
Assessing Implementation Context Using Participatory Qualitative Methods

Alison Hamilton, PhD, MPH

Nicole Stadnick, PhD, MPH



CSHIIP

Center for the Study
of Healthcare Innovation,
Implementation & Policy

VA HSR&D Cyberseminar
January 11, 2024

UC San Diego

ACTRI Dissemination and
Implementation Science Center

Alison Hamilton, PhD, MPH



Research Career Scientist, Center for the Study of Healthcare Innovation, Implementation & Policy, VA Greater Los Angeles Healthcare System

Professor-in-Residence, Department of Psychiatry and Biobehavioral Sciences, UCLA

Principal Investigator, UCLA Rapid, Rigorous, Relevant (3R) Implementation Science Hub, Center for HIV Identification, Prevention, and Treatment Services (CHIPTS)

Nicole Stadnick, PhD, MPH



Co-Principal Investigator, San Diego Center for AIDS Research Implementation Science Hub

Associate Professor, Department of Psychiatry
University of California San Diego

Director of Dissemination and Evaluation, ACTRI
Dissemination and Implementation Science Center
Child and Adolescent Services Research Center

Administrative Core Co-Lead, IN STEP Children's Mental Health Research Center

Agenda

- I. Review and overview of implementation context assessment
- II. Ethnographic approaches
 - A. Focused ethnography
 - B. Periodic reflections
 - C. Virtual ethnography
- III. Examples
 - A. Theory of Change
 - B. Brainwriting pre-mortem
- IV. Take-home considerations

I. Review and overview

VA HSR&D Cyberseminar
January 11, 2024

Review: what is implementation science?

Crux of implementation science (Bauer & Kirchner 2020):

1. Identify uptake barriers and facilitators **across multiple levels of context**
2. Develop and apply implementation strategies that overcome barriers and enhance facilitators to increase the uptake of evidence-based innovations

“implementation science protocols do not ignore or control for context, but rather *actively seek to intervene to change the context* in which clinical innovations are used in order to enhance their uptake”

“Context is a problem for implementation science.” (May et al., 2016)

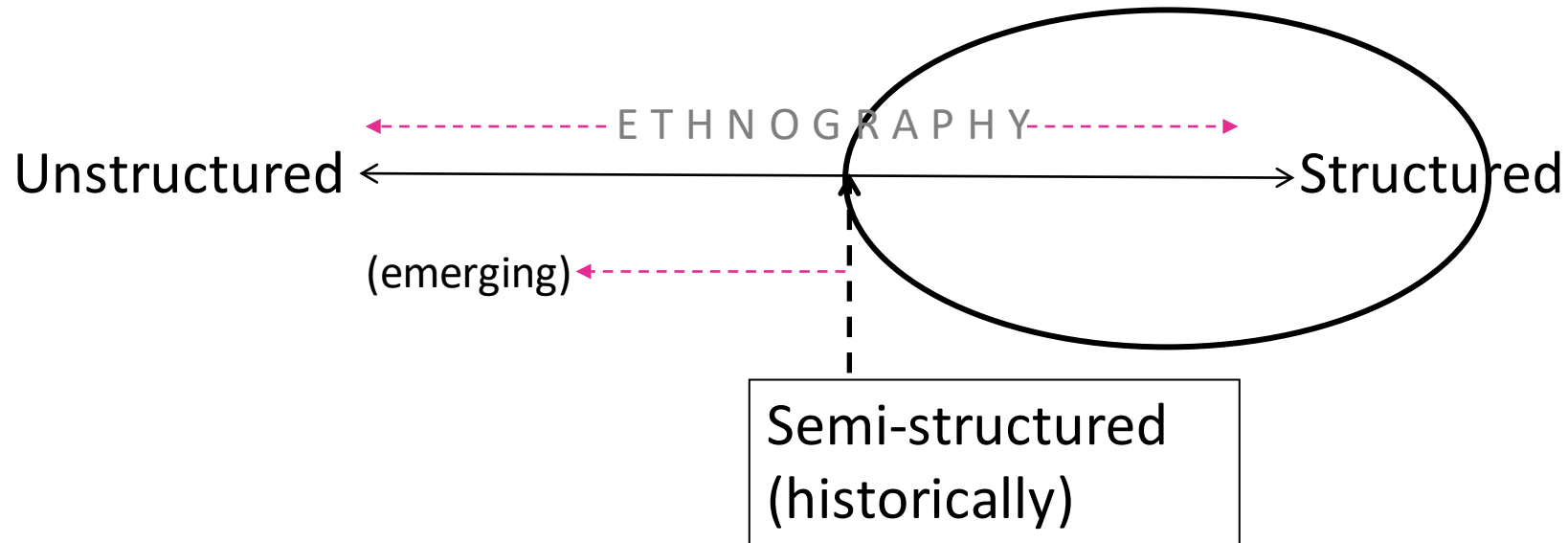
Scoping review of the concept of context (Bates & Ellaway, 2016):

1. Physical relationship
2. Location
3. Identity
4. Culture

- What context ‘is’
- How context works
- How context can be represented

17 frameworks that address contextual determinants (Nilsen & Bernhardsson, 2019)
“Context is commonly viewed as a multidimensional concept” → only “partially mature” in implementation science (Pfadenhauer et al., 2015)

Choosing qualitative methods for assessing context



- Focus groups
 - Could use activities
- Semi-structured interviews
 - Could include a few structured questions (e.g., rating/ranking)
- Observations
 - Descriptive fieldnotes, semi-structured templates, structured templates (Fix et al., 2022)

Studying context in relation to practice change (Tomoaia-Cotisel et al., 2013)

Most important contextual factors:

1. Practice setting
2. Larger organization
3. External environment
4. Implementation pathways
5. Motivation for implementation



To understand context:*

1. Engage diverse perspectives and data sources
2. Consider multiple levels
3. Evaluate history and evolution over time
4. Look at formal and informal systems and culture
5. Assess interactions between contextual factors, process, and outcome

*Check out the Context Matters worksheet:

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3707255/>

Studying context (Fetters et al., 2019)

Table 3. The 3 Cs—Context, Content, and Concepts—Approach to Field Observations

Category	Definition	Focus
Context	The circumstances (both material and theoretical) under which observations are being conducted, as well as any historical, sociocultural, political, and other information that may directly (or indirectly) influence data collection	Who is there as observer? What is your reason for being there? Why this location? What is your state of mind (eg, confused, unhappy, tired, excited)? What are your key areas of (observational) interest based on your prior research experience and/or scholarly background?
Content	The matter or substance of what happened	Who are the participants? How are they related, if at all (eg, physicians and patients, work colleagues, friends or family members, cancer survivors)? How do participants interact? What actions/events are occurring? What is the timing/sequence of events? What quotes best capture the exchange that occurred?
Concepts	The larger theoretical context to which observations connect, either as evidence of or refutation of theory; theoretical insights that emerge from observations (as in grounded theory); directions for future research	What have you learned that you did not know before? Does this observation help support or refute your hypothesis/expectations? How is this observation related to prior observations or to your reading of the scholarly literature? What are some potential implications of what you have observed? What new questions (research or otherwise) arise from this observation? How do participants respond to the presence of an observer? (Are they excited, anxious, skeptical, wary, etc?) What historical or current events may influence this response?

