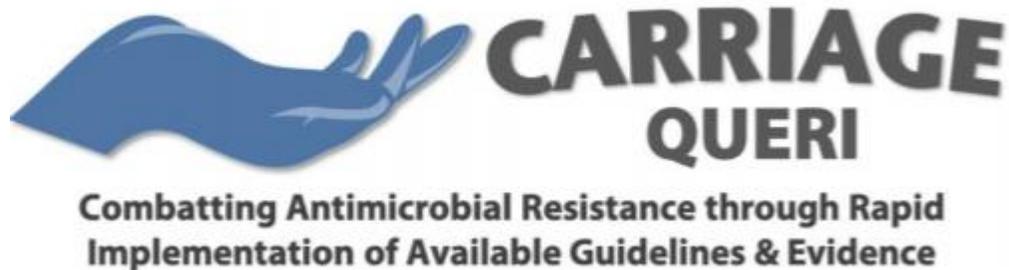


Implementation Tracking: A Case Study from the Field of Antibiotic Stewardship

EMIC Methods Seminar
March 25, 2021



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Acknowledgements

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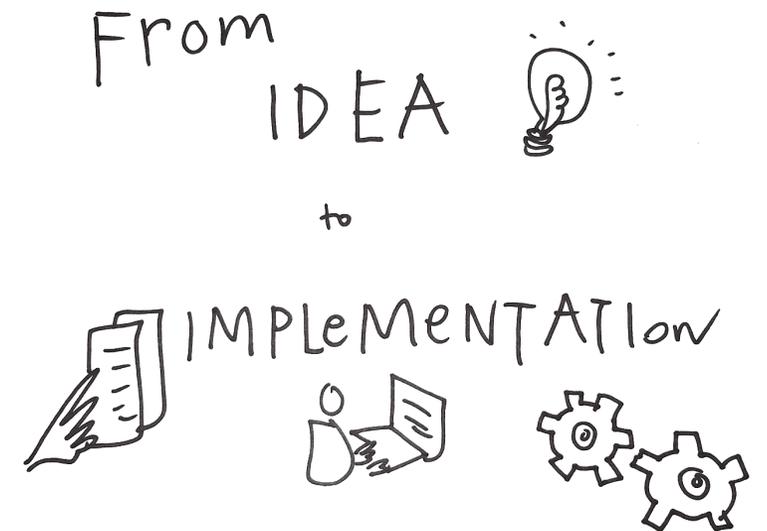
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Overview

- Literature
- Case Study
- Questions/Discussion



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Implementation Strategies

Implementation Strategies

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



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 Waltz², Matthew J Chinman^{3,4}, Laura J Damschroder⁵, Jeffrey L Smith⁶, Monica M Matthieu^{6,7}, Enola K Proctor⁸ and JoAnn E Kirchner^{6,9}

Abstract

Background: Identifying, developing, and testing implementation strategies are important goals of implementation science. However, these efforts have been complicated by the use of inconsistent language and inadequate descriptions of implementation strategies in the literature. The Expert Recommendations for Implementing Change (ERIC) study aimed to refine a published compilation of implementation strategy terms and definitions by systematically gathering input from a wide range of stakeholders with expertise in implementation science and clinical practice.

Methods to Improve the Selection and Tailoring of Implementation Strategies

Byron J. Powell, PhD
Rinad S. Beidas, PhD
Cara C. Lewis, PhD
Gregory A. Aarons, PhD
J. Curtis McMillen, PhD
Enola K. Proctor, PhD
David S. Mandell, ScD

Abstract

Implementing behavioral health interventions is a complicated process. It has been suggested that implementation strategies should be selected and tailored to address the contextual needs of a given change effort; however, there is limited guidance as to how to do this. This article proposes four methods (concept mapping, group model building, conjoint analysis, and intervention mapping) that could be used to match implementation strategies to identified barriers and facilitators for a particular evidence-based practice or process change being implemented in a given setting. Each method is reviewed, examples of their use are provided, and their strengths and weaknesses are discussed. The discussion includes suggestions for future research pertaining to implementation strategies and highlights these methods' relevance to behavioral health services and research.

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Journal of Behavioral Health Services & Research, 2015, 177–194. © 2015 National Council for Behavioral Health. DOI 10.1007/s11414-015-9475-6



Enhancing the Impact of Implementation Strategies in Healthcare: A Research Agenda

Byron J. Powell^{1,2,3*}, Maria E. Fernandez⁴, Nathaniel J. Williams⁵, Gregory A. Aarons⁶, Rinad S. Beidas^{7,8,9}, Cara C. Lewis¹⁰, Sheena M. McHugh¹¹ and Bryan J. Weiner¹²

Proctor et al. *Implementation Science* 2013, **8**:139
<http://www.implementationscience.com/content/8/1/139>



DEBATE

Open Access

Implementation strategies: recommendations for specifying and reporting

Enola K Proctor^{1*}, Byron J Powell¹ and J Curtis McMillen²

Abstract

Implementation strategies have unparalleled importance in implementation science, as they constitute the 'how to' component of changing healthcare practice. Yet, implementation researchers and other stakeholders are not able to fully utilize the findings of studies focusing on implementation strategies because they are often inconsistently labelled and poorly described, are rarely justified theoretically, lack operational definitions or manuals to guide their use, and are part of 'packaged' approaches whose specific elements are poorly understood. We address the challenges of specifying and reporting implementation strategies encountered by researchers who design, conduct, and report research on implementation strategies. Specifically, we propose guidelines for naming, defining, and operationalizing implementation strategies in terms of seven dimensions: actor, the action, action targets, temporality, dose, implementation outcomes addressed, and theoretical justification. Ultimately, implementation strategies cannot be used in practice or tested in research without a full description of their components and how they should be used. As with all intervention research, their descriptions must be precise enough to enable measurement and 'reproducibility.'

Implementation Mapping

Maria Fernandez & Anne Sales provided a comprehensive approach that describes the process of using theory and evidence to develop or select and tailor implementation strategies and highlight an Implementation Mapping approach that can help inform important aspects of implementation strategy development and evaluation.

QUERI Implementation Research Group

**Developing and Tailoring
Implementation Strategies: An
Implementation Mapping Approach**

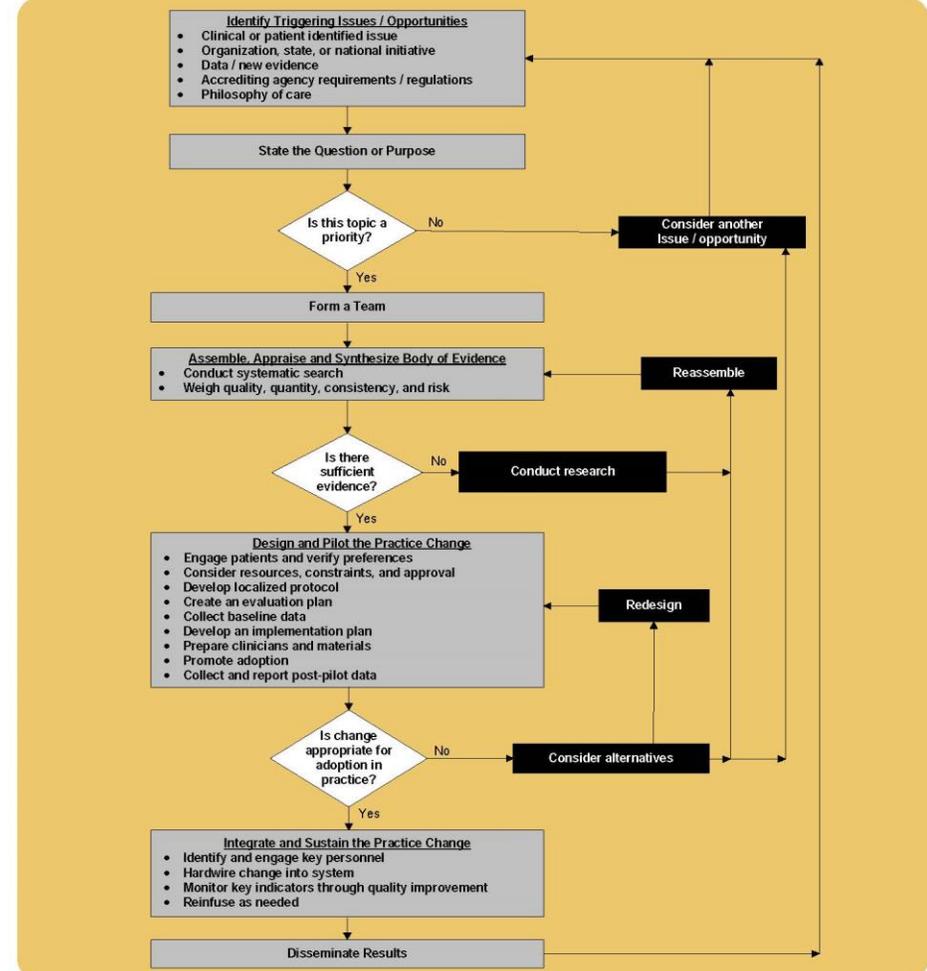
March 04, 2021 | 12:00pm-1:00pm ET

https://www.hsrd.research.va.gov/for_researchers/cyber_seminars/archives/video_archive.cfm?SessionID=3952&Seriesid=103

The Iowa Model

February's Implementation seminar shared another approach to integrating implementation strategies into the improvement process.

The Iowa Model Revised: Evidence-Based Practice to Promote Excellence in Health Care



◆ = a decision point

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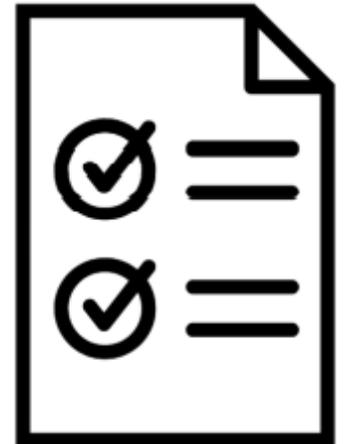
©University of Iowa Hospitals and Clinics, Revised June 2015

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Tracking

There is a trend in *tracking implementation strategies*—tracking not only implementation strategies, but how strategies are bundled.

There also a trend in *tracking adaptations and tailoring*—tracking both adaptations to context and adaptations to the intervention.



Why track implementation strategies?

Most published implementation research lack *descriptions* of specific implementation strategies.

Thus, it is difficult to understand *mechanisms* or *active ingredients* of successful implementation and facilitate replication.

Implementation tracking



HHS Public Access

Author manuscript

Behav Ther. Author manuscript; available in PMC 2019 July 01.

Published in final edited form as:

Behav Ther. 2018 July ; 49(4): 525–537. doi:10.1016/j.beth.2017.11.012.

