

Permission For Use

Please share the webinar recording and this pdf of the slides with colleagues and other implementation stakeholders

This webinar and the associated pdf slides may be copied in any form and used for non-commercial purposes provided that:

- The content is not altered
- It is clearly indicated that SISN is the originator of this material
- **Cite as:** Society of Implementation Science in Nutrition *Webinar: Understanding Program Adaptation*. Available from: www.implementnutrition.org/webinar_programadaptation.
- Please include the following statement when using one or more of the webinar slides in your own presentation: Slide courtesy of the Society for Implementation Science in Nutrition (www.implementnutrition.org)
- Please contact us at info@implementnutrition.org if you require this content in a different format.

WEBINAR: Understanding Program Adaptation

#SISNFramework
#InvestinIR

10th May 2018



THE SOCIETY
FOR IMPLEMENTATION
SCIENCE IN NUTRITION

Understanding Program Adaptation: A Scoping Study of Frameworks and Systematic Review of Adapted Evidence-based Interventions



ROLLINS
SCHOOL OF
PUBLIC
HEALTH

Cam Escoffery, PhD, MPH, CHES
Rollins School of Public Health,
Emory University

Presentation Agenda

- Definition and rationale for program adaptation
- Scoping study of adaptation frameworks
- Systematic review of evidence-based program adaptations globally
- Future research in advancing adaptation



Learning Objectives

By the end of this presentation, you will be able to:

- Define program adaptation
- Describe frameworks and common steps in adaptation
- Understand different types of adaptation

Figure 2. A Classification Scheme of Implementation Research

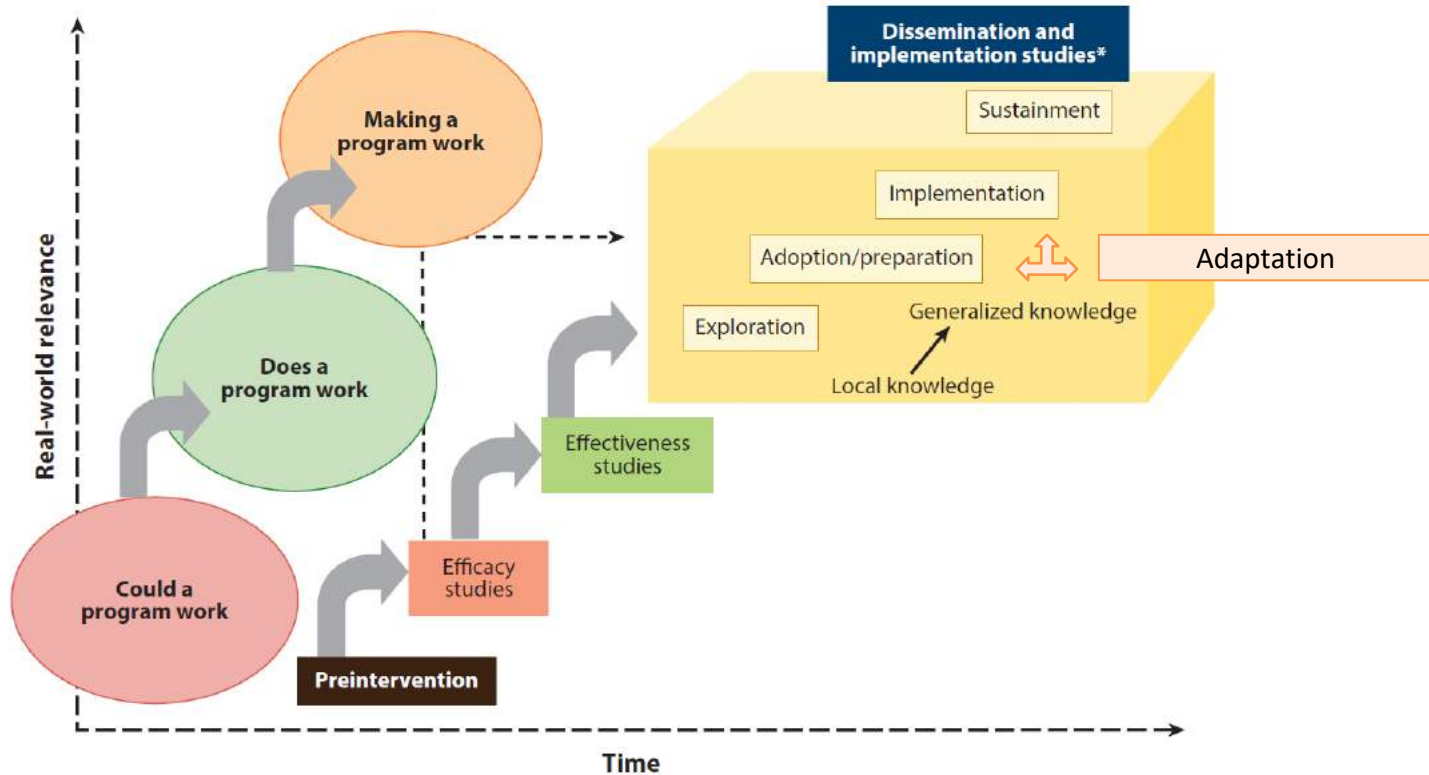


Commitment, Support, Financing and Sustainability

cross-cutting governance functions that require diverse methods for stakeholder analysis, assessment of advocacy needs and opportunities, costing, capacity assessments, coordination, etc.