3Cs Observation Template

Project Title:

Document Type: Unstructured field observations

Observer:

Date/Time:

Location:

Main Research Question:

Participants:

Context: Researcher observations about any factors or circumstances that might influence the data collection process or affect the researcher and/or participants.

Content: Who are the participants? What actions/events are occurring? What is timing/sequence of events? What are great quotes?

Concepts: Preliminary ideas, observations, “light bulbs” - What have you learned that you did not know before? What are some potential implications of what you have observed? What new questions (research or otherwise) arise from this observation?

II. Ethnographic approaches

VA HSR&D Cyberseminar
January 11, 2024

Ethnography in implementation science

- Increasingly used to provide a contextual understanding of processes, complex interactions, and diverse views (Gertner et al., 2021)
- Recommendations for use:
 - iterative development of methodologies
 - valuing the reflexivity of the researcher/documenter
 - contextualizing findings by considering the local and broader context and perspectives from partners at multiple levels

Focused ethnography: two perspectives

Bikker et al., 2017

- Applied and pragmatic form of ethnography
- Explores only one particular problem or topic, “**focused field of enquiry**”
 - **problem-focused research question** is formulated before going into the field
- Involves **short-term and targeted data collection**
 - visits to the field tailored to a particular timeframe or events so that relevant results on the pre-defined topic can be obtained
- Interviews with **carefully selected participants structured** around the study topic

Higginbottom et al., 2013

- Conceptual orientation of single researcher
- **Preselected topic**
- Focus on discrete community, organization, social phenomena
- **Problem-focused** and context-specific
- **Limited number of participants**, with specific knowledge
- **Episodic participant observation**
- Interviews can be **highly structured**
- Observer as participant (less time-intensive)
- Selected (vs. descriptive) observations can be documented with checklists
- Document analysis

“FE can be applicable to any discipline whenever there is a desire to explore specific cultural perspectives held by sub-groups of people within a **context-specific** and problem-focused framework.” (Higginbottom et al., 2013)

Periodic reflections (Finley et al., 2018)

- Ethnographic in allowing close engagement, over time, multi-layered emic perspective
- Low burden strategy for documenting events, **contextual shifts & observations** in real time
- Brief, lightly guided phone calls with implementation team members (e.g., PIs, site coordinators) and key implementers
 - 15-60 minute phone calls, approximately monthly
- Flexible, allow for multiple perspectives on what, why, how, who and when
- Reflection and sensemaking [complexity theory]



Main
Activities



Adaptations
to Intervention



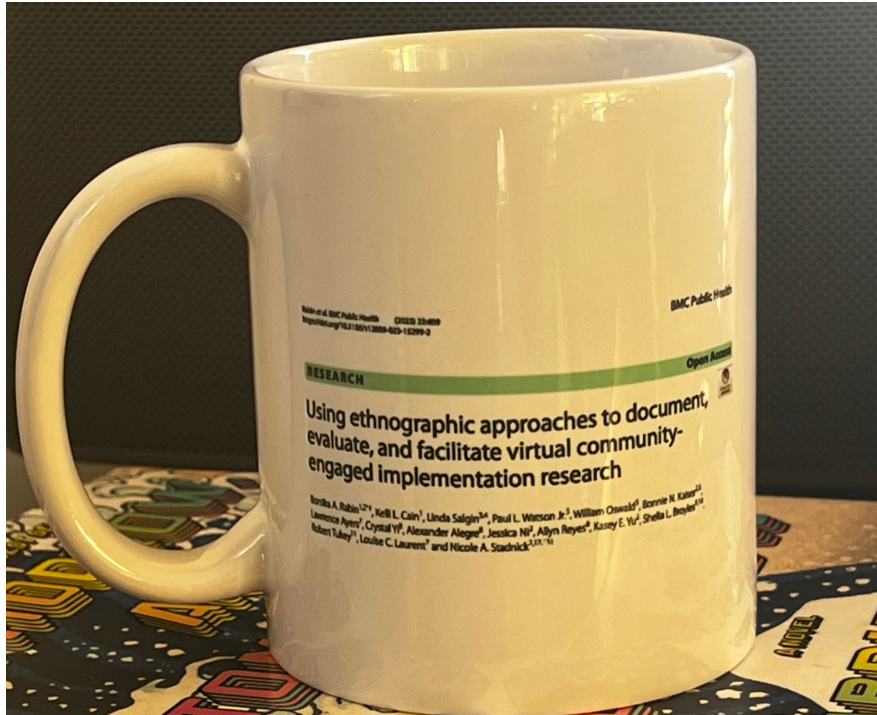
Adaptations
To Implementation



Stakeholder
Engagement



Changing
Environment



BMC Public Health

[Home](#) [About](#) [Articles](#) [Submission Guidelines](#) [Collections](#)

[Submit manuscript](#) 

Research | [Open Access](#) | [Published: 28 February 2023](#)

Using ethnographic approaches to document, evaluate, and facilitate virtual community-engaged implementation research

[Borsika A. Rabin](#) , [Kelli L. Cain](#), [Linda Salgin](#), [Paul L. Watson Jr.](#), [William Oswald](#), [Bonnie N. Kaiser](#), [Lawrence Ayers](#), [Crystal Yi](#), [Alexander Alegre](#), [Jessica Ni](#), [Allyn Reyes](#), [Kasey E. Yu](#), [Shelia L. Broyles](#), [Robert Tukey](#), [Louise C. Laurent](#) & [Nicole A. Stadnick](#)

BMC Public Health **23**, Article number: 409 (2023) | [Cite this article](#)

574 Accesses | 5 Altmetric | [Metrics](#)

Methods

- 33 partners from 17 community groups participated in 15 Community Advisory Board (CAB) virtual meetings facilitated by a social change organization
- Documenters were trained to observe CAB sub-groups using ethnographic documentation forms to assess multiple aspects of CAB member engagement
- Debriefing with the documentation team after CAB meetings supported quality assurance and process refinement
- Content and rapid thematic analysis were used to analyze documentation data

INNOVATION DOCUMENTATION FORM

SECTION 1: MEETING

Documenter: _____ **Meeting:** _____ **Date:** _____

Scene (e.g., main room, interpretation room, small groups, breakout rooms):

Technology (e.g., Zoom, Miro, white board):

Documentation method:

Live **Recording** **Both**

Purpose/Agenda for the meeting:

Were all agenda items discussed? **Yes** **No**
If no, what was the reason for not addressing all items?