A method for tracking implementation strategies: an exemplar implementing measurement-based care in community behavioral health clinics

Bunger et al. *Health Research Policy and Systems* (2017) 15:15
DOI 10.1186/s12961-017-0175-y

Health Research Policy
and Systems

RESEARCH

Open Access



Tracking implementation strategies: a description of a practical approach and early findings

Alicia C. Bunger^{1*}, Byron J. Powell², Hillary A. Robertson³, Hannah MacDowell¹, Sarah A. Birken² and Christopher Shea²

Abstract

Background: Published descriptions of implementation strategies often lack precision and consistency, limiting replicability and slowing accumulation of knowledge. Recent publication guidelines for implementation strategies call for improved description of the activities, dose, rationale and expected outcome(s) of strategies. However, capturing implementation strategies with this level of detail can be challenging, as responsibility for implementation is often diffuse and strategies may be flexibly applied as barriers and challenges emerge. We describe and demonstrate the development and application of a practical approach to identifying implementation strategies used in research and practice that could be used to guide their description and specification.

Methods: An approach to tracking implementation strategies using activity logs completed by project personnel was developed to facilitate identification of discrete strategies. This approach was piloted in the context of a

A Pilot Study Comparing Tools for Tracking Implementation Strategies and Treatment Adaptations

> Callie Walsh-Bailey, Lorella G. Palazzo, Salene M. W. Jones, Kayne D. Mettert, Byron J. Powell, Shannon Wiltsey Stirman, Aaron R. Lyon, Paul Rohde, Cara C Lewis

DOI: [10.21203/rs.2.22628/v1](https://doi.org/10.21203/rs.2.22628/v1)  [Download PDF](#)

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Abstract

Background Tailoring implementation strategies and adapting treatments to better fit the local context may improve their effectiveness. However, there is a dearth of valid, reliable, pragmatic measures that allow for the prospective tracking of strategies and adaptations according to reporting recommendations. This study

Rogal et al. *Implementation Science* (2020) 15:48
<https://doi.org/10.1186/s13012-020-01005-y>

Implementation Science

RESEARCH

Open Access

Tracking implementation strategies in the randomized rollout of a Veterans Affairs national opioid risk management initiative



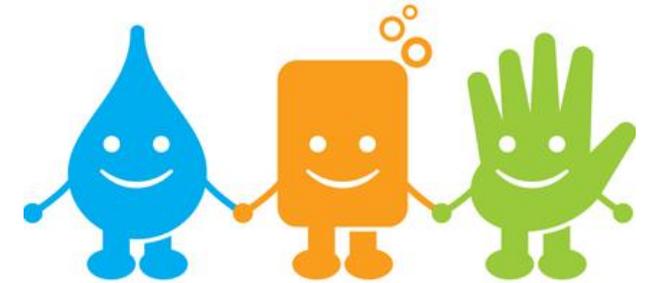
Shari S. Rogal^{1,2,3*} , Matthew Chinman^{1,4,5}, Walid F. Gellad^{1,6}, Maria K. Mor^{1,7}, Hongwei Zhang¹, Sharon A. McCarthy^{1,4}, Genna T. Mauro¹, Jennifer A. Hale¹, Eleanor T. Lewis^{8,9}, Elizabeth M. Oliva^{8,9}, Jodie A. Trafton^{8,9,10}, Vera Yakovchenko¹¹, Adam J. Gordon^{12,13} and Leslie R. M. Hausmann^{1,6}

Abstract

Background: In 2018, the Department of Veterans Affairs (VA) issued Notice 2018-08 requiring facilities to complete “case reviews” for Veterans identified in the Stratification Tool for Opioid Risk Mitigation (STORM) dashboard as high risk for adverse outcomes among patients prescribed opioids. Half of the facilities were randomly assigned to a Notice version including additional oversight. We evaluated implementation strategies used, whether strategies differed by randomization arm, and which strategies were associated with case review completion rates.

Methods: Facility points of contact completed a survey assessing their facility’s use of 68 implementation strategies based on the Expert Recommendations for Implementing Change taxonomy. We collected respondent demographic information, facility-level characteristics, and case review completion rates (percentage of high-risk

CARRIAGE Hand Hygiene QI Project



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Two implementation tracking tools were used to document various interactions, implementation strategies, and site contextual factors in our Hand Hygiene QI project that focused on monitoring hand hygiene compliance.

Interaction Tracking Tool identified site specific exchanges throughout the project.

CFIR Tracking Tool was utilized only during qualitative site visits to rapidly assess contextual factors.



CARRIAGE QUERI Program

- CFIR Tracking Tool– Site C Site Visit

Current <u>Impl'n</u> Status	Innovation Characteristics	Recipient Characteristics	Inner Context Characteristics	Outer Context Characteristics	Facilitation: Internal	Facilitation: External
Rating: -1 = Regression 0 = Status quo +1 = On track +2 = Exceeds expectations Accomplished = Done	<ul style="list-style-type: none"> Underlying knowledge sources Clarity Degree of fit Degree of novelty Usability Etc. 	<ul style="list-style-type: none"> Motivation Values & beliefs Goals Skills & knowledge Time, resources, support Etc. 	<ul style="list-style-type: none"> Leadership support Culture Past change experience Mechanisms for embedding change Etc. 	<ul style="list-style-type: none"> Policy drivers & priorities Incentives & mandates Regulatory framework Etc. 	<ul style="list-style-type: none"> Project management Improvement skills Team skills Process skills Influencing & negotiating skills 	<ul style="list-style-type: none"> Project management Improvement skills Team skills Process skills Influencing & negotiating skills
Review Date: 7/12/2017 Site Visit						
Utilize HH Rates poster provided by project. Rating: 0	+ Liked observation sheet -Strongly disliked HH Rates poster, due to lack of numerical HH rates, and therefore was not posted	+ Staff motivated to improve HH -Did not comprehend overall project goals	+ Leadership engaged in HH - Leadership does not like HH Rates poster	+ VISN wide Hospital Epidemiologist, Dr. <u>Michi Goto</u> , who is the Director of Infection Control for VISN 23 -No emphasis on HH, no current VA Directive	+ Strong internal facilitator, with a high level of influence over staff and leadership -Internal facilitator did not support the project	+ Dr. <u>Goto's</u> established relationship -Wanted more external facilitation

Interaction Tracking Tool

Interaction Tracking Sheet			
Site: Iowa City			
Role person completing: QI Team (CCG/EEC)			
Date	2/15/2017	3/1/2017	3/7/2017
Event Type	Group	Group	Group
Mode of Communication	In person	Email	Email
Personnel	MDRO Coordinator, Infection Preventionist, 2 Members of the QI Team	Site D	Site D
Time (minutes)	60	30	15
Interaction Activity	Explaining HH Rates poster	Initial HH Feedback-HH Rates poster previous 3 months HH data	Follow-up HH Rates Poster
Implementation Strategy	Conduct Educational Meetings	Audit and provide feedback	Conduct cyclical small tests of change
			Facilitation

Tracking Adaptations

Promote adaptability and **tailoring strategies** are two implementation strategies.

Evidence-based practices (EBPs) are frequently adapted to maximize outcomes while maintaining fidelity to core EBP elements.

It's important to **document intervention adaptations** to determine which elements of the intervention can be **tailored to meet the local contextual needs** and ensure **fidelity**, or to which an intervention is delivered as intended is critical to successful translation of interventions into clinical practice.

RESEARCH

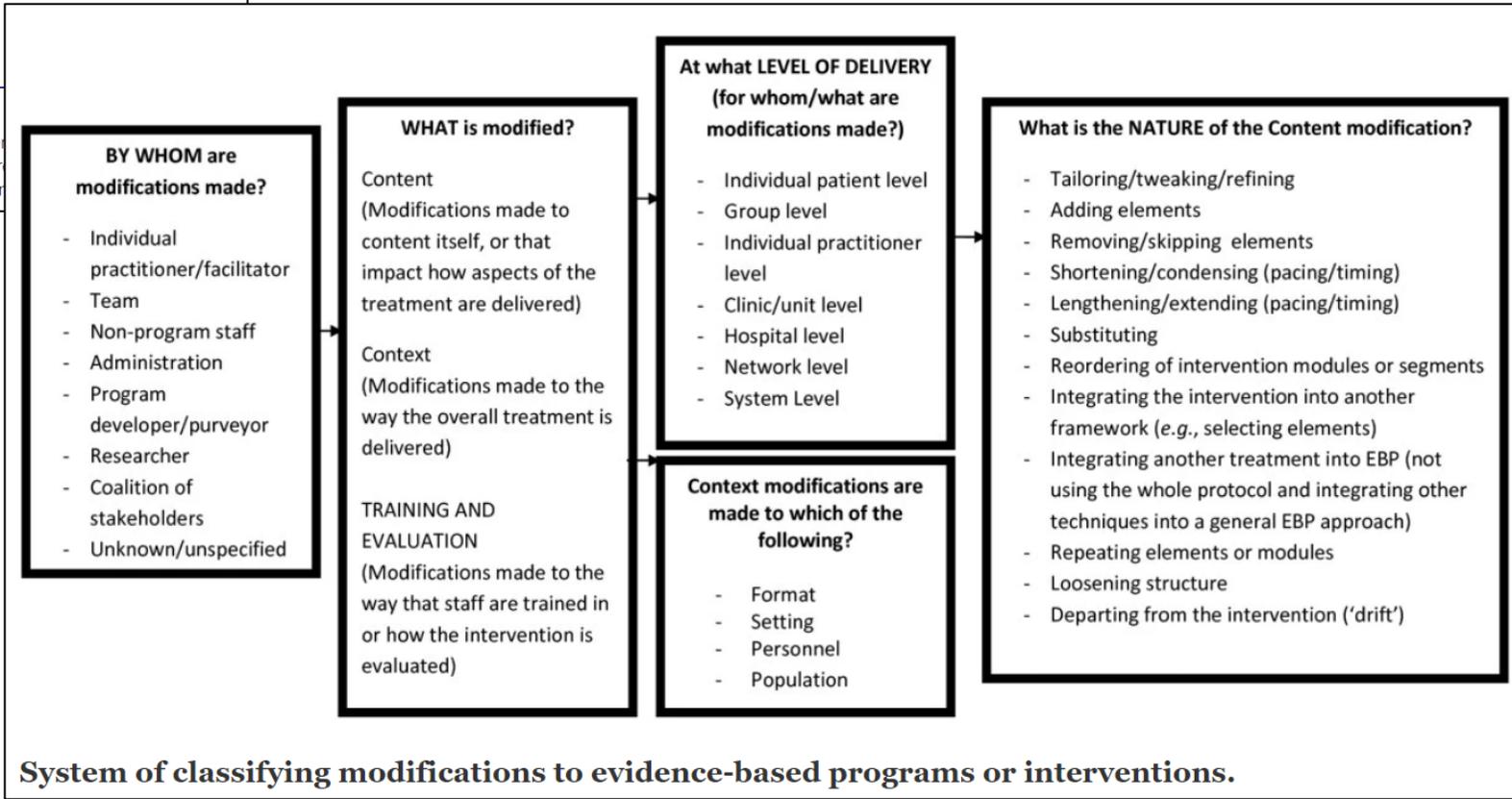
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Development of a framework and coding system for modifications and adaptations of evidence-based interventions

Shannon Wiltsey Stirman^{1,2,3*}, Christopher J Miller^{2,5}, Katherine Toder⁴ and Amber Calloway⁶

Abstract

Background: Evidence-based interventions are frequently modified or adapted during the implementation process. Changes may be made to protocols to meet the needs of the target population or address differences in the context in which the intervention was originally designed and the one into which it is implemented.



