Finding what works: selecting the right implementation strategy for an intervention and its context

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Overview

• Definitions

• Categories of strategies

• Selecting and tailoring strategies

• Experience with setting, treatment and strategy
Definitions
Conceptual Model of IR

What?
- QI
- ESTs

How?
Implementation Strategies

Implementation Outcomes
- Acceptability
- Adoption
- Appropriateness
- Feasibility
- Fidelity
- Costs
- Penetration
- Sustainability

Service Outcomes*
- Efficiency
- Safety
- Effectiveness
- Equity
- Patient-centeredness
- Timeliness

Patient Outcomes
- Satisfaction
- Function
- Health status/symptoms

*IOM Standards of Care

Implementation Research Methods

Proctor et al., 2009
Range of Strategies
Sources

- Reviews & compilations
- Textbooks
- Literature reviews
- Treatment & strategy manuals
Examples of Existing Resources

**Cochrane Effective Practice and Organisation of Care Review Group**

**DATA COLLECTION CHECKLIST**

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**Refining a taxonomy for guideline implementation: results of an exercise in abstract classification**

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Mazza et al. Implementation Science 2013, 8:32
http://www.implementationscience.com/content/8/1/32
A Compilation of Strategies for Implementing Clinical Innovations in Health and Mental Health

Byron J. Powell¹, J. Curtis McMillen², Enola K. Proctor¹, Christopher R. Carpenter³, Richard T. Griffey³, Alicia C. Bunger⁴, Joseph E. Glass¹, and Jennifer L. York³

Abstract
Efforts to identify, develop, refine, and test strategies to disseminate and implement evidence-based treatments have been prioritized in order to improve the quality of health and mental health care delivery. However, this task is complicated by an implementation science literature characterized by inconsistent language use and inadequate descriptions of implementation strategies. This article brings more depth and clarity to implementation research and practice by presenting a consolidated compilation of discrete implementation strategies, based on a review of 205 sources published between 1995 and 2011. The resulting compilation includes 68 implementation strategies and definitions, which are grouped according to six key implementation processes: planning, educating, financing, restructuring, managing quality, and attending to the policy context. This consolidated compilation can serve as a reference to stakeholders who wish to implement clinical innovations in health and mental health care and can facilitate the development of multifaceted, multilevel implementation plans that are tailored to local contexts.
Implementation strategies should be...

- Multi-faceted and multi-level
- Robust or readily adaptable
- Feasible & acceptable
- Triable, observable
- Sustainable & cost effective
- Scalable

Mittman, 2010, 2012
Categories of Strategies

1. Plan
2. Educate
3. Financial
4. Restructure
5. Quality management
6. Policy
Plan Strategies

• Gather Information
• Build Buy-In
• Initiate Leadership
• Develop Relationships

Why are we doing this?
What problem are we solving?
Is this actually useful?
Are we adding value?
Will this change behavior?
Is there an easier way?
What’s the opportunity cost?
Is it really worth it?
Educate Strategies

- Develop materials
- Educate
- Educate through peers
- Inform and influence stakeholders
Finance Strategies

- Modify incentives for clinicians, consumers, reduce perverse incentives
- Facilitate financial support
Restructure Strategies

- Revise roles
- Create new teams
- Change service sites
- Change record systems
- Facilitate relay of clinical data to providers
Quality Management Strategies

- Develop systems
- Audit and provide feedback
- Remind clinicians
- Develop T.A. systems
- Use experts
- Conduct cyclical small tests of change
Attend to Policy Context Strategies

- Licensure, accreditation, certification, liability
Selecting & Tailoring Implementation Strategies
A Process Too Often Haphazard

ISLAGIATT principle

“It Seemed Like A Good Idea At The Time”
Tailoring Strategies to Implementation Barriers

**Step 1:** Assessing context to identify barriers and facilitators of program implementation

**Step 2:** Matching strategies to the barriers

**Step 3:** Implementing and evaluating the strategies

Wensing et al., 2011
Step 1: Assessing the Barriers

Methods
- Literature Search
- Informal Consultation
- Surveys
- Interviews, Focus Groups, Ethnographic Methods
- Mixed Methods Approaches

Helpful Resources
- CFIR (Damshroder et al., 2009)
- TDF (Michie et al., 2005, Cane et al., 2012)
- Flottorp et al. (2013)
Consolidated Framework for IR

1) Intervention Characteristics
2) Outer Setting
3) Inner Setting
4) Characteristics of Individuals
5) Process of Implementation

Barriers and facilitators could be assessed in each of these domains
## STEP 2: Matching Strategies to Barriers

<table>
<thead>
<tr>
<th>Identified Barriers:</th>
<th>Specific Strategies:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Provider lack of knowledge</td>
<td>Interactive education sessions</td>
</tr>
<tr>
<td>Perception/reality mismatch</td>
<td>Audit and feedback</td>
</tr>
<tr>
<td>Lack of motivation</td>
<td>Incentives/sanctions</td>
</tr>
<tr>
<td>Provider beliefs/attitudes</td>
<td>Peer influence/opinion leaders</td>
</tr>
<tr>
<td>Systems of care</td>
<td>Process redesign</td>
</tr>
</tbody>
</table>

