

# Advancing Implementation Science in Health: Reflections, Progress, and Opportunities

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May 19, 2026

# Session Outline

- Recognizing the Need for Implementation Science
- Growing the Field
- Key IS Topics & Resources
- Considering a Dynamic World
- Questions and Discussion

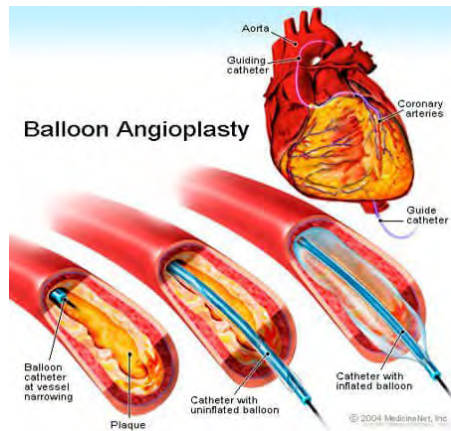
# Precipitants of Implementation Science

- Centuries past: Scurvy, Maternal Mortality, Infection Control
- Decades past: “Effectiveness and Efficiency,” Randomized Clinical Trials, Quality and Safety, Clinical Guidelines, Evidence Synthesis
- Recent Era: Evidence-Based Medicine, Clinical and Community Guides, Evidence-based programs/practices/interventions
- Years past: Diffusion, Dissemination and Implementation, Translating Research into Practice, Knowledge Translation, Implementation Science

# My Entry Point(Fall of 1994)



(this was my phone)



VS.



# Across the Pond (Oxford, 1997-2001)

Original research

## Implementation of evidence-based medicine: evaluation of the Promoting Action on Clinical Effectiveness programme

Sue Dopson, Louise Locock, David Chambers<sup>1</sup>, John Gabbay<sup>2</sup>

Templeton College and <sup>1</sup>Saïd Business School, University of Oxford; <sup>2</sup>Wessex Institute for Health Research and Development, University of Southampton, UK

Original Articles

## Closing the Gap Between Research and Practice in Health: Lessons from a clinical effectiveness initiative

Rebecca Surrender, Louise Locock, David Chambers, Sue Dopson & John Gabbay

Pages 45-61 | Published online: 09 Dec 2010

Download citation | <https://doi.org/10.1080/14616670110101690>



PERGAMON

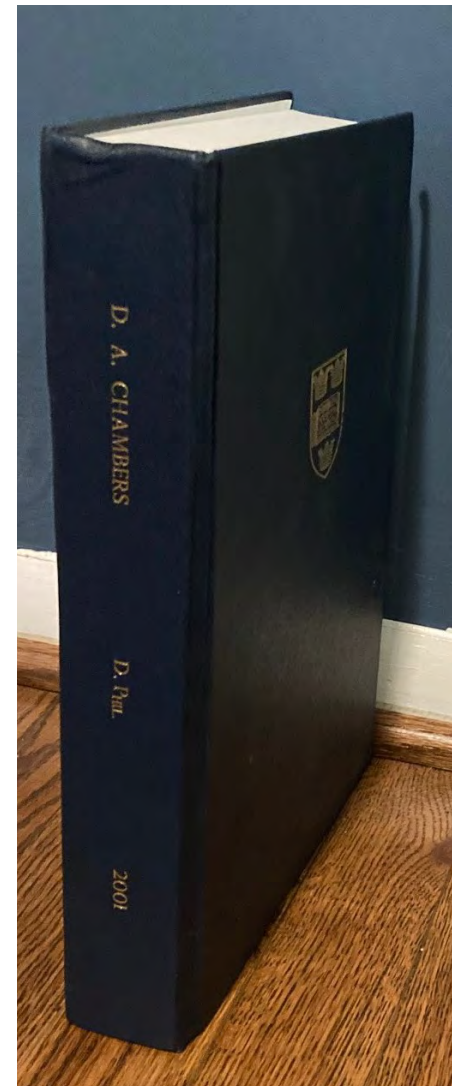
Social Science & Medicine 53 (2001) 745-757

SOCIAL  
SCIENCE  
&  
MEDICINE

[www.elsevier.com/locate/socscimed](http://www.elsevier.com/locate/socscimed)

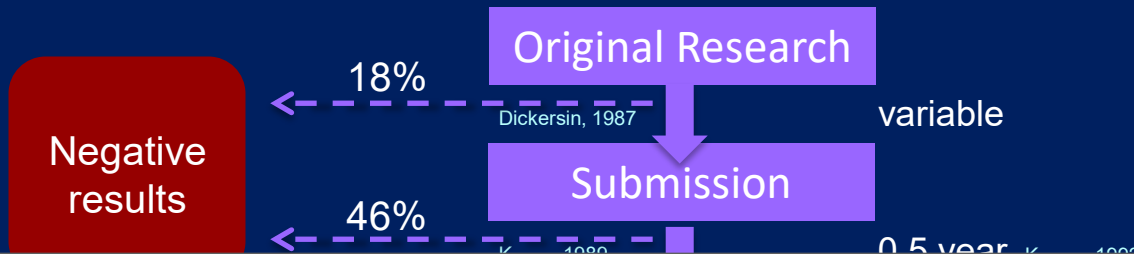
## Understanding the role of opinion leaders in improving clinical effectiveness

Louise Locock<sup>a,\*</sup>, Sue Dopson<sup>b</sup>, David Chambers<sup>c</sup>, John Gabbay<sup>d</sup>

