Using Frame and MADI Frameworks to Guide and Track Adaptations

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Adaptation Process: Decision Frameworks

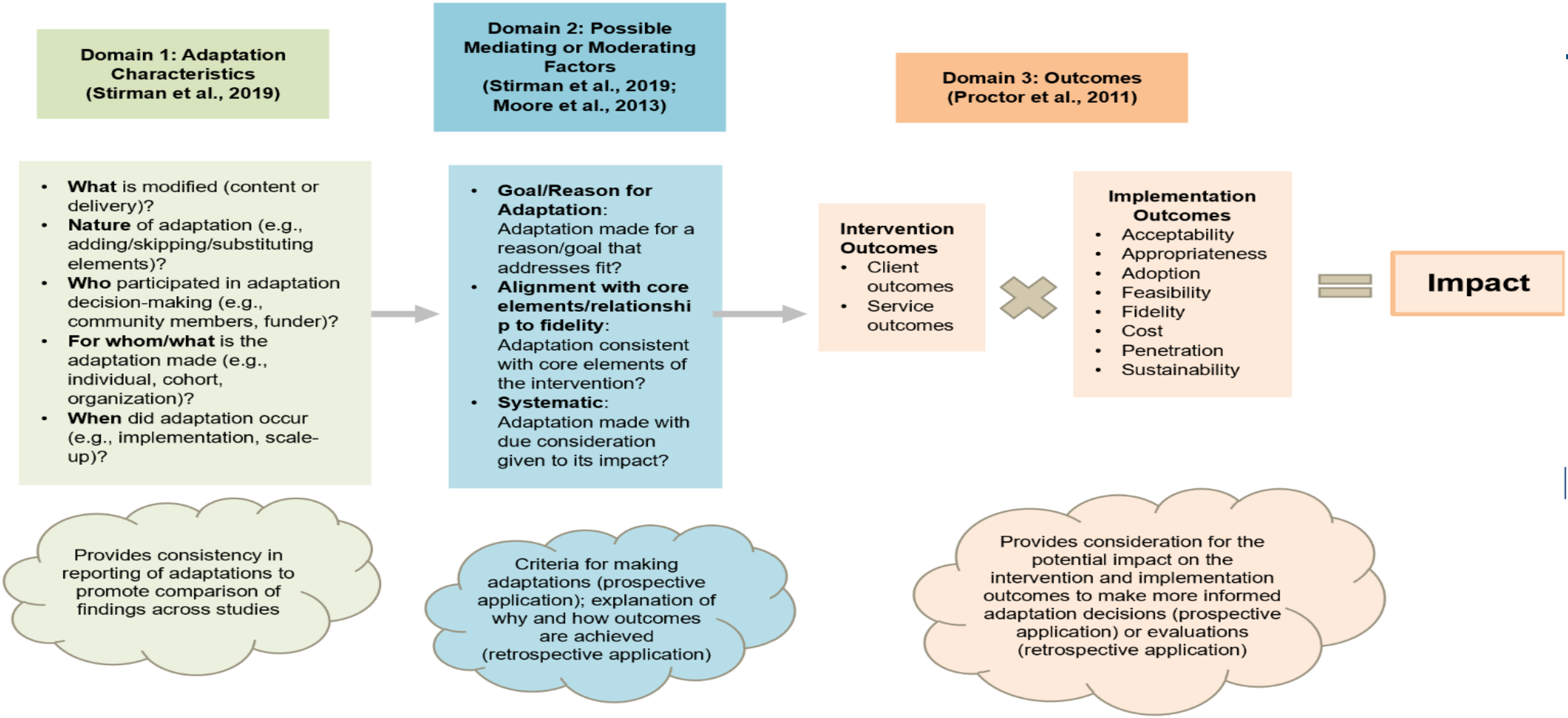
Iterative Decision Tree for Evaluation of Adaptations + FRAME (IDEA & FRAME)

Miller, C. J., Wiltsey-Stirman, S., & Baumann, A. A. (2020). Iterative Decision-making for Evaluation of Adaptations (IDEA): A decision tree for balancing adaptation, fidelity, and intervention impact. *Journal of Community Psychology*, *48*(4), 1163-1177.

Model for Adaptation Design & Impact (MADI)

Kirk, M. A., Moore, J. E., Stirman, S. W., & Birken, S. A. (2020). Towards a comprehensive model for understanding adaptations' impact: the model for adaptation design and impact (MADI). *Implementation Science*, *15*(1), 1-15.

