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Developing a Project-Specific Implementation Strategy Glossary

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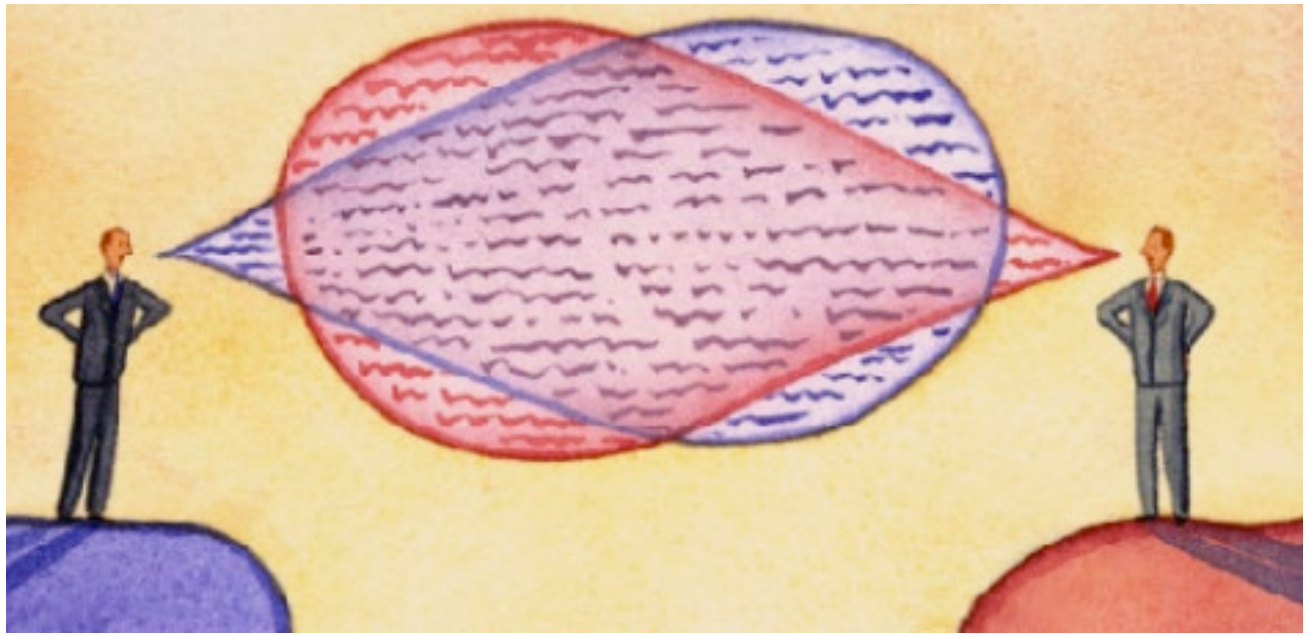
Agenda

- Why bother?
- Mapping your strategies to ERIC (Powell et al., 2015)
- Tailoring ERIC strategies to your project
- Examples
  - VA rollout of new Hepatitis C treatment (Rogal et al., 2017)
  - School-based mental health (Cook et al, 2019)
  - Behavioral health programs for churches (EPICC—in progress!)
- Discussion with a PI of a community-engaged research project
  - Utility & challenges of making a tailored glossary

Building collective knowledge on implementation strategies

How implementation strategies are operationalized is highly specific to individual projects.

Project-specific glossaries connect local adaptations to the broader implementation science literature.



Mapping your project's strategies to ERIC

Powell *et al. Implementation Science* (2015) 10:21
DOI 10.1186/s13012-015-0209-1

IMPLEMENTATION SCIENCE

RESEARCH Open Access

A refined compilation of implementation strategies: results from the Expert Recommendations for Implementing Change (ERIC) project

Byron J Powell[1*], Thomas J Waltz[2], Matthew J Chinman[3,4], Laura J Damschroder[5], Jeffrey L Smith[6], Monica M Matthieu[6,7], Enola K Proctor[8] and JoAnn E Kirchner[6,9]

- Reference Additional File 6
  - Strategy definitions
  - Ancillary materials

Waltz *et al. Implementation Science* (2015) 10:109
DOI 10.1186/s13012-015-0295-0

IMPLEMENTATION SCIENCE

SHORT REPORT Open Access

Use of concept mapping to characterize relationships among implementation strategies and assess their feasibility and importance: results from the Expert Recommendations for Implementing Change (ERIC) study

Thomas J. Waltz[1,2*], Byron J. Powell[3], Monica M. Matthieu[4,5,10], Laura J. Damschroder[2], Matthew J. Chinman[6,7], Jeffrey L. Smith[5,10], Enola K. Proctor[8] and JoAnn E. Kirchner[5,9,10]

- Reference Figure 1
- Additional File 1
  - Strategy clusters by conceptual themes

Powell et al. (2015): https://doi.org/10.1186/s13012-015-0209-1
Waltz et al. (2015): https://doi.org/10.1186/s13012-015-0295-0