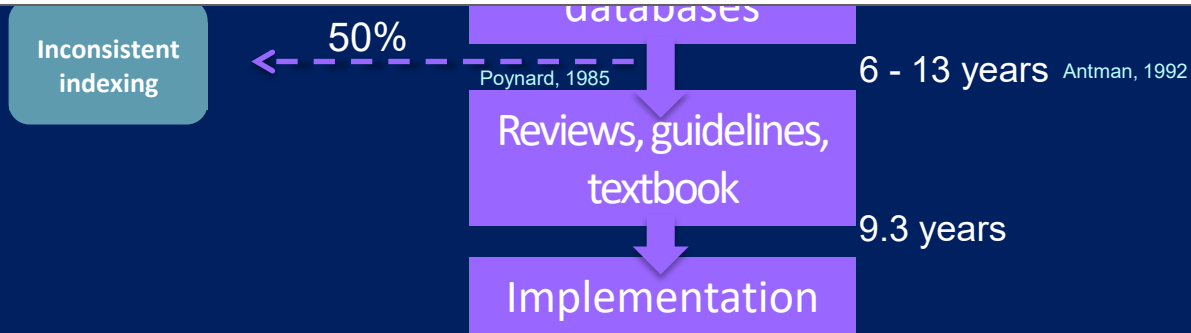


# "PUBLICATION PATHWAY"

Balas & Boren, 2000

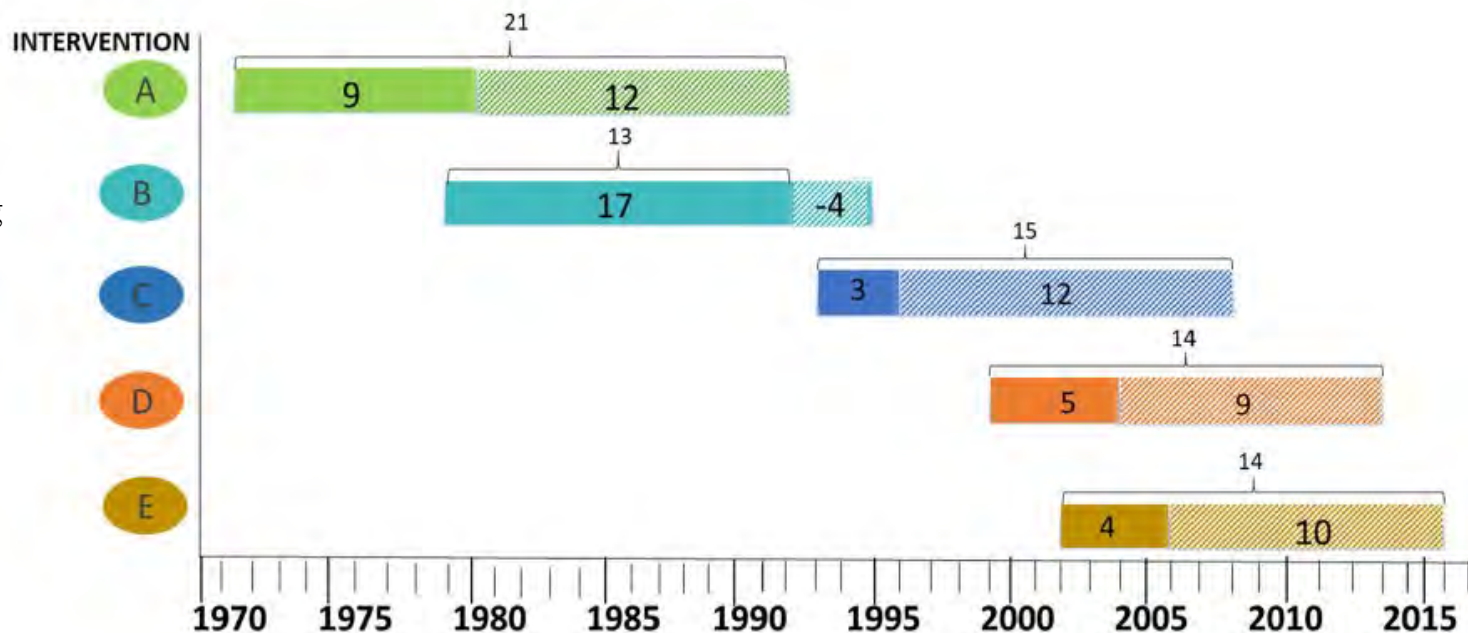


**It takes 17 years to turn 14 percent of original research to the benefit of patient care**



# Time-to-Translation in Cancer Control

Average time from landmark publication to implementation (50% uptake): **15 years**



Khan, Neta, & Chambers, 2021

# An Evidence-Based Health Intervention

- Is only so good as how and whether. . .
  - It is adopted?
  - Providers are trained to deliver it?
  - Trained providers choose to deliver it?
  - Eligible people receive?

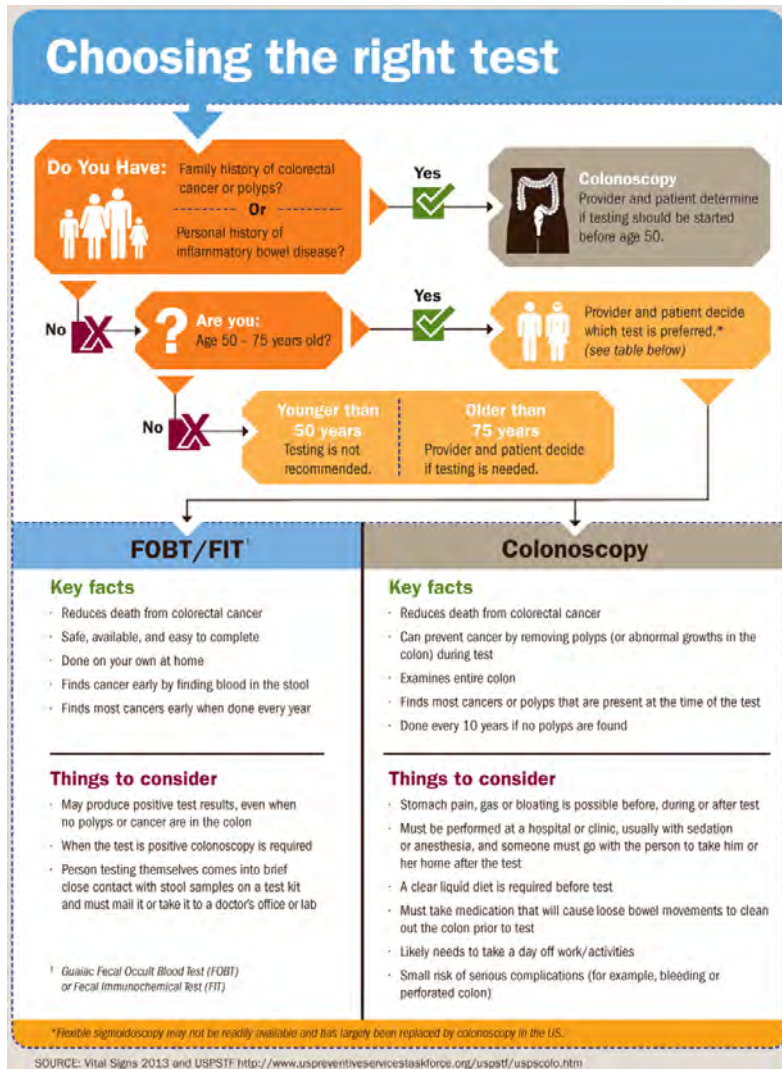
If we assume 50% threshold for each step. . .

(even w/perfect access/adherence/dosage/maintenance)

Impact:  $.5 * .5 * .5 * .5 = 6\%$  benefit

Adapted from Glasgow, RE-AIM

# Example: CRC Screening



## Sample IS Challenges:

- Is CRC Screening a priority?
- How to reach all patients who could benefit
- Fit of ITVs with practice workflow/community & populations
- Implementing the model across varied practices
- Follow-up?
- Workforce capacity/training needs

(2013) <https://www.cdc.gov/vitalsigns/colorectalancerscreening/index.html>

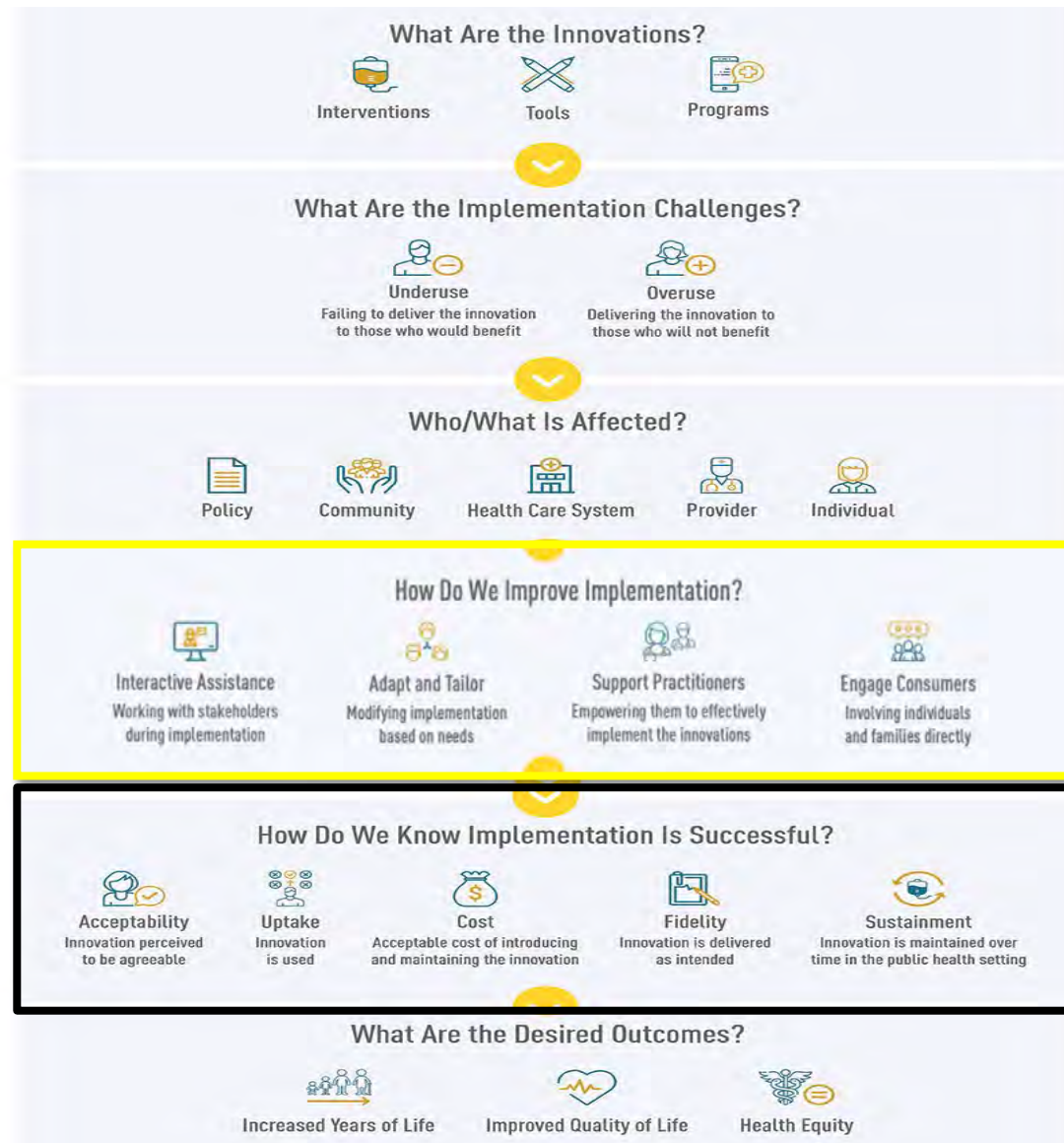
# The Importance of What...