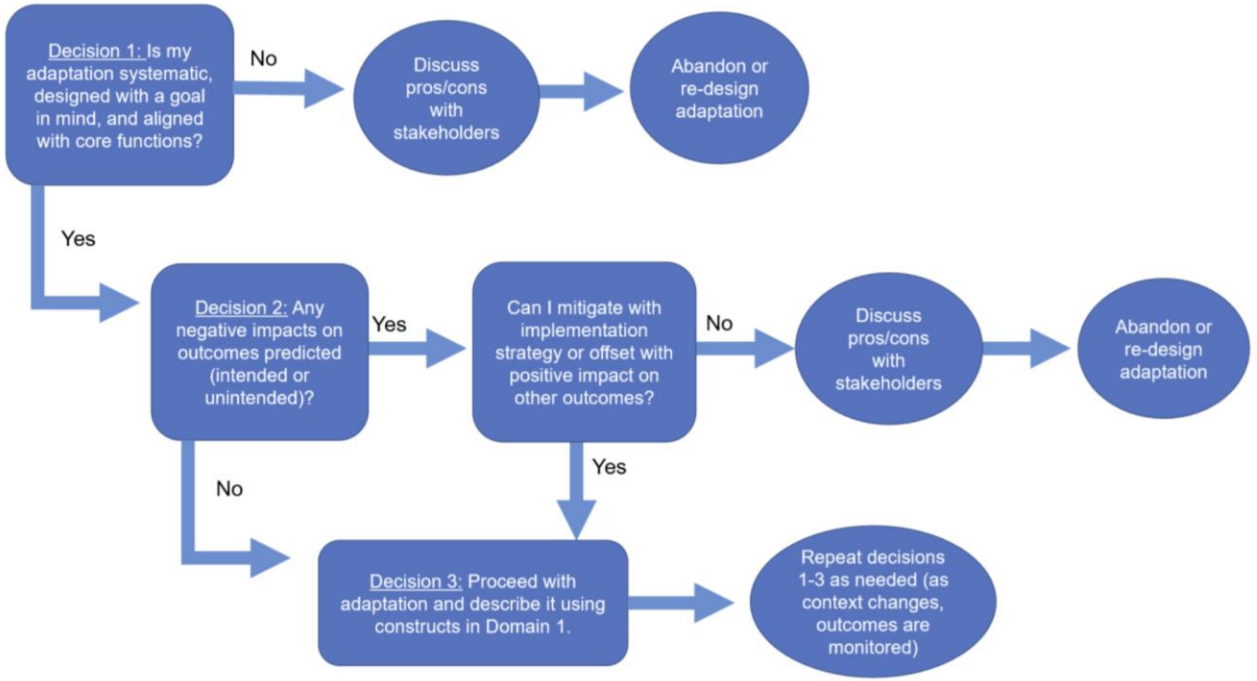
MADI



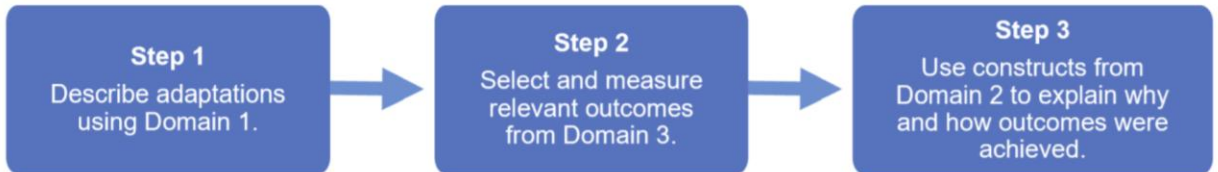
https://madiguide.org/about/

MADI as a Decision Aid

Decision Aid 1: Prospective Use of MADI



Decision Aid 2: Retrospective Use of MADI



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Framework for Reporting Adaptations and Modifications-Expanded*

PROCESS

WHEN did the modification occur?
- Pre-implementation/planning/pilot
- Implementation
- Scale up
- Maintenance/Sustainment

Were adaptations planned?
- Planned/Proactive (proactive adaptation)
- Planned/Reactive (reactive adaptation)
- Unplanned/Reactive (modification)

WHO participated in the decision to modify?
- **Political leaders**
- **Program Leader**
- **Funder**
- **Administrator**
- **Program manager**
- Intervention developer/purveyor
- Researcher
- Treatment/Intervention team
- Individual Practitioners (those who deliver it)
- **Community members**
- **Recipients**

Optional: Indicate who made the ultimate decision.

WHAT is modified?

Content
- Modifications made to content itself, or that impact how aspects of the treatment are delivered

Contextual
- Modifications made to the way the overall treatment is delivered

Training and Evaluation
- Modifications made to the way that staff are trained in or how the intervention is evaluated

Implementation and scale-up activities
- **Modifications to the strategies used to implement or spread the intervention**

At what _LEVEL OF DELIVERY_ (for whom/what is the modification made ?)
- Individual
- Target Intervention Group
- Cohort/individuals that share a particular characteristic
- Individual practitioner
- Clinic/unit level
- Organization
- Network System/Community

Contextual modifications are made to which of the following?
- Format
- Setting
- Personnel
- Population

What is the _NATURE_ of the content modification?
- Tailoring/tweaking/refining
- Changes in packaging or materials
- Adding elements
- Removing/skipping elements
- Shortening/condensing (pacing/timing)
- Lengthening/ extending (pacing/timing)
- Substituting
- Reordering of intervention modules or segments
- **Spreading (breaking up session content over multiple sessions)**
- Integrating parts of the intervention into another framework (*e.g.*, selecting elements)
- Integrating another treatment into EBP (not using the whole protocol and integrating other techniques into a general EBP approach)
- Repeating elements or modules
- Loosening structure
- **Departing from the intervention ("drift") followed by a return to protocol within the encounter**
- **Drift from protocol without returning**

Relationship fidelity/core elements?
- Fidelity Consistent/Core elements or functions preserved
- Fidelity Inconsistent/Core elements or functions changed
- Unknown

REASONS

What was the goal?
- Increase reach or engagement
- Increase retention
- Improve feasibility
- Improve fit with recipients
- To address cultural factors
- Improve effectiveness/outcomes
- Reduce cost
- Increase satisfaction

SOCIOPOLITICAL
- Existing Laws
- Existing Mandates
- Existing Policies
- Existing Regulations
- Political Climate
- Funding Policies
- Historical Context
- Societal/Cultural Norms
- Funding or Resource Allocation/Availability

ORGANIZATION/SETTING
- Available resources (funds, staffing, technology, space)
- Competing demands or mandates
- Time constraints
- Service structure
- Location/accessibility
- Regulatory/compliance
- Billing constraints
- Social context (culture, climate, leadership support)
- Mission
- Cultural or religious norms

PROVIDER
- Race
- Ethnicity
- Sexual/gender identity
- First/spoken languages
- Previous Training and Skills
- Preferences
- Clinical Judgement
- Cultural norms, competency
- Perception of intervention
- Comfort with Technology

RECIPIENT
- Race; Ethnicity
- Gender identity
- Sexual Orientation
- Access to resources
- Cognitive capacity
- Physical capacity
- Literacy and education level
- First/spoken languages
- Motivation and readiness
- Comfort with technology

Goals of documenting adaptations during implementation

- Create an **organized list of adaptations** that future implementers can consider for success
- Provide **contextual process data** to interpret outcomes (i.e., how adaptations contribute to outcomes)
- **Link adaptations to outcomes** (what kind of outcomes can be expected when specific adaptations are made?)
- **Consider refinements** to the recommended intervention & implementation strategies based on observed changes
- Propose **refinements** to the existing methodologies and frameworks and develop a replicable, easy-to-use documentation method for adaptations/ modifications

Module 1: Brief description of the EBP, implementation strategy, and modification(s)

Background: to make it easier to track modifications and to complete the remainder of the FRAME-IS, we recommend briefly describing the EBP in question, the initially defined implementation strategy being modified, and the modification(s) themselves.