Bhattacharyya, 2012; Palda, 2007
Abstract

Background: Identifying feasible and effective implementation strategies that are contextually appropriate is a challenge for researchers and implementers, exacerbated by the lack of conceptual clarity surrounding terms and definitions for implementation strategies, as well as a literature that provides imperfect guidance regarding how one might select strategies for a given healthcare quality improvement effort. In this study, we will engage an Expert Panel comprising implementation scientists and mental health clinical managers to: establish consensus on a common nomenclature for implementation strategy terms, definitions and categories; and develop recommendations to enhance the match between implementation strategies selected to facilitate the use of evidence-based programs and the context of certain service settings, in this case the U.S. Department of Veterans Affairs (VA) mental health services.

Methods/Design: This study will use purposive sampling to recruit an Expert Panel comprising implementation science experts and VA mental health clinical managers. A novel, four-stage sequential mixed methods design will be employed. During Stage 1, the Expert Panel will participate in a modified Delphi process in which a published taxonomy of implementation strategies will be used to establish consensus on terms and definitions for implementation strategies. In Stage 2, the panelists will complete a concept mapping task, which will yield conceptually distinct categories of implementation strategies as well as ratings of the feasibility and effectiveness of each strategy. Utilizing the common nomenclature developed in Stages 1 and 2, panelists will complete an innovative menu-based choice task in Stage 3 that involves matching implementation strategies to hypothetical implementation scenarios with varying contexts. This allows for quantitative characterizations of the relative necessity of each implementation strategy for a given scenario. In Stage 4, a live web-based facilitated expert recommendation process will be employed to establish expert recommendations about which implementations strategies are essential for each phase of implementation in each scenario.

Discussion: Using a novel method of selecting implementation strategies for use within specific contexts, this study contributes to our understanding of implementation science and practice by sharpening conceptual distinctions among a comprehensive collection of implementation strategies.

Keywords: Implementation research, Implementation strategies, Mixed methods, U.S. Department of Veterans Affairs
Adapting ERIC to Vietnam

Go et al. Implementation Science (2016) 11:54

Finding what works: identification of implementation strategies for the integration of methadone maintenance therapy and HIV services in Vietnam

Vivian F. Go¹*, Giuliana J. Morales¹, Nguyen Tuyet Mai¹, Ross C. Brownson²,³, Tran Viet Ha¹ and William C. Miller⁴,⁵,⁶
HIV in Vietnam

- 2014: 256,000 PLWH
- After 20 years: HIV in Vietnam is considered a “megaepidemic” among PWIDs
- 45% attributed to injecting drug use

Complex Socio-political Context of PWID in Vietnam

- Golden Triangle has fueled Asia’s drug epidemic
- Shift from smoking opium to injecting heroin
- *Doi Moi* has led to growth and development
- Drug users increased 70% between 2000-2004
- Drug use is labeled a “social evil”
- Historically, government has used crackdowns, mass arrests and forced detoxification to discourage drug use
Government “Social Evils” Campaign

Drugs Are Scourge

Drugs Kills Your Family
Socio-Political Environment Means PWID are Difficult to Reach

- 45% of prevalent HIV cases attributed to injecting drug use
- 6.3% of those receiving antiretroviral therapy (ART) are PWID
- 33% of PWID know their HIV status
- Among those who knew their status and were eligible (CD4<250), 27% were on ART
- High mortality rate in our cohort of PWID, 6.3%

Integration of substance use treatment and HIV services in Vietnam

Efficacy:

- Improves uptake of services by patients
- Reduces costs and improves efficiencies in care

• PWID hard to reach

• External funding stream drying up

• Pilot studies of integrated services completed
Step 1: Identify barriers and facilitators

A. Qualitative interviews with stakeholders to identify barriers
   - Central level stakeholders (n = 4)
   - Department of Health and Clinic Directors (n = 5)
   - Clinic staff (n = 7)

B. Matrix categories
   - Barriers required for scale-up
   - Barriers only modifiable by the government
   - Barriers modifiable by external intervention
     1. Technical assistance
     2. Staff accountability
     3. Local commitment
Step 2: Matrix of barriers & strategies