What is the intervention that needs to be implemented?

- A. Screening Test
- B. Information Dissemination/educational intervention
- C. Monitoring and Follow-up
- D. Preventive Care
- E. Treatment
- F. Survivorship Care
- G. All of the above?

How well does the overall intervention fit with the needs, circumstances, preferences of our partners?

# The Nuts and Bolts of Implementation Science



**Implementation Science** is the study of methods that facilitate the uptake of evidence-based practices and interventions into routine use into healthcare and public health to improve population health outcomes.

The term **D&I research** largely covers this same terrain.

# Challenges in Implementation Science (2001)

- Variability in terms
- Little awareness of research questions
- Minimal capacity within the field
- No shared vision
- Few opportunities to present/publish
- Commentaries outpace studies
- Part of NIH/NIMH research agenda?



Program Officer, NIMH

# Building NIMH's Dissemination and Implementation Research Program

## Defining Terms:

- Dissemination: targeted distribution of information to a specific audience. The intent is to spread knowledge, in this case about mental illness and the associated evidence-based interventions.
- Implementation: the use of strategies to introduce or change evidence-based mental health interventions within specific settings.

**Articulating Priorities:** NIMH D&I PA-02-131 (R01, R21, R03)

## Building Momentum

- Child Mental Health, State MH Agency D&I Research Workshops (2002)
- Advancing the Science of Implementation Workshop (2004)

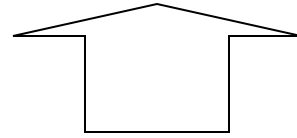
## Novel Mechanisms

- RFAs for partnered research b/w State agencies, D&I researchers
- Regional meetings (w/ SAMHSA) on Science and Service
- New Training Programs



# Real-World Implementation: The influence of content, context, and process

Implementation



## Content

- Evidence development and testing
- Evidence interpretation and packaging

## Process

- Behavior change strategies (e.g., client motivation/behavior, provider practices)
- Systemic processes (e.g., supervisory practices, quality improvement)
- Engagement (e.g., teachers, physicians, families)

## Context

### External:

- Political and Professional
- Economic (e.g., reimbursement)
- Social (e.g., stigma)

### Internal:

- Organizational culture and structure
- Practice setting characteristics
- Local stakeholders (e.g., attitudes and behaviors)

# Scaling up D&I Research (aka Implementation Science)

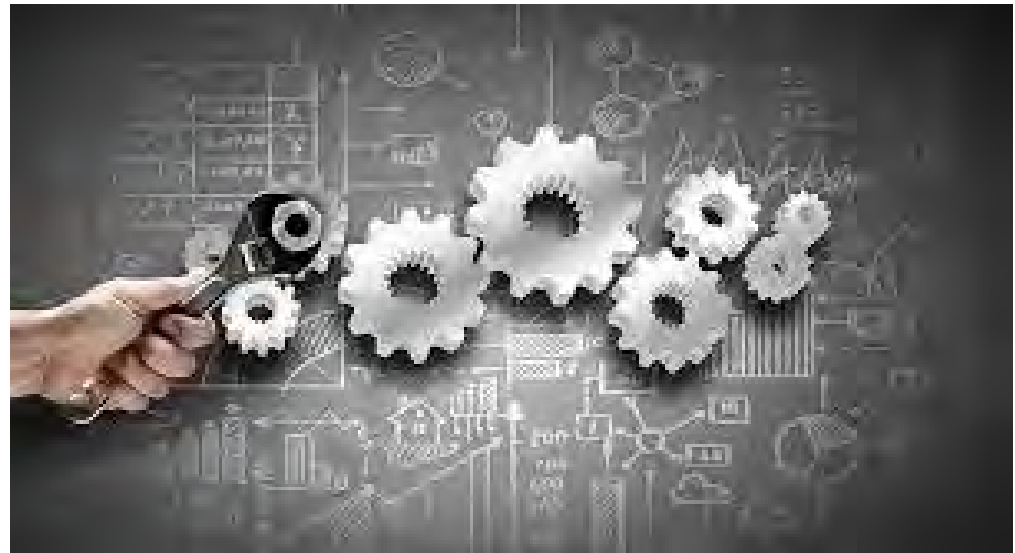
**2002 OBSSR presentation on Type II Translational Research—**  
presented NIMH Program Announcements on D&I Research

**2003 a partnership with NIH partners (including NINR) to strategize**

- Trans-NIH Funding Opportunities
- Expert Peer Review
- Training and Technical Assistance
- An Annual Conference

## **Collaboration w/ NCI**

- Cancer Control P.L.A.N.E.T.
- Dialogue for Dissemination
- D&D Supplements
- iEBI (w/CDC)



# Bridging Across the NIH



- 2005 D&I Program Announcements (NIMH, NCI, NIDA, NIDCD, **NINR**, NIAAA, NIDCR, NHLBI, OBSSR, ODS)
- 2005 Joint NIH TA Workshop; reviewer orientation
- 2007 First NIH Conference on D&I (@ Natcher)
- 2009 D&I PARs reissued (12 ICs, OBSSR)
- 2010 CSR Standing Review Committee DIRH
- 2011 1<sup>st</sup> Summer Training Institute (w/theme song)
- 2012 Fifth NIH Conference (>1200 Registrants)
- 2013 D&I PARs reissued (15 ICs, OBSSR)
- 2013 6<sup>th</sup> Annual Workgroups—Training, Measures, Design

# Bridging with Common Fund Initiatives

NIH National Institutes of Health  
Office of Strategic Coordination—The Common Fund

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**Archived Content**  
Please note this webpage is being maintained as an archive and will not be updated on a regular basis.

## Health Care Systems (HCS) Research Collaboratory (NIH Collaboratory)

Home » Health Care Systems (HCS) Research Collaboratory (NIH Collaboratory)

### Health Care Systems (HCS) Research Collaboratory (NIH Collaboratory)

**Program Snapshot**

The goal of the [NIH Health Care Systems \(HCS\) Research Collaboratory](#) program is to engage health care delivery organizations like clinics or hospitals as research partners in the conduct of pragmatic clinical trials. Pragmatic clinical trials take place at the site of care and are designed to provide real world evidence on the benefits and risks of treatment options for health care providers and patients. The NIH Collaboratory generates and widely disseminates best practices for conducting pragmatic clinical trials through a number of outreach activities, including an online [living textbook](#) and weekly [Grand Rounds](#) webinars.

### Announcements

Cognitive Behavioral Therapy Can Reduce Chronic Pain and Pain-Related Disability

New Funding for Large-Scale Pragmatic and Implementation Trials

Collaborative Care Intervention Can Reduce PTSD in Trauma Survivors

NIH National Institutes of Health  
Office of Strategic Coordination—The Common Fund

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**Archived Content**  
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## Health Economics

Home » Health Economics

### Health Economics

**Program Snapshot**

The Common Fund's Health Economics program supported research to identify factors influencing adoption of new innovations in treatments, diagnosis, and preventive strategies; so that past and future investments by NIH may have greater public health impact. To that end the program focused on identifying factors that influence the adoption of high-value health technologies and personalized medicine approaches.

Examples of program research accomplishments include:

- Expanded research community in health economics that is now being utilized at multiple NIH institutes to address issues in which economic analysis of factors can influence health and the adoption of NIH-supported innovations.
- Identified factors that influence both optimal adoption of high-value health technologies and phasing out low-value technologies.

### Announcements

2016 Data Now Available in State Health Practices Database

Public Resource on Diffusion of Medical Technologies

### Program Transition

The Health Economics program has transitioned from Common Fund support. Common Fund

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## NIH PRAGMATIC TRIALS COLLABORATORY

Rethinking Clinical Trials<sup>®</sup>

Design | Data, Tools & Conduct | Dissemination & Implementation | Ethics & Regulatory

### Rethinking Clinical Trials: A Living Textbook of Pragmatic Clinical Trials



Welcome to the Living Textbook of pragmatic clinical trials, a collection of knowledge from the NIH Pragmatic Trials Collaboratory. Pragmatic clinical trials present an opportunity to efficiently generate high-quality evidence to inform medical decision-making. However, these trials pose different challenges than

traditional clinical trials. The Living Textbook reflects a collection of special considerations and best practices in the design, conduct, and reporting of pragmatic clinical trials.