We note that the ERIC compilation (Powell et al., 2015, Imp. Sci. vol. 10 p. 21) may be useful for describing the implementation strategy being used. We also note that many modifications may actually be "bundled" – i.e. may involve changes to multiple aspects of the implementation strategy. For example, the content and the length of a provider training may be modified simultaneously. In those cases, it is up to you whether you want to complete the FRAME-IS separately for each modification, or to complete it once (documenting all of the separate modifications at once).

Example:

The EBP being implemented is:

- *Blood serum monitoring for patients being prescribed lithium*

The implementation strategy being modified is:

- *Audit and feedback*

The modification(s) being made is/are:

- *Feedback to providers on their adherence to lithium serum monitoring is being provided less frequently than originally planned*

The reason(s) for the modification(s) is/are:

- *Clinicians reported feeling overwhelmed by original timing of feedback*

BRIEFLY DESCRIBE the EBP, implementation strategy, and modification(s)

The EBP being implemented is:

_____

The implementation strategy being modified is:

_____

The modification(s) being made is/are:

_____

_____

_____

The reason(s) for the modification(s) is/are:

_____

_____

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Module 1: BRIEFLY DESCRIBE the EBP, implementation strategy, and modification(s)

The EBP being implemented is: _____

The implementation strategy being modified is: _____

The modification(s) being made is/are: _____

The reason(s) for the modification(s) is/are: _____

Module 2: WHAT is modified?

❑ ***Content***
Modifications made to content of the implementation strategy itself, or that impact how aspects of the implementation strategy are delivered

❑ ***Evaluation***
Modifications made to the way that the implementation strategy is evaluated

❑ ***Training***
Modifications to the ways that implementers are trained

❑ ***Context***
Modifications made to the way the overall implementation strategy is delivered. For Context modifications, specify which of the following was modified:

- ❑ ***Format*** (e.g. group vs. individual format for delivering the implementation strategy)
- ❑ ***Setting*** (e.g. delivering the implementation strategy in a new clinical or training setting than was originally planned)
- ❑ ***Personnel*** (e.g. having the implementation strategy be delivered by a systems engineer rather than a clinician facilitator)
- ❑ ***Population*** (e.g. delivering the implementation strategy to middle managers instead of frontline clinicians)
- ❑ ***Other*** context modification: write in here:
  _____

Module 3: What is the NATURE of the content, evaluation, or training modification?

- ❑ Tailoring/tweaking/refining
- ❑ Changes in packaging or materials
- ❑ Adding elements
- ❑ Removing/skipping elements
- ❑ Shortening/condensing (pacing/timing)
- ❑ Lengthening/ extending (pacing/timing)
- ❑ Substituting
- ❑ Reordering of implementation modules or segments
- ❑ Spreading (breaking up implementation content over multiple sessions)
- ❑ Integrating parts of the implementation strategy into another strategy (e.g., selecting elements)
- ❑ Integrating another strategy into the implementation strategy in primary use (e.g. adding an audit/feedback component to an implementation facilitation strategy that did not originally include audit/feedback)
- ❑ Repeating elements or modules of the implementation strategy
- ❑ Loosening structure
- ❑ Departing from the implementation strategy (“drift”) followed by a return to strategy within the implementation encounter
- ❑ Drift from the implementation strategy without returning (e.g., stopped providing consultation, stopped sending feedback reports)
- ❑ Other (write in here):
  _____

Module 3, OPTIONAL Component: Relationship to fidelity/core elements?

- ❑ Fidelity Consistent/Core elements or functions preserved
- ❑ Fidelity Inconsistent/Core elements or functions changed
- ❑ Unknown

