

# Implementation Strategies in EHE HIV Projects

What they are

How to think about them

How to put them in your research



Implementation Science  
Coordination, Consultation,  
& Collaboration Initiative

May 8, 2020

Dennis H. Li, Northwestern University  
Patrick Sullivan, Emory University

# Agenda

- Review basics about implementation strategies
- Discuss how strategies might fit into your projects
- Present examples of the focus on strategies in two HIV studies
- Q&A



Rewatch Byron's Summit presentation here:  
<https://isc3i.isgmh.northwestern.edu/summit/materials/>

# NIH Definition of Implementation Research

*The scientific study of the use of strategies to adopt and integrate evidence-based health interventions into clinical and community settings.*

Implementation strategies should be central to your scientific inquiry, either as an intermediary goal (formative research) or as the primary focus (tests of strategy effectiveness, comparative implementation).

# Strategies: A Quick Review

Clinical/preventive intervention	→	“The Thing” that improves people’s health
Implementation	→	Doing “The Thing”
Implementation research	→	How to best do “The Thing”
Implementation strategies (AKA implementation interventions)	→	Other actions or “things” we do to help other people do “The Thing”
Implementation outcomes	→	How much / how well did others do “The Thing”

# Strategies: A Quick Review

- Methods or techniques used to enhance adoption, implementation, sustainment, and scale-up/out of a program or practice
- Discrete (e.g., reminders)
- Multifaceted/packaged (e.g., training + consultation)
  - Often multilevel
  - Sometimes protocolized and branded (e.g., Getting To Outcomes)
- Target and/or interact with contextual determinants to achieve implementation outcomes → mechanisms
  - Rarely one-to-one relationship between strategy and determinant

**Determinants****Implementation Strategies****Mechanisms****Outcomes**

<b>Determinants</b>	<b>Implementation Strategies</b>	<b>Mechanisms</b>	<b>Outcomes</b>
Provider knowledge deficit	Education (provision of information)	Awareness-building, knowledge-acquisition	Feasibility, acceptability, appropriateness, adoption
Provider skill deficit	Training (teaching & practice with corrective feedback)	Skill acquisition, refinement, mastery	Fidelity to EBP
Turnover	Train-the-trainer	Continuous on-site expertise available for consultation	Sustainability
Provider engagement	Clinical champion-led implementation team	Implementation climate	Feasibility, acceptability, appropriateness
Unstandardized clinical care options	Guidelines	Clarity of clinical care	Fidelity

# Strategies: A Quick Review

**Evidence-based** clinical or preventive intervention – **7 Ps**:

- **Pill** (PrEP)
- **Program** (PROMISE)
- **Practice** (routine HIV screening in clinical settings)
- **Principle** (Treatment as Prevention)
- **Product** (condom)
- **Policy** (housing for people at high risk for HIV)
- **Procedures** (male circumcision)

**Evidence-informed strategies** (system interventions) – **ERIC categories**:

- Engage consumers
- Use evaluate & iterative strategies
- Change infrastructure
- Adapt & tailor to context
- Develop stakeholder interrelationships
- Utilize financial strategies
- Support clinicians
- Provide interactive assistance
- Train & educate stakeholders

# Strategies Should Be Central to Your Implementation Research

- Identifying determinants
- Selecting, developing, or adapting strategies
- Piloting or evaluating strategies
- Comparing strategies
- Understanding why and how strategies work



# Strategies Should Be Central to Your Implementation Research

- Identifying determinants
- Selecting, developing, or adapting strategies
- Piloting or evaluating strategies
- Comparing strategies
- Understanding why and how strategies work

- CFIR–ERIC matching tool

Waltz et al. *Implementation Science* (2019) 14:42  
<https://doi.org/10.1186/s13012-019-0892-4> Implementation Science

RESEARCH Open Access

Choosing implementation strategies to address contextual barriers: diversity in recommendations and future directions

Thomas J. Waltz<sup>1,2</sup>, Byron J. Powell<sup>3</sup>, María E. Fernández<sup>4</sup>, Brenton Abadie<sup>1</sup> and Laura J. Damschroder<sup>2\*</sup>



- [www.healthsystemevidence.org](http://www.healthsystemevidence.org)

- Strategy selection methods

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](#)