### GET STARTED

What is the [NIH PRAGMATIC TRIALS COLLABORATORY?](#)

What is a [PRAGMATIC CLINICAL TRIAL?](#)

[TRAINING RESOURCES](#)

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## Economic evaluation in implementation science

Multiple participating journals

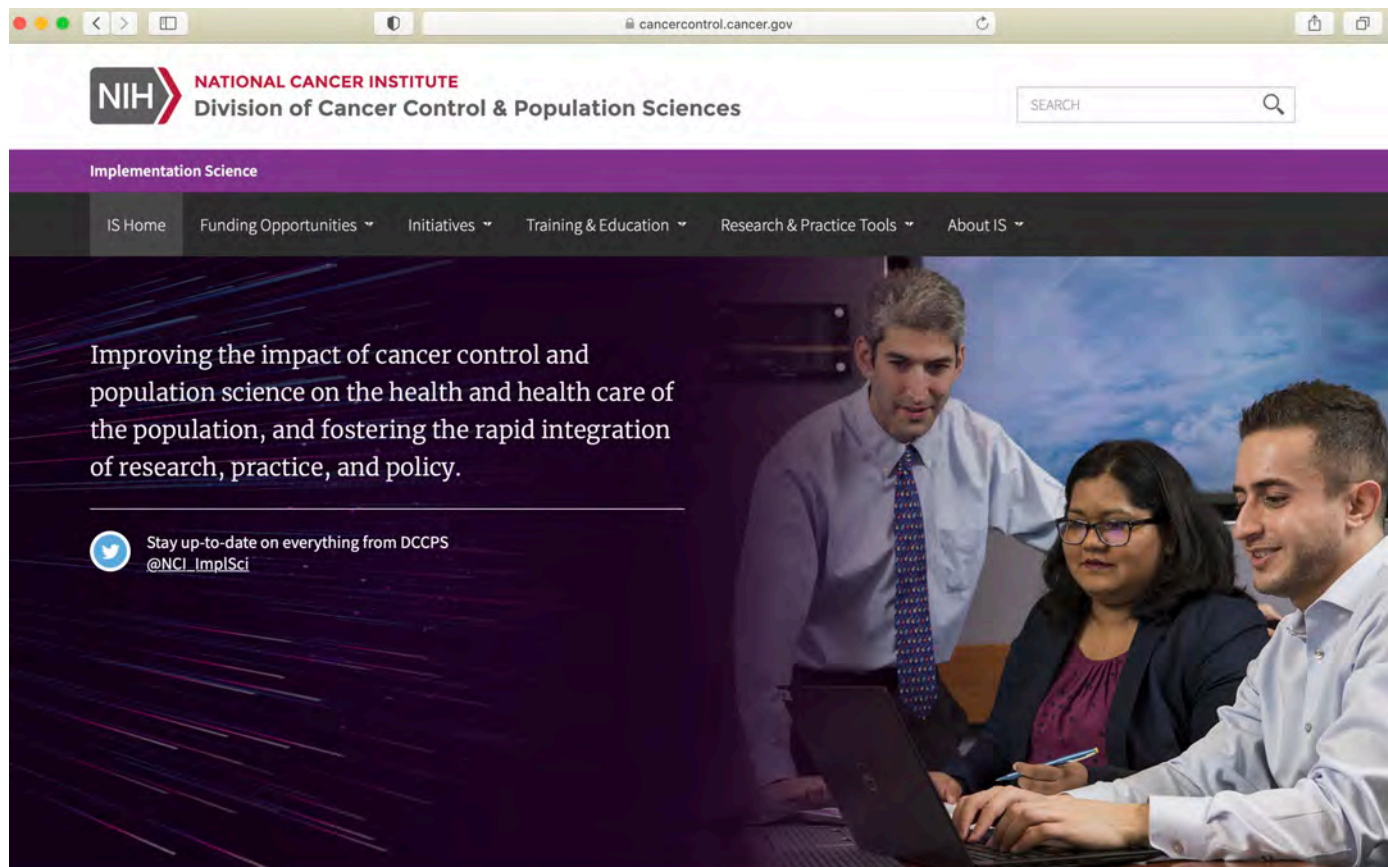
Closed for submissions

Economic evaluation compares the costs and benefits among distinct courses of action. Understanding the costs of evidence-based practices (e.g., interventions, policies, programs, tools) and the associated efforts that ensure their delivery and sustainment is critical for decision makers. Although many implementation science frameworks include costs as a key construct, relatively little guidance exists on how best to measure and analyse costs within these frameworks, where there may be a narrower perspective, a short time horizon, or important contextual factors. This collection of papers in [Implementation Science](#) and [Implementation Science Communications](#) considers key issues in economic evaluation in implementation science and highlights approaches and examples to inform the field....

[Show more](#)

Journal	Publishing model	Open access
<a href="#">Implementation Science</a>	Journal Impact Factor	13.4 (2024)
	Downloads	4.6M (2025)
	Submission to first decision	18 days (median)
<a href="#">Implementation Science Communications</a>	Journal Impact Factor	3.3 (2024)
	Downloads	1.1M (2025)
	Submission to first decision	20 days (median)

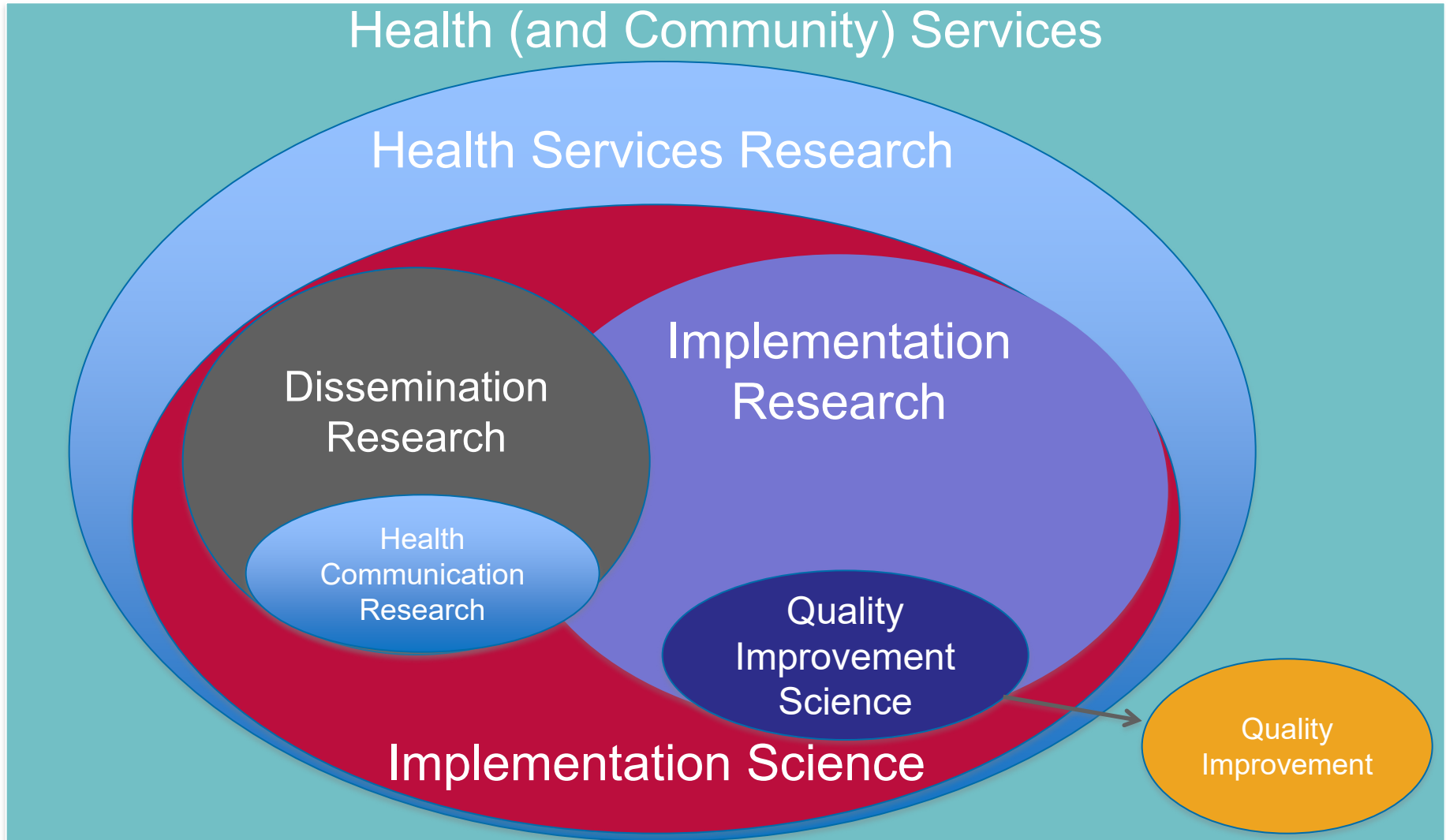
# Implementation Science at NCI (2014-)