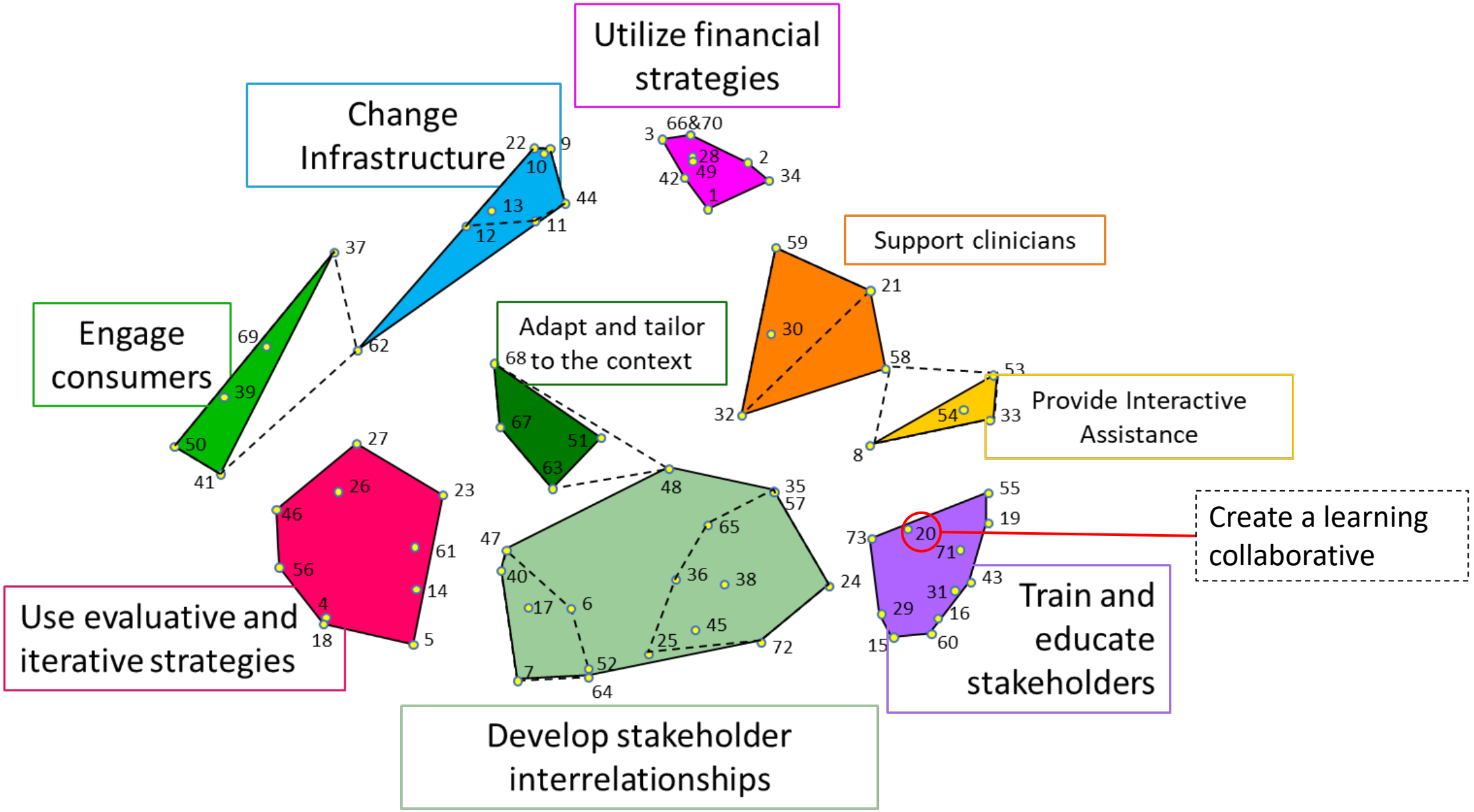
Strategies at three levels of abstraction

- Clusters: themes identified via hierarchical cluster analysis
  - Waltz et al. (2015)
- Discrete implementation strategies: conceptual definitions
  - Involve one action or process
  - Vary in their level of complexity
  - Vary in how they are operationalized in each project, and even may vary across locations within a project
- Subordinate-level strategies: narrow/particular exemplars of a basic strategy

Subordinate-level strategy example

Create a Learning Collaborative	Create Online Learning Communities
Facilitate the formation of groups of providers or provider organizations and foster a collaborative learning environment to improve implementation of the clinical innovation (Powell et al., 2015)	Create an online portal for clinical staff members to share and access resources, webinars, and FAQs related to the specific evidenced-based intervention, and provide interactive features to encourage learning across settings and teams, e.g., regular blogs, facilitated discussion boards, access to experts, and networking opportunities (Perry et al., 2019)

- ✓ Support learning within and between groups
- ✓ Focused on the intervention



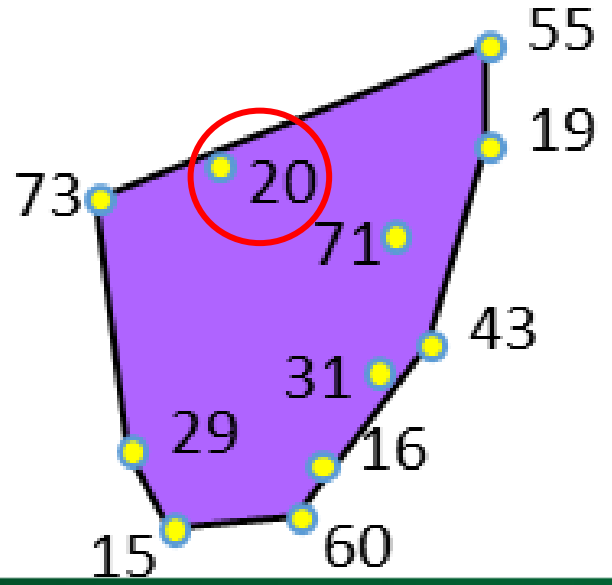
Waltz, T. J., Powell, B. J., Matthieu, M. M., Damschroder, L. J., Chinman, M. J., Smith, J. L., Proctor E. K., & Kirchner, J. E. (2015). Use of concept mapping to characterize relationships among implementation strategies and assess their feasibility and importance: Results from the Expert Recommendations for Implementing Change (ERIC) study. *Implementation Science, 10*, Article 109. https://doi.org/10.1186/s13012-015-0295-0

15	Conduct educational meetings
16	Conduct educational outreach visits
19	Conduct ongoing training
20	Create a learning collaborative collaborative learning environment to improve implementation of the clinical innovation
29	Develop educational materials
31	Distribute educational materials
43	Make training dynamic
55	Provide ongoing consultation
60	Shadow other experts
71	Use train-the-trainer strategies
73	Work with educational institutions