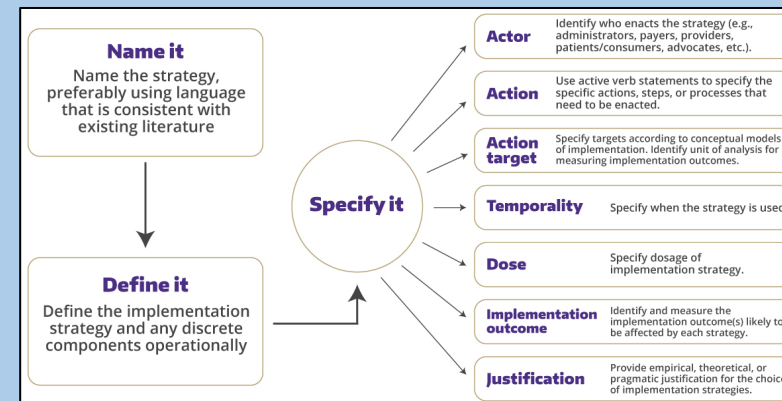
*The Journal of Behavioral Health Services & Research* **44**, 177–194(2017) | [Cite](#)

# Strategies Should Be Central to Your Implementation Research

- Identifying determinants
- Selecting, developing, or adapting strategies
- Piloting or evaluating strategies
- Comparing strategies
- Understanding why and how strategies work

- Specify implementation strategies

<https://impsciuw.org/implementation-strategies>



# Strategies Should Be Central to Your Implementation Research

- Identifying determinants
  - Selecting, developing, or adapting strategies
  - Piloting or evaluating strategies
  - Comparing strategies
- Understanding why and how strategies work

- Select an appropriate study design



**Designs for Implementation Research Studies**  
Including Pilot, Small-n, and Developmental

J.D. Smith, Ph.D.  
Associate Professor, Departments of Psychiatry and Preventive Medicine, Medical Social Sciences, Associate Director, Center for Prevention Implementation (Ce-PIM) for Drug Abuse and HIV, Co-Director, Program in Dissemination and Implementation, Northwestern University Clinical and Translational Sciences Institute, Northwestern University Feinberg School of Medicine

M Northwestern Medicine Feinberg School of Medicine | ISCI Implementation Science Consortium, Guidance & Collaboration Institute



Designs and methods for implementation research: Advancing the mission of the CTSA program

Sophya Huang<sup>1</sup>, Sarah A. Birken<sup>1</sup>, Cathy L. Mohr<sup>1</sup>, Catherine L. Rohwerder<sup>1</sup> and Justin D. Smith<sup>1\*</sup>



Design and Analysis in Dissemination and Implementation Research

JOHN LANDSVERK, C. HENDRICKS BROWN, JUSTIN D. SMITH, PATRICIA CHAMBERLAIN, GEOFFREY M. CURRAN, LAWRENCE PALINKAS, MITSUNORI OCHIMARU, SARA CASAL, JESSIE D. GOLDHABER-FERRARI, WOUTER VERMEER, LISA SALDANA, JENNIFER A. ROLLS REUTZ, AND SARAH MCCUE HORWITZ



An Overview of Research and Evaluation Designs for Dissemination and Implementation

Justin D. Smith<sup>1,2\*</sup>, Deborah L. Stronach<sup>1,2,3,4</sup>, Lisa R. Hershkovitz<sup>1,2</sup>, Carlos Gallo<sup>1,2</sup>, Maria Delgado-Garcia<sup>1,2,3</sup>, Gregory P. Miller<sup>1,2</sup>, Nicholas Krieger<sup>1,2</sup>, William Ribicoff<sup>1,2</sup>, Andrew K. Lee<sup>1,2</sup>, Justin A. Williams<sup>1,2</sup>, Tereza Bauer<sup>1,2</sup>, Brian MacLellan<sup>1,2</sup>, C. Hendricks Brown<sup>1,2</sup>, Neeraj D. Bhandari<sup>1,2</sup>



Single-Case Experimental Designs: A Systematic Review of Published Research and Current Standards

Justin D. Smith, Christopher Shea



Methods to Advance Health Equity: IMPLEMENTATION RESEARCH METHODOLOGIES FOR ACHIEVING SCIENTIFIC, EQUITY AND HEALTH EQUITY

Maria M. Nishi, MD, MSc, LL.M., MPH, PhD, Jean Vilmar, MD, PhD, Roger Rosenzweig, PhD, Sharon Stronach, PhD, Nancy Budiman, MSc, Carlos Gallo, PhD, Lisa Williams, PhD, Andrew K. Lee, PhD, Brian MacLellan, PhD, John Chohan, MD, MPH, C. Hendricks Brown, PhD

- Track strategy use



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<sup>1\*</sup>, Byron J. Powell<sup>2</sup>, Hillary A. Robertson<sup>3</sup>, Hannah MacDowell<sup>1</sup>, Sarah A. Birken<sup>2</sup> and Christopher Shea<sup>2</sup>

# Strategies Should Be Central to Your Implementation Research

- Identifying determinants
- Selecting, developing, or adapting strategies
- Piloting or evaluating strategies
- Comparing strategies