Objects of Implementation	Initiation and Scoping	Planning & Design	Implementation, Iterative Improvement & Scaling Up
Nutrition-specific interventions	diverse forms of assessments, stakeholder analysis, opinion leader	diverse forms of formative research and consultations	diverse forms of operations research, special studies,
Nutrition-sensitive actions in various ministries / sectors	research and consultations to guide: agenda setting, identification of policy/	(at multiple scales/administrative levels) to guide the detailed design of policies/	process evaluation, quality improvement/quality assurance
A national multisectoral nutrition agenda	program/intervention options and their fit with	programs/interventions and development of detailed implementation	schemes and monitoring and evaluation systems.
NGO projects (typically sub-national)	a) the problem and b) delivery capacities, and c) available collaborations/	guidelines, guided by explicit PIPs or Theories of Change.	
Implementation innovations	partnerships.		

Stages of Implementation Science Research



Brown et al., An overview of research/evaluation designs for dissemination and implementation. *Annual Rev Pub Health*, 2017.

What is Program Adaptation?

The degree to which an innovation is changed or modified by a user in the process of its adoption and implementation (Rogers, 1995)

Changes to an efficacious program or its components to meet the needs of a new population and community while retaining fidelity to its core elements (Solomon, 2006)

Dimensions

Change

Fit

Fidelity

Planned

Why Study Adaptation?

- **Evidence-based public health translation of research to practice is essential to improving the public's health**
- **Adaptations occur in practice:**
 - Organizations sometimes make changes, or adaptations, to the original EBI to fit their needs (Durlak & Dupre, 2008; Stirman *et al.*, 2013; Moore *et al.*, 2013)
 - Levels of 60-80% compliance for implementation of intervention across hundreds of studies (Durlak & Dupre, 2008)
- **Professionals need skills in program adaptation (Escoffery *et al.*, 2012)**

Types of Adaptation

- Deletions or additions (enhancements) of program components;
- Changes in the manner or intensity of administration of program components called for in the program manual, curriculum, or core components analysis;
- Cultural and other modifications required by local circumstances.

(CSAP, 2002; McKleroy, 2006)



Taxonomy of Adaptations
(Stirman *et al.*, 2013)

Overview

- **Scoping Study of Adaptation Frameworks**
- **Systematic Review of Public Health Program Adaptations of Evidence-based Interventions (EBIs) Globally**

Scoping Study

Purpose: To inventory published guidance on the process of program adaptation

1

- What are the published studies and reports on program adaptation?

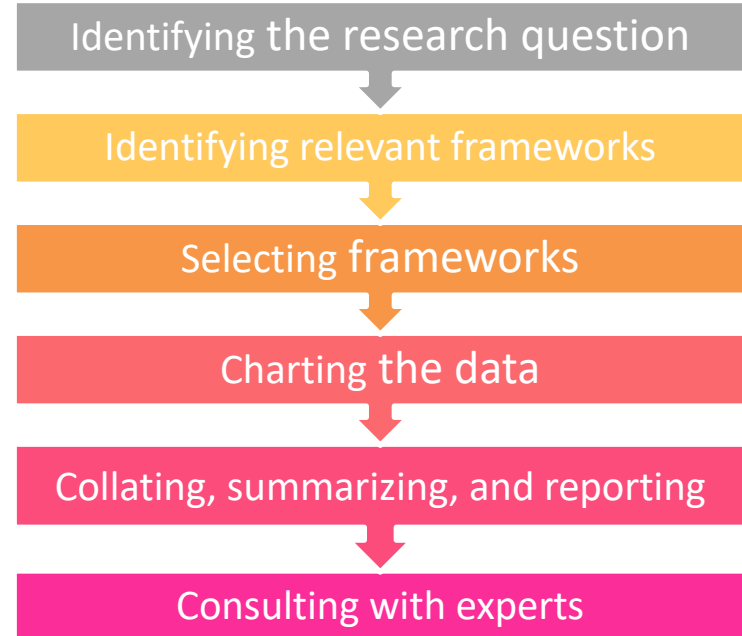
2

- What adaptation steps are common across these guidance documents?

Scoping Study

- **We identified frameworks by:**
 - 1) searching Google Scholar,
 - 2) searching PubMed, PsycINFO, PsycNET and CINAHL databases for an associated systematic review, and
 - 3) reviewing reference lists of framework articles.
- **Coded the frameworks and their steps into Excel and grouped common steps**
- **Compiled adaptation steps**

We followed the six recommended steps of a scoping study (Arksey & O'Malley, 2005):



13 Adaptation Frameworks

Grey Literature

- CSAP's Guidelines for Balancing Program Fidelity/ Adaptation
- Research Tested Intervention Programs (RTIPs) Adaptation Guidelines
- Intervention Mapping (IM) ADAPT

Published Literature

- Map of Adaptation Process (MAP)
- Research-based Program Adaptation
- Adapting Evidence-Based Programs to New Contexts
- ADAPT-ITT
- Cultural Adaptation
- Cultural Adaptation Process
- Planned Adaptation
- Step Framework
- Method for Program Adaptation through Community Engagement (M-PACE)
- General Adaptation Guidance: A Guide to Adapting Evidence-Based Sexual Health Curricula

11 Adaptation Steps

1. Assess community
2. Understand the intervention
3. Select intervention
4. Consult with experts
5. Consult with stakeholders
6. Decide what needs adaptation
7. Adapt the original program
8. Train staff
9. Test the adapted materials
10. Implement
11. Evaluate

- Eleven **program adaptation steps were identified and grouped into categories.**

11 Adaptation Steps

1. Assess community
2. Understand the intervention
3. Select intervention
4. Consult with experts
5. Consult with stakeholders
6. Decide what needs adaptation
7. Adapt the original program
8. Train staff
9. Test the adapted materials
10. Implement
11. Evaluate

- Eight of these steps were recommended by more than five frameworks: #1-3, #6-7, and #9-11

EVENTS

- NICHD funds the **Program Archive on Sexuality, Health and Adolescence**
- NIAID launches **adult HIV prevention project**

NIH Workshop:
"The Science of Replication"

Center for Substance Abuse Prev. (CSAP) Conference

NCI launches RTIPs Database

CDC's Division of Reproductive Health
Adaptation Guidance Project

Colors indicate topic of influence:

Red: HIV;

Yellow: Substance Abuse;

Blue: Intervention Mapping;

Light blue: Cancer;

Green: Reproductive Health;

Orange: Draws from HIV and substance abuse;

Grey: Unaffiliated

FRAMEWORKS

1990s

2001

2002

2003

2005

2006

2007

2008

2011

2013

2014

2016

Intervention Mapping Framework
(Bartholomew et al.)

