- Develop and implement tools for quality monitoring</td>
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</tr>
<tr>
<td>- Reach</td>
<td>- Conduct local need assessment</td>
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<tr>
<td>- (Effectiveness)</td>
<td>- Obtain and use patients/consumers and family feedback</td>
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<tr>
<td>- Adoption</td>
<td>- Adapt and tailor to context</td>
<td>- Tailor strategies</td>
</tr>
<tr>
<td>- Implementation</td>
<td>- Provide interactive assistance</td>
<td>- Promote adaptability</td>
</tr>
<tr>
<td>- Maintenance</td>
<td>- Provide local technical assistance</td>
<td>- Use data experts</td>
</tr>
<tr>
<td>- Strategy</td>
<td>- Provide clinical supervision</td>
<td>- Use data warehousing techniques</td>
</tr>
</tbody>
</table>

**Characteristics of In**

<table>
<thead>
<tr>
<th>Knowledge/beliefs &amp; intervention</th>
<th>Develop stakeholder interrelationships</th>
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</thead>
<tbody>
<tr>
<td>Relative advantage</td>
<td>- Identify and prepare champions</td>
</tr>
<tr>
<td>Adaptability</td>
<td>- Organize clinician implementation team meetings</td>
</tr>
<tr>
<td>Triability</td>
<td>- Recruit, designate, and train for leadership</td>
</tr>
<tr>
<td>Complexity</td>
<td>- Inform local opinion leaders</td>
</tr>
<tr>
<td>Design quality and packaging</td>
<td>- Build a coalition</td>
</tr>
<tr>
<td>Cost</td>
<td>- Obtain formal commitments</td>
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</tbody>
</table>

**Process**

<table>
<thead>
<tr>
<th>Engaging</th>
<th>Planning</th>
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<tr>
<td>- Opinion leaders</td>
<td>- P</td>
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</table>
IRLM Website

https://cepim.northwestern.edu/implementationresearchlogicmodel/
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References