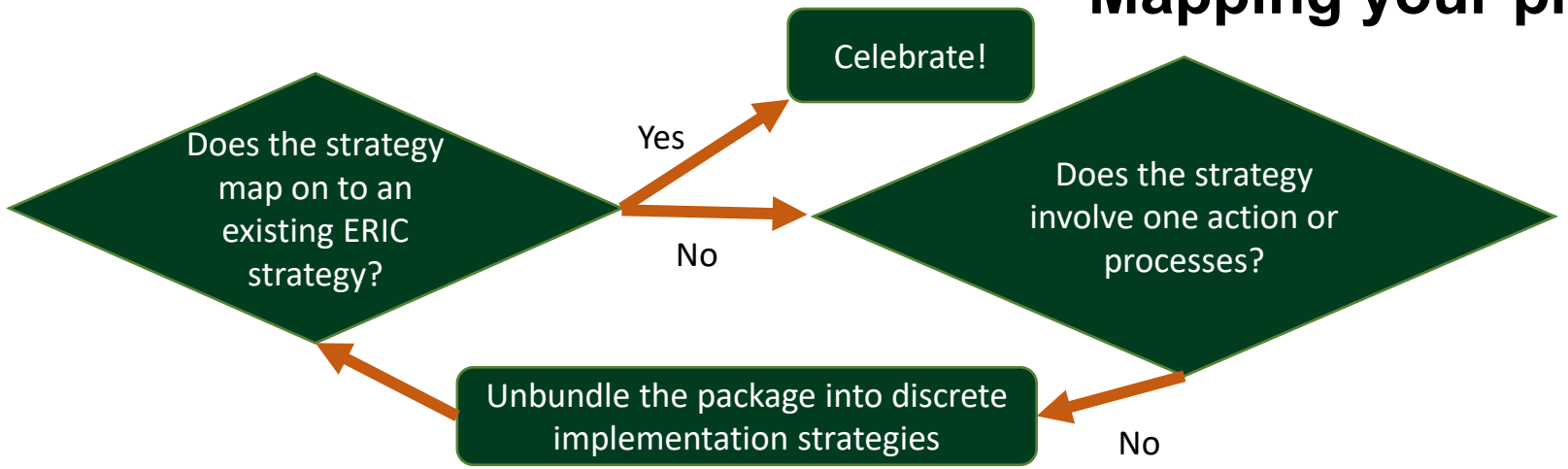
Create Online Learning Communities

- to encourage learning across settings and teams
- share and access resources, webinars, and FAQs
- provide interactive features
- e.g., regular blogs, facilitated discussion boards, access to experts, and networking opportunities

Train & educate stakeholders

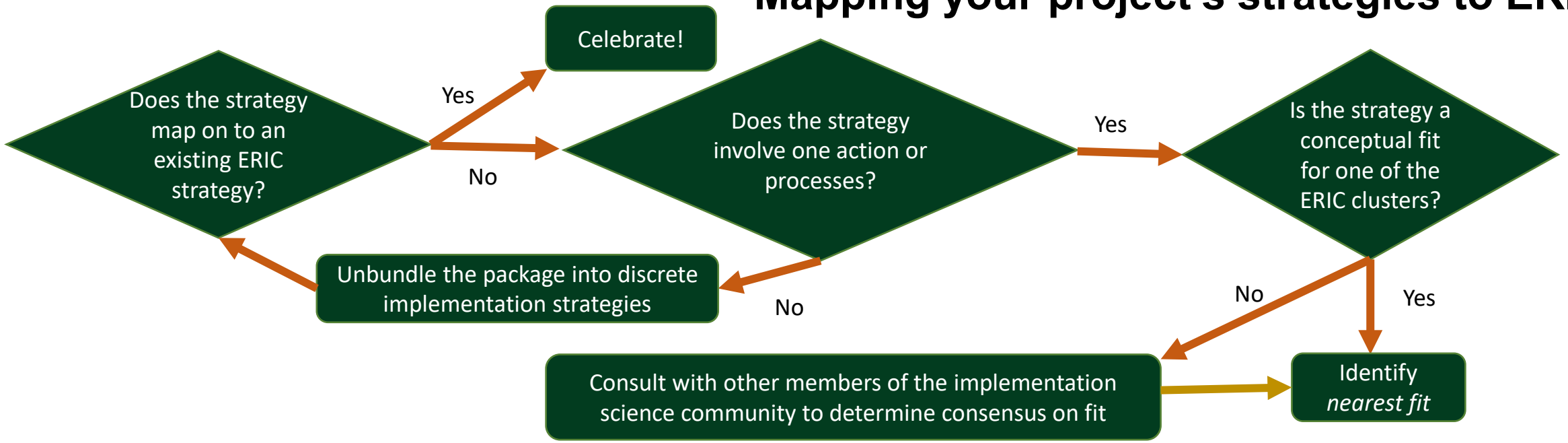


Mapping your project's strategies to ERIC



Kirchner, J.E., Waltz, T.J., Powell, B.J., Woodward, E. N., Smith, J.L., Proctor, E.K. (in press). Implementation strategies. In R.C. Brownson, G.A., Colditz, & E.K. Proctor (Eds.) *Dissemination and implementation research in health: Translating science to practice* (3rd ed.). Oxford University Press.