CSAP's Guidelines for Balancing Program Fidelity/Adaptation

Research Tested Intervention Programs (RTIPs) Guidelines

Research-based Program Adaptation
(Solomon et al.)

Map of the Adaptation Process
(McKleroy et al.)

Adapting EB Programs to New Contexts
(Smith and Caldwell)

ADAPT-ITT
(Wingood and DiClemente)

Planned Adaptation
(Lee et al.)
Cultural Adaptation Process
(Kumpfer et al.)

Step Framework
(Card et al.)

M-PACE
(Chen et al.)
Cultural Adaption
(Williams et al.)

General Adaptation Guidance: A Guide to Adapting Evidence-Based Sexual Health Curricula
(Rolleri et al.)

IM Adapt
(Bartholomew et al.)

Systematic Review of Adapted EBIs

Purpose: To assess adaptations of evidence-based, public health interventions in the published literature

1

- What are the reasons for and common types of adaptations being made to EBIs as reported in the literature?

2

- What steps are reported for making adaptations to EBIs?

3

- What individual, intervention and organizational outcomes are assessed in evaluations of adapted EBIs?

Two Abstractors

1

- EBI characteristics
- Original/adapted EBI, disease/topic, location

2

- Reasons for adaptation

3

- Types of modifications
- Context, content modifications (Stirman *et al.*, 2013)

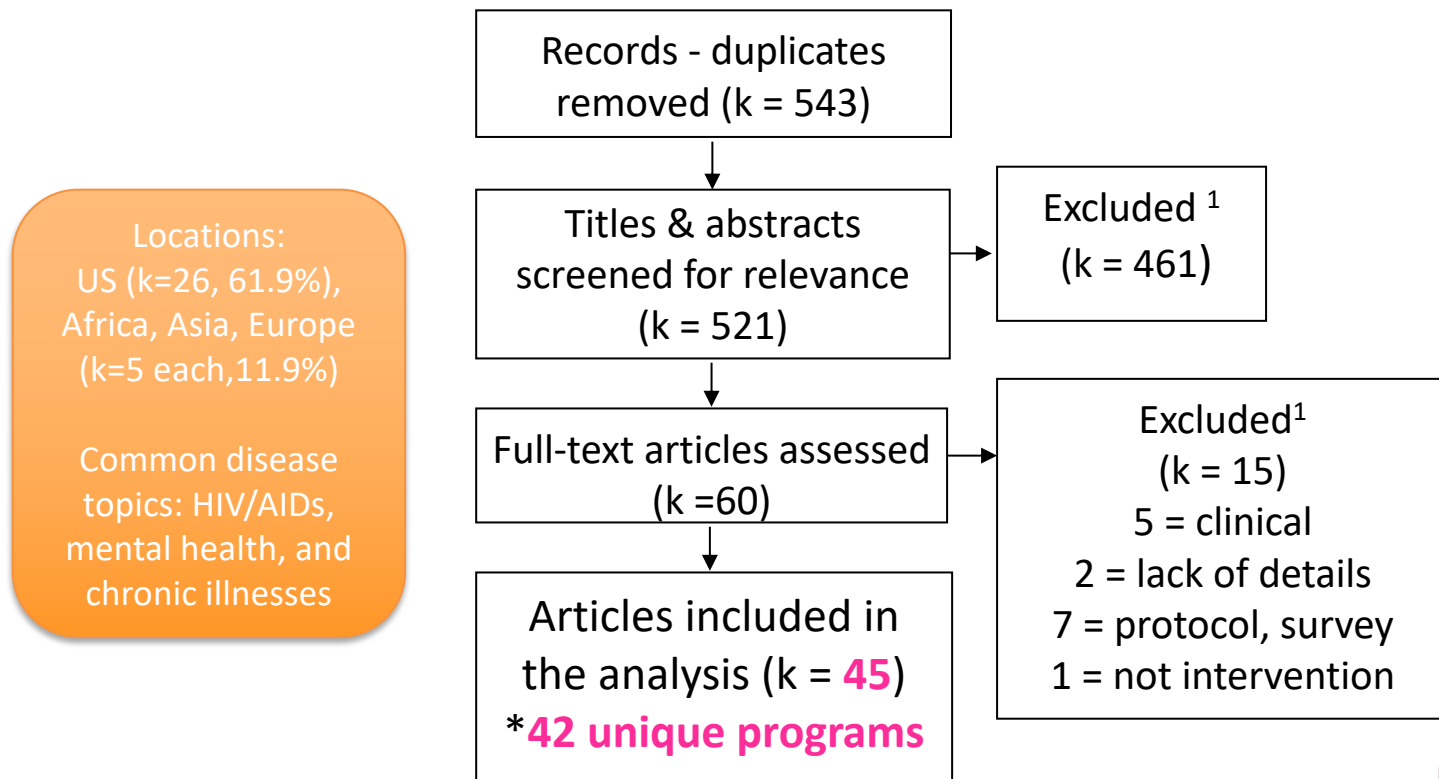
4

- Type of adaptation steps taken from common adaptation frameworks (Escoffery *et al.*, in press)