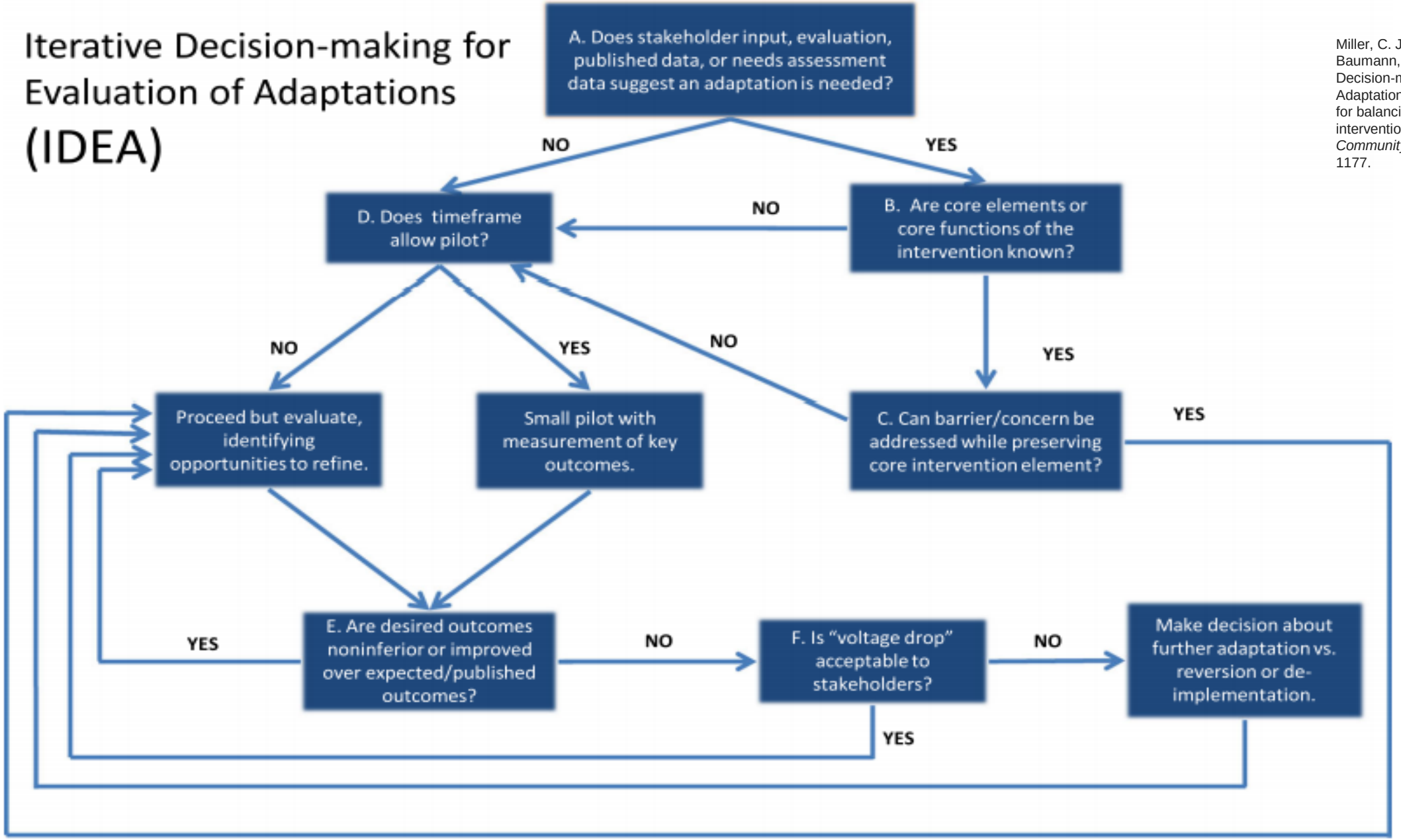
Module 4, Part 1: What is the GOAL?

- ❑ Increase reach of the EBP (i.e. the number of patients receiving the EBP)
- ❑ Increase the clinical effectiveness of the EBP (i.e. the clinical outcomes of the patients or others receiving the EBP)
- ❑ Increase adoption of the EBP (i.e. the number of clinicians or teachers using the EBP)
- ❑ Increase the acceptability, appropriateness, or feasibility of the implementation effort (i.e. improve the fit between the implementation effort and the needs of those delivering the EBP)
- ❑ Decrease costs of the implementation effort
- ❑ Improve fidelity to the EBP (i.e. improve the extent to which the EBP is delivered as intended)
- ❑ Improve sustainability of the EBP (i.e. increase the chances that the EBP remains in practice after the implementation effort ends)
- ❑ Increase health equity or decrease disparities in EBP delivery
- ❑ Other (write in here):
  _____

Module 4, Part 2: What is the LEVEL of the rationale for modification?

- ❑ Sociopolitical level (i.e. existing national mandates)
- ❑ Organizational level (i.e. available staffing or materials)
- ❑ Implementer level (i.e. those charged with leading the implementation effort)
- ❑ Clinician or Teacher level (i.e. those implementing the EBP)
- ❑ Patient or Other Recipient level (i.e. those who will ideally benefit from the EBP)
- ❑ Other (write in here):
  _____

Iterative Decision-making for Evaluation of Adaptations (IDEA)



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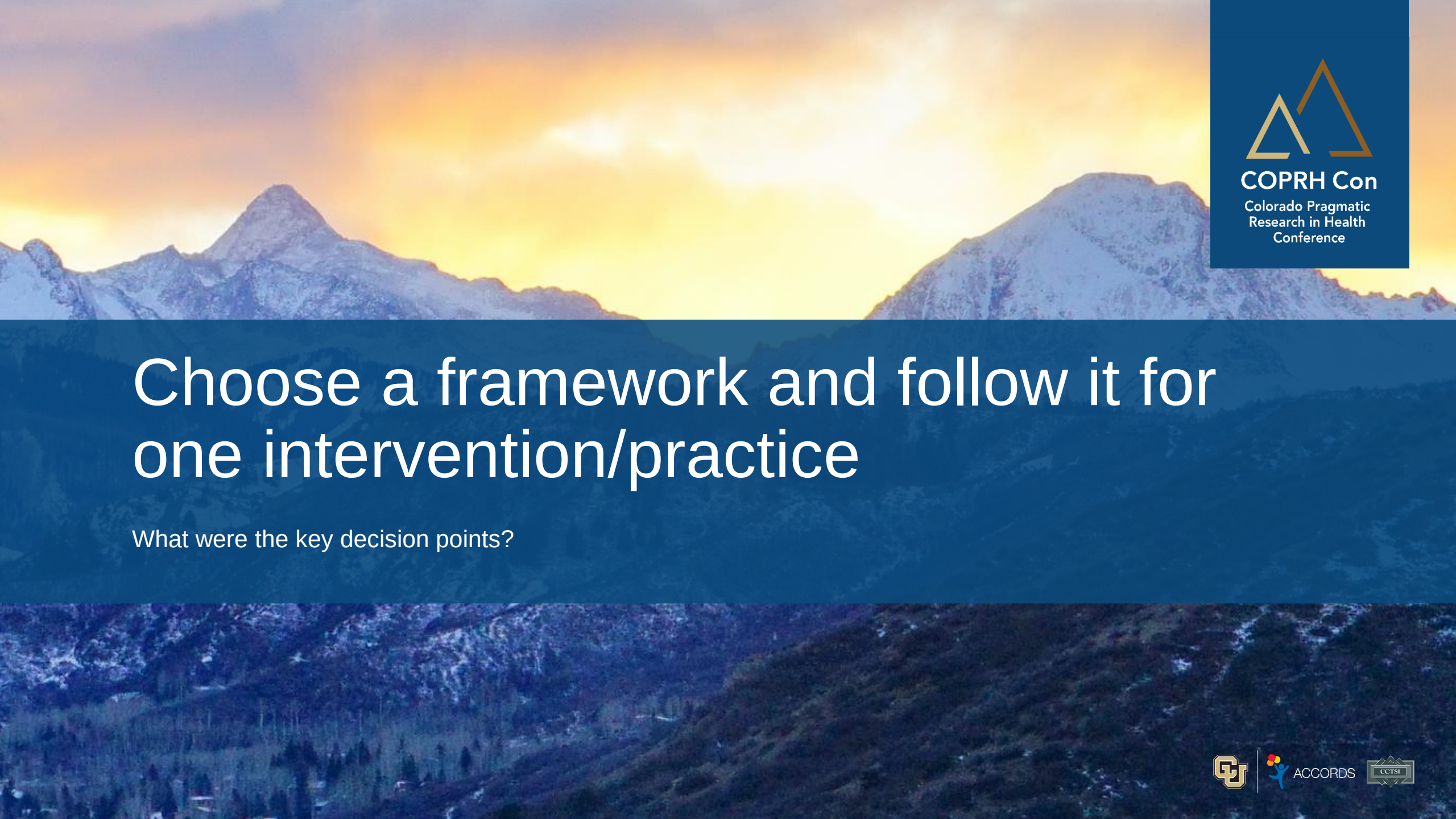