○ Understanding why and how strategies work

- Specify mechanisms and measure everything

**PERSPECTIVE ARTICLE**  
Front. Public Health, 07 May 2018 | <https://doi.org/10.3389/fpubh.2018.00136>

**From Classification to Causality: Advancing Understanding of Mechanisms of Change in Implementation Science**

Cara C. Lewis<sup>1,2,3\*</sup>, Predrag Klasnja<sup>1†</sup>, Tuzzio<sup>1</sup>, Salene Jones<sup>5</sup>, Callie Walsh-Baill

The diagram illustrates a causal model of implementation science. It starts with an 'IMPLEMENTATION STRATEGY' box (Financial disincentive for each PHQ-9 missed) leading to a 'MECHANISM' box (Motivation). This is moderated by 'MODERATOR (COGNITIVE)' (Value of disincentive) and 'MODERATOR (ORGANIZATIONAL)' (Communication infrastructure). Below the cognitive moderator is a triangle labeled 'Ability to change policy' (PRECONDITION FOR MECHANISM ACTIVATION). Below the organizational moderator is a triangle labeled 'PHQ-9 form is available/accessible' (PRECONDITION FOR PROXIMAL OUTCOME). The mechanism leads to a 'PROXIMAL OUTCOME' box (Increased screening rate), which leads to a 'DISTAL IMPLEMENTATION OUTCOME' box (Depression screening fidelity).

- Draw from theory

ann. behav. med. (2013) 46:81–95  
DOI 10.1007/s12160-013-9486-6

**ORIGINAL ARTICLE**

**The Behavior Change Technique Taxonomy (v1) of 93 Hierarchically Clustered Techniques: Building an International Consensus for the Reporting of Behavior Change Interventions**

Susan Michie, DPhil, CPsychol · Michelle Richardson, PhD · Marie Johnston, PhD, CPsychol · Charles Abraham, DPhil, CPsychol · Jill Francis, PhD, CPsychol · Wendy Hardeman, PhD · Martin P. Eccles, MD · James Cane, PhD · Caroline E. Wood, PhD

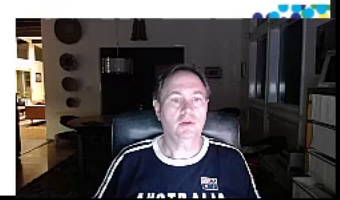
# Two HIV Examples

1. Identifying implementation strategies for PrEP scale-up based on determinants
2. Comparing two delivery approaches of an eHealth HIV prevention program

# Implementation Strategies to Increase PrEP Uptake in the South

CFAR Implementation Science Initiative Webinar

May 8, 2020



have fun. stay safe.



keep it up!

County-randomized comparative implementation trial of  
two delivery strategies for an  
evidence-based eHealth HIV prevention program