Mapping your project's strategies to ERIC



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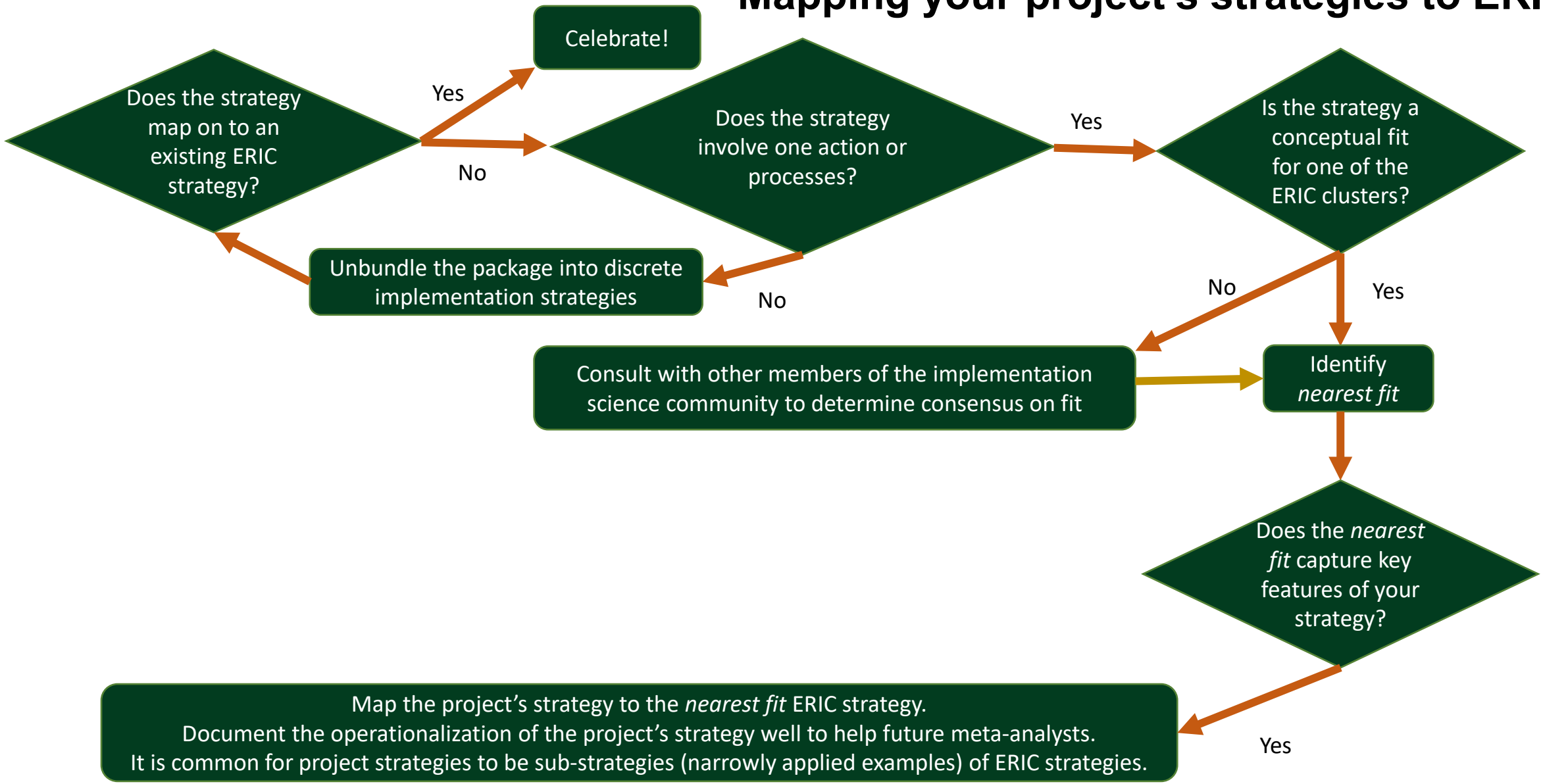

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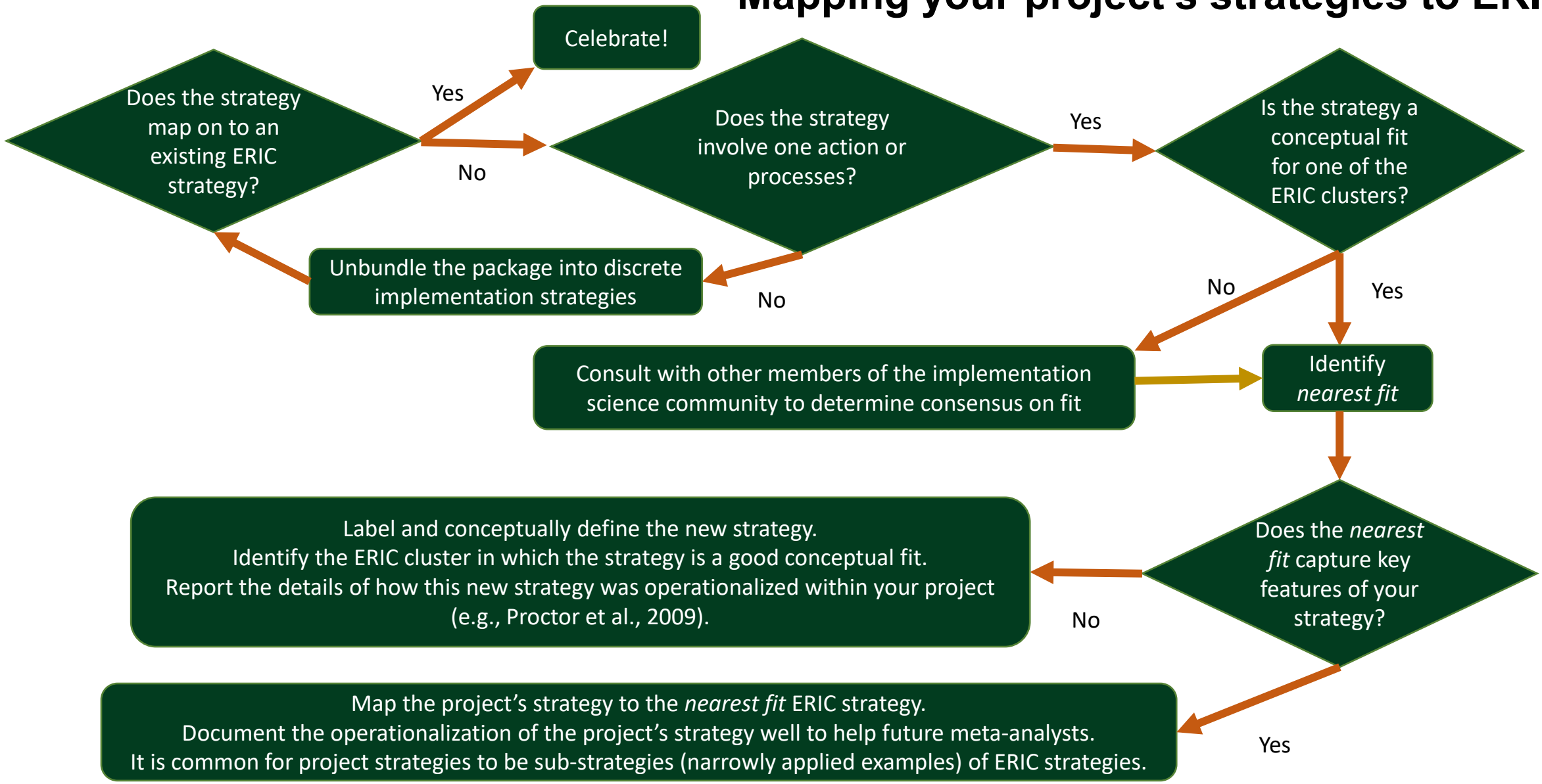