Time meeting started (note if meeting started late):

Time meeting ended (note if meeting ended early or late):

CALCULATE AFTER MEETING:

How much time did each group talk during the meeting?

CAB Community members: _____ total minutes

Add totals for additional groups as needed

SECTION 3: ACTS

Sender Who and What	Target To whom: individual, sub- group, entire group	Scene (select one)	Type (select all that apply) <small>Seeking info: Asking for information from individual/group Giving info: Providing unsolicited facts, data, or opinion, providing information as a response Agreement: Agreeing with or endorsing others statements or summaries Summation: Summarizing points and making conclusions Closing: closing statement at end of meeting</small>	Comments
		<input type="checkbox"/> Main room/Entire group <input type="checkbox"/> Breakout room/Small group <input type="checkbox"/> Chat <input type="checkbox"/> Other: _____	<input type="checkbox"/> Seeking Info <input type="checkbox"/> Giving Info <input type="checkbox"/> Agreement <input type="checkbox"/> Summation <input type="checkbox"/> Closing <input type="checkbox"/> Other	
		<input type="checkbox"/> Main room/Entire group <input type="checkbox"/> Breakout room/Small group <input type="checkbox"/> Chat <input type="checkbox"/> Other: _____	<input type="checkbox"/> Seeking Info <input type="checkbox"/> Giving Info <input type="checkbox"/> Agreement <input type="checkbox"/> Summation <input type="checkbox"/> Closing <input type="checkbox"/> Other	

Add rows as needed

(average for our 2 hour CAB meetings was 92 Acts, range 10-177 Acts)

Additional/overall documentations and notes not listed above:

Table 2 Results from CO-CREATE and STOP COVID-19 CA CAB meetings indicating the % of meetings in which each partner was reported as serving in each role

From: [Using ethnographic approaches to document, evaluate, and facilitate virtual community-engaged implementation research](#)

	No Active Role	Provided Input	Identified Priorities	Participated in Program Design	Set the Agenda	Led or Co-led Meeting
CO-CREATE						
Community Partners	25%	100%	88%	100%	25%	13%
Health Clinic Partners	50%	100%	88%	88%	25%	13%
Public Health Partners	25%	100%	88%	88%	38%	0%
Global ARC	0%	88%	100%	100%	100%	100%
UCSD Research team	88%	100%	88%	88%	100%	88%
STOP COVID-19 CA						
Community Partners	0%	100%	100%	100%	29%	14%
Policy Partners	20%	100%	100%	100%	29%	0%
Global ARC	0%	86%	86%	86%	100%	100%
UCSD Research team	86%	71%	57%	100%	71%	71%

Table 3 Thematic analysis of interruptions by CAB members from CO-CREATE and STOP COVID-19 CA CAB meetings

From: [Using ethnographic approaches to document, evaluate, and facilitate virtual community-engaged implementation research](#)

	CO-CREATE	STOP COVID-19 CA
Clarifications/Explanations	33%	54.6%
Responses/Opinions	34.3%	31.8%
Logistics	32.9%	13.6%

Ethnographic documentation forms available!



<https://bmcpublichealth.biomedcentral.com/articles/10.1186/s12889-023-15299-2#MOESM1>

III. Examples

VA HSR&D Cyberseminar
January 11, 2024

RESEARCH ARTICLE

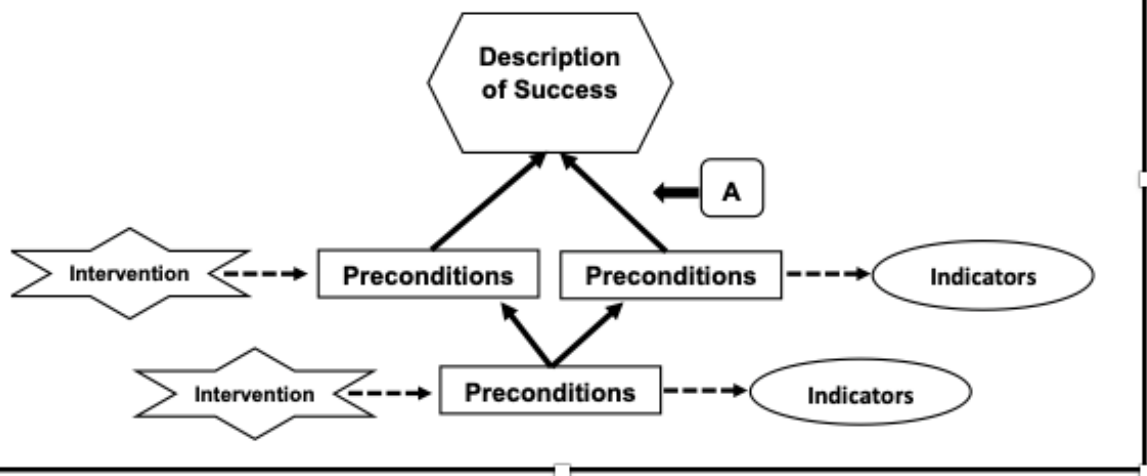
Co-creating a Theory of Change to advance COVID-19 testing and vaccine uptake in underserved communities

Nicole A. Stadnick PhD, MPH^{1,2,3}  | Kelli L. Cain MA⁴ | William Oswald PhD⁵ |
Paul Watson MS⁵ | Marina Ibarra⁵ | Raphael Lagoc BS⁵ |
Lawrence O. Ayers MPH⁶ | Linda Salgin MPH, CPH^{7,8} |
Shelia L. Broyles PhD, MPH^{9,10} | Louise C. Laurent MD, PhD⁶ |
Keith Pezzoli PhD^{11,12,13} | Borsika Rabin PhD, MPH, PharmD^{2,4} 