Northwestern



Institute for Sexual  
and Gender Minority  
Health and Wellbeing



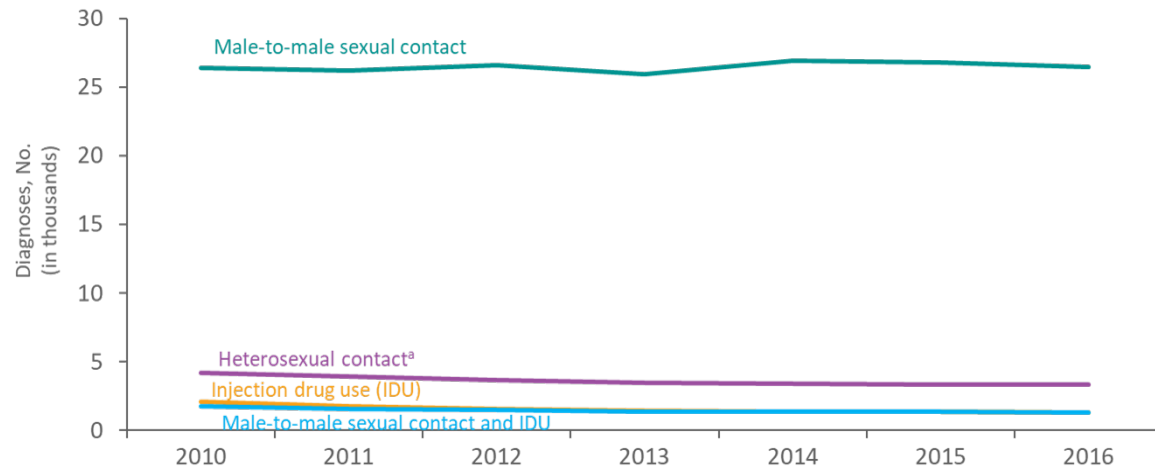
\*Third \*Coast \*CFAR\*

CENTER FOR AIDS RESEARCH  
IN CHICAGO

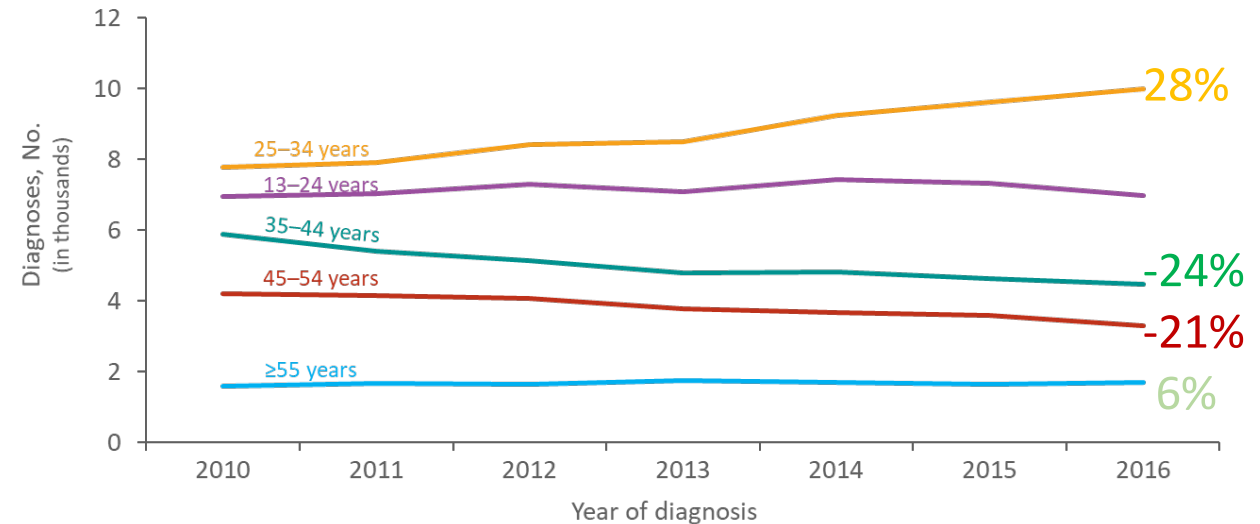


**Center for Prevention  
Implementation Methodology**  
FOR DRUG ABUSE AND HIV

## Diagnoses of HIV Infection among Male Adults and Adolescents, by Transmission Category, 2010–2016—United States and 6 Dependent Areas



## Diagnoses of HIV Infection among MSM by Age at Diagnosis, 2010–2016—United States and 6 Dependent Areas





# Available EBIs were not commensurate

The screenshot shows the CDC website page for the 'Compendium of Evidence-Based Interventions and Best Practices for HIV Prevention'. The page is titled 'HIV > Intervention Research' and features a search bar at the top right. The main content area includes a sidebar with navigation links for 'Effective Behavioral Interventions (EBIs)', 'Replicating Effective Programs (REP)', 'Compendium of Evidence-Based Interventions and Best Practices for HIV Prevention', 'Structural Interventions (SI) Chapter', 'Linkage to, Retention in, and Re-engagement in HIV Care (LRC) Chapter', 'Medication Adherence (MA) Chapter', and 'Risk Reduction (RR) Chapter'. The main text describes the 'Compendium' as a series of ongoing systematic reviews identifying EBIs and Best Practices. It lists four chapters and their respective counts of best practices and behavioral EBIs: Structural Interventions (SI) Chapter (25 best practices), Linkage to, Retention in, and Re-engagement in HIV Care (LRC) Chapter (24 best practices), Medication Adherence (MA) Chapter (19 EBIs), and Risk Reduction (RR) Chapter (65 behavioral EBIs). The 'Prevention Research Synthesis' logo is also visible.

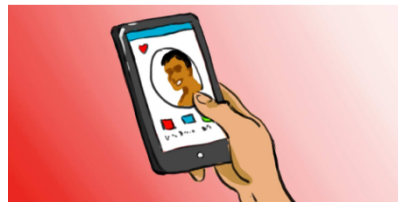
- Few programs designed specifically for YMSM
- Programs were in-person individual or group-based
- In response, Mustanski et al. developed Keep It Up!



have fun. stay safe.