5

- Implementation outcomes (Proctor *et al.*, 2011)
- Intervention outcomes

Flow Diagram of Reviewed Articles



Reasons for Adaptation (n=42)

■ Common reasons:

- new culture (k=27; 64.3%)
- new target population (k=25; 59.5%)
- new community setting (k=24; 57.1%)

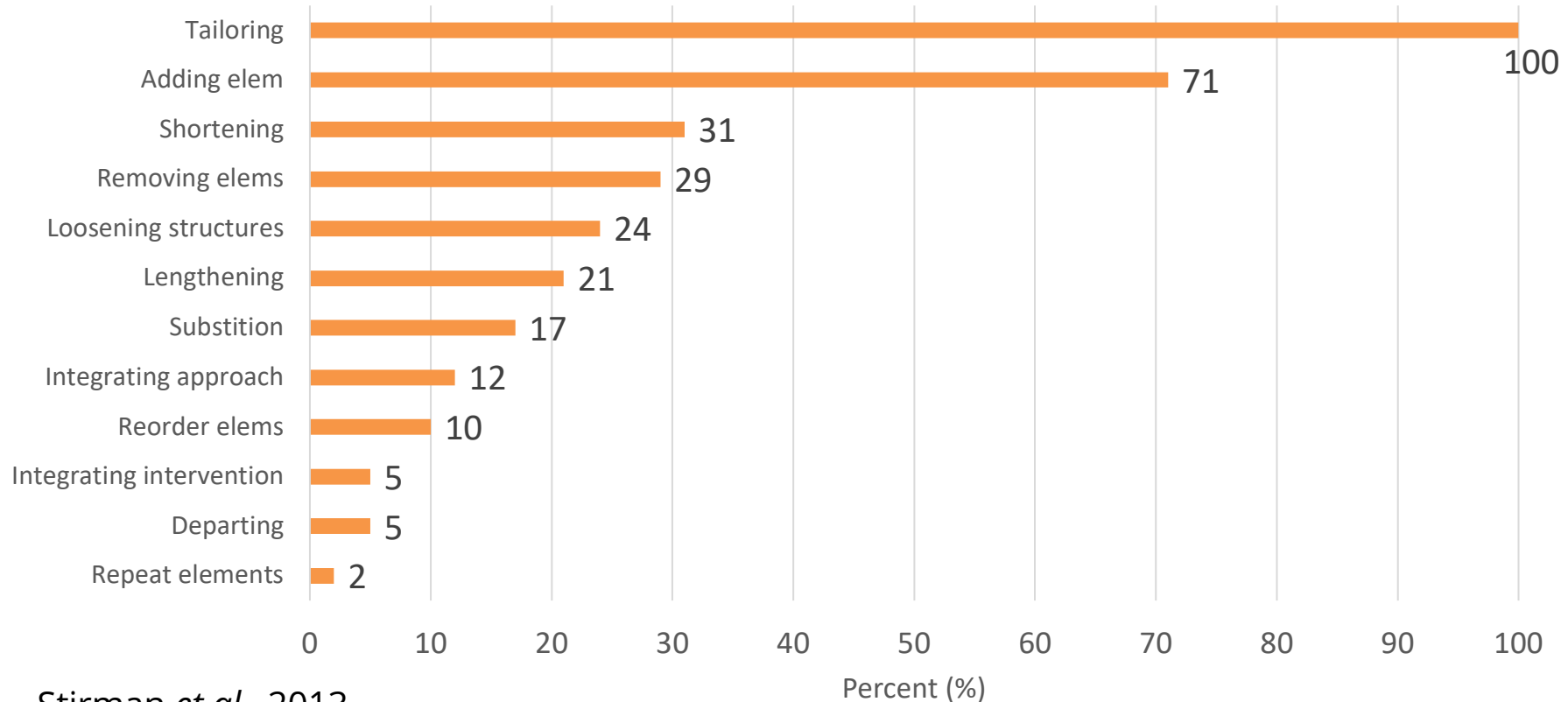
■ Less common reasons:

- improve ease of implementation
- improve accessibility
- condense the original intervention