A scoping study of frameworks for adapting public health evidence-based interventions

Cam Escoffery,¹ Erin Lebow-Skelley,¹ Hallie Udelson,¹ Elaine A. Böing,¹ Richard Wood,² Maria E. Fernandez,² Patricia D. Mullen²

Abstract

Evidence-based public health translation of research to practice is essential to improve the public's health. Dissemination and implementation researchers have explored what happens once practitioners adopt evidence-based interventions (EBIs) and have developed models and frameworks to describe the adaptation process. This scoping study identified and summarized adaptation frameworks in published reports and grey literature. We followed the recommended steps of a scoping study: (a) identifying the research question; (b) identifying relevant studies; (c) selecting studies; (d) charting the data; (e) collating, summarizing, and reporting the results; and (f) consulting with experts. We searched PubMed, PsycINFO, PsycNET, and CINAHL

Implications

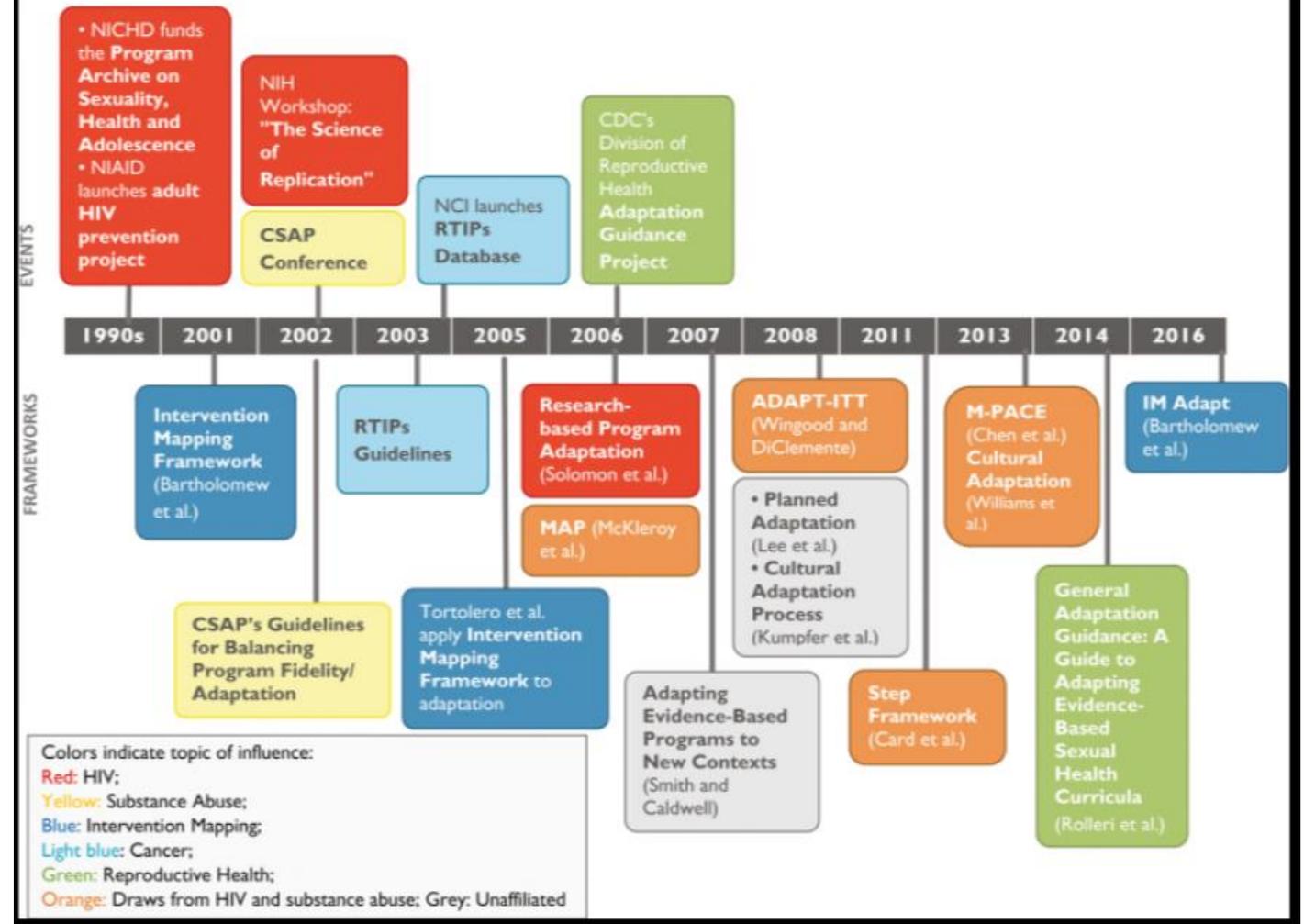
Practice: These frameworks can offer guidance for steps in the adaptation process for evidence-based interventions (EBIs).

Policy: Funders or agencies that recommend the use of EBIs should encourage organizations implementing them to report on any adaptation and the steps taken for the modifications.

¹Emory University, Rollins School of Public Health, Atlanta, GA 30322, USA

²The University of Texas Health Science Center at Houston School of Public Health, Houston, TX 77030, USA

Adaptation Frameworks History: Sentinel Events and Publications



Iterative Decision-making for Evaluation of Adaptations (IDEA): A decision tree for balancing adaptation, fidelity, and intervention impact

Christopher J. Miller PhD¹ | Shannon Wiltsey-Stirman PhD² | Ana A. Baumann PhD³

¹Department of Psychiatry, VA Boston Healthcare System, Center for Healthcare Organization and Implementation Research (CHOIR), Harvard Medical School, Boston, Massachusetts

Abstract

Background: Evidence-based practices (EBPs) are frequently adapted to maximize outcomes while maintaining

Iterative Decision-making for Evaluation of Adaptations (IDEA)