2. Identified strategies that aligned with 3 domains

3. Identified overlapping strategies and combined strategies

4. Develop matrix
<table>
<thead>
<tr>
<th>Level</th>
<th>Domain</th>
<th>Barriers</th>
<th>Facilitators</th>
<th>Implementation Strategies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Central</td>
<td>Technical Assistance</td>
<td>• None reported</td>
<td>• Human resource training and certification</td>
<td>• Conduct ongoing and dynamic training</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Technical assistance to facilitate process</td>
<td>• Centralize external technical assistance including ongoing consultation</td>
</tr>
<tr>
<td></td>
<td>Staff Accountability</td>
<td>• None reported</td>
<td>• Measures to monitor and evaluate performance within clinics</td>
<td>• Develop and implement tools for quality monitoring</td>
</tr>
<tr>
<td></td>
<td>Local Commitment</td>
<td>• None reported</td>
<td>• Local leadership buy-in informed by project evidence</td>
<td>• Identify and prepare champion or “spark plug” individual</td>
</tr>
<tr>
<td>DoH &amp; Clinic</td>
<td>Technical assistance</td>
<td>• Lack of human resource training</td>
<td>• Human resource training and certification</td>
<td>• Involve executive boards</td>
</tr>
<tr>
<td>Directors</td>
<td></td>
<td>• Lack of integration model description</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Patient discomfort sharing facilities with IDUs</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Staff Accountability</td>
<td>• Lack of monitoring and evaluation reporting criteria</td>
<td>• Support from medical director and other medical departments</td>
<td>• Develop and implement tools for quality monitoring</td>
</tr>
<tr>
<td></td>
<td>Local Commitment</td>
<td>• Lack of province-to-province learning</td>
<td>• Social support network for clinic staff</td>
<td>• Provide clinical supervision</td>
</tr>
<tr>
<td></td>
<td></td>
<td>opportunities</td>
<td></td>
<td>• Organize clinical implementation team meetings</td>
</tr>
<tr>
<td>Clinic</td>
<td>Technical Assistance</td>
<td>• Limited knowledge of integrated services</td>
<td>• Human resource training and practice</td>
<td>• Conduct ongoing and dynamic training</td>
</tr>
<tr>
<td>Providers</td>
<td></td>
<td>• Lengthy time lapse between training and clinic start-up</td>
<td>• Educational materials</td>
<td>• Develop educational materials</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Disruptive IDU patient or drug seller behavior</td>
<td>• Coaching support</td>
<td>• Centralize external technical assistance including ongoing consultation</td>
</tr>
<tr>
<td></td>
<td>Staff Accountability</td>
<td>• None reported</td>
<td>• Proactive information sharing between departments</td>
<td>• Technical assistance provided within the clinic</td>
</tr>
<tr>
<td></td>
<td>Local Commitment</td>
<td>• Lack of clinic staff buy-in</td>
<td>• Clinic engagement with community</td>
<td>• Provide reminders to clinicians</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• Organize clinical implementation team meetings</td>
</tr>
</tbody>
</table>

*CONSORTIUM FOR IMPLEMENTATION SCIENCE*
Step 3: Vote and consensus building

- Panel of experts (n=9)
  - Vietnamese stakeholders
  - Implementation science experts

- Scored each strategy (1-10) in terms of feasibility and importance

- Discussed results with panel-1-2 strategies per domain
<table>
<thead>
<tr>
<th>Domain</th>
<th>Strategy</th>
<th>Median</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>External technical assistance and ongoing consultation</td>
<td>9</td>
<td>7 - 10</td>
</tr>
<tr>
<td>Technical assistance</td>
<td>Technical assistance within the clinic</td>
<td>8</td>
<td>7 - 10</td>
</tr>
<tr>
<td></td>
<td>Educational outreach visit</td>
<td>7</td>
<td>5 - 9</td>
</tr>
<tr>
<td></td>
<td>Ongoing and dynamic training</td>
<td>7.5</td>
<td>4 - 10</td>
</tr>
<tr>
<td></td>
<td>Educational materials</td>
<td>6.5</td>
<td>4 - 10</td>
</tr>
<tr>
<td>Accountability</td>
<td>Audit and provide feedback</td>
<td>8</td>
<td>7 - 10</td>
</tr>
<tr>
<td></td>
<td>Real time relay of clinical data</td>
<td>8</td>
<td>7 - 10</td>
</tr>
<tr>
<td></td>
<td>Quality monitoring tools</td>
<td>7.5</td>
<td>5 - 9</td>
</tr>
<tr>
<td></td>
<td>Clinical implementation team meetings</td>
<td>7.5</td>
<td>5 - 9</td>
</tr>
<tr>
<td></td>
<td>Clinical supervision</td>
<td>6.5</td>
<td>4 - 10</td>
</tr>
<tr>
<td></td>
<td>Reminders to clinicians</td>
<td>6</td>
<td>5 - 10</td>
</tr>
<tr>
<td>Local commitment</td>
<td>Identify champions</td>
<td>9</td>
<td>5 - 9</td>
</tr>
<tr>
<td></td>
<td>Capture local knowledge</td>
<td>8.5</td>
<td>7 - 10</td>
</tr>
<tr>
<td></td>
<td>Build coalition</td>
<td>7.5</td>
<td>7 - 10</td>
</tr>
<tr>
<td></td>
<td>Advisory boards/workgroups</td>
<td>6</td>
<td>4 - 10</td>
</tr>
<tr>
<td></td>
<td>Executive boards</td>
<td>6</td>
<td>4 - 10</td>
</tr>
</tbody>
</table>
Summary

- Implementation strategies are the “how” of implementation
- Wide range of strategies
- Identify & prioritize barriers
- Match strategies to barriers
- Ensure strategies have evidence base & are appropriate to context
- Implement & evaluate strategy
Thank you!

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