Adaptation Frameworks

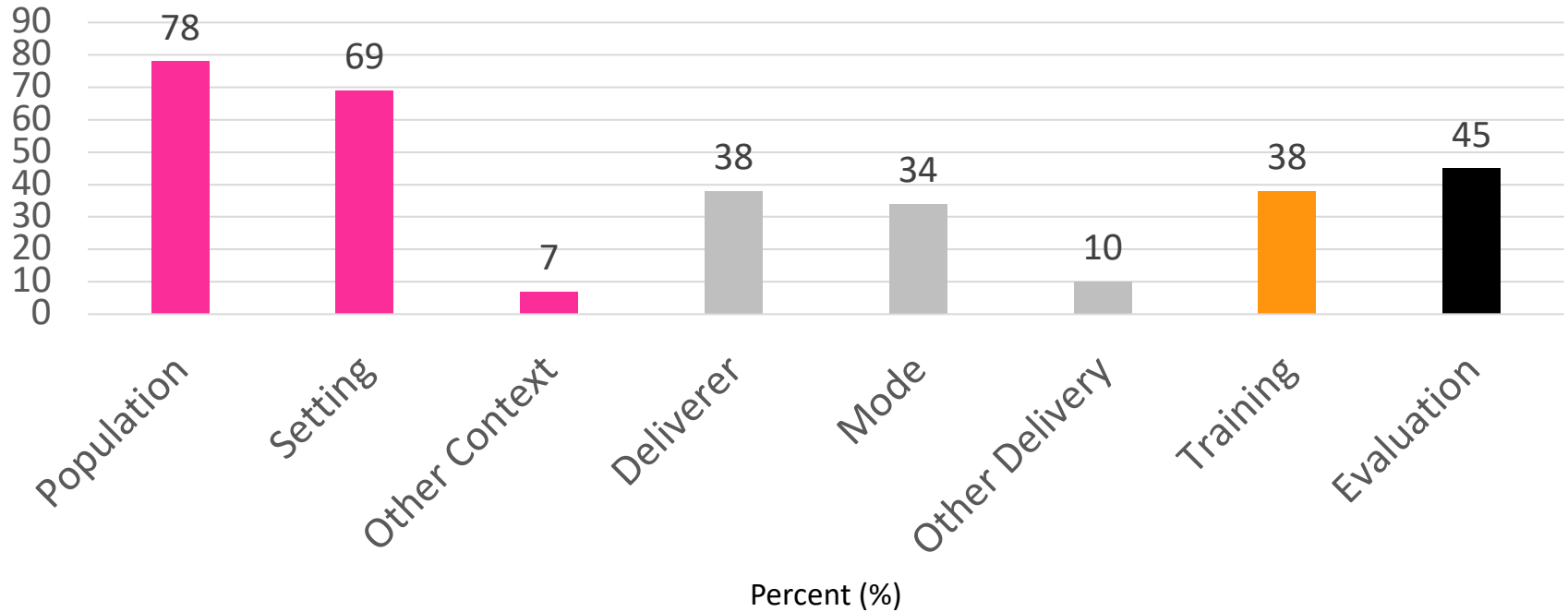
- 15 articles (36%) referenced a pre-existing framework
- Most commonly mentioned = Ecological Validity Model, Map of the Adaptation Process, and Cultural Adaptation Framework (2 studies each)
- Others mentioned at least once = Diffusion of Innovation, Replicating Effective Programs, CDC's Adaptation Traffic Light, ADAPT-ITT

Content Adaptations (n=42)



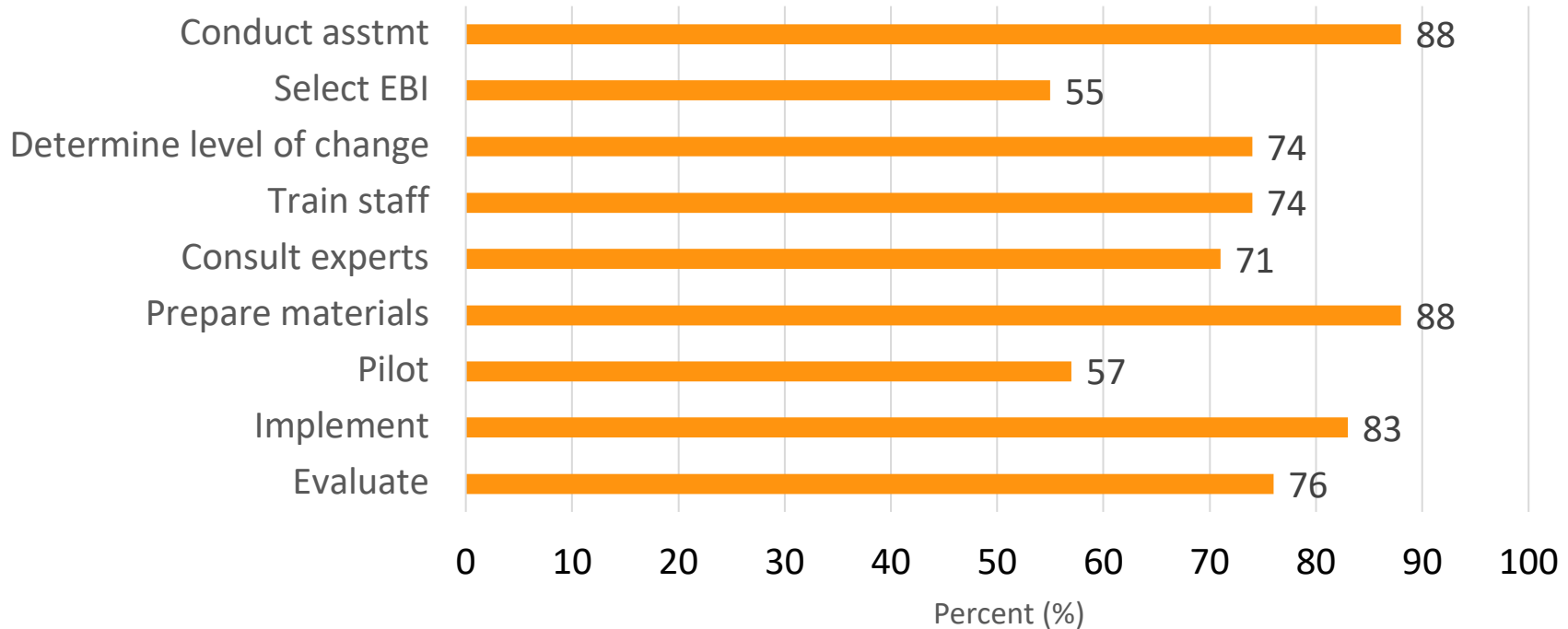
Stirman *et al.*, 2013.