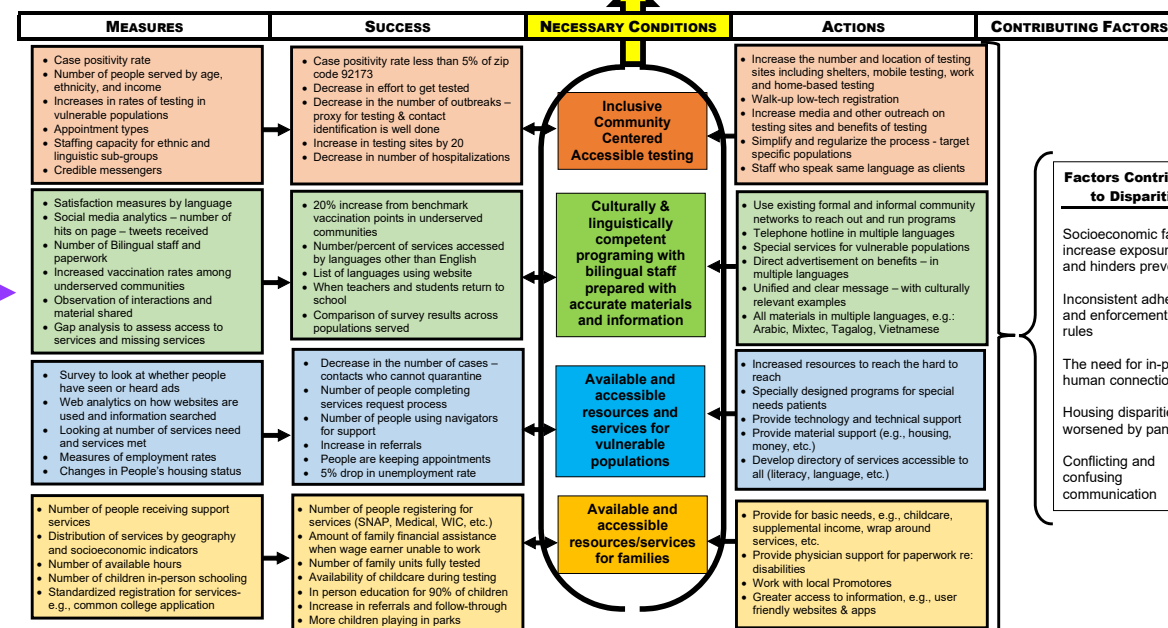
Theory of Change

- Comprehensive illustration of how and why a desired change is expected to happen in a particular context
- ‘Logic model on steroids’
- <https://www.theoryofchange.org/what-is-theory-of-change/>

Generic Theory of Change



Goal
Eliminate the disparities experienced by underserved communities in testing, access to treatment and ultimately in morbidity and mortality from COVID-19, especially for families with children and/or pregnant women.



Community Advisory Board Meetings

- 20+ meetings completed across the two projects
- Zoom, Miro, breakout rooms
- Lessons learned:



Translate all materials



Speak slowly for interpretation



Ongoing tech assistance



4:30-6:30pm works well



2 scribes/breakout room



Save time for end of meeting reflection

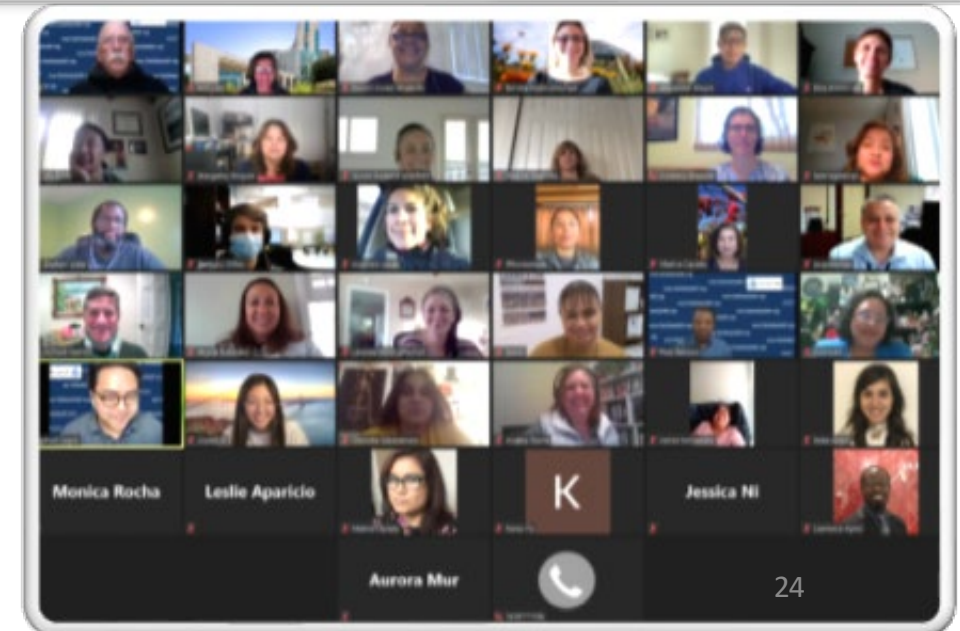
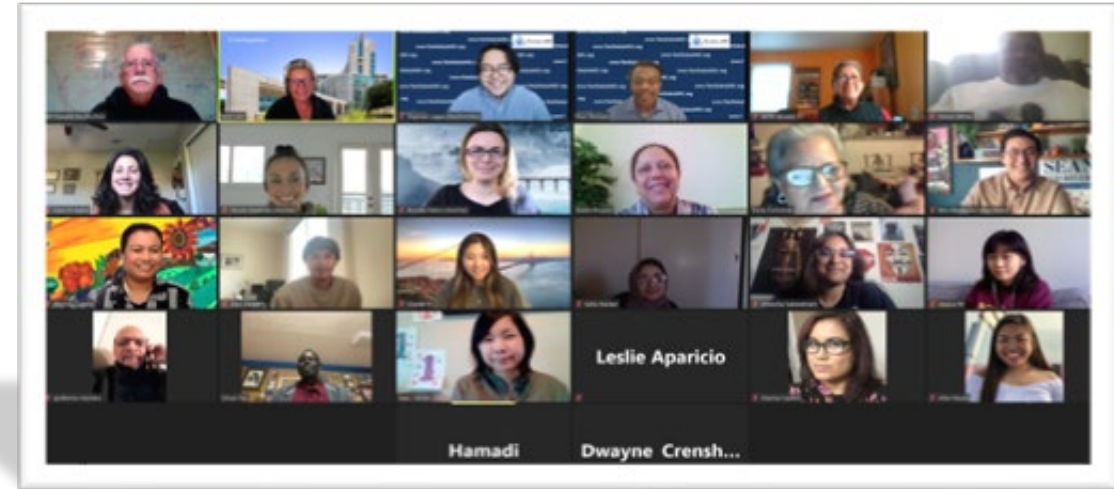


TABLE 2 | Community Advisory Boards for CO-CREATE and UC San Diego STOP COVID-19 CA.