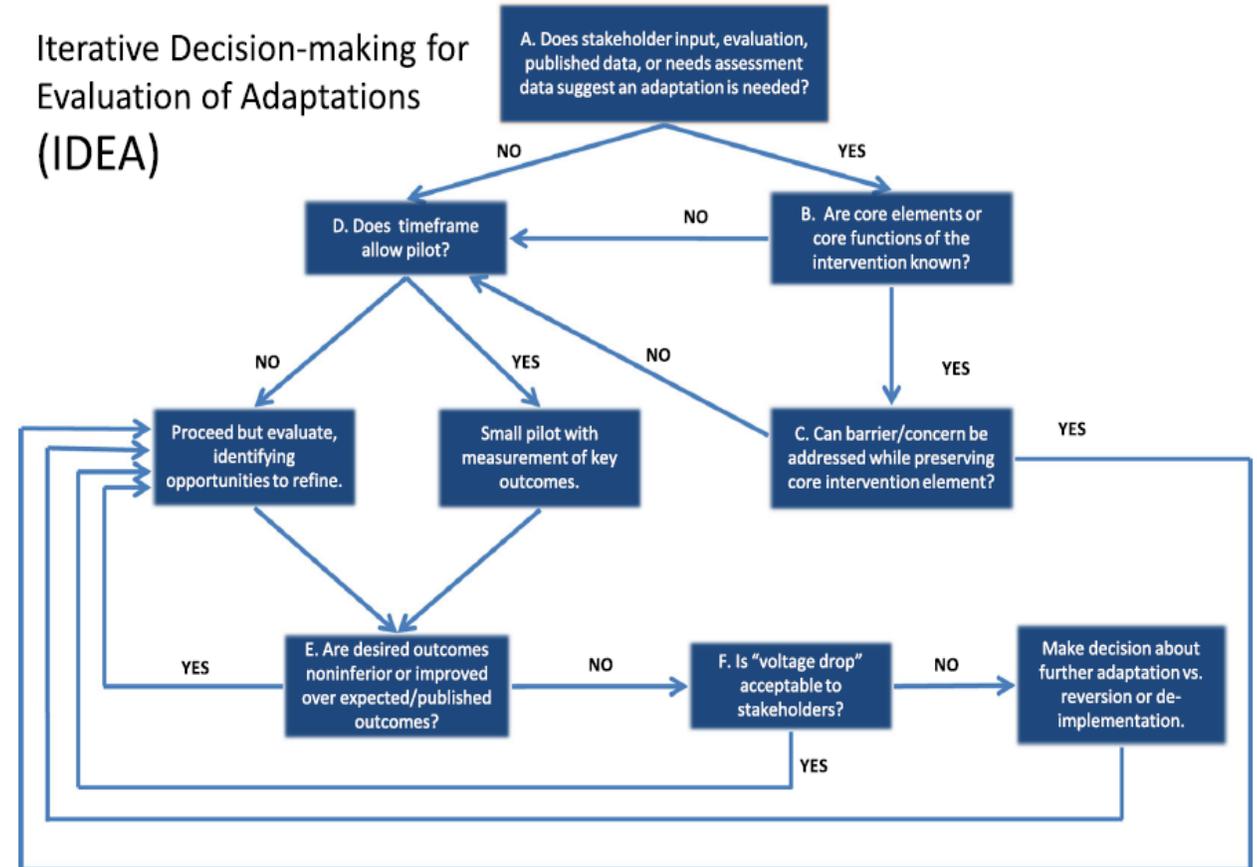


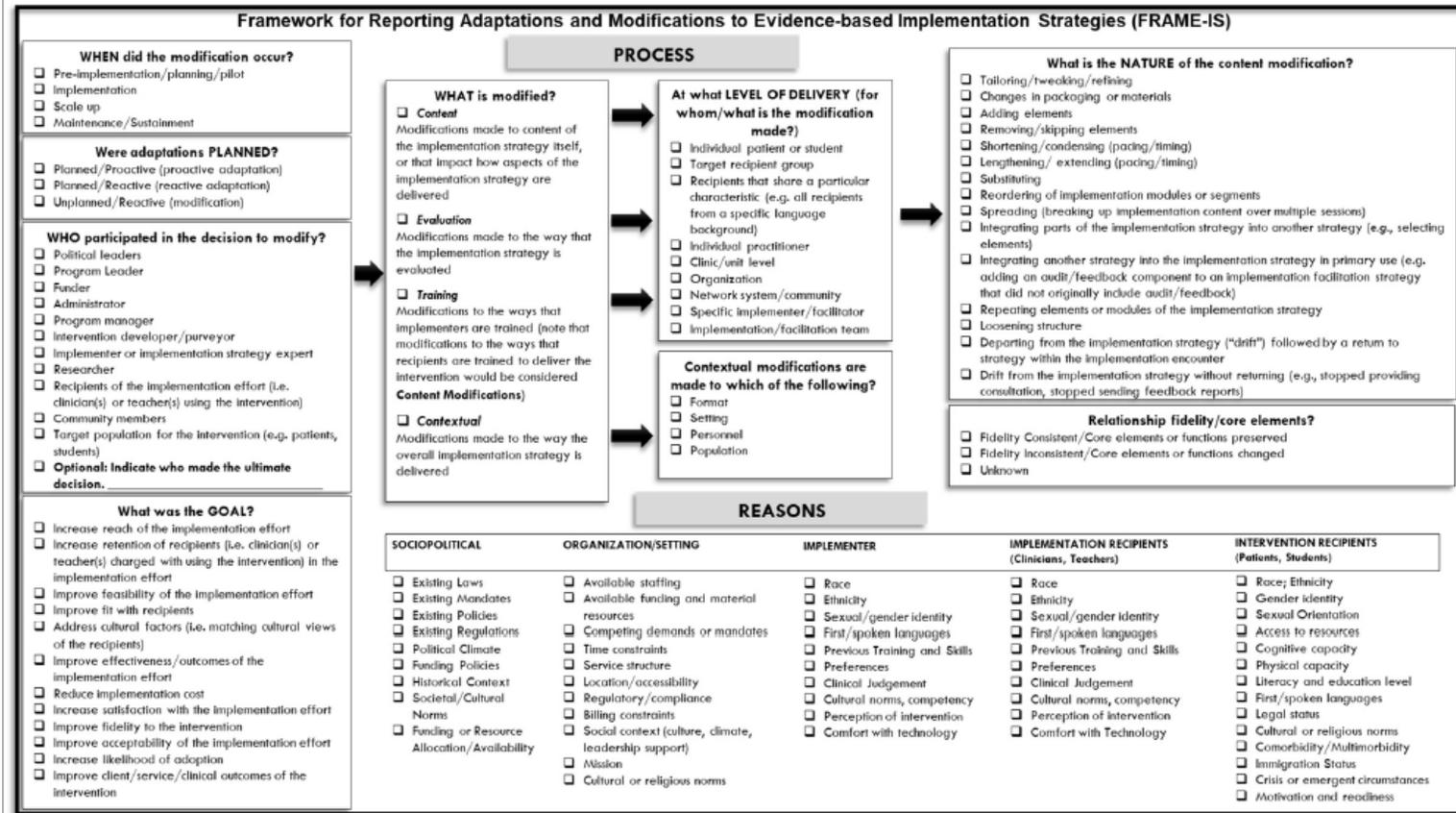
FIGURE 1 The Iterative Decision-making for Evaluation of Adaptations (IDEA)

The FRAME: an expanded framework for reporting adaptations and modifications to evidence-based interventions

Shannon Wiltsey Stirman^{1*}, Ana A. Baumann² and Christopher J. Miller^{3,4}

Wiltsey Stirman *et al.* *Implementation Science* (2019) 14:58

<https://doi.org/10.1186/s13012-019-0898-y>



Case Study:
Antibiotic Self-Stewardship
Time Out (SSTOP) Project

SSTOP: Background



Combating Antimicrobial Resistance through Rapid Implementation of Available Guidelines and Evidence (CARRIAGE) QUERI.

Antibiotic misuse is a major contributor to antibiotic resistance.

Evidence is lacking on how to implement an effective and sustainable stewardship strategy.



Antibiotic Time Out

The overall goal of this study is to implement and evaluate the “Antibiotic Time Out” system that will leverage the VA Electronic Health Record (EHR) and provide a scalable, efficient model for managing antimicrobial therapy that can be readily exported to other facilities with EHR capabilities.

SSTOP will specifically the use of antibiotics used in the treatment of methicillin-resistant *Staphylococcus aureus* (MRSA, i.e., vancomycin) and Multi-Drug Resistant Organisms (MDRO, i.e., anti-pseudomonal β lactam antibiotics including piperacillin/tazobactam, ceftazidime, cefepime, imipenem ad meropenem).

Reminder Dialog Template: TIME OUT - VANCOMYCIN RENEWAL NOTE

This template is intended to promote a "Time Out" to reconsider the need for reordering vancomycin. Continued therapy will be approved if the template is properly completed.

The following questions should be considered prior to renewing antibiotic therapy

Is a bacterial infection present?
Has the site of infection been determined?
Has the culprit bacterial pathogen(s) been identified?
Is the patient clinically stable?

Please review the following resources in making your decision.

- [Antimicrobial Dashboard link](#) for a summary of the clinical and microbiological status of the patient and automated recommendations for antibiotic therapy.
- NOTE: You must be logged on to your computer with your own Windows VHA login. First-time users will be directed to register for approval to view the clinical dashboards. For residents, please list Christopher Graber as your supervisor and only request the Greater Los Angeles HCS, with the reason for PII/PHI access "antibiotic timeout." It may take 1-2 business days for your access to be fully approved.
- Click the link for information regarding side effects associated with vancomycin therapy or for the principles of adjusting antimicrobial therapy. [View adjusting therapy link](#)
- GLA vancomycin dosing recommendations are available by clicking link. [view vancomycin dosing link](#)

Is a bacterial infection present?

Definitely not/very unlikely
 Possibly
 Definitely yes/very likely

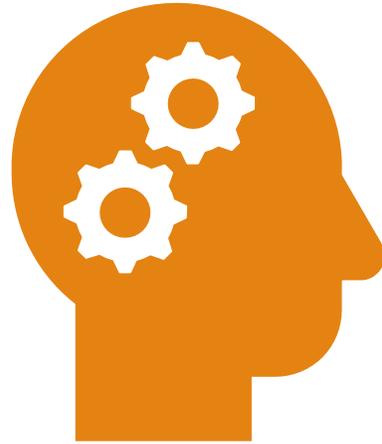
Visit Info Finish Cancel



Specific Aims

1. Veterans Health Outcomes: Determine impact of SSTOP on: a) Rates of de-escalation of antimicrobial therapy and use of targeted antibiotics; b) Clostridium difficile infection (CDI) Rates; and c) Patient safety (length of stay, 30-day readmission, mortality). *[Administrative Data Analysis]*

2. Implementation Science Outcomes: Assess the impact of feedback intensity on awareness, attitudes and behavior, testing for the interaction effects of: a) inner setting/context (e.g., facility complexity (structural characteristics); b) pre-existing antimicrobial stewardship infrastructure (e.g., compatibility, existing resources, culture); c) individual characteristics (knowledge, beliefs about the value of the outcomes, perceived autonomy, and perceived self-efficacy). We will also assess multiple dimensions of satisfaction, specifically system quality, information quality, service quality, and use. *[Learning Collaborative/Qualitative Interviews]*



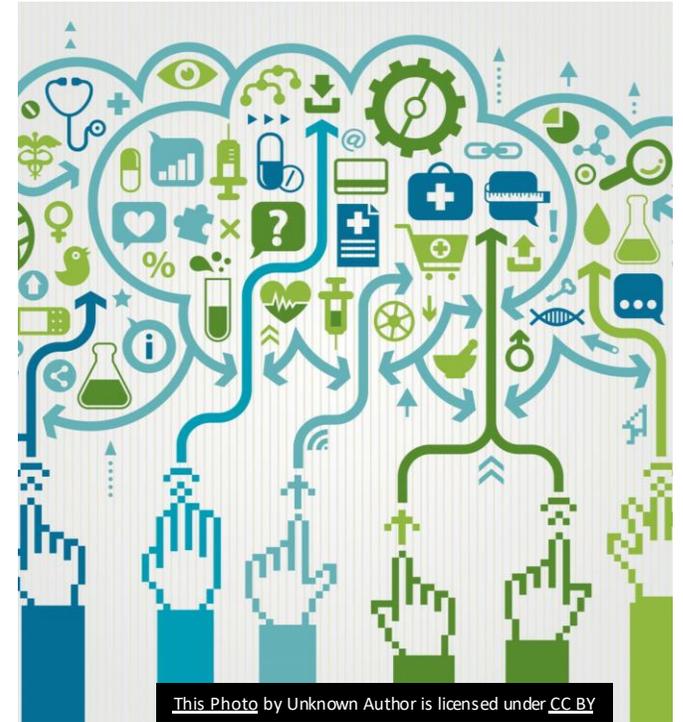
SSTOP Learning Collaborative

SSTOP Learning Collaborative

Comprised of **blended facilitation** via external facilitators (SSTOP team) and internal facilitators (physician/pharmacy Antibiotic Stewardship Program (ASP) champions) across each intervention site.

Monthly virtually meetings (via Microsoft Teams) for **bidirectional information exchange** of implementation progress, barriers, facilitators, and best practices.

An **implementation tracking tool** was utilized to record intervention implementation and contextual factors to improve intervention uptake and promote sustainment.



Implementation tracking key elements

- Site
- Date
- Participant Name/Role
- SSTOP Status Update (e.g., not implemented, partially, fully)
- Local Site Activities
- How Intervention is being used (e.g., units, presentations for buy-ins)
- Changes to Intervention (e.g., note template)
- Changes to Implementation (e.g., only implemented on specific units)
- Feedback/Recommendations
- Barriers
- Facilitators
- Reactions to Feedback Reports (data believable/data assumptions)

SITE			
	Planning call	Site visit	Follow up 1
Date	5/13/2019	5/29/2019	6/28/2019
Participant Names/Roles/Site	- PharmD Champion	- Physician champion	-Pharm D Champion
SSTOP Status Update (e.g., not using, partially, fully)	vanco template not yet installed	vanco template not yet installed; plan for launch by September	Substantial progress will be delayed as physician champion is on leave until first wk of September; vanco template not yet installed; ongoing progress by CAC [name]
Local site activities	Need to get [Site] P&T approval	To-do items: R&D follow up, P&T notification, review and adaptation of sample abx protocols for use at [Site]	To-do items for [Physician Champion]: R&D coordination and planning with P&T; identify workflow issues
How intervention is being used (e.g., units, presentations for buy-in, etc.)			
Changes to Intervention (e.g., note template)		Alert to the responsible provider to do the vancomycin timeout template will be linked to an order for vancomycin; [Pharm D Champion] will remind teams to complete the vancomycin timeout template during 10:30 AM handshake rounds; alerts will be sent to ID whenever vancomycin is initiated or discontinued (via the template)	
Changes to Implementation (e.g., only using on X unit)			
Feedback/Recommendations/Suggestions		Main concern: How wil providers be notified that vancomycin would expire and that the timeout template would need to be completed?	
Barriers	Some lapse of communication between PharmD and MD champions; [Pharm D Champion] had not been involved preliminarily. [Pharm D Champion] does not have power to approve the continuation (but would be open to this). PharmD management team is concerned about time commitment and possible interference with [Pharm D Champion] work.	Setting up alerts through quick orders would require that vancomycin be orderable ONLY through a quick order menu	[Physician Champion] is on leave until September 9th and other ID physician is swamped with clinical care responsibilities.
Facilitators	Structural advantage- site has a soft restriction for vancoy; after 72 hours, medical team is required to put in a stewardship consult for a continuance.		
Reactions to Feedback Reports (data believable/data assumptions)			[PI] reviewed operations of the Dashboard, which could be helpful in absence of TheraDoc. [PI] also showed CREATE tools of abx use