# keep it up!

1	2	3	4	5	6	7	B1 (3 m)	B2 (6 m)
Healthy person (optionally location specific)	Hooking Up Online	Soap Opera	Bar/Club	Dating	Healthy Communication	Goal Setting	Regular testing. Biomed prevention. Goal review	Prevention in relationships



2007-2011



**KIU! 1.0**

NIMH R34 to develop and demonstrate feasibility and acceptability

2012-2014



**KIU! 1.5**

CDPH-funded service implementation in Chicago, IL

2012-2018



**KIU! 2.0**

NIDA and NIMH R01 to test efficacy in three cities with behavioral and biomedical outcomes

2017-2019



**KIU! 2.5**

ViiV-funded service implementation in Jackson, MI

2018-2022



**KIU! 3.0**

NIMH/NIDA/OD R01 to compare two national implementation strategies with behavioral and biomedical outcomes

# Evidence and Rationale for KIU! 3.0

- In the multisite RCT, found to be acceptable and effective among racially diverse young MSM ages 18–29
- Demonstrated significant effects on a biomedical outcome (40% reduction in STIs at 12 months post-intervention)
- Now designated as “Best Evidence” by CDC

## **Why an implementation trial?**

- Over the years, made interesting anecdotal observations around implementation
- eHealth is an opportunity for “low cost interventions with high reach potential”
- Many other eHealth HIV interventions currently being supported by NIH for development and efficacy testing
- How to scale up eHealth programs is still largely unknown
- Need to maximize return on investment

# Specific Aims

## **Aim 1: Compare two implementation strategies using a cluster randomized trial.**

The type III hybrid implementation-effectiveness design prioritizes empirical comparison of implementation strategies while also collecting evidence of effectiveness.

- Strategy 1: Traditional model of community-based organizations competing for funding to implement KIU! in their routine testing with YMSM.
- Strategy 2: Innovative direct-to-consumer where HIV testing and intervention delivery is done remotely.

**Aim 2: Examine adoption characteristics that explain variability in implementation outcomes.** Drawing from CFIR we will examine domains such as county characteristics, adaptations, support from organization leadership, and approach to planning adoption.

## **Exploratory aim: Explore sustainment of KIU! at the completion of the study.**

CBOs will be provided with materials to facilitate applying for ongoing funding, and we will examine factors that predict applying for funding and ongoing sustainment.

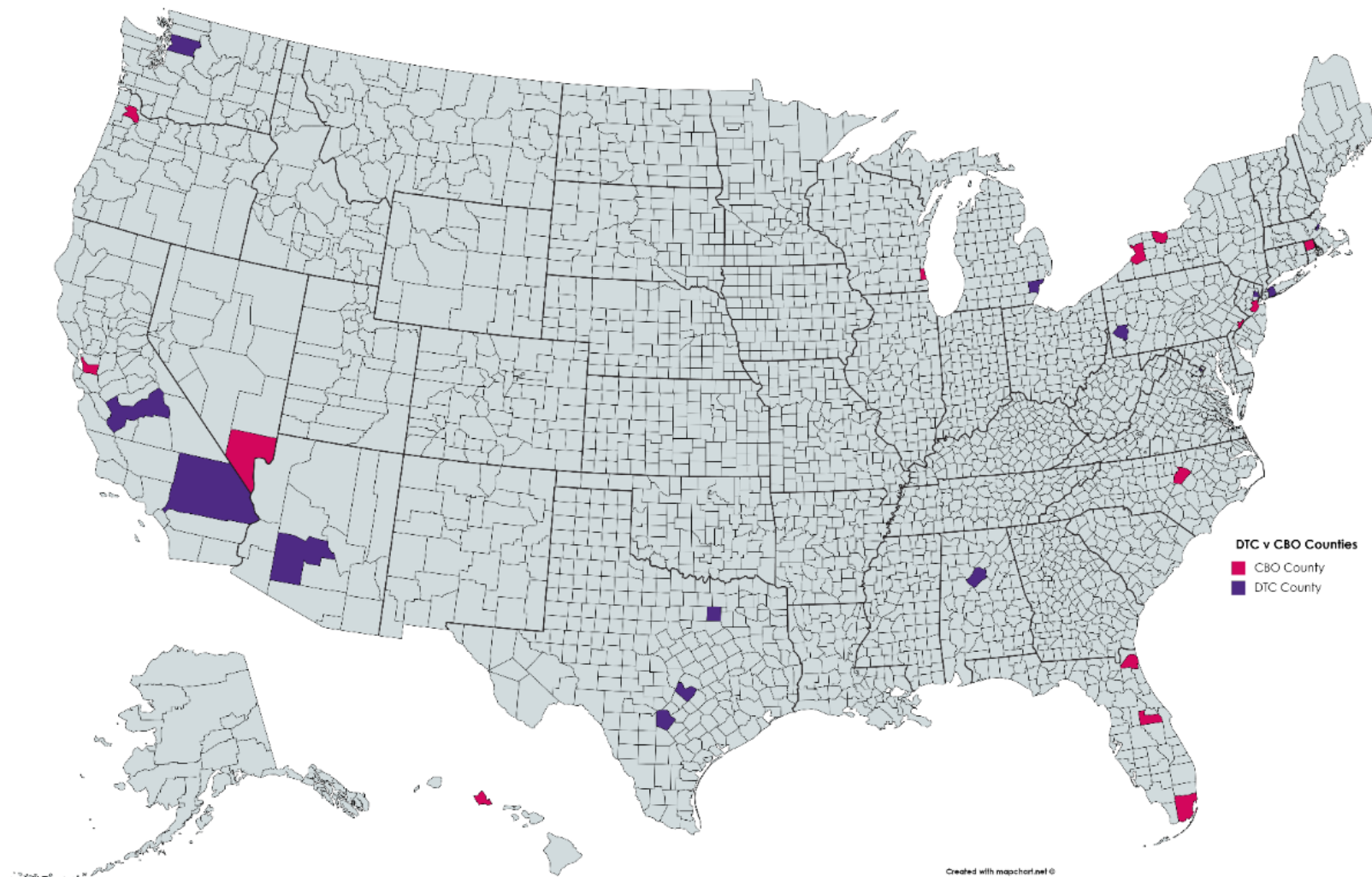
In the DTC arm, we will explore sustainment strategies through consultation with CDC, CBA providers, health departments, and Health 2.0 businesses.