## Three Strategic Goals:

- Advancing the Science of Implementation
- Integration of IS into Cancer Control Research (and beyond)
- Building Collaborations across Research, Practice and Policy

# A big tent of terms (and Circles)



Mitchell and Chambers, *J Oncol Prac*, 2017

# Building Implementation Science Capacity

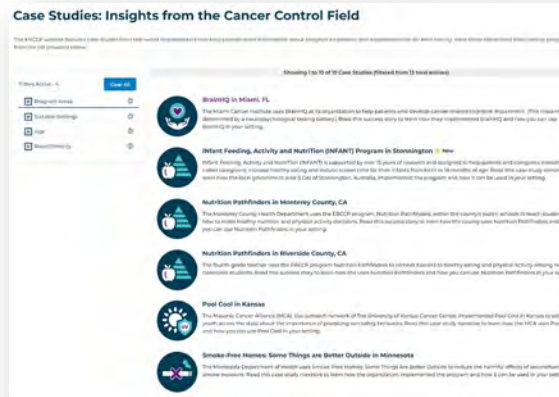


## Clinical and Translational Science Awards (CTSA) Program

	D&I science program/resource <sup>a</sup> N (%)	D&I science training/workforce development N (%)	D&I scientific research projects <sup>b</sup> N (%)
Direct CTSA funding (n = 37)	20 (54.1)	19 (51.4)	22 (59.5)
Indirect CTSA support (n = 37)	26 (70.3)	24 (64.9)	20 (54.1)
Either type of support (n = 37)	28 (75.7)	26 (70.3)	28 (75.7)



# Fostering Collaborations Across Research and Practice



# Trans-NIH PARs: Dissemination and Implementation Research in Health

PAR-25-144  
(R01, Clinical Trials  
Optional)

NCI, NEI, NHLBI,  
NCCIH, NHGRI, NIA,  
NIAAA, NIAID,  
NIAMS, NICHD,  
NIDA, NIDCD, NIDCR,  
NIEHS, NIMH,  
NIMHD, NINDS,  
**NINR**, ODP, OBSSR,  
THRO

PAR-25-143  
(R21, Clinical Trials  
Optional)

NCI, NCCIH, NHGRI,  
NIA, NIAAA, NIAID,  
NIAMS, NICHD,  
NIDA, NIDCD, NIDCR,  
NIEHS, NIMH,  
NIMHD, NINDS,  
**NINR**, Fogarty (FIC),  
ODP, OBSSR, THRO

PAR-25-233  
(R03, Clinical Trials  
Not Allowed)

NCI, NHGRI, NIA,  
NIAAA, NICHD,  
NIDA, NIDCR,  
NIEHS, NIMH,  
NINDS, FIC, ODP,  
OBSSR, THRO



- Program Contacts for each I/C/O: (e.g. Gila Neta, Wynne Norton, NCI)
- IC-specific priorities in each announcement
- Sample grants available



## “National Institute of Nursing Research (NINR)

The National Institute of Nursing Research (NINR) supports research aligned with our [mission and strategic priorities](#), conducted by scientists from any discipline... Drawing on the strengths of nursing’s holistic, contextualized perspective, core values, and broad reach, NINR funds multilevel and cross-sectoral research that examines the factors that impact health across the many settings in which nurses practice, including homes, schools, workplaces, clinics, justice settings, and the community.”

# Sample NINR Grants Advancing Implementation Science

Source: Report.nih.gov

**Evaluating effectiveness of a communication facilitator to reduce distress and improve goal concordant care for critically ill patients and their families**  
Project Number 5R01NR018161-01  
Designing for sustainability: Co-designing and testing the efficacy of a web-based toolkit to improve cancer-related emotional distress and anxiety for rural older cancer survivors

**Integrated Supportive Care Programs to Improve Maternal Health**  
Project Number 5R01NR021666-02

**Managed Problem Solving for ART Adherence and HIV Care Retention Delivered by Community Health Workers: A Stepped Wedge Hybrid Type II Effectiveness Implementation Trial**  
Project Number 5R01NR019753-04

**Evaluating the implementation and impact of navigator-delivered ePRO home symptom monitoring and management**  
Project Number 5R01NR019058-04  
Former Number 1R01NR019058-01  
Contact PI/Project Leader ROCQUE, GABRIELLE  
Awardee Organization

**Multi-level**

**Combining e**  
aims to im

**Testing implementation strategies to integrate patient-reported outcomes alongside navigation to evidence-based care**

**Public Health**  
PROJECT NARRATIVE The goal of the proposed R0 Momplaisir, Gross, and Beidas partner with a Managed Problem Solving, delivered by community health workers in Philadelphia. Our long-term goal is to improve the health of rural older cancer survivors. The proposed trial has the potential to improve ca

**Public Health Relevance Statement**  
Interventions are urgently needed to address the significant promise but are limited by limited resources and implementation challenges. Improving women's health in rural areas is a national priority. Integrated supportive care programs that address the needs of rural older cancer survivors are a significant public health priority. The proposed trial has the potential to improve ca

**Public Health Relevance Statement**  
PROJECT NARRATIVE The proposed R0 Momplaisir, Gross, and Beidas partner with a Managed Problem Solving, delivered by community health workers in Philadelphia. Our long-term goal is to improve the health of rural older cancer survivors. The proposed trial has the potential to improve ca

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# Accelerating Colorectal Cancer Screening and follow-up through Implementation Science (ACCSIS)



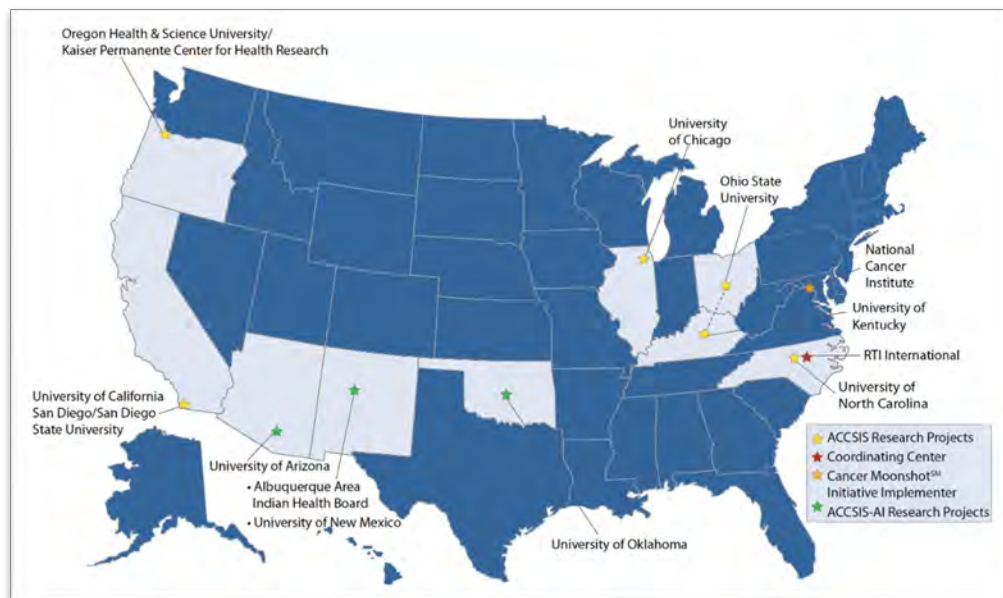
Accelerating Colorectal Cancer Screening and Follow-Up Through Implementation Science

**NCI:** Sarah Kobrin, Wynne Norton, Michael Halpern, Robin Vanderpool, Genevieve Grimes, Sharon McCarthy (ACCSIS 1 and 2); Amy Kennedy & Shobha Srinivasan (ACCSIS AI)

**Goal:** Generate implementation strategies that substantially improve CRC screening and follow-up rates in populations where baseline rates remain low.