Other Adaptations



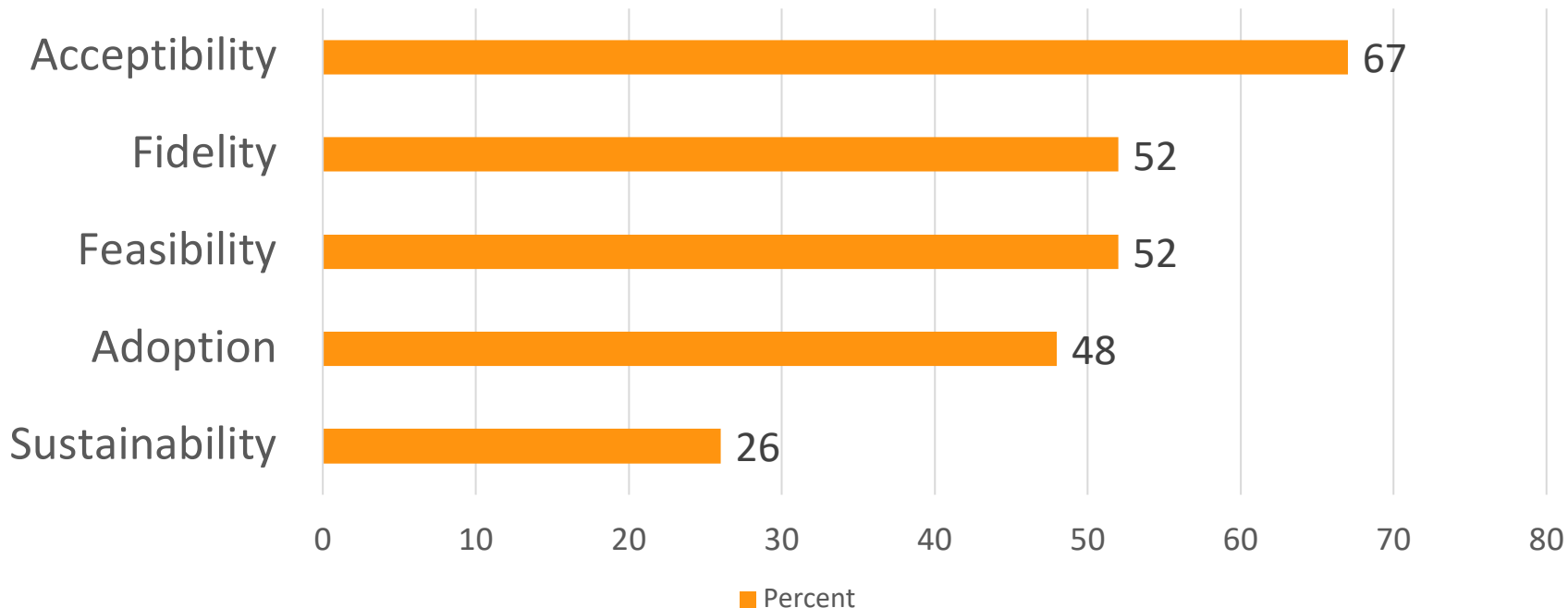
Stirman *et al.*, 2013.

Steps in Adaptation (n=42)



Escoffery *et al.* A scoping study of program adaptation frameworks for EBIs. *Trans Beh Med*, in press.

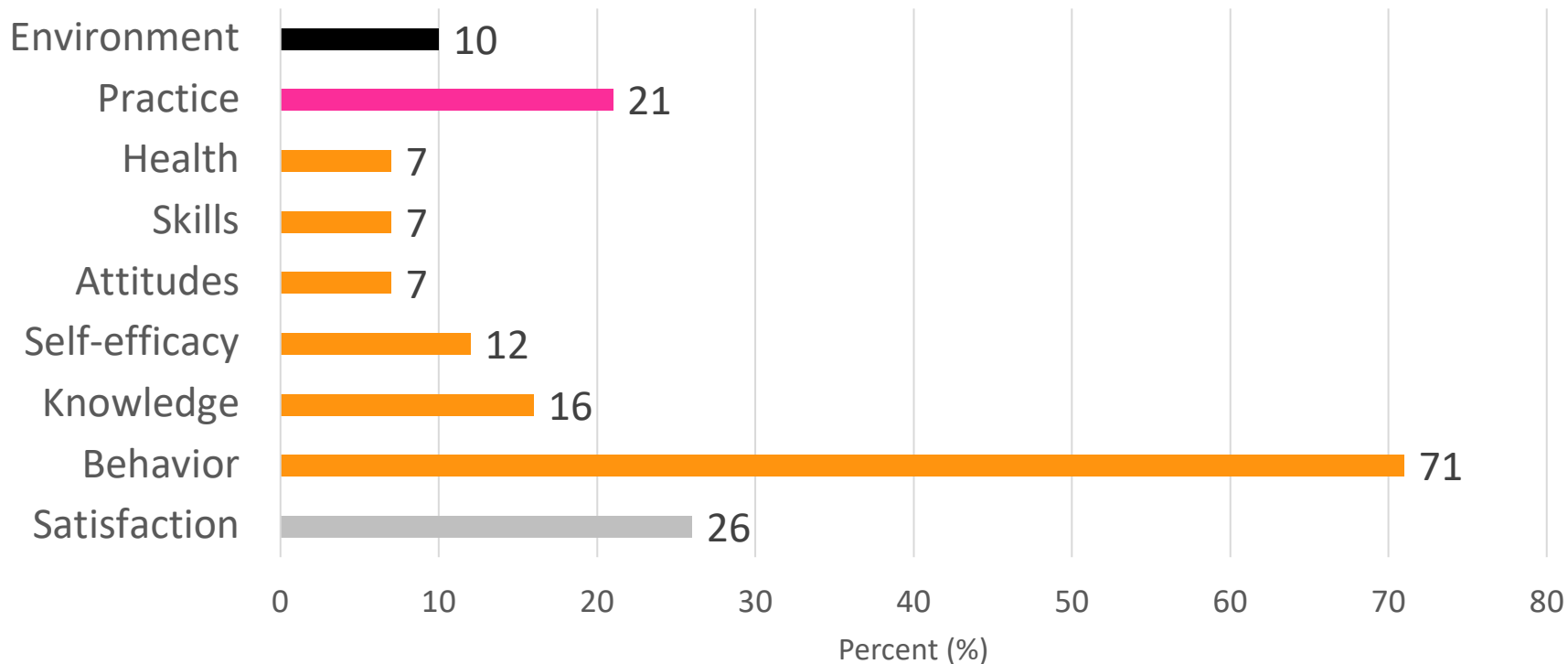
Implementation Outcomes (n=42)