Learning Collaborative



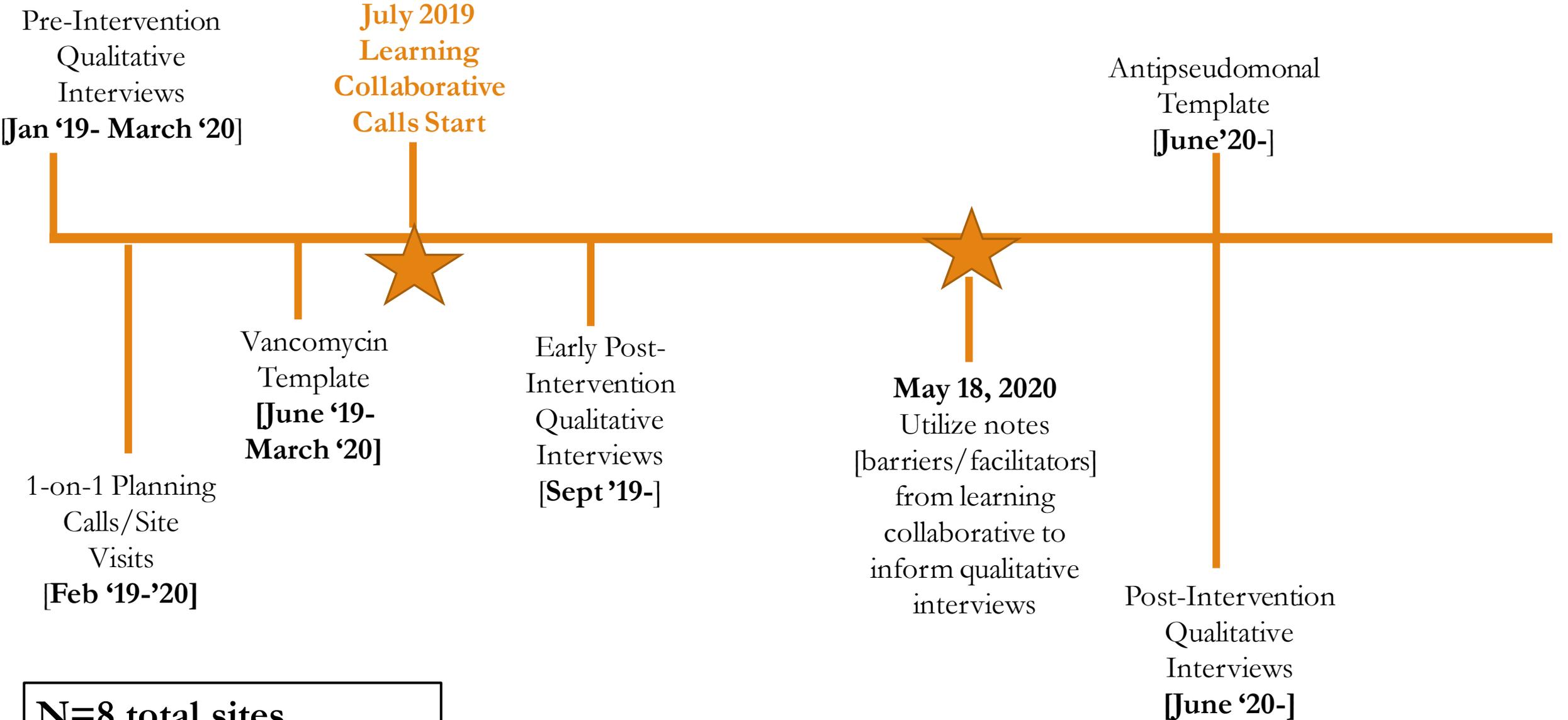
To date, there are approximately 23 participants.

6 sites having implemented the vancomycin SSTOP template.

4 sites have implemented the antipseudomonal SSTOP template.

All calls are audio-recorded by the SSTOP team and detailed notes comprised. The implementation specialist reviews notes and populates the implementation tracking tool.

2019-Current



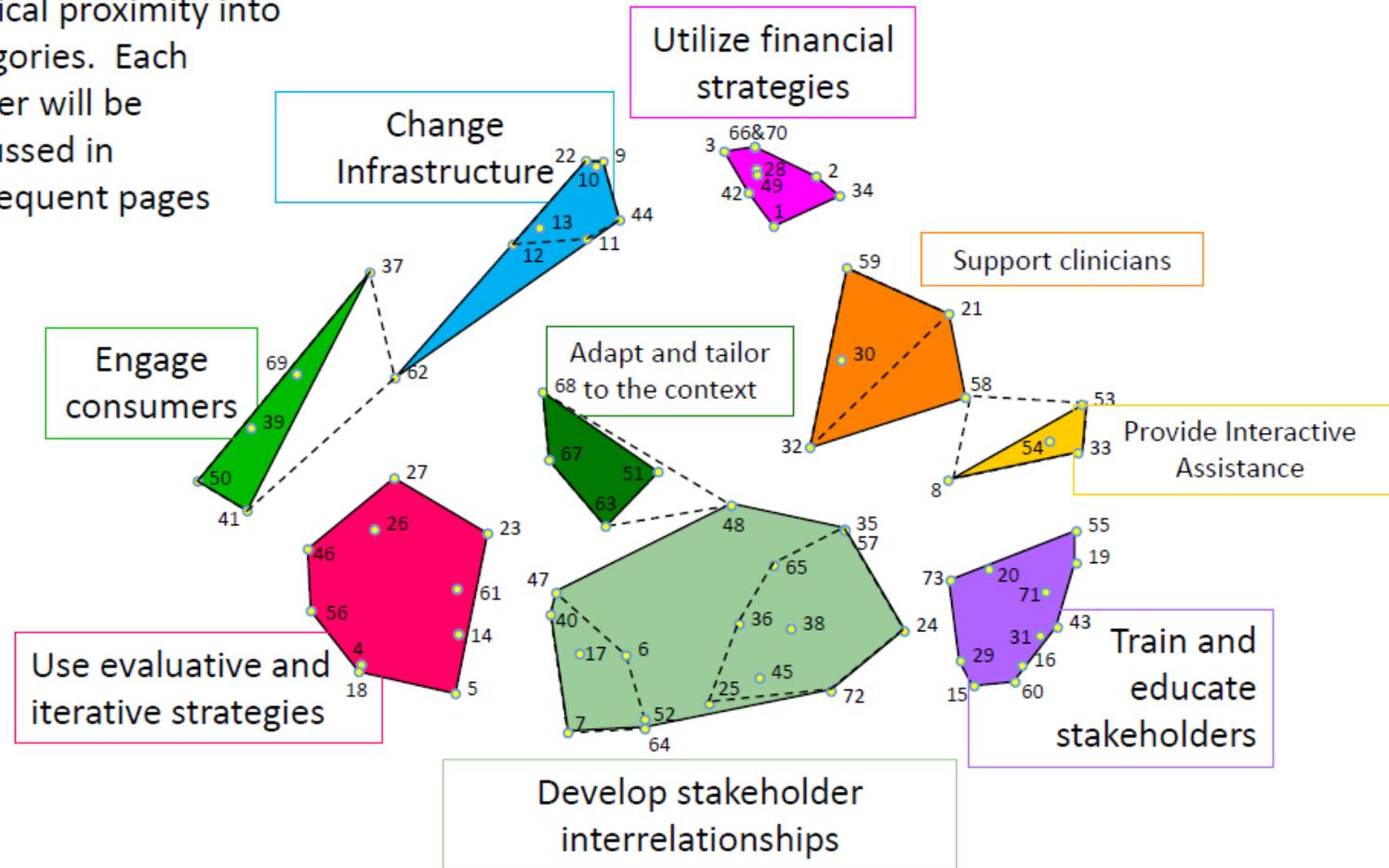
N=8 total sites

N= 16 completed calls

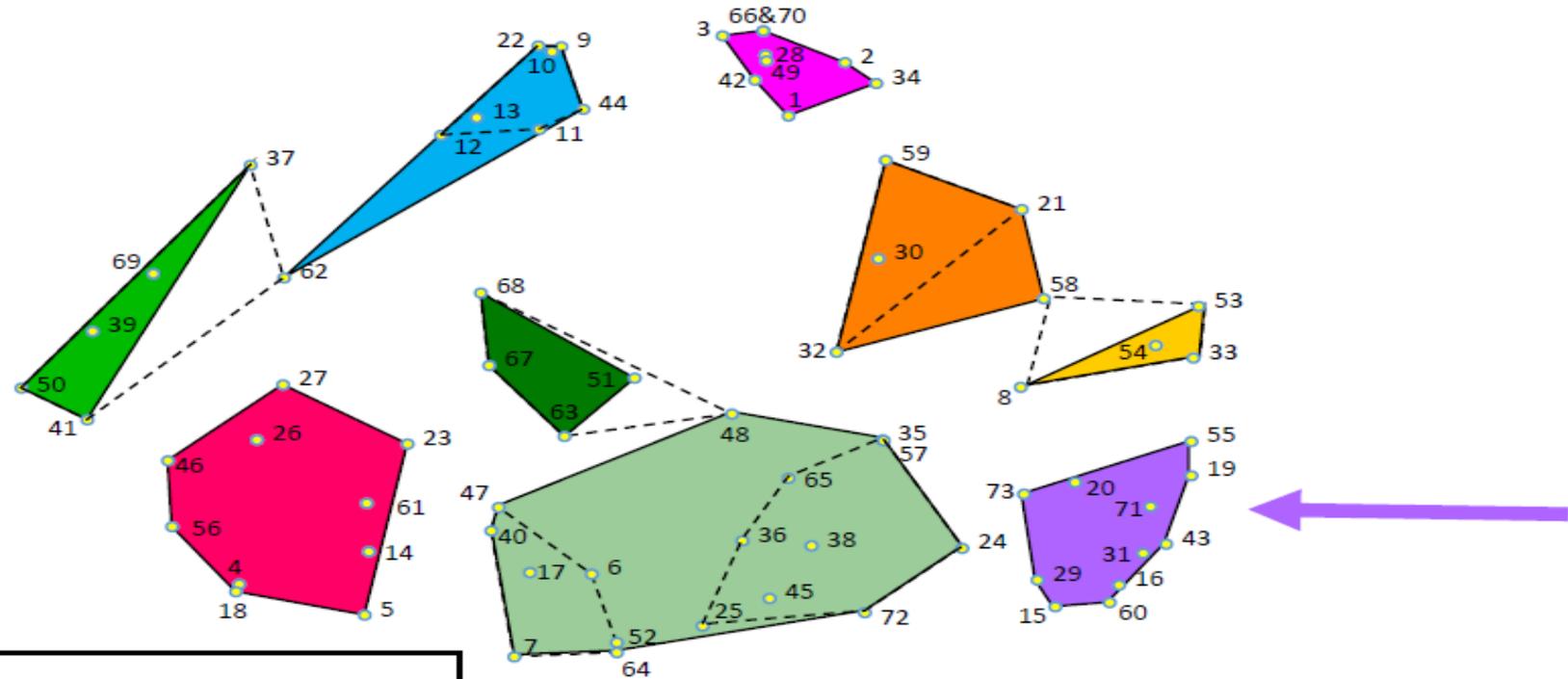
Implementation Strategies Utilized

Final Solution

Strategies were clustered together by physical proximity into categories. Each cluster will be discussed in subsequent pages