Choose a framework and follow it for one intervention/practice

What were the key decision points?

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Tracking strategies

- **Self-report**
  - Recall
  - Accuracy
  - Record keeping
  - Provider burden
- **Observation**
  - Time and resources
  - Some modifications (e.g. changing session sequence) may require longitudinal observation
  - Hawthorne Effect

May require multimethod assessment and triangulation

Interview

In the past [time period] /Since implementing [intervention], have you made any changes?	
How have you changed it?	Probe with the codebook handy, ask enough questions to be able to determine which form of adaptation(s) they've made?
Do you make that change for everyone, or just some people?	Probe/who, how often
What led you to make that change?	Assess for therapist preference, recipient need/constraint, setting constraint/need, other factors Who was involved in the decision?
Does it seem to be working? How do you determine if it's working?	

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Sample Interview Questions

WHAT component or part of the intervention was changed in this adaptation; in other words, what was the nature of the change?
(For instance, was it a change to program content, format, delivery mode, staff delivering it, patients eligible, where, when or how it was delivered, or what?)

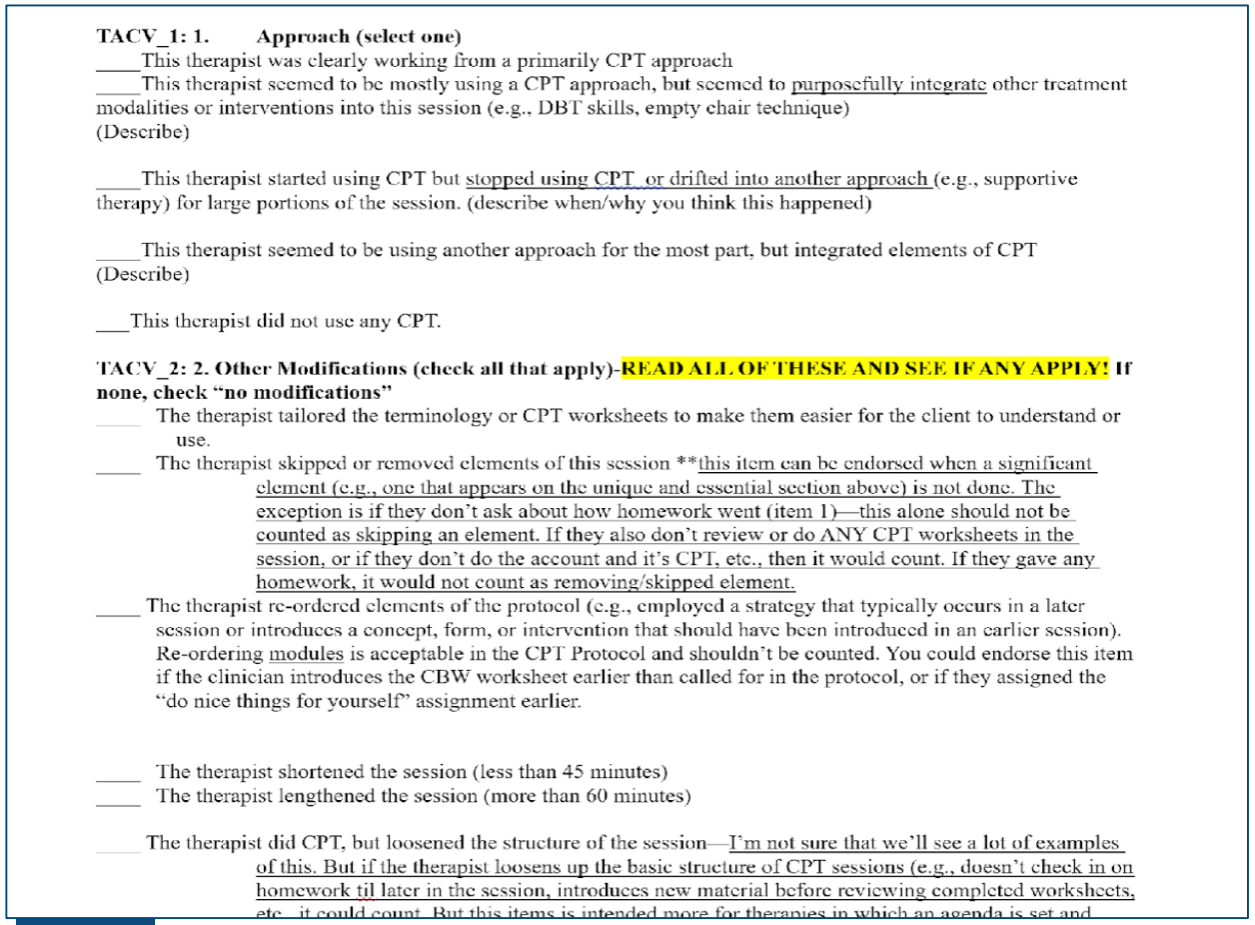
WHO was responsible for first suggesting or initiating this change?
(Was this the person or persons the ones who implemented the change? (If not, who implemented the adaptation?))