CO-CREATE

STOP COVID-19 CA

***9 Community partners**

- Promotores Coalition
- Latinos y Latinas en Acción

11 Community leaders

- *Comite Organizador Latinos de City Heights
- Karen Organization of San Diego
- Kupanda Kids
- Partnership for the Advancement of New Americans
- Refugee Health Unit/Center for Community Health
- Somali Bantu Community
- South Sudanese Community Center
- The Humanity Movement
- Unity in the Community
- Youth Will

6 Public health research partners

- University of California San Diego
- San Diego State University
- Loma Linda University

2 Policy partners (non-voting CAB members)

- San Diego City Council, District 9, Community Empowerment

7 Clinic partners

- Providers
- Administrators

**Spanish was their preferred language used in CAB meetings.*

TABLE 2 Structure and content of CO-CREATE and STOP COVID-19 CA Theory of Change sessions with Community Advisory Boards

Session #	Goal	Agenda/activities	Outcomes
#1	<ul style="list-style-type: none"> • Introductions to CAB and research team • Review project goals and roles • Review Theory of Change project 	<ul style="list-style-type: none"> • Round robin introductions • Brief presentation by research team and the Global ARC • Review logistics (meeting, incentives, ground rules) 	<ul style="list-style-type: none"> • Shared understanding of goals and processes
#2	<ul style="list-style-type: none"> • Review long-term goal (i.e., North Star) • Identify contributing factors and basic assumptions about the context 	<ul style="list-style-type: none"> • Large group review of long-term goals • Individual brainstorming and small group discussion of contributing factors • Sorting contributing factors into themes in a large group 	<ul style="list-style-type: none"> • Contributing factors preventing the long-term goal identified
#3	<ul style="list-style-type: none"> • Name groups of contributing factors based on themes reflected • Prioritize groups of contributing factors 	<ul style="list-style-type: none"> • Name groups of contributing factors • Small group discussion and prioritization of newly named contributing factors • Each small group's rankings aggregated and factors prioritized based on priority 	<ul style="list-style-type: none"> • Contributing factors preventing the long-term goal named, defined, and prioritized
#4	<ul style="list-style-type: none"> • Identify necessary conditions needed to address contributing factors 	<ul style="list-style-type: none"> • Large group review of contributing factors • Individual brainstorming and small group discussion of necessary conditions needed to address contributing factors • Sort necessary conditions into themes in a large group • Name groups of necessary conditions based on themes reflected 	<ul style="list-style-type: none"> • Necessary conditions identified, named, and defined
#5	<ul style="list-style-type: none"> • Identify actions needed to create necessary conditions 	<ul style="list-style-type: none"> • Large group review of necessary conditions • Individual brainstorming and small group discussion of actions needed to create each condition 	<ul style="list-style-type: none"> • Actions needed to create each necessary condition identified and defined
#6	<ul style="list-style-type: none"> • Identify measures and indicators of success 	<ul style="list-style-type: none"> • Large group review of actions • Individual brainstorming and small group discussion of measures and indicators of success for the identified actions 	<ul style="list-style-type: none"> • Set of measures and indicators of success identified and defined
#7	<ul style="list-style-type: none"> • Review and validate completed Theory of Change 	<ul style="list-style-type: none"> • Detailed review of Theory of Change through CAB member input using a large group format • Discussion of next steps 	<ul style="list-style-type: none"> • Necessary revisions to Theory of Change identified and incorporated

Today's Process

Goal: To identify the factors that may contribute to disparities in access to vaccinations and participation in clinical trials to test the vaccines

Step 1: Presentation of the Focus Question

Step 2: Everyone takes 3 minutes to produce their own responses (5 to 7)

Step 3: Break into 2 groups where individuals share their responses

Step 4: Facilitator calls for the response to be brought forward by both groups

Step 5: All participants come back together and sort the responses based on themes reflected

Step 6: Once sorted the whole group names each grouping based themes reflected



NIH Community Engagement Alliance (CEAL) Against COVID-19 Disparities
Nicole Stadnick, Borsika Rabin | UC San Diego
Paul Watson, Bill Oswald | The Global ARC