Proctor *et al.* Outcomes for implementation research, 2011.

www.implementnutrition.org

Other Intervention Outcomes



Limitations

- Studies were limited by bibliographic databases searched and key words
- We also limited our searches to *public health interventions* or *community settings* and did not focus on clinical care or interventions from other disciplines

Future Research to Advance Adaptation

- Examine reasons and composites of program changes
- Evaluate adapted EBIs to determine whether these versions are as effective as the original or other adapted versions
- Determine key elements re: adaptation to record and standardize across studies
- Consider a clearinghouse for adapted programs to understand the issues of ecological validity (adaptome) (Chambers, 2016)

Contribution to IS

- **These studies advance our understanding of program adaptation:**
 - Identify common adaptation frameworks or models for implementing evidence-based interventions (EBIs)
 - Contribute to the literature by consolidating key steps in the approach to program adaptation of EBIs and describing the associated tasks in each step
 - Advance our understanding of common types of adaptation in practice

Conclusion

- **In the uptake of EBIs, program adaptations will occur**
- **Adaptations need to be systematically planned, implemented and reported**
 - Describe rationale for the adaptation, process (adaptation steps) and players
 - Plan for adaptation by using an adaptation framework
- **Need for creation of standardized reporting elements for describing EBI/program adaptation**

References

- Chambers DA, Norton WE. The adaptome: advancing the science of intervention adaptation. *Am J Prev Med* 2016;51(4):S124-31.
- Brown CH, Curran G, Palinkas LA, Aarons GA, Wells KB, Jones L, Collins LM, Duan N, Mittman BS, Wallace A, Tabak RG. An overview of research and evaluation designs for dissemination and implementation. *Annu Rev Public Health*. 2017;38:1-22.
- Durlack, J. A. & DuPre, E. P. Implementation matters: A review of research on the influence of implementation on program outcomes and the factors affecting implementation. *Am J Com Psych* 2008;41:327-350.
- Escoffery C, Lebow-S, Udelson H, Boing E, Fernandez M, Wood R, Mullen PD. A scoping study of program adaptation frameworks for evidence-based interventions. *Translational Behav Med*, in press.
- Escoffery, C., Carvalho, M., & Kegler, M.C. Evaluation of the *Prevention Programs that Work* curriculum to teach use of public health evidence to community practitioners. *Health Prom Pract* 2012;13(5):707-15.

References

- Moore JE et al. (2013). Examining adaptations of evidence-based programs in natural contexts. *J Prim Prev* 2013;34: 147–61.
- Stirman SW et al. Development of a framework and coding system for modifications and adaptations of evidence-based interventions. *Implement Sci* 2013;8(1):65.
- Solomon J, Card JJ, Malow RM. Adapting efficacious interventions: Advancing translational research in HIV prevention. *Eval Health Prof* 2006;29(2):162-94.
- Proctor E, *et al.* Outcomes for implementation research: conceptual distinctions, measurement challenges, and research agenda. *Adm Policy Ment Health* 2011;38(2):65-76.

Resources

- **Cancer Prevention and Control Research Network's Putting Public Health Evidence in Action Training Workshop**
<http://cpcrn.org/pub/evidence-in-action/>
- **General Adaptation Guidance: A Guide to Adapting Evidence-Based Sexual Health Curricula**
<http://recapp.etr.org/recapp/documents/programs/GeneralAdaptationGuidanceFINAL.pdf>
- **Developing Strategies for Child Maltreatment Prevention: A Guide for Adapting Evidence-Based Programs**
<https://txicfw.socialwork.utexas.edu/wp-content/uploads/2016/09/Guide-to-Adapting-an-Evidence-Based-Intervention.pdf>

Acknowledgements

- **Rollins School of Public Health:** Erin Lebow-Skelley, MPH; Hallie Udelson, MPH; Elaine Böing, MPH
- **University of Texas at Houston School of Public Health:** Maria Fernandez, PhD; Richard Wood, MHA; Patricia Dolan Mullen, DrPH
- **Funding:**
 - National Cancer Institute (NCI) R01CA163526, Increasing Reach and Implementation of Evidence Based Programs for Cancer Control (Mullen, Fernandez, Co-PIs)
 - NCI/CDC U48 DP005017-01S8 Cancer Prevention and Control Research Network (CPCRN), <http://cpcrn.org/>

IM ADAPT Trial



Contact Cam Escoffery at cescoff@emory.edu

www.implementnutrition.org

Eligibility:

- Be a public health professional, researcher, or student
- Have regular access to the internet
- Be willing to engage in a cancer prevention and control planning or adaptation process
- Be either:
 - ✓ in the process of adapting an evidence-based intervention (EBI).
 - ✓ have adapted an EBI
 - ✓ planning to adapt an EBI
 - ✓ participating in a public health degree program

Participation:

- ✓ Baseline and 2 months follow-up (\$50 each)
- ✓ 5 modules on IM ADAPT adaptation process