Train and Educate Stakeholders

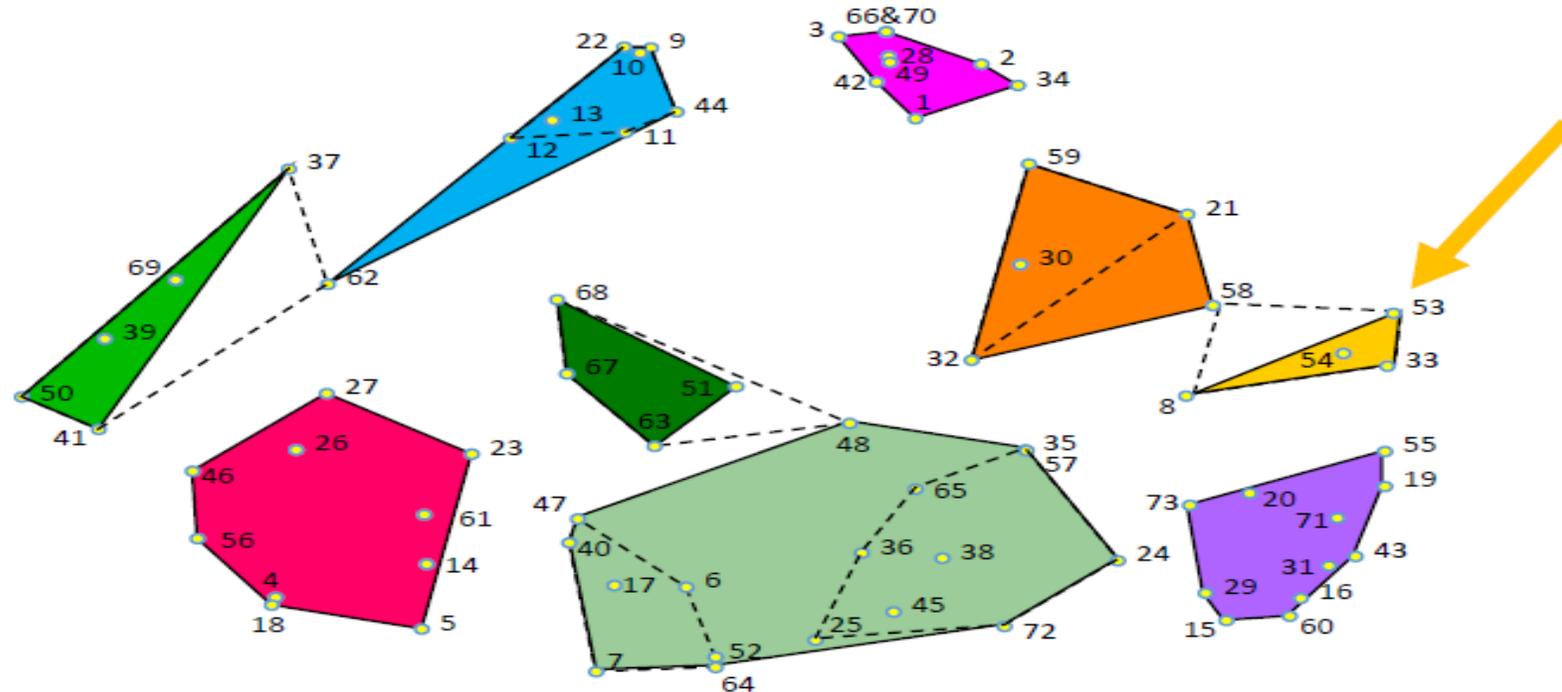


*	15	Conduct educational meetings
*	16	Conduct educational outreach visits
*	29	Develop educational materials
*	60	Shadow other experts
*	19	Conduct ongoing training
*	20	Create a learning collaborative

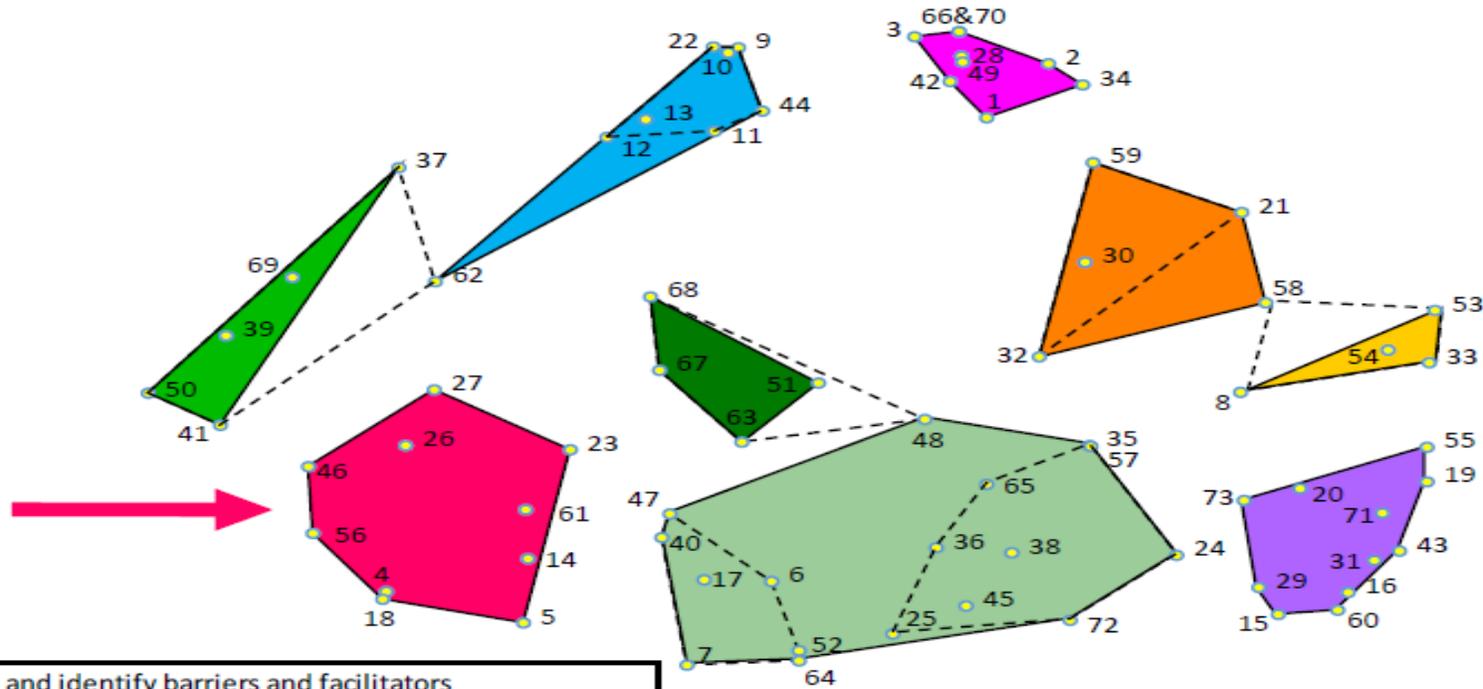
*	31	Distribute educational materials
*	43	Make training dynamic
*	55	Provide ongoing consultation
*	71	Use train-the-trainer strategies
*	73	Work with educational institutions

Provide Interactive Assistance

8	Centralize technical assistance
* 33	Facilitation
53	Provide clinical supervision
* 54	Provide local technical assistance



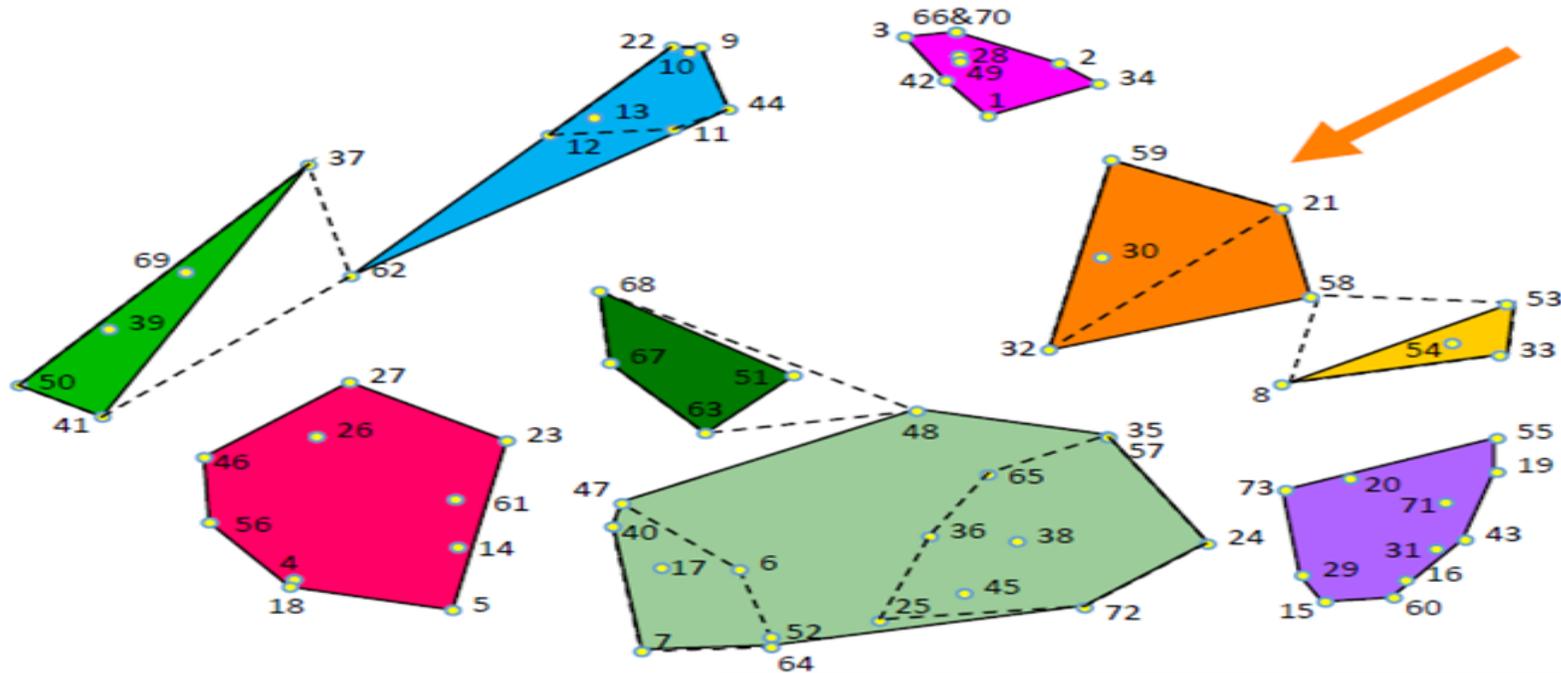
Use Evaluative and Iterative Strategies



*	4	Assess for readiness and identify barriers and facilitators
*	5	Audit and provide feedback
*	14	Conduct cyclical small tests of change
	18	Conduct local needs assessment
	23	Develop a formal implementation blueprint
	61	Stage implementation scale up