WHEN during the ____ program was this adaptation first made?

WHY was this adaptation made? What are the goals, and what are the reasons?
(Example goals: to get more people to participate, to make the program fit better for certain contexts or populations; Reasons: limited resources, geographic constraints, address comorbidities, etc.)

How do you determine if it is having the desired impact?

Observation



TACV_1: 1. Approach (select one)
____This therapist was clearly working from a primarily CPT approach
____This therapist seemed to be mostly using a CPT approach, but seemed to purposefully integrate other treatment modalities or interventions into this session (e.g., DBT skills, empty chair technique)
(Describe)

____This therapist started using CPT but stopped using CPT, or drifted into another approach (e.g., supportive therapy) for large portions of the session. (describe when/why you think this happened)

____This therapist seemed to be using another approach for the most part, but integrated elements of CPT
(Describe)

___This therapist did not use any CPT.

TACV_2: 2. Other Modifications (check all that apply)-READ ALL OF THESE AND SEE IF ANY APPLY! If none, check "no modifications"
____ The therapist tailored the terminology or CPT worksheets to make them easier for the client to understand or use.
____ The therapist skipped or removed elements of this session **this item can be endorsed when a significant element (e.g., one that appears on the unique and essential section above) is not done. The exception is if they don't ask about how homework went (item 1)—this alone should not be counted as skipping an element. If they also don't review or do ANY CPT worksheets in the session, or if they don't do the account and it's CPT, etc., then it would count. If they gave any homework, it would not count as removing/skipped element.
____ The therapist re-ordered elements of the protocol (e.g., employed a strategy that typically occurs in a later session or introduces a concept, form, or intervention that should have been introduced in an earlier session). Re-ordering modules is acceptable in the CPT Protocol and shouldn't be counted. You could endorse this item if the clinician introduces the CBW worksheet earlier than called for in the protocol, or if they assigned the "do nice things for yourself" assignment earlier.

____ The therapist shortened the session (less than 45 minutes)
____ The therapist lengthened the session (more than 60 minutes)

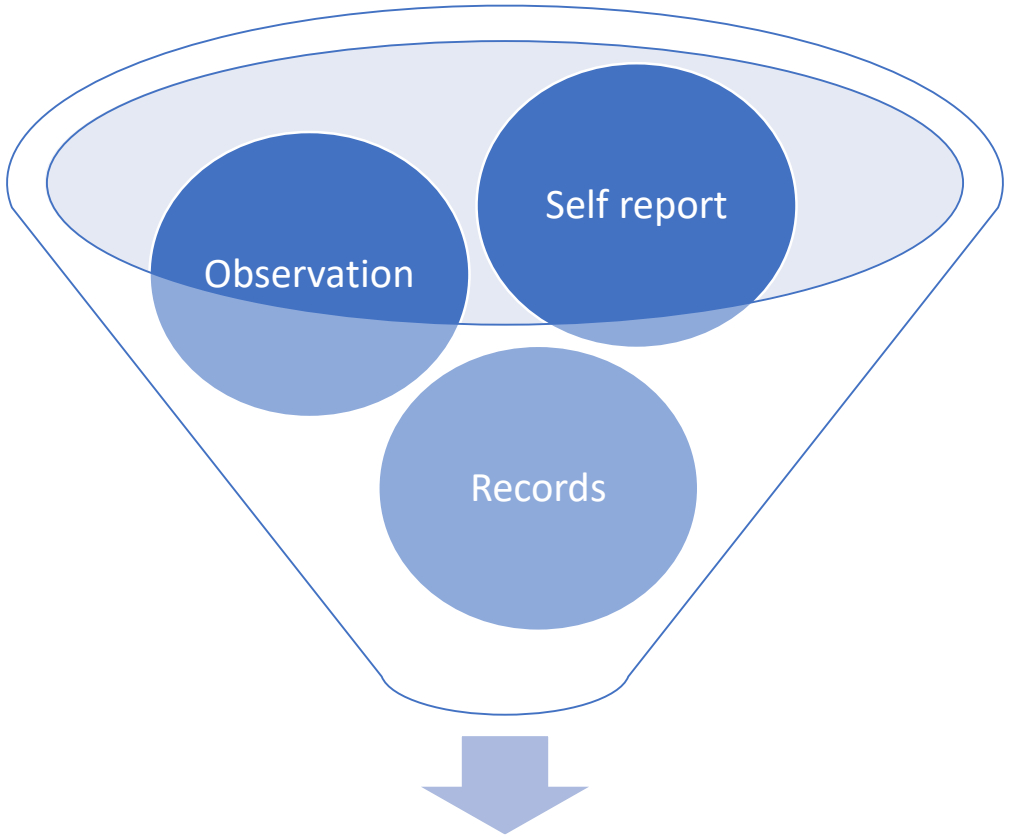
____ The therapist did CPT, but loosened the structure of the session—I'm not sure that we'll see a lot of examples of this. But if the therapist loosens up the basic structure of CPT sessions (e.g., doesn't check in on homework til later in the session, introduces new material before reviewing completed worksheets, etc., it could count. But this items is intended more for therapies in which an agenda is set and

- Live (site visits) or recording of interactions
- Coding scheme and decision rules
- Dichotomous Ratings

Challenges: Observation

- Time and resources
- Some adaptations (e.g., sequencing, spreading, adding sessions) might not be evident from a single observation
- Practically and conceptually, it can make sense to assess fidelity and adaptation simultaneously
- Observing the full protocol can have implications for fidelity assessments

Triangulation



Full Picture of Adaptations

Adaptations – when and to what?