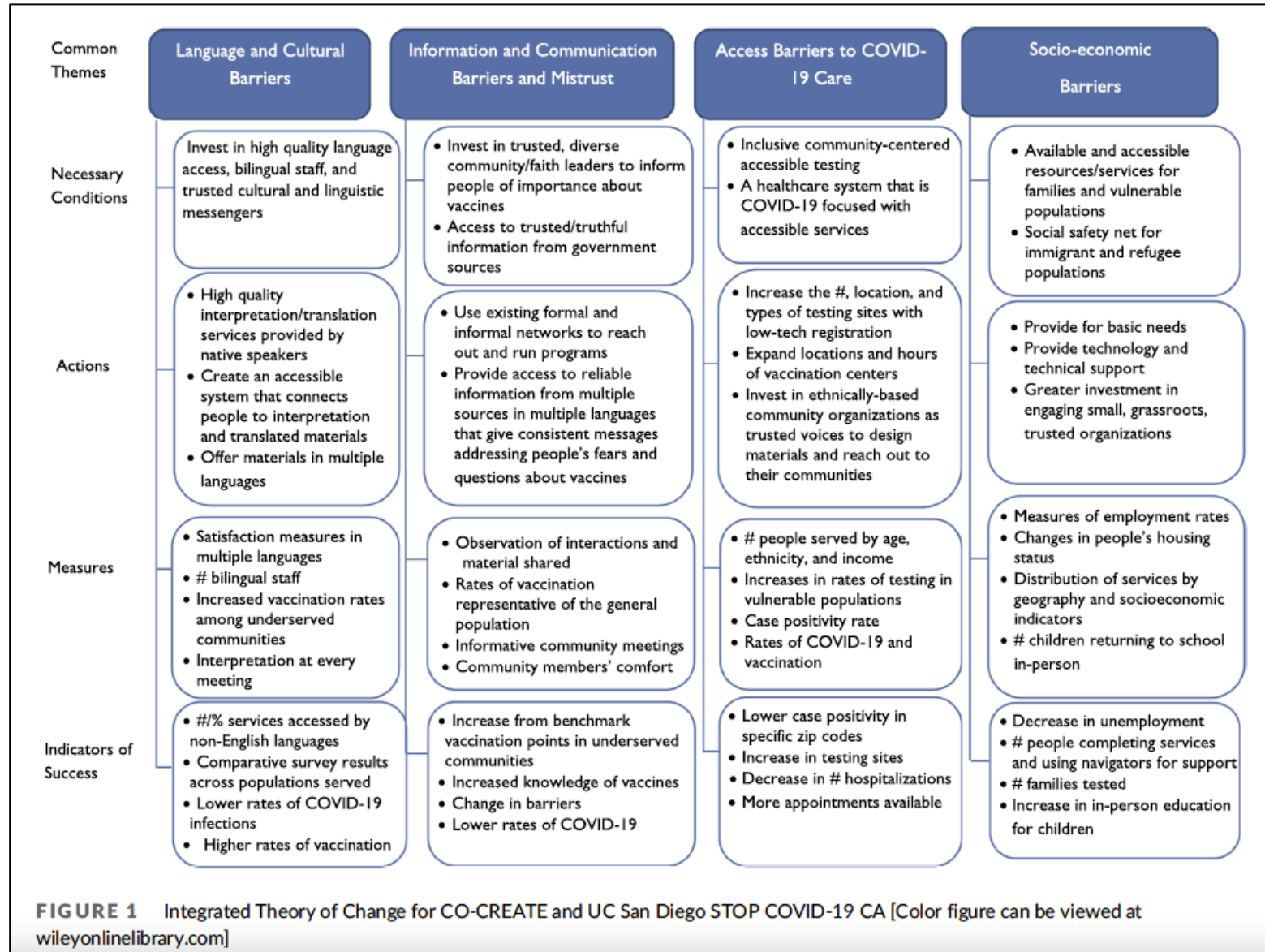


FIGURE 1 Integrated Theory of Change for CO-CREATE and UC San Diego STOP COVID-19 CA [Color figure can be viewed at wileyonlinelibrary.com]

RESEARCH

Open Access

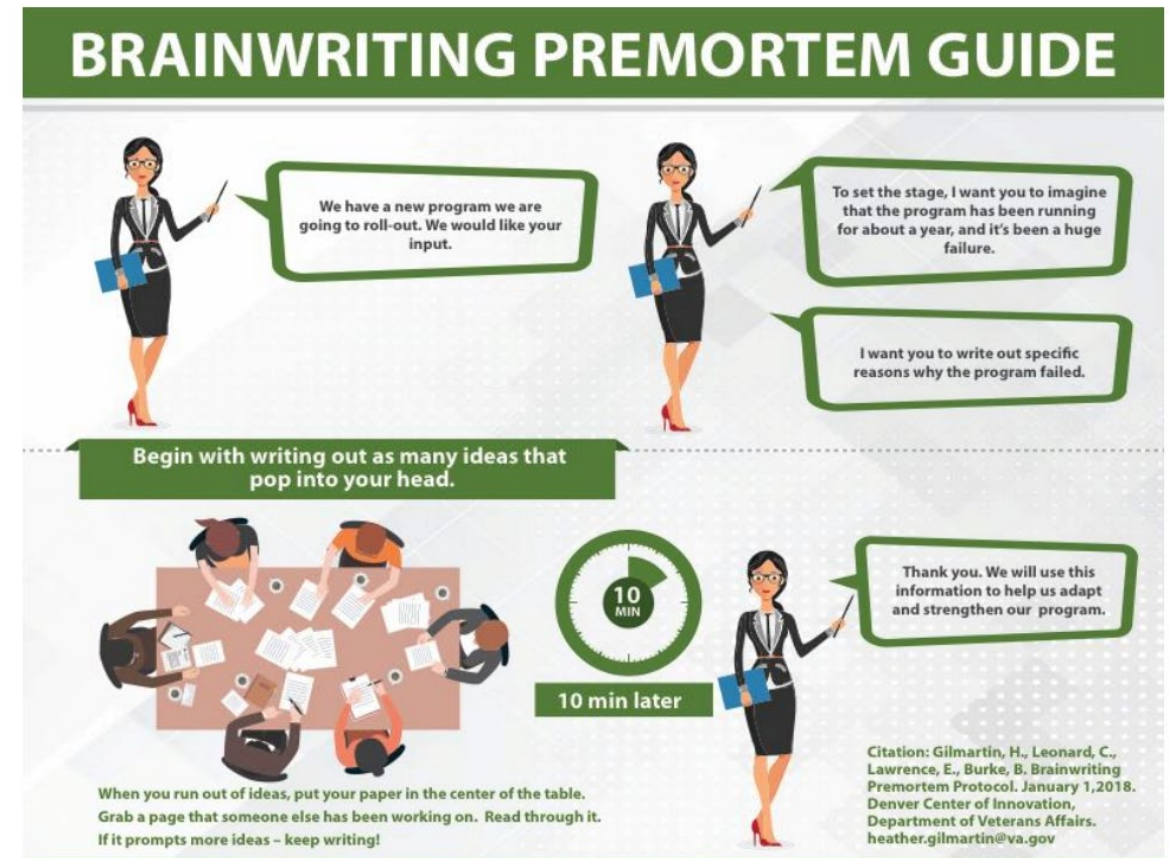


Adaptation of the brainwriting premortem technique to inform the co-creation of COVID-19 testing strategies in underserved communities in South San Diego

Borsika A. Rabin^{1,2*}, Kelli L. Cain¹, Lawrence O. Ayers³, Angel Lomeli³, Arleth Escoto³, Maria Linda Buroola³, Melanie Aguilar³, Stephenie Tinoco Calvillo³, Breanna Reyes³, Linda Salgin⁴, Robert Tukey^{5,6}, Louise C. Laurent³ and Nicole A. Stadnick^{2,7,8}

Brainwriting premortem (Gilmartin et al., 2019)

- A novel, participatory qualitative approach that **combines individual brainstorming with the concept of premortem reflection to address potential failure points** prior to program implementation