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Tailoring ERIC Strategies to Your Project

- Surface-level changes reflect relatively minor changes to the strategy that do not substantively depart from the meaning of the original strategy
  - Increase the strategy's contextual appropriateness for the project & support end-user comprehension
  - May involve changes to the strategy label, referents, terminology, or parenthetical and nonparenthetical examples in the strategy description
- Deep-level adaptations reflect changes made to the substance of the ERIC definition.
  - The conceptual link with the ERIC strategy remains, but elements of the tailored definition substantively depart from the original ERIC definition

Cook, C., Lyon, A.R., Locke, J., Waltz, T.J., & Powell, B.J. (2019). Adapting a compilation of implementation strategies to advance school-based implementation research and practice. *Prevention Science, 20*, 914-935. https://doi.org/10.1007/s11121-019-01017-1

RESEARCH Open Access

The association between implementation strategy use and the uptake of hepatitis C treatment in a national sample

Shari S. Rogal[1,2,3*], Vera Yakovchenko[4], Thomas J. Waltz[5,6], Byron J. Powell[7], JoAnn E. Kirchner[8], Enola K. Proctor[9], Rachel Gonzalez[10], Angela Park[11], David Ross[12], Timothy R. Morgan[10], Maggie Chartier[12] and Matthew J. Chinman[1,13]

- Low side-effect Direct Acting Antivirals (DAAs) for Hep C were targeted for implementation system-wide in the VA (FY 2015)
- All 21 regional administrative centers developed implementation support teams

Rogal, S.S., Yakovchenko, V., Waltz, T.J., Powell, B.J., Kirchner, J.E., Proctor, E.K., Gonzalez, R., Park, A., Ross, D., Morgan, T.R., Chartier, M., & Chinman, M.J. (2017). The association between implementation strategy use and the uptake of hepatitis C treatment in a national sample. *Implementation Science: 12*, Article 60. https://doi.org/10.1186/s13012-017-0588-6

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Hepatitis C Innovation Team (HIT) Collaborative

- Investigative team: strategy descriptions were tailored to DDA (interferon-free) treatment in the VA and the strategies were organized by cluster.
- The survey was iteratively vetted by HIT leader stakeholders, five HCV treatment providers, and a psychometrician for readability and understandability.
  - Aimed to keep items short in length to decrease response burden
- Tailoring primarily involved surface level changes accompanied by DAA implementation relevant examples.

Rogal, S.S., Yakovchenko, V., Waltz, T.J., Powell, B.J., Kirchner, J.E., Proctor, E.K., Gonzalez, R., Park, A., Ross, D., Morgan, T.R., Chartier, M., & Chinman, M.J. (2017). The association between implementation strategy use and the uptake of hepatitis C treatment in a national sample. *Implementation Science: 12*, Article 60. https://doi.org/10.1186/s13012-017-0588-6

Prevention Science (2019) 20:914–935
https://doi.org/10.1007/s11121-019-01017-1

Adapting a Compilation of Implementation Strategies to Advance School-Based Implementation Research and Practice

Clayton R. Cook[1] · Aaron R. Lyon[2] · Jill Locke[2] · Thomas Waltz[3] · Byron J. Powell[4]

The SISTER Project:

School Implementation Strategies, Translating ERIC Resources

Cook, C., Lyon, A.R., Locke, J., Waltz, T.J., & Powell, B.J. (2019). Adapting a compilation of implementation strategies to advance school-based implementation research and practice. *Prevention Science, 20*, 914-935. https://doi.org/10.1007/s11121-019-01017-1

The SISTER Process

1. School-based implementation experts make revisions to the language, referents, and terminology to be consistent with the school context
2. Modification or expansion of examples to increase comprehension regarding how each strategy is applicable to EBP implementation in the school context;
3. Removal of implementation strategies determined to be contextually inappropriate to the school context or redundant with other strategies as they manifest in schools;
4. Addition of novel implementation strategies not included in the ERIC compilation that have evidence to enhance EBP implementation in schools;
5. Review and feedback by ERIC investigators on the school-adapted compilation to ensure conceptual consistency with the original strategy;
6. Additional revision, based on feedback from ERIC developers, to ensure conceptual consistency with original strategies and increase the comprehension, contextual appropriateness, and utility to the school context; and
7. Re-review by ERIC developers and finalization of an initial set of school-adapted implementation strategies

Cook, C., Lyon, A.R., Locke, J., Waltz, T.J., & Powell, B.J. (2019). Adapting a compilation of implementation strategies to advance school-based implementation research and practice. *Prevention Science, 20*, 914-935. https://doi.org/10.1007/s11121-019-01017-1

Engaging Partners in Caring Communities EPICC

- Implementing behavioral health promotion programs in African American churches
- Core research team collaborated on tailoring strategy definitions
  - 6 academic partners
  - 2 partners from the Congregational Health Education Network (CHEN)
  - 2 consultants
    - PCORI community advocate
    - Implementation scientist