Focus of Adaptation	Timing of Adaptation - Point in the Study: Planning Pre-implementation	During Implementation	Following Sustainment
Intervention			
Implementation Strategy			
Context			

Rabin BA, McCreight M, Battaglia C, et al. Systematic, Multimethod Assessment of Adaptations Across Four Diverse Health Systems Interventions. *Front Public Health*. 2018;6:102.

Methods to Assess Adaptation

#1: Observational techniques

#2: Focused interviews

#3: Questionnaires, checklists, and logs

#4: Content analysis of key documents and curricula

#5: Study databases and clinical databases

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Example Tracking form (in codebook at: https://med.stanford.edu/fastlab/research/adaptation.html)

FRAME Adaptions and Modifications Checklist

Describe the Adaptation/Modification_____

_____

One per adaptation

Process

When did the modification occur?

- ☐ Pre-implementation/planning/pilot
- ☐ Implementation
- ☐ Scale up
- ☐ Maintenance/Sustainment

Were adaptions planned?

- ☐ Planned/Proactive adaption
- ☐ Planned/Reactive adaption
- ☐ Unplanned/Reactive modification

WHO participated in the decision to modify

- ☐ Political leaders
- ☐ Funder
- ☐ Organizational unit/team
- ☐ Tx developer/purveyor
- ☐ Administrator(s)
- ☐ Tx team
- ☐ Provider
- ☐ Program staff
- ☐ Community members
- ☐ Coalition
- ☐ Recipient
- ☐ Other_____

Contextual modifications are made to which of the following?

- ☐ Format
- ☐ Setting
- ☐ Personnel
- ☐ Population

At what *LEVEL OF DELIVERY* (for whom/what is the modification made?)

- ☐ Individual
- ☐ Target Intervention Group
- ☐ Cohort
- ☐ Individual practitioner
- ☐ Clinic/unit level
- ☐ Organization
- ☐ Network System/Community

What is the *NATURE* of the content modification?

- ☐ Tailoring/tweaking/refining
- ☐ Changes in packaging or materials
- ☐ Adding/Removing/skipping elements
- ☐ Shortening/condensing/Lengthening/ extending (pacing/timing)
- ☐ Substituting/Reordering/Spreading of

Finley et al. BMC Medical Research Methodology (2018) 18:153
https://doi.org/10.1186/s12874-018-0610-y

BMC Medical Research Methodology

RESEARCH ARTICLE Open Access

Periodic reflections: a method of guided discussions for documenting implementation phenomena

Erin P. Finley[1,2,3*], Alexis K. Huynh[3,4], Melissa M. Farmer[3,4], Bevanne Bean-Mayberry[3,4,5], Tannaz Moin[3,4,5], Sabine M. Oishi[3,4], Jessica L. Moreau[3,4], Karen E. Dyer[3,4], Holly Jordan Lanham[1,2], Luci Leykum[1,2] and Alison B. Hamilton[3,4,5]

frontiers in Public Health

ORIGINAL RESEARCH
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Making Implementation Science More Rapid: Use of the RE-AIM Framework for Mid-Course Adaptations Across Five Health Services Research Projects in the Veterans Health Administration

Russell E. Glasgow[1,2], Catherine Battaglia[3,4,5], Marina McCreight[6], Roman Aydiko Ayele[7] and Borsika Adrienn Rabin[8,9,10]*