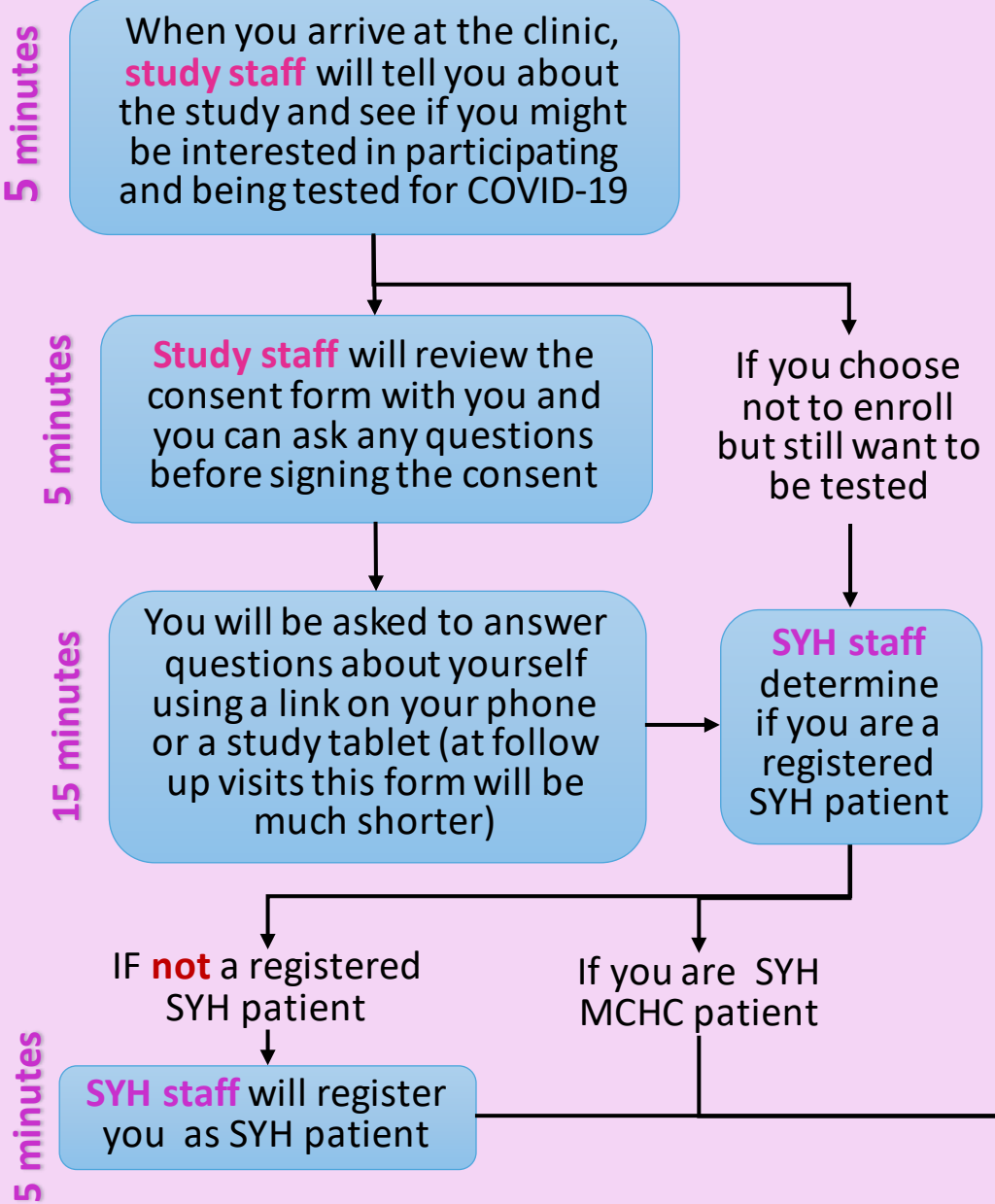
Methods

- Brainwriting premortem was adapted and used to iteratively refine our CO-CREATE testing program offered at a Federally Qualified Health Center (FQHC) near the US-Mexico border
- Patients and healthcare professionals from the FQHC participated in 30-minute interviews during early- and mid-implementation of the program
- Qualitative data were transcribed, translated, and analyzed using a rapid qualitative approach

Brainwriting Premortem Interview Guide

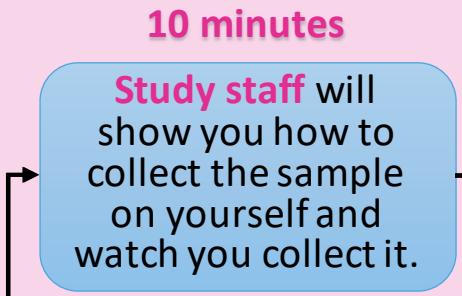
	Patients	Providers
General background	<p><i>"My first set of questions will ask about general experiences accessing or receiving care at the clinic."</i></p> <ol style="list-style-type: none"> 1. How long have you been receiving care at the clinic? 2. From which types of providers have you received care here? 3. On average, how many times per month do you visit the clinic to receive care for you or a close family member or friend? 4. How has this number changed during the COVID-19 pandemic [since March 2020]? 	<p><i>"My first set of questions will ask about general experiences in providing care at the clinic."</i></p> <ol style="list-style-type: none"> 1. How long have you been working at the clinic? 2. [If a provider] On average, how many patients do you see for in-person visits each week? 3. How has this number changed during the COVID-19 pandemic?
Presentation of COVID-19 testing program workflow		
Brainwriting premortem	<p>Now, please take 5 minutes to think about this proposed program and why you think it might not work for you or other community members who receive care at the clinic. If you can, write down any thoughts so we can discuss them and let me know when you are ready.</p> <p>Let's start by reading through the list. Now I'd like you to identify which are the top three most important reasons from this list?</p> <ol style="list-style-type: none"> 1. Let's start with what you think is the most important reason for failure? 2. Do you have suggestions or ideas about how to address this failure? 3. Let's move on to another reason for failure. What is that? 4. Do you have suggestions or ideas about how to avoid or address this failure? <p>Repeat for up to three reasons or until 30 minutes have elapsed.</p>	<p>Now, please take 5 minutes to think about this program and why you think it might not work for you, your patients, and/or other community members who receive care at the clinic. Think about what the key challenges and barriers may be for implementing this program at the clinic as well as the population that it serves. If you can, write down any thoughts so we can discuss them and let me know when you are ready.</p> <p>Let's start by reading through the list. Now I'd like you to identify which are the top three most important reasons from this list?</p> <ol style="list-style-type: none"> 1. Let's start with what you think is the most important reason for failure? 2. Do you have suggestions or ideas about how to avoid or address this? 3. Let's move on to another reason for failure. What is that? 4. Do you have suggestions or ideas about how to avoid or address this? <p>Repeat for additional ideas.</p>