Funded by NIH 1U01OD033244-01 (PIs: Selove, Alexander, & Gishe)

EPICC simplified synopsis

Task Domains	Year 1	Years 2-4
EPICC survey of organizational capacity to implement behavioral health programs	Pilot survey	Congregations complete annually Use to inform technical assistance
EPICC implementation strategy glossary	Develop tailored glossary	Revise as needed
Technical assistance	Build processes to link EPICC survey responses to: • Specific health promotion programs • Implementation strategies using the CFIR-ERIC matching tool	Monthly TA meetings with active cohorts (stepped wedge design)

EPICC Team's Tailoring Process

- Initially planned to use SISTER's 7-step process
  - Cook et al. (2019)
- Community-based program implementation required significant tailoring
  - ERIC strategies were drafted and edited by individuals primarily working in organized healthcare contexts
  - High EPICC team member uncertainty
- Switched to a collaborative team-based process

EPICC Team's Tailoring Process

- Collaborative GoogleDoc
  - Additional File 6 in Powell et al. (2015)
- Team members reviewed strategies prior to meetings and contributed suggestions and questions in advance
- Real-time editing of the strategies during team discussions.
  - Working definitions
  - Retained team notes on our thoughts about the strategies as part of "ancillary" materials for the project.

Alternate “definition only” version [click here]

	Use evaluative and iterative strategies		Develop stakeholder interrelationships
Perry 1	Understand reporting and decision making processes	6	Build a coalition
4	Assess for readiness and identify challenges and strengths	7	Capture and share local knowledge
5	Audit and provide feedback	17	Conduct local consensus discussions
18	Conduct local needs assessment	24	Develop academic partnerships
23	Develop a formal implementation blueprint	25	Develop an implementation glossary
26	Develop and implement tools for quality monitoring	*Perry 2*	Engage community resources
27	Develop and organize quality monitoring systems	35	Identify and prepare champions
46	Obtain and use community feedback	36	Identify local expertise
56	Purposefully reexamine the implementation	38	Inform local opinion leaders
	Provide interactive assistance	40	Involve leadership
8	Centralize technical assistance	45	Model and simulate change
33	Facilitation	47	Obtain formal covenants
54	Provide local technical assistance	48	Organize implementation teams and team meetings
	Adapt and tailor to context	52	Promote network weaving
51	Promote adaptability	57	Recruit, designate, and train for leadership
63	Tailor strategies	64	Use advisory boards and workgroups
67	Use data experts	65	Use an implementation advisor
68	Use data warehousing techniques	72	Visit other sites

	Train and educate stakeholders		Engage congregants
15	Conduct educational meetings	37	Increase demand
16	Conduct educational outreach visits	41	Encourage congregational participation
19	Conduct ongoing training	39	Involve congregants and their families
20	Create a learning collaborative	50	Encourage active participation
29	Develop educational materials	69	Use mass media
31	Distribute educational materials		**Utilize financial strategies**
43	Make training dynamic	1	Access new funding
55	Provide ongoing consultation	2	Alter incentive/allowance structures
60	Shadow other experts	70	Use other payment schemes
71	Use train-the-trainer strategies		**Change infrastructure**
73	Work with educational institutions	11	Change physical structure and equipment
	Support congregation level implementation teams	12	Change record systems
21	Create congregation level implementation teams	13	Creatively use church and community resources
30	Develop resource sharing agreements	22	Formalize personnel training
32	Gather experiences and monitor success	44	Have leadership encourage the innovation
58	Use reminders	62	Start a dissemination organization
59	Revise professional roles		

Audit and provide feedback

A. Collect and summarize clinical performance data over a specified time period and give it to clinicians and administrators to monitor, evaluate, and modify provider behavior.
B. *Develop summaries of clinical performance over a specific time period, often including a comparator, and give it to clinicians and/or administrators. Summary content (e.g., nature of the data, choice of comparator) and their delivery (e.g., mode, format) are designed to modify specifically targeted behavior(s) or actions of individual practitioners, teams, or health care organizations (Brehaut & Eva, 2012).*

EPICC notes (definition revisions or amendments to ancillary materials):

Working definition:
Qualitative analysis of the congregation's experience with the program to date with the aim to facilitate increased engagement in line with the congregation's goals.

Considerations:
This will occur during the encounters with the technical assistance team.

Updated encounters will provide increased understanding of the congregation's history of health ministry, their satisfaction with past efforts, and their goals for the future. Use this information to work with the congregation to update goals.

*frequency of this type of encounter determined by need
*Work with congregations to establish SMART goals
*Goals are related

- Implementation champion will complete all forms requested for project(scj)
- Implementation champion will coordinate implementation team and relay concerns, needs, and successes to research team(scj)
- Implementation champion will work with Community Health Worker(s) and CHEN, as appropriate, to complete all requested forms(scj)
- Implementation champion will provide feedback and evaluations of overall process to research team as requested(scj)
- This will be foreign to churches since they will have nothing that is similar to clinical performance data (dgs)
- Gather a history of health ministry efforts in this church and evaluate the feasibility and impact of past efforts (dgs)
- Ministering to the needs of a congregation cannot be reduced to specific metrics that can be tracked and summarized over time (dgs)
- Clinicians and administrators may need to be replaced by pastor and church leaders (dgs)
- Conduct interviews and focus groups with church members to assess their satisfaction with the church's health ministry would be more feasible (dgs)
- Complete the Stages of Implementation Completion with the church implementation team and discuss facilitators of progress. (rs)