	26	Develop and implement tools for quality monitoring
	27	Develop and organize quality monitoring systems
	46	Obtain and use patients/consumers and family feedback
*	56	Purposefully reexamine the implementation

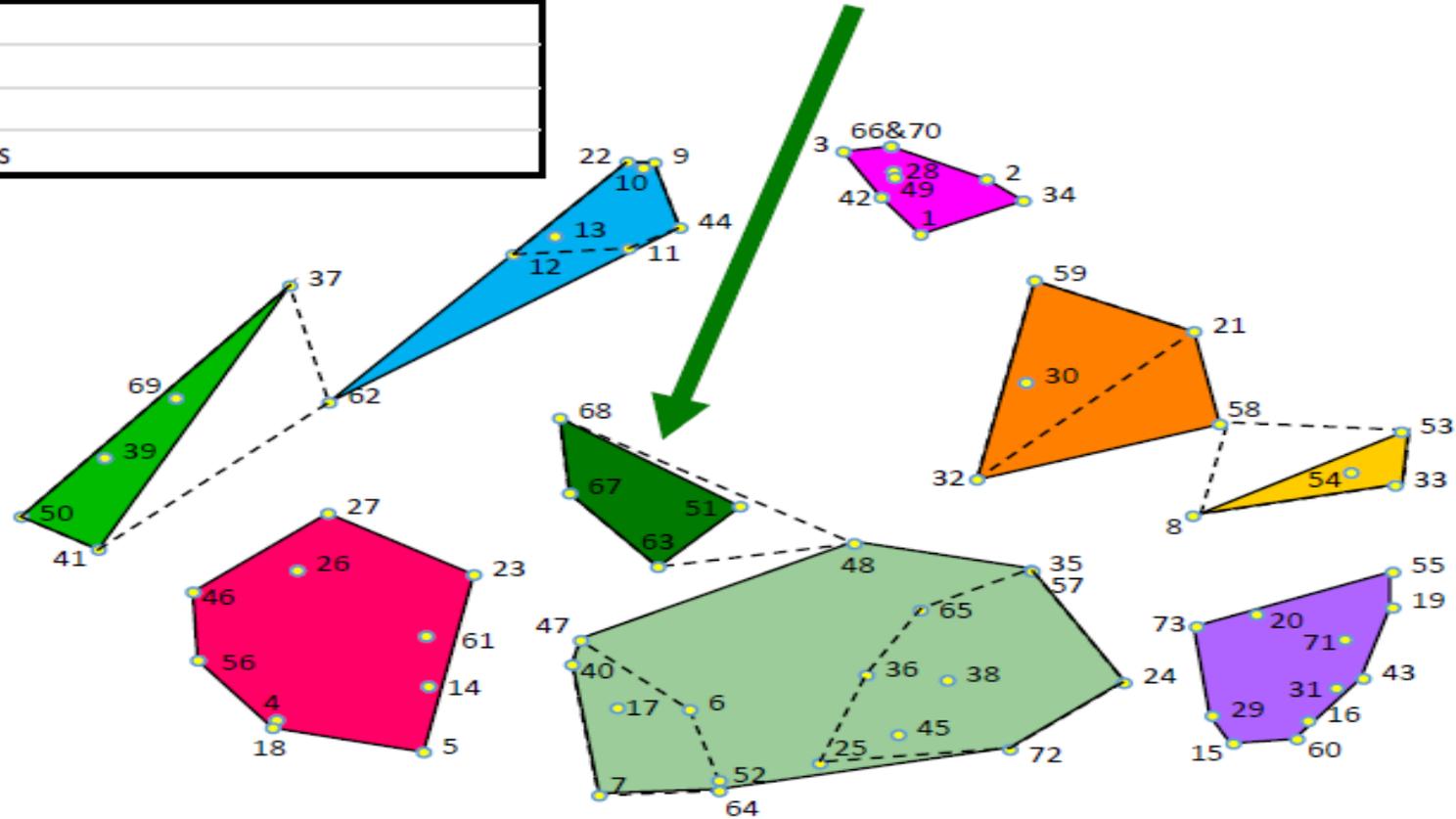
Support Clinicians



21	Create new clinical teams
30	Develop resource sharing agreements
*	32 Facilitate relay of clinical data to providers
*	58 Remind clinicians
	59 Revise professional roles

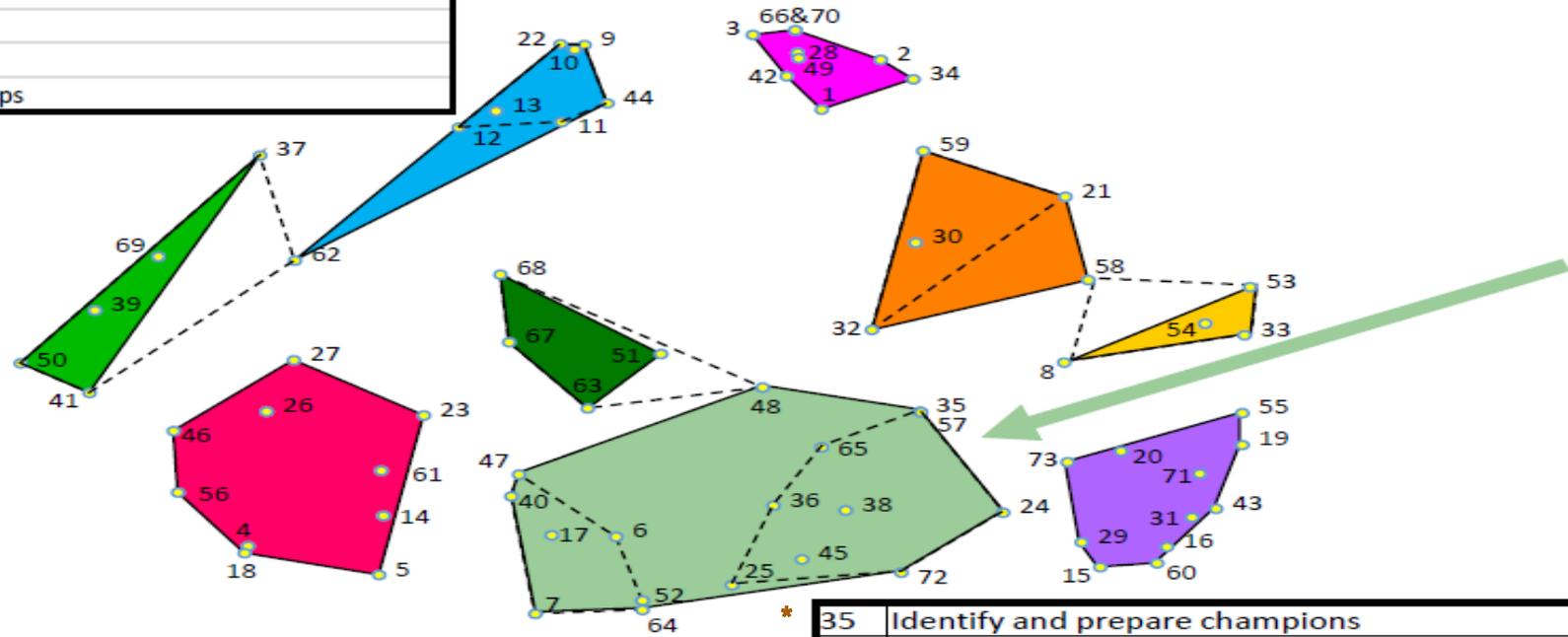
Adapt and Tailor to the Context

- | | |
|------|---------------------------------|
| * 51 | Promote adaptability |
| * 63 | Tailor strategies |
| 67 | Use data experts |
| 68 | Use data warehousing techniques |



Develop Stakeholder Interrelationships

* 6	Build a coalition
* 7	Capture and share local knowledge
* 17	Conduct local consensus discussions
40	Involve executive boards
47	Obtain formal commitments
52	Promote network weaving
* 64	Use advisory boards and workgroups

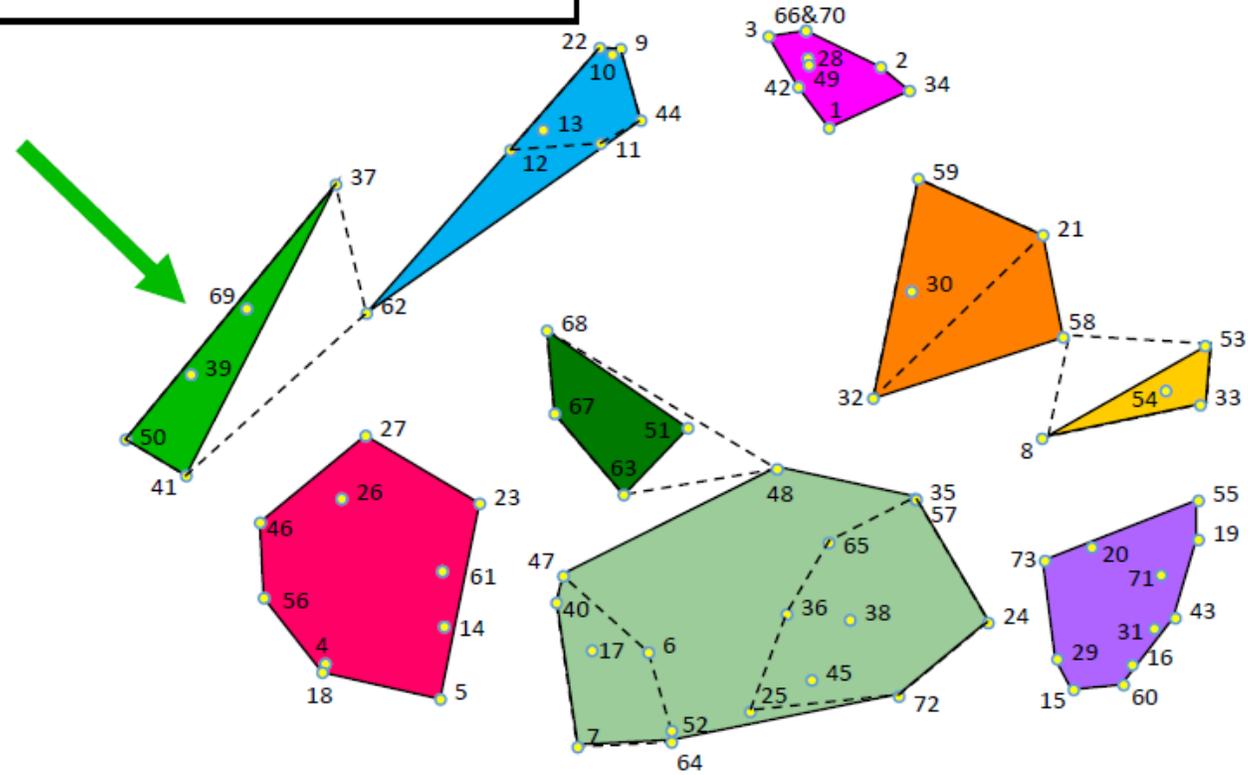


* 24	Develop academic partnerships
* 25	Develop an implementation glossary
* 36	Identify early adopters
* 38	Inform local opinion leaders

* 35	Identify and prepare champions
* 45	Model and simulate change
48	Organize clinician implementation team meetings
57	Recruit, designate, and train for leadership
65	Use an implementation advisor
* 72	Visit other sites

Engage Consumers

37	Increase demand
39	Intervene with patients/consumers to enhance uptake and adherence
41	Involve patients/consumers and family members
50	Prepare patients/consumers to be active participants
69	Use mass media



Results

What did we find?