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Resources

http://med.stanford.edu/fastlab/research/adaptation.html

Fillable FRAME Coding Sheet

Resources

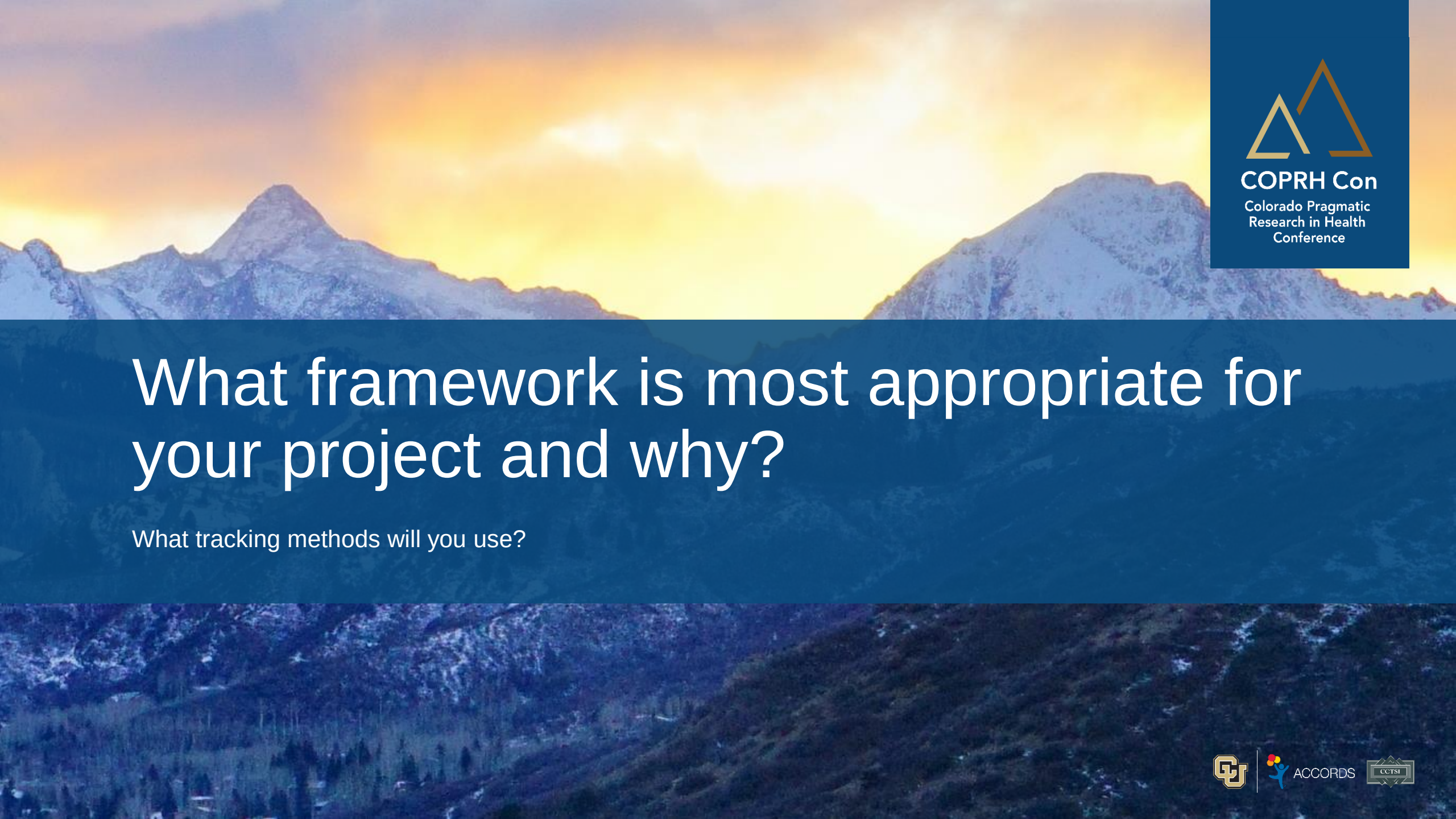
2013 Codebook

Monthly Adaptation Checklist

Adherence Self-Report

Modification and Adaptation Checklist

Graphics of FRAME, IDEA, and fidelity/adaptation quadrant for use in presentations/teaching. Please include citations.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What framework is most appropriate for your project and why?
What tracking methods will you use?
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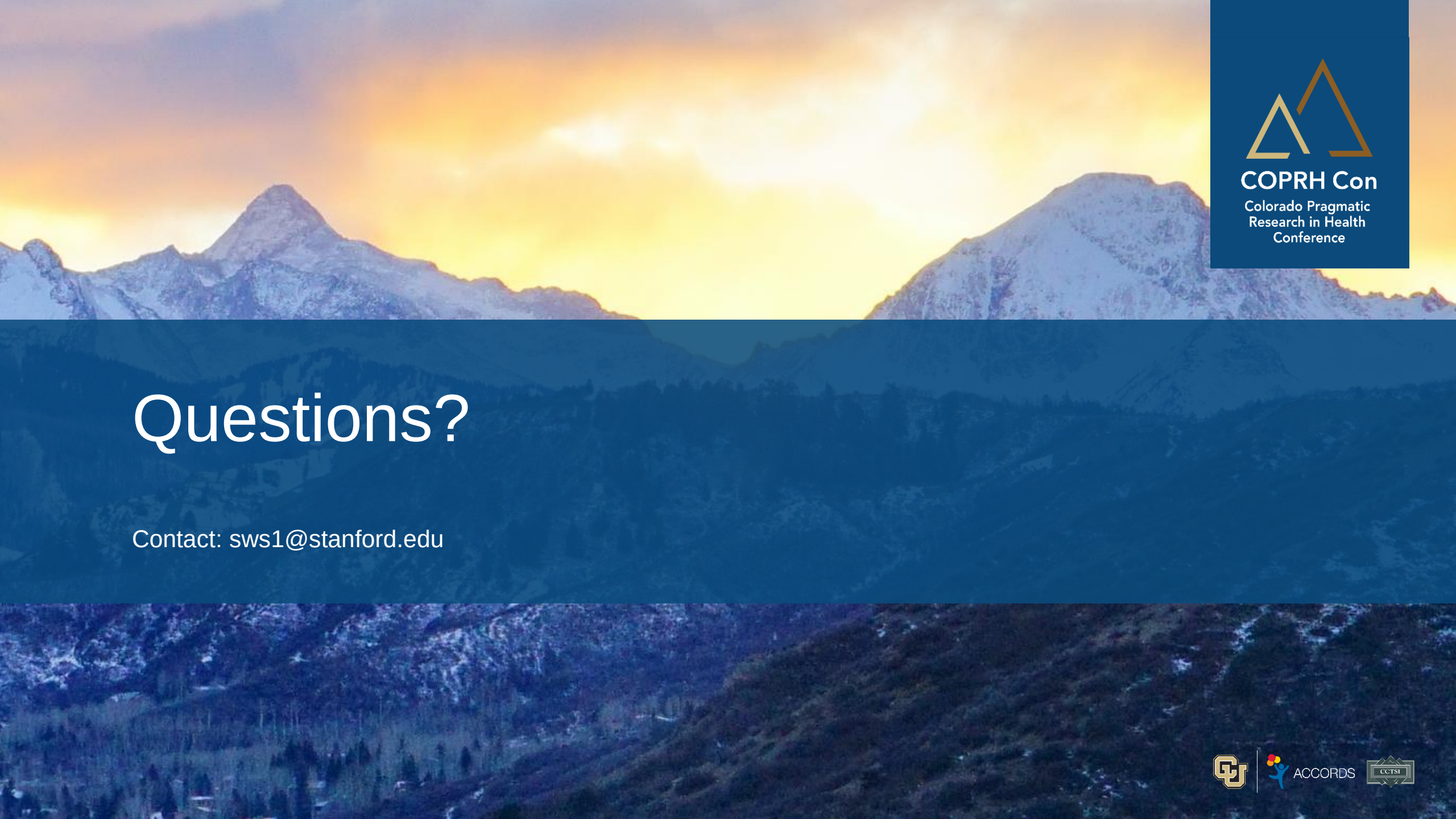

Questions?

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