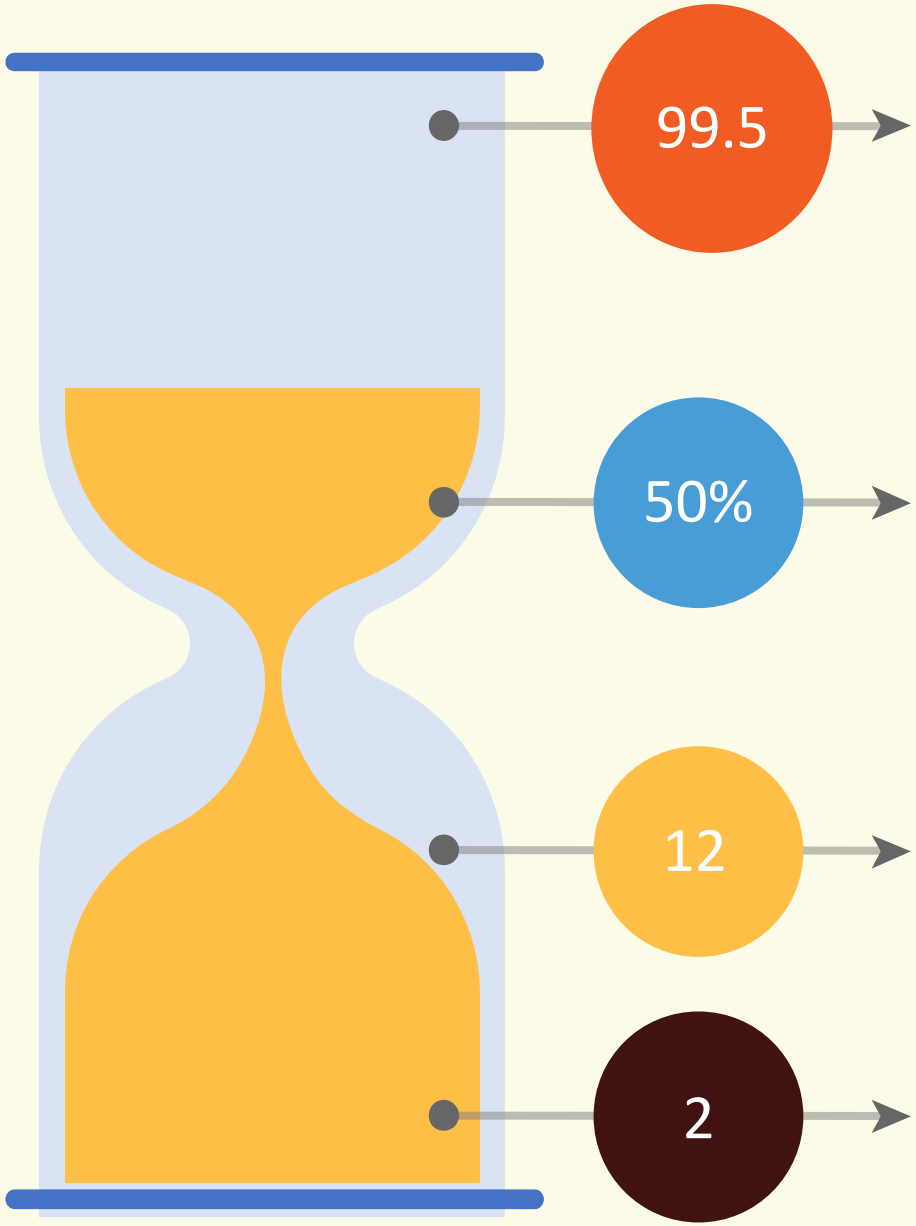
Original Definition(s)

EPICC Working Definition

Related Team Member Thoughts

EPICC
ENGAGING PARTNERS IN CARING COMMUNITIES

Team Time Dedicated to Tailoring Strategies



Total Person Hours

Total time spent in meetings by team members to construct the glossary.

Community Attendance

Percentage of team meetings with a member representing congregations and their communities present.

Meetings

Workgroup meetings occurred approximately every two weeks.

Community Review

Two targeted meetings to review the contextual fit of language.

EPICC
ENGAGING PARTNERS IN CARING COMMUNITIES

Types of Strategy Tailoring

Change	Number (%)
Deep: deep level adaptations reflect changes made to the substance of the definition	11 (15%)
Surface: Surface level changes alter the label, referents, terminology, and or examples to ensure comprehensive usability by the intended end users	47 (63%)
Deleted: the strategy was identified as not relevant to the project	11 (15%)
No changes: The original definition from Powell et al. (2015) was retained	6 (8%)

Examples

Facilitate relay of clinical data to providers

ERIC Definition	EPICC Definition
Provide as close to real-time data as possible about key measures of process/outcomes using integrated modes/channels of communication in a way that promotes use of the targeted innovation.	***Gather experiences and monitor success*** Support churches in collecting and using attendance, engagement, and implementation data to monitor fidelity and success of health promotion programs

Deep-level change

✓ Support data-based decision-making

Facilitate relay of clinical data to providers

ERIC Definition	SISTER Definition
Provide as close to real-time data as possible about key measures of process/outcomes using integrated modes/channels of communication in a way that promotes use of the targeted innovation.	***Facilitate relay of intervention fidelity and student data to school personnel*** Provide as close to real-time data as possible about key measures of intervention fidelity and student outcomes using integrated modes/channels of communication (e.g., email, social media, face-to-face notes) in a way that promotes use of the targeted new practices.

Surface-level changes

✓ Support data-based decision-making

Cook, C., Lyon, A.R., Locke, J., Waltz, T.J., & Powell, B.J. (2019). Adapting a compilation of implementation strategies to advance school-based implementation research and practice. *Prevention Science, 20*, 914-935. https://doi.org/10.1007/s11121-019-01017-1

Facilitate relay of clinical data to providers

ERIC Definition	HIT Survey Item
Provide as close to real-time data as possible about key measures of process/outcomes using integrated modes/channels of communication in a way that promotes use of the targeted innovation.	Facilitate the relay of clinical data to providers (e.g., provide outcome data to providers)

Surface-level change

✓ Support data-based decision-making

Rogal, S.S., Yakovchenko, V., Waltz, T.J., Powell, B.J., Kirchner, J.E., Proctor, E.K., Gonzalez, R., Park, A., Ross, D., Morgan, T.R., Chartier, M., & Chinman, M.J. (2017). The association between implementation strategy use and the uptake of hepatitis C treatment in a national sample. *Implementation Science: 12*, Article 60. https://doi.org/10.1186/s13012-017-0588-6

Identify early adopters

ERIC Definition	EPICC Definition
Identify early adopters at the local site to learn from their experiences with the practice innovation.	Within each congregation engage congregation members who have existing knowledge, experience, and expertise in health promotion

Deep-level change

- ✓ Identify existing local expertise
- ✓ Utilize as a supportive resource

Identify early adopters

ERIC Definition	SISTER Definition
Identify early adopters at the local site to learn from their experiences with the practice innovation.	Identify early adopters within the school or district to learn from their experiences with the implementation of the new practice.