# Study Design

- **Effectiveness–implementation hybrid type 3 design**
  - Primary focus: compare two strategies on implementation outcomes
    - Direct-to-consumer (DTC)
    - Community-based organization (CBO)
  - Secondary focus: ensure KIU! is still effective on individual outcomes
- **Cluster-randomized trial**
  - 66 counties with most YMSM
  - CBO:DTC strategy, 2:1 randomization
  - RFP for CBO counties
  - Prioritizing pragmatic practices



# CBO vs. DTC counties – Cohort 1



Team	Delivery of direct-to-consumer (DTC) strategy	Delivery of community based organization (CBOs) strategy	Technology	Methodology
<b>Purpose</b>	Online advertising and recruitment of YMSM and delivery of KIU in the direct-to-consumer arm.	Distribute request for proposals to CBOs, evaluate and select grantees, provide training and technical assistance.	Develop and support KIU intervention content and the technology platform that will allow for the delivery of KIU across both implementation strategies.	Oversee collection of outcome data from YMSM as well as DTC, CBO and technology teams, and CBO staff. Provide expertise in implementation science, health economics, and statistics. Perform all analyses.
<b>Leads and Scientific Members</b>	Macapagal 	Benbow 	Mustanski (lead), Saber 	Brown (lead of implementation science methodology), Schackman (lead of health economics), and Janulis (lead of statistical analyses). Smith, Linas, and Murphy (members)
<b>Supporting Research Centers</b>	Institute for Sexual and Gender Minority Health and Wellbeing (ISGMH) 	Institute for Sexual and Gender Minority Health and Wellbeing (ISGMH) 	Center for Behavioral Intervention Technology (CBIT) 	Center for Prevention Implementation Methodology (Ce-PIM), Center for Health Economics of Treatment Interventions for Substance Use Disorders, HCV, and HIV (CHERISH), Third Coast Center for AIDS Research (CFAR) 





# RE-AIM Framework

- Framework to translate research into practice with focus on:
  - **Reach**
  - **Effectiveness**
  - **Adoption**
  - **Implementation**
  - **Maintenance**
- Widely used in implementation science and applied to eHealth and HIV prevention
- Recommendation to use mixed-methods approaches when assessing RE-AIM elements
- KIU! collects:
  - **Quantitative data** on Reach, Effectiveness, and Implementation in Aim 1 and Maintenance at study end
  - **Mixed-methods data** on Adoption in Aim 2

# Adoption – CFIR Mixed Methods

- CFIR - Evaluate factors from 5 domains:
  1. Outer setting (county characteristics, network links to other orgs, policies & incentives)
  2. Inner setting (implementation support from CBO leaders, implementation climate, and implementation culture)
  3. Characteristics of users (YMSM demographics and acceptability of KIU!)
  4. Characteristics of the intervention (local adaptations, staff perceptions of quality, and relative advantage over alternatives)
  5. Process characteristics
- CFIR data collected in waves => implementation (Wave 0/1) and then 4, 12, and 24 months following
  - Not all factors assessed at each wave – selected based on phase of implementation
  - Mix of quantitative and qualitative measures