Barriers: rotating personnel (University affiliate), stewardship turnover, lack of a local champion to remind/assist providers on template utilization, COVID-19, and shortages of Clinical Applications Coordinators (CAC) causing delays in template installation.

Facilitators: existing strong stewardship resources (e.g., staffing) and local champions (e.g., Infectious Diseases fellow) to encourage and ensure SSTOP template completion.

Recommendations: largely centered on ways to improve note template usability.

Benefits of SSTOP Learning Collaborative



DISCUSSIONS OF LOCAL **TAILORING OF NOTE TEMPLATE LOGIC** WAS USEFUL TO LEARN WHAT WORKED WELL FOR ONE SITE AND HOW IT COULD BE USED FOR OTHERS.



COLLECTIVELY, THE INFORMATION SHARED, AND KNOWLEDGE GAINED DURING THESE CALLS APPEAR TO HAVE **STRENGTHENED GROUP COMMITMENT TO THE PROJECT AND AIDED IN SUCCESSFUL SSTOP IMPLEMENTATION.**



SHARING **LOCAL SITE ACTIVITIES** (E.G., SITE SPECIFIC DEVELOPED TOOLS & EDUCATIONAL MATERIALS) **ENHANCED GROUP COLLABORATION** AND DEEMED HELPFUL FOR SSTOP IMPLEMENTATION.



DISCUSSIONS OF BARRIERS OFTEN LED TO **GROUP PROBLEM SOLVING, FOSTERING TEAMWORK,** AND ALLOWING FOR SITES TO ASSIST EACH OTHER TO OVERCOME BARRIERS.

Value of Learning Collaborative: Participants' Perspective

I do really appreciate the [Learning Collaborative] calls. I appreciate getting feedback from these other facilities. It's definitely interesting for us to see how other facilities practice ID [Infectious Disease] and practice stewardship. (...) I think we definitely have room to grow as a stewardship program, and so it's always nice to see what else is out there and what has worked for other facilities as well.

-ASP Champion [Qual interview]

I really enjoy them [the studies], it's a good group of people, it's collegial, it's sort of fun.

-ASP Champion [Qual interview]

Unique Insights



All sites are very engaged in the learning collaborative.

Although some sites haven't been able to implement the SSTOP templates, the template serves as a prompt—the guidance documents, de-escalation and educational tools (provided by the SSTOP team or developed locally) can be implemented otherwise as sites have been working with providers and pharmacists.

(...) we were finding that we were having so many barriers that we decided not to go to the template pathway, but it does not mean we are not following the same approach trying to reach everybody at 48 hours, and now we have pharmacies for every single team where before we only had one pharmacist for every other team. (...) and we have dedicated people for inpatient antimicrobial stewardship as well as outpatient antimicrobial stewardship. I do not know if you have an in between group for we are doing what SSTOP wants us to do but not necessarily the template.

-ASP Champion [Learning Collaborative]

Some of the sites that have implemented the templates are taking a more holistic approach to antibiotic stewardship—engagement in deescalating activities and antibiotic use—to the point that they did not utilize the template simply because they’ve changed their stewardship activities. If you don’t start an antibiotic, you wouldn’t need to fill out the SSTOP template.

I do not think that we have been placing the template into use as much as living by its values. We continue to be aggressive in stewardship and to use the structure of the template as an aggressive teaching tool from a stewardship standpoint. We may not be generating as much data for you, we are still trying to stay ahead of the pack.

-ASP Champion [Learning Collaborative]

Insights gained during these learning collaborative calls allowed us to follow-up and gather more detailed information on some of these findings during our qualitative post-intervention interviews.

The question will be posed how successful was SSTOP based on activation and energy vs. the use of the template itself?



Tracking Tools

SITE			
	Planning call	Site visit	Follow up 1
Date	5/13/2019	5/29/2019	6/28/2019
Participant Names/Roles/Site	- PharmD Champion	- Physician champion	-Pharm D Champion
SSTOP Status Update (e.g., not using, partially, fully)	vanco template not yet installed	vanco template not yet installed; plan for launch by September	Substantial progress will be delayed as physician champion is on leave until first wk of September; vanco template not yet installed; ongoing progress by CAC [name]
Local site activities	Need to get [Site] P&T approval	To-do items: R&D follow up, P&T notification, review and adaptation of sample abx protocols for use at [Site]	To-do items for [Physician Champion]: R&D coordination and planning with P&T; identify workflow issues
How intervention is being used (e.g., units, presentations for buy-in, etc.)			
Changes to Intervention (e.g., note template)		Alert to the responsible provider to do the vancomycin timeout template will be linked to an order for vancomycin; [Pharm D Champion] will remind teams to complete the vancomycin timeout template during 10:30 AM handshake rounds; alerts will be sent to ID whenever vancomycin is initiated or discontinued (via the template)	
Changes to Implementation (e.g., only using on X unit)			
Feedback/Recommendations/Suggestions		Main concern: How will providers be notified that vancomycin would expire and that the timeout template would need to be completed?	
Barriers	Some lapse of communication between PharmD and MD champions; [Pharm D Champion] had not been involved preliminarily. [Pharm D Champion] does not have power to approve the continuation (but would be open to this). PharmD management team is concerned about time commitment and possible interference with [Pharm D Champion] work.	Setting up alerts through quick orders would require that vancomycin be orderable ONLY through a quick order menu	[Physician Champion] is on leave until September 9th and other ID physician is swamped with clinical care responsibilities.
Facilitators	Structural advantage- site has a soft restriction for vanco; after 72 hours, medical team is required to put in a stewardship consult for a continuance.		
Reactions to Feedback Reports (data believable/data assumptions)			[PI] reviewed operations of the Dashboard, which could be helpful in absence of TheraDoc. [PI] also showed CREATE tools of abx use

Interaction Tracking Sheet			
Site: Iowa City			
Role person completing: QI Team (CCG/EEC)			
Date	2/15/2017	3/1/2017	3/7/2017
Event Type	Group	Group	Group
Mode of Communication	In person	Email	Email
Personnel	MDRO Coordinator, Infection Preventionist, 2 Members of the QI Team	Site D	Site D
Time (minutes)	60	30	15
Interaction Activity	Explaining HH Rates poster	Initial HH Feedback-HH Rates poster previous 3 months HH data	Follow-up HH Rates Poster
Implementation Strategy	Conduct Educational Meetings	Audit and provide feedback	Conduct cyclical small tests of change Facilitation

Current Impl'n Status	Innovation Characteristics	Recipient Characteristics	Inner Context Characteristics	Outer Context Characteristics	Facilitation: Internal	Facilitation: External
Rating: -1 = Regression 0 = Status quo +1 = On track +2 = Exceeds expectations Accomplished = Done Review Date: 7/12/2017 Site Visit	<ul style="list-style-type: none"> Underlying knowledge sources Clarity Degree of fit Degree of novelty Usability Etc. 	<ul style="list-style-type: none"> Motivation Values & beliefs Goals Skills & knowledge Time, resources, support Etc. 	<ul style="list-style-type: none"> Leadership support Culture Past change experience Mechanisms for embedding change Etc. 	<ul style="list-style-type: none"> Policy drivers & priorities Incentives & mandates Regulatory framework Etc. 	<ul style="list-style-type: none"> Project management Improvement skills Team skills Process skills Influencing & negotiating skills 	<ul style="list-style-type: none"> Project management Improvement skills Team skills Process skills Influencing & negotiating skills
Utilize HH Rates poster provided by project. Rating: 0	+ Liked observation sheet -Strongly disliked HH Rates poster, due to lack of numerical HH rates, and therefore was not posted	+ Staff motivated to improve HH -Did not comprehend overall project goals	+ Leadership engaged in HH - Leadership does not like HH Rates poster	+ VISN wide Hospital Epidemiologist, Dr. Michi Goto, who is the Director of Infection Control for VISN 23 -No emphasis on HH, no current VA Directive	+ Strong internal facilitator, with a high level of influence over staff and leadership -Internal facilitator did not support the project	+ Dr. Goto's established relationship -Wanted more external facilitation

QUERI Implementation Resources

QUERI – Quality Enhancement Research Initiative

- QUERI Home
- ▶ Mission
- ▶ QUERI News
- ▼ Training and Resources
 - Training Opportunities
 - Implementation and Evaluation Resources
 - Learning Collaboratives
 - Economic Evaluation Resources
 - Clinical Evidence and Data Resources
 - Policy Evidence
- ▶ Funding and Partnership

QUERI Learning Collaboratives

Sharing best practices in implementation science

QUERI's Implementation Research Group (IRG) is a national learning collaborative that showcases state-of-the-art implementation science topics. Housed in [QUERI's Center for Evaluation and Implementation Resources \(CEIR\)](#), the IRG provides a forum for sharing best practices and lessons learned in the field of implementation science.

Join the IRG

Features of the IRG:

- 500+ members from across the U.S. and around the world
- Cyberseminars covering the latest implementation science methods and application of theory
- Monthly participatory group calls discussing a range of topics in implementation science

IRG RESOURCES

- [Implementation Research Group Site](#) housing working group products and webinars
- [Implementation Research Group Cyberseminars](#) (filter by QUERI Implementation Research Group) covering diverse topics in implementation science
- [QUERI Implementation Roadmap Guide](#) for planning, deploying, and sustaining effective practices

<https://www.queri.research.va.gov/ceir/irg.cfm>

Six Specialized Working Groups



**Adaptation, Fidelity,
and Tailoring**



**Applying
Implementation Science**
(theories and frameworks)



**Implementation
Facilitation**



**Qualitative
Comparative Analysis**



**Audit with
Feedback**



**Qualitative Methods
and Analysis Group**

Thank you for listening!

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Questions / Discussion

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