Surface-level change

✓ Identify existing local expertise

✓ Utilize as a supportive resource

Cook, C., Lyon, A.R., Locke, J., Waltz, T.J., & Powell, B.J. (2019). Adapting a compilation of implementation strategies to advance school-based implementation research and practice. *Prevention Science, 20*, 914-935. https://doi.org/10.1007/s11121-019-01017-1

Identify early adopters

ERIC Definition	HIT Survey Item
Identify early adopters at the local site to learn from their experiences with the practice innovation.	Make efforts to identify early adopters to learn from their experiences

Surface-level change

✓ Identify existing local expertise

✓ Utilize as a supportive resource

Rogal, S.S., Yakovchenko, V., Waltz, T.J., Powell, B.J., Kirchner, J.E., Proctor, E.K., Gonzalez, R., Park, A., Ross, D., Morgan, T.R., Chartier, M., & Chinman, M.J. (2017). The association between implementation strategy use and the uptake of hepatitis C treatment in a national sample. *Implementation Science: 12*, Article 60. https://doi.org/10.1186/s13012-017-0588-6

Mandate change

ERIC Definition	EPICC Definition
Have leadership declare the priority of the innovation and their determination to have it implemented.	***Have leadership encourage the innovation*** Encourage pastors and church leaders to promote healthy behaviors as a priority and voice their determination to see it implemented.

Deep-level change

✓ Leaders establish priority

Mandate change

ERIC Definition	SISTER Definition
Have leadership declare the priority of the innovation and their determination to have it implemented.	Have leadership declare the priority of new practices (i.e., top down) and their determination to have it implemented

Surface-level change

✓ Leaders establish priority

Cook, C., Lyon, A.R., Locke, J., Waltz, T.J., & Powell, B.J. (2019). Adapting a compilation of implementation strategies to advance school-based implementation research and practice. *Prevention Science, 20*, 914-935. https://doi.org/10.1007/s11121-019-01017-1

Mandate change

ERIC Definition	HIT Survey Item
Have leadership declare the priority of the innovation and their determination to have it implemented.	Mandate changes to HCV care (e.g., when you changed to the new HCV medications was this based on a leadership mandate?)

Surface-level change

✓ Leaders establish priority

Rogal, S.S., Yakovchenko, V., Waltz, T.J., Powell, B.J., Kirchner, J.E., Proctor, E.K., Gonzalez, R., Park, A., Ross, D., Morgan, T.R., Chartier, M., & Chinman, M.J. (2017). The association between implementation strategy use and the uptake of hepatitis C treatment in a national sample. *Implementation Science: 12*, Article 60. https://doi.org/10.1186/s13012-017-0588-6

Develop & implement tools for quality monitoring

ERIC Definition	EPICC Definition
Develop, test, and introduce into quality-monitoring systems the right input—the appropriate language, protocols, algorithms, standards, and measures (of processes, patient/consumer outcomes, and implementation outcomes) that are often specific to the innovation being implemented.	Working with the technical assistance team, identify and select monitoring and evaluation methods to gather experiences related to the implementation and outcomes of your health promotion activities.

Surface-level change ✓ Develop tool(s) ✓ Use tool(s)

Develop & implement tools for quality monitoring

ERIC Definition	Sister Definition
Develop, test, and introduce into quality-monitoring systems the right input—the appropriate language, protocols, algorithms, standards, and measures (of processes, patient/consumer outcomes, and implementation outcomes) that are often specific to the innovation being implemented.	***Develop instruments to monitor and evaluate core components of the innovation/new practice*** Develop, validate, and integrate measurement instruments or tools to monitor and evaluate the extent to which school personnel are implementing the core components of the intervention (i.e., with fidelity).

Deep-level change ✓ Develop tool(s) ✓ Use tool(s)

Cook, C., Lyon, A.R., Locke, J., Waltz, T.J., & Powell, B.J. (2019). Adapting a compilation of implementation strategies to advance school-based implementation research and practice. *Prevention Science, 20*, 914-935. https://doi.org/10.1007/s11121-019-01017-1

Develop & implement tools for quality monitoring

ERIC Definition	HIT Survey Item
Develop, test, and introduce into quality-monitoring systems the right input—the appropriate language, protocols, algorithms, standards, and measures (of processes, patient/consumer outcomes, and implementation outcomes) that are often specific to the innovation being implemented.	Develop and use tools for quality monitoring (this includes standards, protocols and measures to monitor quality)

Surface-level change ✓ Develop tool(s) ✓ Use tool(s)

Rogal, S.S., Yakovchenko, V., Waltz, T.J., Powell, B.J., Kirchner, J.E., Proctor, E.K., Gonzalez, R., Park, A., Ross, D., Morgan, T.R., Chartier, M., & Chinman, M.J. (2017). The association between implementation strategy use and the uptake of hepatitis C treatment in a national sample. *Implementation Science: 12*, Article 60. https://doi.org/10.1186/s13012-017-0588-6

Rebecca Selove, Ph.D., M.P.H.
EPICC Co-PI

Discussion:

- Utility & challenges of making a tailored glossary

EPICC
ENGAGING PARTNERS IN CARING COMMUNITIES