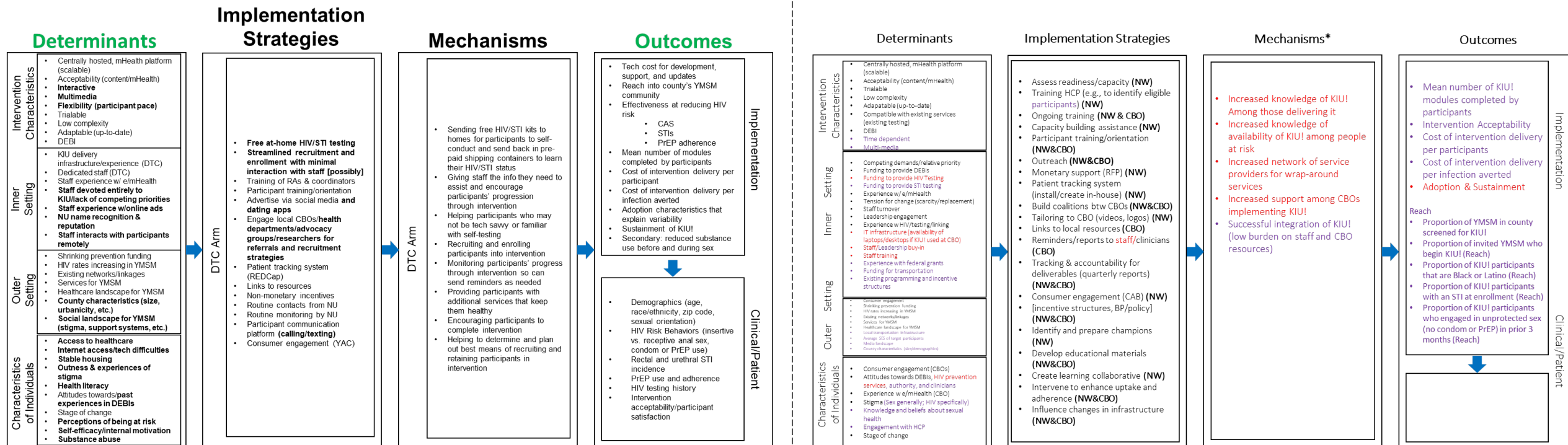
# Strategy Specification

Absent a Determinants Assessment – Scaling Up

# KIU! 3.0 Implementation Research Logic Model (IRLM)

## DTC-Arm

## CBO-Arm



## Select Implementation Strategies

### CBO

#### Northwestern

##### Adapt and tailor to context

- Tailoring intervention to CBOs

##### Utilize financial strategies

- Monetary support to CBOs

##### Develop stakeholder interrelationships

- Identify and prepare champions

##### Train and educate stakeholders

- Develop educational materials
- Training providers on KIU! & recruitment
- Ongoing capacity building assistance

##### Change infrastructure/support clinicians

- Hosts and maintains technology

#### **Agency – Adapt and tailor to context**

##### Utilize financial strategies

- Incentive structures

##### Develop stakeholder interrelationships

- Links to resources

##### Train and educate stakeholders

- Train new staff, ongoing training

##### Support clinicians

- Reminders/reports to staff

##### Engage consumers

- Outreach to YMSM
- Intervene to enhance uptake, adherence

### DTC

#### Northwestern

##### Utilize financial strategies

- Provide free at-home HIV/STI tests
- Non-monetary incentives

##### Develop stakeholder interrelationships

- Engage local CBOs, HDs, advocacy groups, researchers for referrals and recruitment strategies
- Links to resources

##### Train and educate stakeholders

- Training RAs and coordinators

##### Change infrastructure/support clinicians

- Custom-built patient tracking system
- Participant communication platform

##### Engage consumers

- Streamlined recruitment and enrollment with minimal staff interaction
- Advertise via social media, dating apps
- Routine contacts with, monitoring by NU
- Intervene to enhance uptake, adherence

### KIU! Platform

##### Engage consumers

- Participant orientation
- Automated reminders sent from system

##### Change infrastructure/support clinicians

- Custom-built patient tracking system

## Mechanisms

## Select Outcomes

### Reach

- Proportion of YMSM in county screened for KIU!
- Proportion of invited YMSM who begin KIU!
- Proportion of KIU! participants that are Black or Latino

### Implementation

- Intervention acceptability
- Mean number of KIU! modules completed by participants
- Cost of intervention delivery per participant
- Cost of intervention delivery per infection averted

**Adoption & Maintenance** not comparable between arms

### Effectiveness

- Change in unprotected sex
- 12-mo rectal STI incidence
- 12-mo PrEP initiation
- 1+ HIV test(s) over 12 mos

Implementation

Clinical/Patient

have fun. staysafe.

keep it up!

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## Mechanisms

**CBO:** Tailoring some content and allowing adaptation of delivery at the CBO level increases CBO staff's positive attitudes, ownership, and buy-in about KIU (e.g., acceptability, appropriateness, intervention-level determinants) and potentially fit to local YMSM needs.