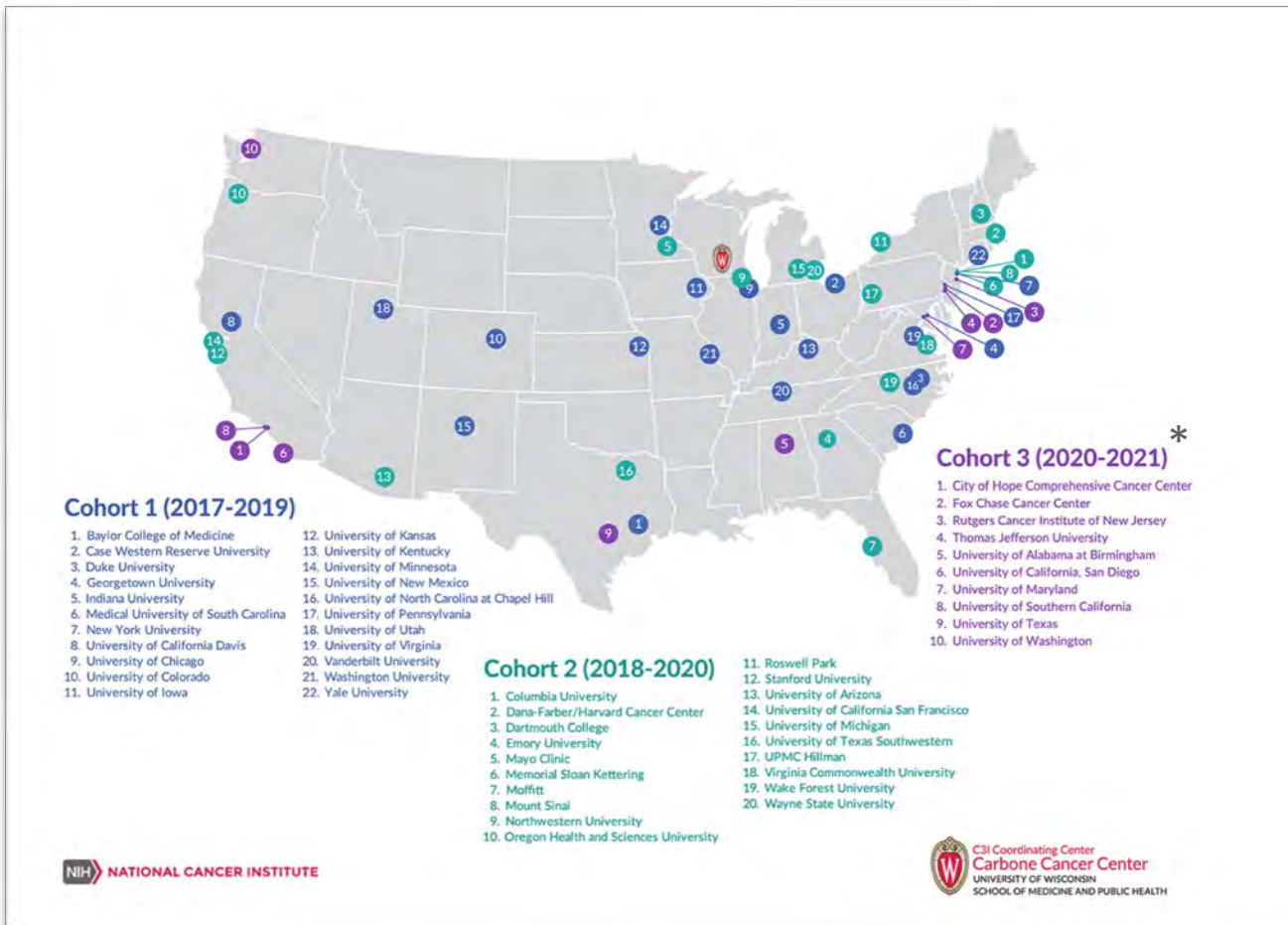
**ACCSIS Consortium** consists of one Coordinating Center (U24), five Research Projects (UG3/UH3) with 2 cohorts (ACCSIS 1, ACCSIS 2), and three ACCSIS American Indian Research Projects.

**Emphasis** on testing strategies addressing disparities in cancer screening, follow-up and referral to care across the United States



# Cancer Center Cessation Initiative (C3I)

“Administrative supplements to develop tobacco cessation treatment capacity and infrastructure for cancer patients that should lead to the implementation and dissemination of a sustainable tobacco cessation treatment program within the cancer center.”



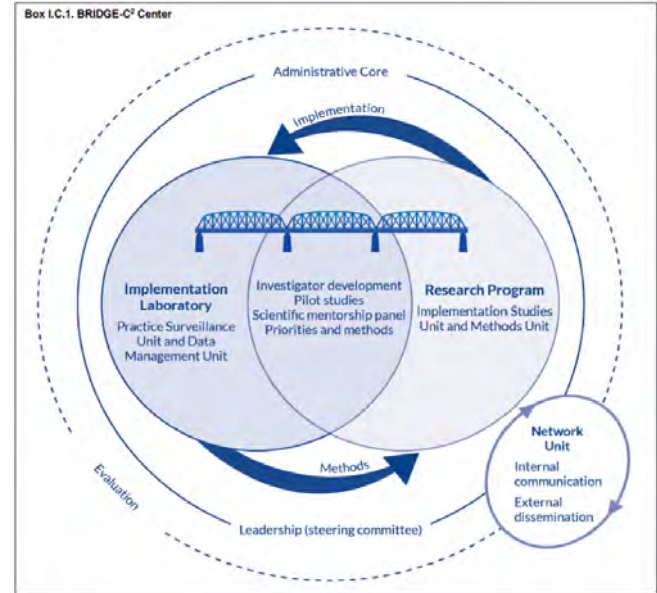
- **NCI Lead: Stephanie Land**
- **Natural laboratory of 52 cancer centers** for understanding implementation of tobacco cessation within cancer center care delivery
- \*11 centers received add'l funding to focus on **sustainment**

Coordinating Center: University of Wisconsin Madison (Lead: Michael Fiore)

# Implementation Science Centers in Cancer Control (ISC<sup>3</sup>)

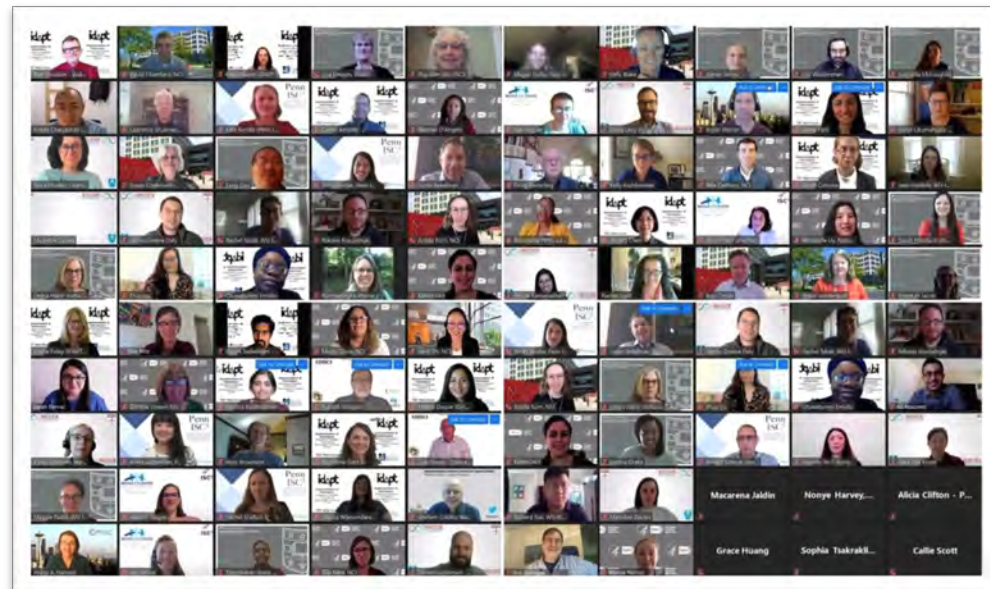
The ISC<sup>3</sup> Program is composed of six Centers funded by [RFA-CA-19-005](#) and [RFA-CA-19-006](#).

## IMPLEMENTATION SCIENCE CENTERS IN CANCER CONTROL



**NCI Staff:** Cynthia Vinson, April Oh, Wynne Norton (leads), Kelly Blake, Mindy Clyne, Robin Vanderpool, Amy Caplon, Heather D'angelo, Susan Czajkowski and more

<https://cancercontrol.cancer.gov/is/initiatives/isc3>



# Implementation Science Resources

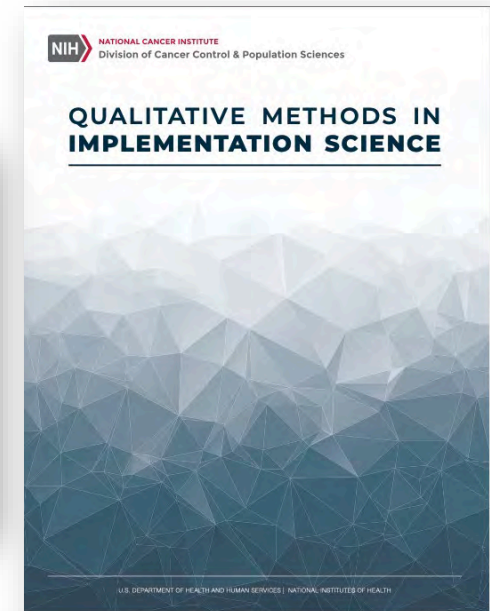


The graphic has a light blue background with a circular icon of a computer monitor showing a play button. To the right, the text reads:
 

## Implementation Science Webinars

The Implementation Science Webinars series is a free, monthly webinar series focused on advanced topics in dissemination and implementation (D&I) research.