Before Testing

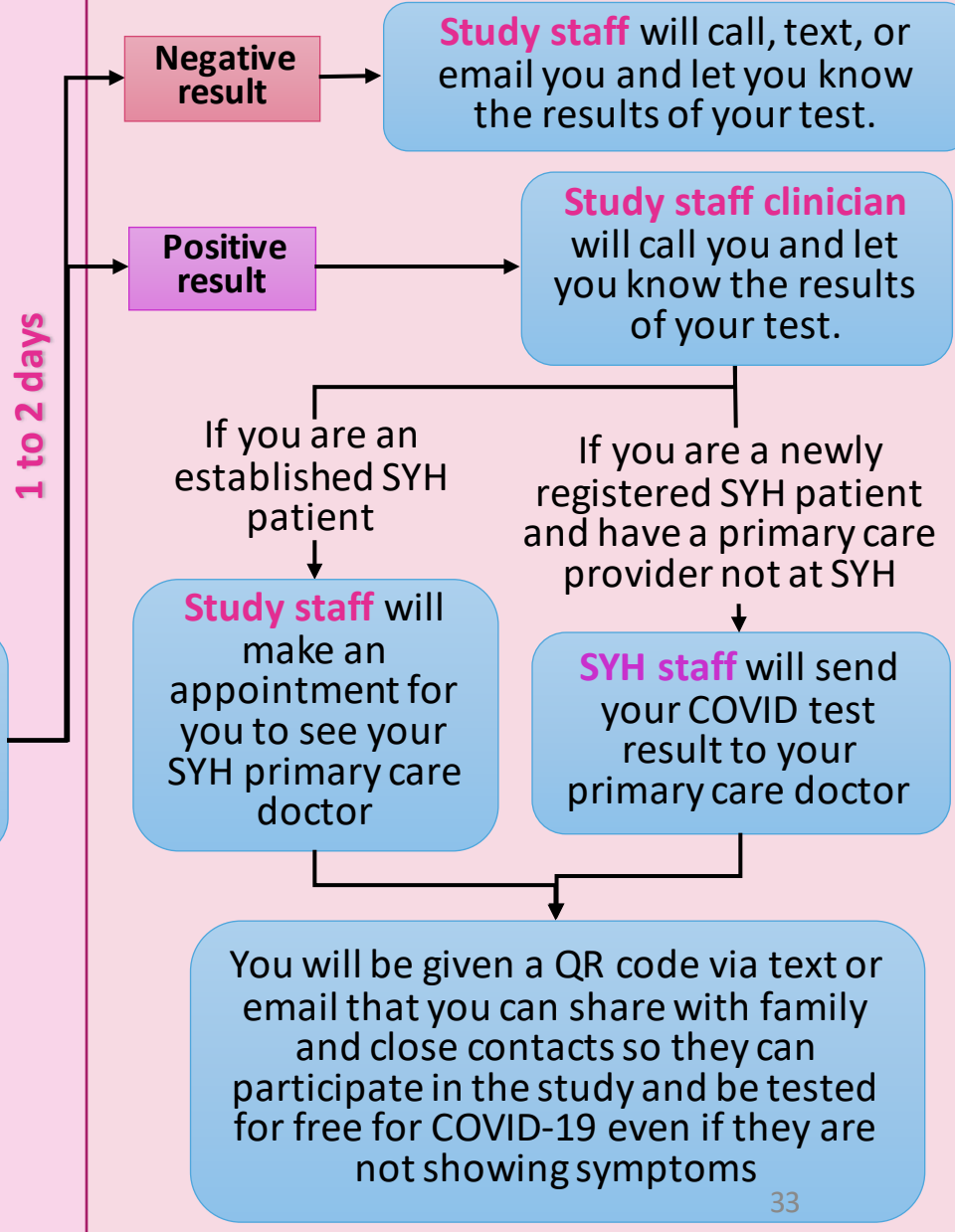


Testing

Patient Flow



After Testing





Results

- 11 patients (7 Spanish- and 4 English-speaking) and 8 physicians completed brainwriting premortem interviews.
- Key themes about possible failures:
 - advertising/sharing information
 - access to testing
 - handling of test results
 - staff and patient safety
 - patient beliefs regarding the SARS-CoV-2 virus
 - available COVID-19 testing options



Results

- Proposed solutions were offered for each key failure except for patient beliefs regarding the virus
- Additional solutions included education, physical operations, and recruitment strategies.
- Real-time changes were made in response to 7 suggestions from patients and 11 from physicians
- Actual changes related to returning test results were the most common and included emailing results with distinct workflows based on the test result

IV. Take-home considerations

VA HSR&D Cyberseminar
January 11, 2024

Take-home considerations for assessing context ethnographically [or otherwise]

	Questions to consider
Why	What are your expectations of ethnography [or other method(s)]? How does it answer your research question(s)?
How	How will you conduct your ethnography? What are your “sensitizing concepts” going into the field? What methods will you use, and why those methods? What will be the role of theory? How will you remain open to emergence? How will you analyze the data sources? How will you approach reflexivity?
Who	Who will conduct the ethnography? With whom will the ethnography be conducted, and why? What is the sampling approach for each method?
When	When will the ethnography, and each method within, occur, and why those timepoints?
Where	Where will the ethnography occur? Where will it not occur?
What	What will you produce? For what audience(s)?

Acknowledgements

- VA funding:
 - RCS 21-135 (Hamilton)
 - EMPOWER (QUE 15-272) and EMPOWER 2.0 (QUE 20-028)
 - QIS 22-234
- NIH funding:
 - UCLA 3R IS Hub (3P30MH058107-24S2) (Hamilton)
 - NIEHS P42 ES010337-19S2 RADx-UP Supplement (Laurent, Tukey)
 - NHLBI/NIMHD OTA- 21-312-0217571-66106L (Rabin, Stadnick)
 - NIMHD U01MD018308 (Stadnick, Lauren, Rabin)
 - UC San Diego ACTRI Dissemination and Implementation Science Center (Stadnick, Rabin, Brookman-Fraze, Aarons)

Thank you!

Nicole Stadnick

nstadnic@health.ucsd.edu

X: @NicoleStadnick

Bluesky: @nicolestadnick.bsky.social

Alison Hamilton

alison.hamilton@va.gov

alisonh@ucla.edu