## Select Outcomes

### Reach

- Proportion of YMSM in county screened for KIU!
- Proportion of invited YMSM who begin KIU!
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### Implementation

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## Mechanisms

**CBO:** Paying CBOs offsets cost of implementing KIU (e.g., covers effort) and meets expectations.

**CBO/DTC:** Providing incentives increases YMSM attitudes toward participation.

**DTC:** Providing at-home testing makes it easier for YMSM to get tested.

## Select Outcomes

### Reach

- Proportion of YMSM in county screened for KIU!
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### Implementation

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#### **Agency – Adapt and tailor to context**

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## Mechanisms

**CBO:** Identifying and assisting implementation champions at CBOs increases ownership, local control, accountability, and prioritization.

**CBO:** Linking to local resources improves local integration with other services and helps address other needs of YMSM.

**DTC:** Engaging local groups to refer and improve recruitment strategies for YMSM increases local YMSM awareness of KIU.

## Select Outcomes

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### CBO

#### Northwestern

##### Adapt and tailor to context

- Tailoring intervention to CBOs

##### Utilize financial strategies

- Monetary support to CBOs

##### Develop stakeholder interrelationships

- Identify and prepare champions

##### Train and educate stakeholders

- Develop educational materials
- Training providers on KIU! & recruitment
- Ongoing capacity building assistance

##### Change infrastructure/support clinicians

- Hosts and maintains technology

##### Agency – Adapt and tailor to context

##### Utilize financial strategies

- Incentive structures

##### Develop stakeholder interrelationships

- Links to resources

##### Train and educate stakeholders

- Train new staff, ongoing training

##### Support clinicians

- Reminders/reports to staff

##### Engage consumers

- Outreach to YMSM
- Intervene to enhance uptake, adherence

### DTC

#### Northwestern

##### Utilize financial strategies

- Provide free at-home HIV/STI tests
- Non-monetary incentives

##### Develop stakeholder interrelationships

- Engage local CBOs, HDs, advocacy groups, researchers for referrals and recruitment strategies
- Links to resources

##### Train and educate stakeholders

- Training RAs and coordinators

##### Change infrastructure/support clinicians

- Custom-built patient tracking system
- Participant communication platform

##### Engage consumers

- Streamlined recruitment and enrollment with minimal staff interaction
- Advertise via social media, dating apps
- Routine contacts with, monitoring by NU
- Intervene to enhance uptake, adherence

### KIU! Platform

##### Engage consumers

- Participant orientation
- Automated reminders sent from system

##### Change infrastructure/support clinicians

- Custom-built patient tracking system

## Mechanisms

**CBO/DTC:** Training staff on how to “sell” and use KIU and how to reach YMSM will increase their skill in engaging and enrolling YMSM.

**CBO:** Capacity building assistance will help CBOs integrate KIU into their regular workflows.

## Select Outcomes

### Reach

- Proportion of YMSM in county screened for KIU!
- Proportion of invited YMSM who begin KIU!
- Proportion of KIU! participants that are Black or Latino

### Implementation

- Intervention acceptability
- Mean number of KIU! modules completed by participants
- Cost of intervention delivery per participant
- Cost of intervention delivery per infection averted

**Adoption & Maintenance** not comparable between arms

### Effectiveness

- Change in unprotected sex
- 12-mo rectal STI incidence
- 12-mo PrEP initiation
- 1+ HIV test(s) over 12 mos

Implementation

Clinical/Patient

have fun. stay safe.

keep it up!

## Select Implementation Strategies

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## Mechanisms

**CBO:** Hosting and maintaining technology at Northwestern

**CBO/DTC (KIU!):** Participant tracking platform built into KIU! platform makes it easier and more efficient for staff to track participant progress.

**DTC:** Additional in-house tracking and messaging systems allow KIU! staff to efficiently engage and remind participants.

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## Mechanisms

**CBO/DTC (KIU!):** Various forms of dissemination and participant-engagement activities and reminders increase initial awareness of KIU! among YMSM and appeal of the intervention. Once enrolled, strategies will remind them to complete all intervention content.

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Implementation

Clinical/Patient

have fun. staysafe.

keep it up!

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The logo for 'keep it up!' features the text 'keep it up!' in a bold, blue, sans-serif font. Above the text is a horizontal bar with a rainbow color gradient (red, orange, yellow, green, blue, purple). The exclamation point is stylized with a small blue circle at its base.

## Implications

- Understanding how best to scale up eHealth interventions is important in helping to end the HIV epidemic.
- Implementation research in this area must be pragmatic and scientifically rigorous.
- Given substantial evidence of efficacy without evidence of “voltage drop” during implementation, *KIU!* is an ideal program study scale-up.
- Given its two macro-strategies, it is also a good example of how the IR logic model, strategies, and strategy specification are used in a later-stage IR project.
- Lessons learned from *KIU!* 3.0 will pave the way for implementing the many HIV eHealth programs currently undergoing efficacy testing.

Thank you KIU! funders, collaborators, and staff



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CHERISH





Implementation Science  
Coordination, Consultation,  
& Collaboration Initiative