At the bottom is a blue button with white text: **View Webinars**



The screenshot shows the NIH website for 'Training Institute for Dissemination and Implementation Research in Cancer (TIDIRC) OpenAccess'. It includes the NIH logo, navigation tabs, and a section titled 'TIDIRC OpenAccess makes the online training materials used in the TIDIRC Facilitated Course open to the public. The free, online materials provide an overview to dissemination and implementation (D&I) research. Each module serves as an introduction to fundamental terms, concepts, and principles of D&I with examples of their application.' Below this is a list of modules.

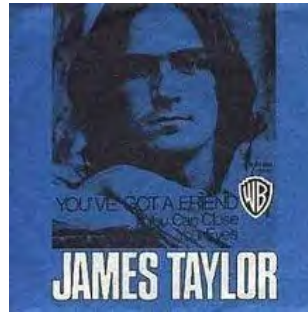
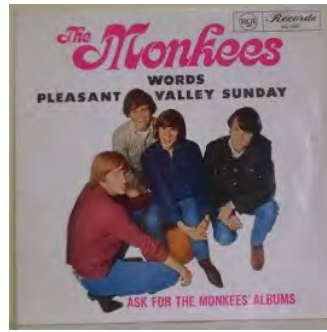
The screenshot shows the conference website with the title '18th Annual Conference on the Science of Dissemination and Implementation in Health' and the subtitle 'Realizing the Benefits of Dissemination & Implementation Science'. It features a 'DATE & TIME' section (December 14-17, 2025), a 'LOCATION' section (Gaylord National | National Harbor, MD), and a 'SHARE' section with social media icons. There is also a 'Related Content' section with links to 'Evidence Roadmap: End-of-Life Care and Medicare's Hospice Benefit' and 'Engaging Health: Health Research and Policymaking in the Social Media Sphere'. At the bottom, there is a 'Future Conference Dates' table.

Date	Location
December 13-16, 2026	Gaylord National Resort & Convention Center   Oxon Hill, MD

# Embracing Dynamism

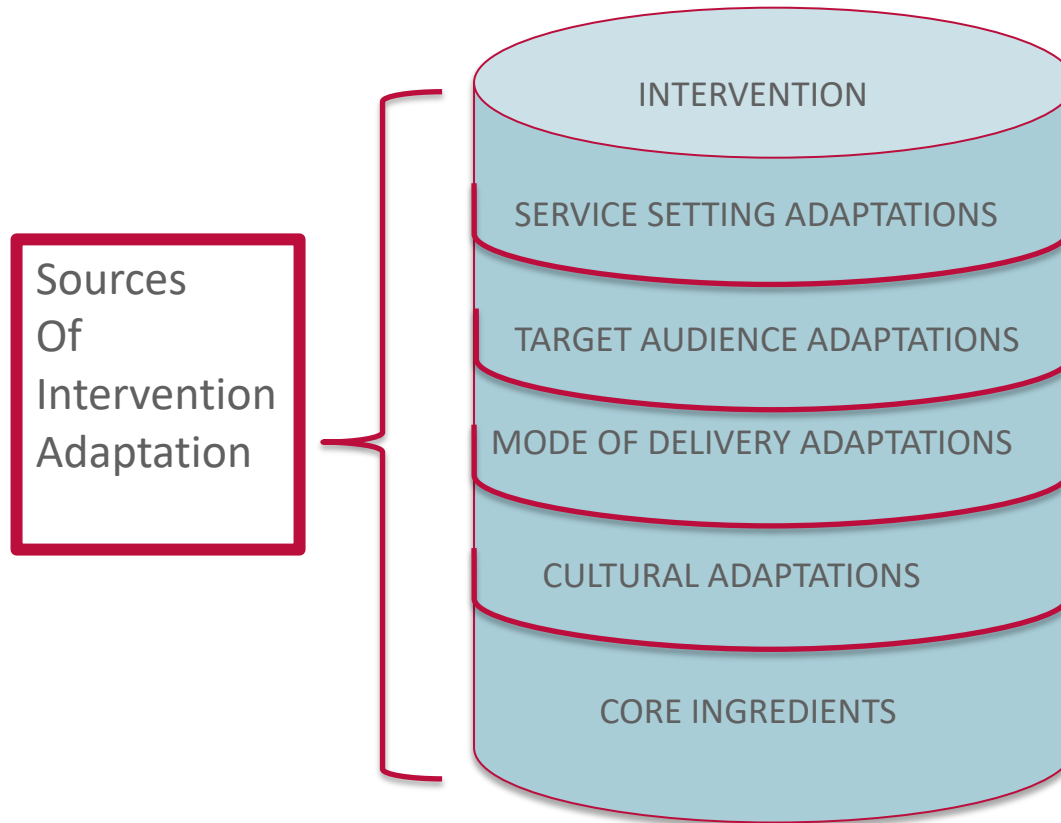


# Fidelity versus Adaptation of Interventions



Variable use for variable populations, settings, and purposes...

# In What Ways are Interventions Adapted?



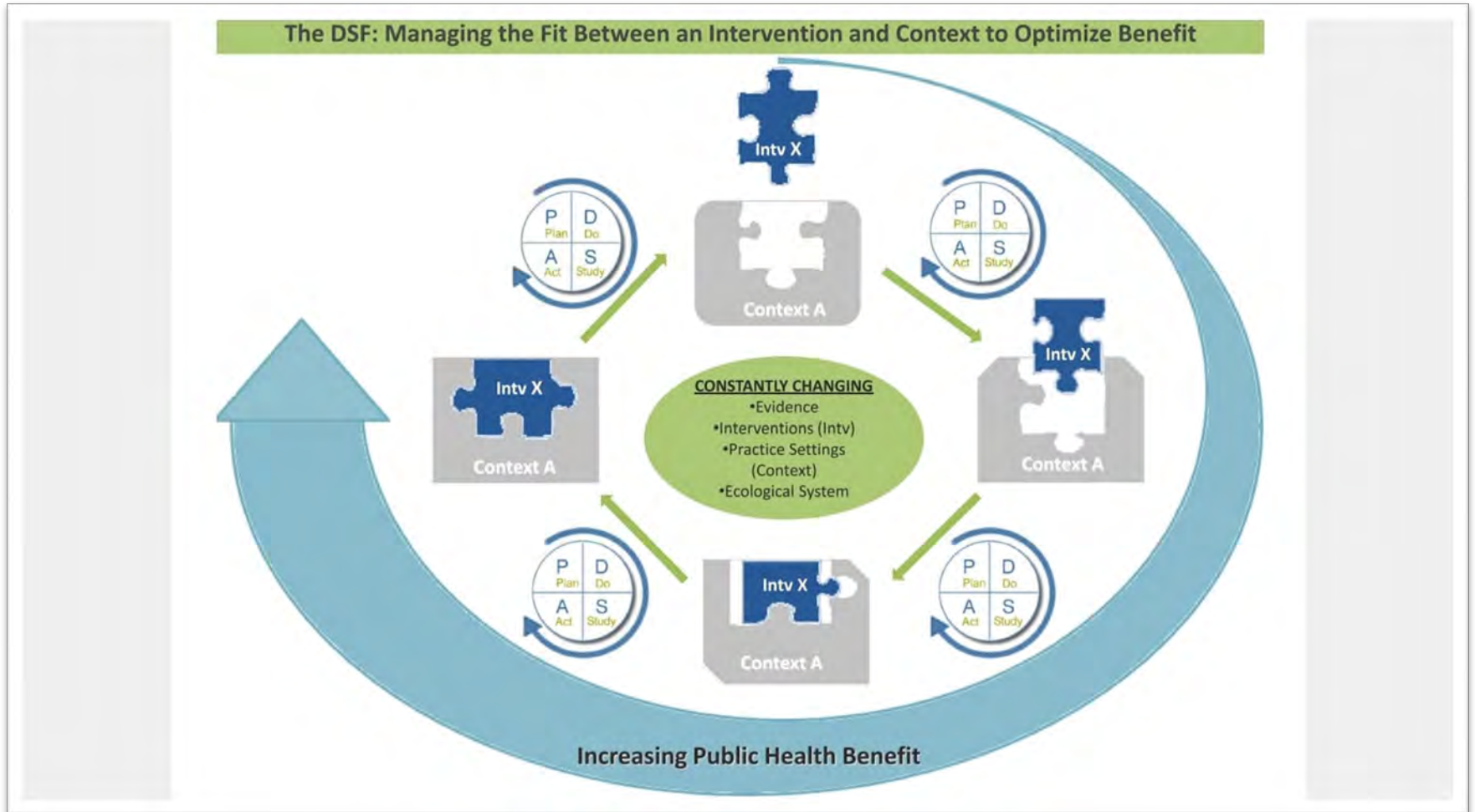
Chambers & Norton, 2016

# Sustainability or Evolution?



- IF HEALTH CARE CONTINUES TO EVOLVE, SHOULD EXISTING INTERVENTIONS BE SUSTAINED IN THE SAME FORM THAT WE'VE CREATED THEM?
- HOW DOES THE SYSTEM COPE WITH A DYNAMIC FIELD THAT IS CONSTANTLY CHANGING?
- WHERE DO WE GO FROM HERE?