Summary of steps and definitions

Step name	Step description
1) Assess community	<ul style="list-style-type: none">• Identify behavioral determinants and risk behaviors of the new target population using focus groups, interviews, needs assessments, and logic models• Assess organizational capacity to implement the program
2) Understand the EBI(s)	<ul style="list-style-type: none">• Identify and review relevant EBIs and their program materials• Understand the theory behind the programs and their core elements
3) Select intervention	<ul style="list-style-type: none">• Select the program that best matches the new population and context
4) Consult with experts	<ul style="list-style-type: none">• Consult content experts, including original program developers, as needed• Incorporate expert advice into program

Step name	Step description
5) Consult with stakeholders	<ul style="list-style-type: none"> • Seek input from advisory boards and community planning groups where program implementation takes place • Identify stakeholder partners who can champion program adoption in new setting and ensure program fidelity
6) Decide on needed adaptations	<ul style="list-style-type: none"> • Decide whether to adapt or implement original program • Determine how original and new target population differ in terms of developmental processes and risk and protective factors • Identify areas where EBI needs to be adapted and include possible changes in program structure, content, provider, or delivery methods • Retain fidelity to core elements • Systematically reduce mismatches between the program and the new context
7) Adapt the original EBI	<ul style="list-style-type: none"> • Select and train staff to ensure quality implementation • Develop adaptation plan • Adapt the original program contents through collaborative efforts • Make cultural adaptations continuously through pilot testing • Core components responsible for change should not be modified

Step name	Step description
8) Train staff	<ul style="list-style-type: none"> • Select and train staff to ensure quality implementation
9) Test the adapted materials	<ul style="list-style-type: none"> • Pretest adapted materials with stakeholder groups • Conduct readability tests • Pilot test adapted EBI in new target population • Modify EBI further, if necessary
10) Implement the adapted EBI	<ul style="list-style-type: none"> • Develop implementation plan based on results generated in previous steps • Identify implementers, behaviors, and outcomes • Develop scope, sequence, and instructions • Execute adapted EBI
11) Evaluate	<ul style="list-style-type: none"> • Document the adaptation process and evaluate the process and outcomes of the adapted intervention as implemented • Write evaluation questions; choose indicators, measures, and the evaluation design; plan data collection, analysis, and reporting • Employ empowerment evaluation approach framework to improve program implementation

Q&A



THE SOCIETY
FOR IMPLEMENTATION
SCIENCE IN NUTRITION



#SISNFramework
#InvestinIR

Q&A

“Most adaptations are prompted by changes to the culture or characteristics of the target population. However, adaptations are also important to consider the different organizational capacity and characteristics of the implementing agency . What is your take on this? ”

– Wendy Gonzalez

Q&A

“Currently, there is a lot of talk on “adaptive programming” which should not only occur at planning/design phase but on “real time” through out the program cycle (implementation etc). One way of doing this is by using implementation experiences as evidence to inform adaptation. What is your perspective on this?” – Linner Cherotich

Q&A

“The challenge is that in most cases these experiences are not intentionally monitored ,documented and widely accepted as "sufficient evidence"”

– Linner Cherotich

Q&A

"Are there instances where no adaptation of EBI is required? "

– Hélène Delise

Q&A

“Many new nutrition intervention strategies are introduced as “pilot” programs presumably implemented at a reasonable scale, say district or province. What have insights from adaptation research taught us about critical components in taking pilot programs to national scale?”

– Rolf Klemm

Q&A

“In your work have you come across research where communities were engaged (as part of consulting stakeholders) to give their views regarding the intervention selected to be adapted?”

– Lemma Ferew

Q&A

“How do you cope with the usually pre-defined and largely donor imposed monitoring and evaluation systems if your adaptation changes activities mid implementation?”

– Anne-Marie Mayer

Q&A

"It seems a critical but difficult decision is in defining core vs non-core elements, especially with behavioral interventions. For instance, many aspects of the messages themselves, dose/frequency/timing, mode of delivery, deliverer (many aspects), setting of delivery, intensity of training, etc. How can these judgments about core vs non-core be made?"

– David Pelletier

Q&A

“It seems likely that the published descriptions of adaptations may represent some of the better practices... is there any research to-date to examine how well or how poorly it is done in more typical situations?”

– David Pelletier

Q&A

“During this research, were some of the barriers to adaptation explored? Or what barriers does Cam think are the most prevalent?”

– Leah Salm

Q&A

“I have a question around dissemination (perhaps a 12th step). In trying to identify implementation science literature it is rather scarce due potential in part to the reluctance to publish or share mistakes/challenges and what might not work well. Do you know of a repository of public health implementation science research?”

– Rose Wilder

Want to find out more about SISN and the benefits of membership?

- Check out our website: www.implementnutrition.org
- E-mail us at: implementnutrition@gmail.com
- Follow us:  [@implementnutri](https://twitter.com/implementnutri)



The Society for Implementation Science in Nutrition

Permission For Use

Please share the webinar recording and this pdf of the slides with colleagues and other implementation stakeholders

This webinar and the associated pdf slides may be copied in any form and used for non-commercial purposes provided that:

- The content is not altered
- It is clearly indicated that SISN is the originator of this material
- **Cite as:** Society of Implementation Science in Nutrition *Webinar: Understanding Program Adaptation*. Available from: www.implementnutrition.org/webinar_programadaptation.
- Please include the following statement when using one or more of the webinar slides in your own presentation: Slide courtesy of the Society for Implementation Science in Nutrition (www.implementnutrition.org)
- Please contact us at info@implementnutrition.org if you require this content in a different format.



THE SOCIETY
FOR IMPLEMENTATION
SCIENCE IN NUTRITION