# Expecting Dynamism over time...



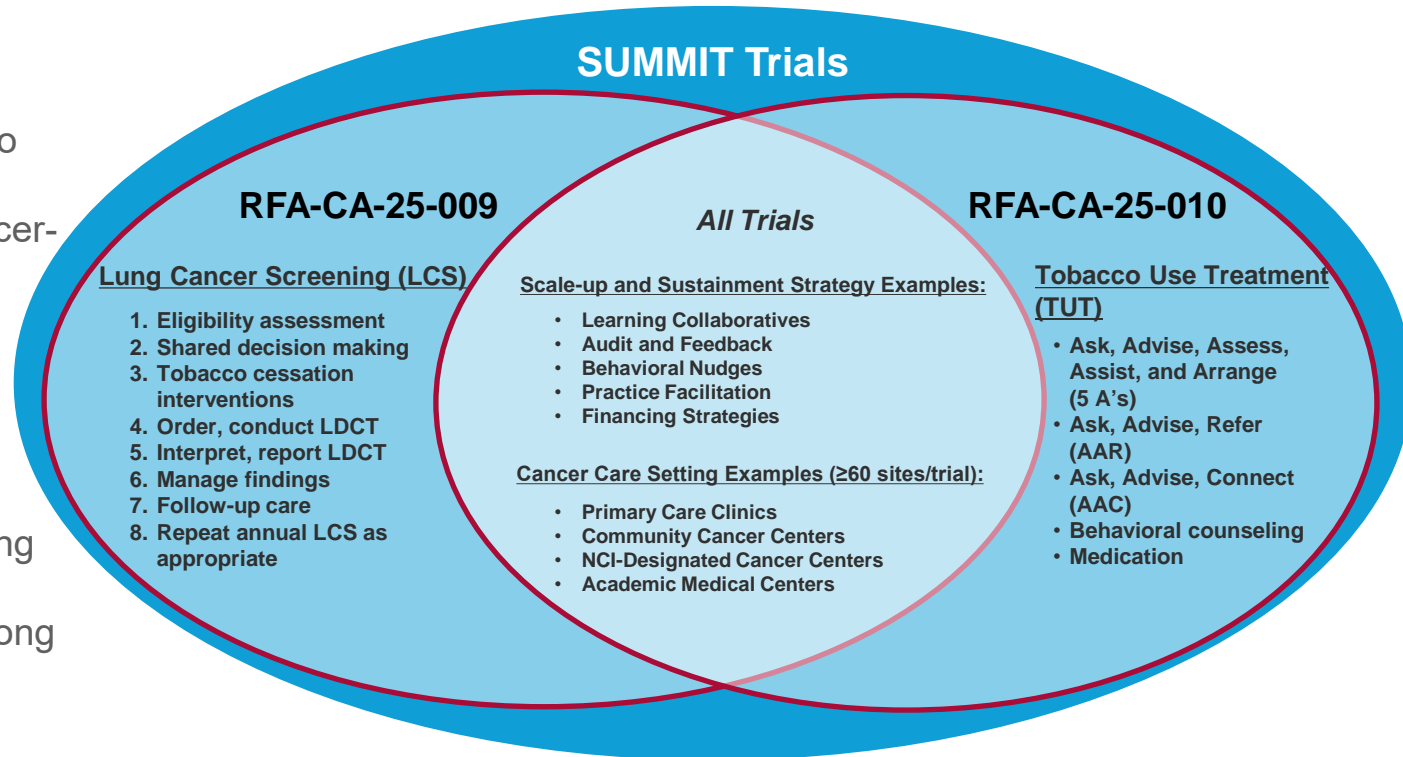
Chambers, Stange, & Glasgow, *Implementation Science*, 2013

## Purpose:

▪ **Advance the science of scale-up and sustainment** to increase the widescale, long-term delivery of effective cancer-related interventions.

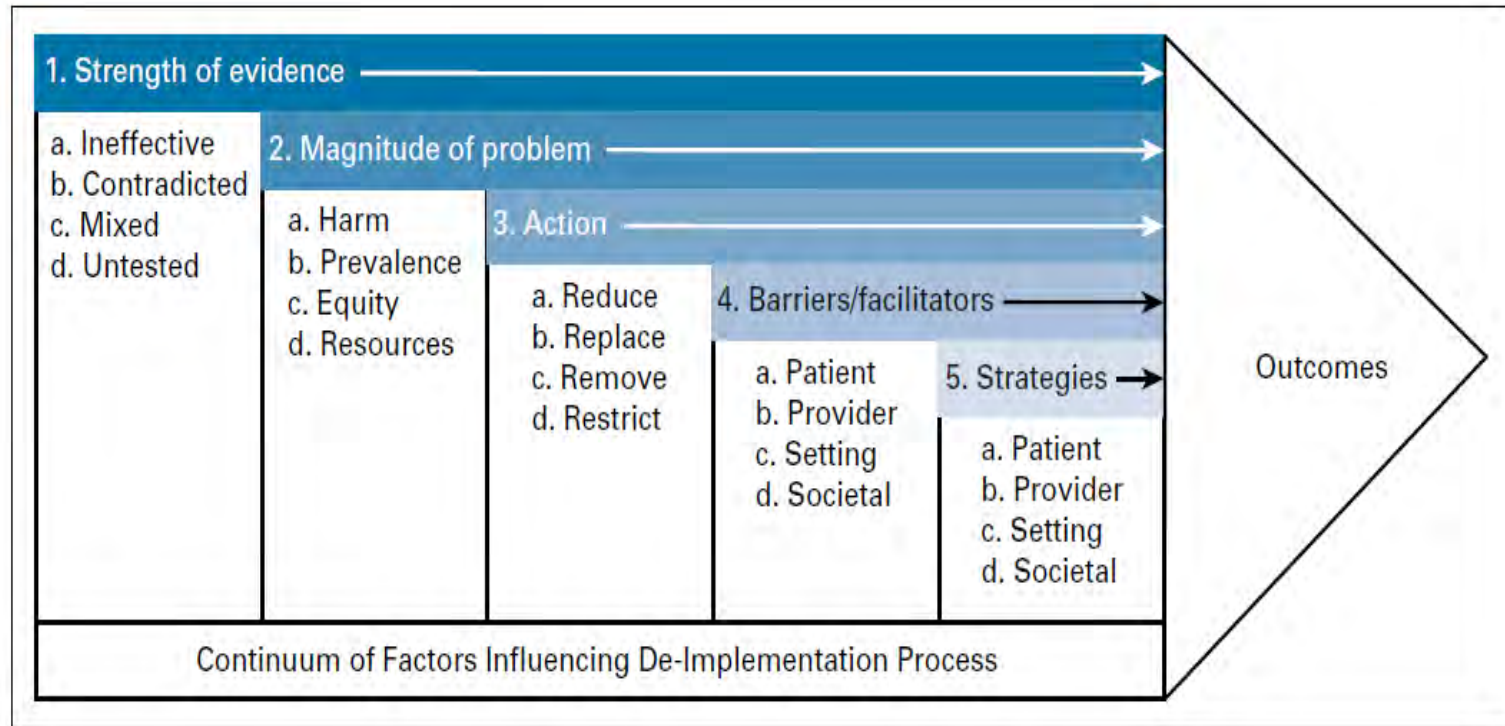
▪ **Reduce cancer-related deaths** by significantly increasing (1) lung cancer screening (LCS) among populations at high risk for lung cancer and (2) tobacco use treatment (TUT) services among cancer survivors.

▪ **Develop generalizable knowledge** on how to scale-up and sustain effective cancer-related interventions.



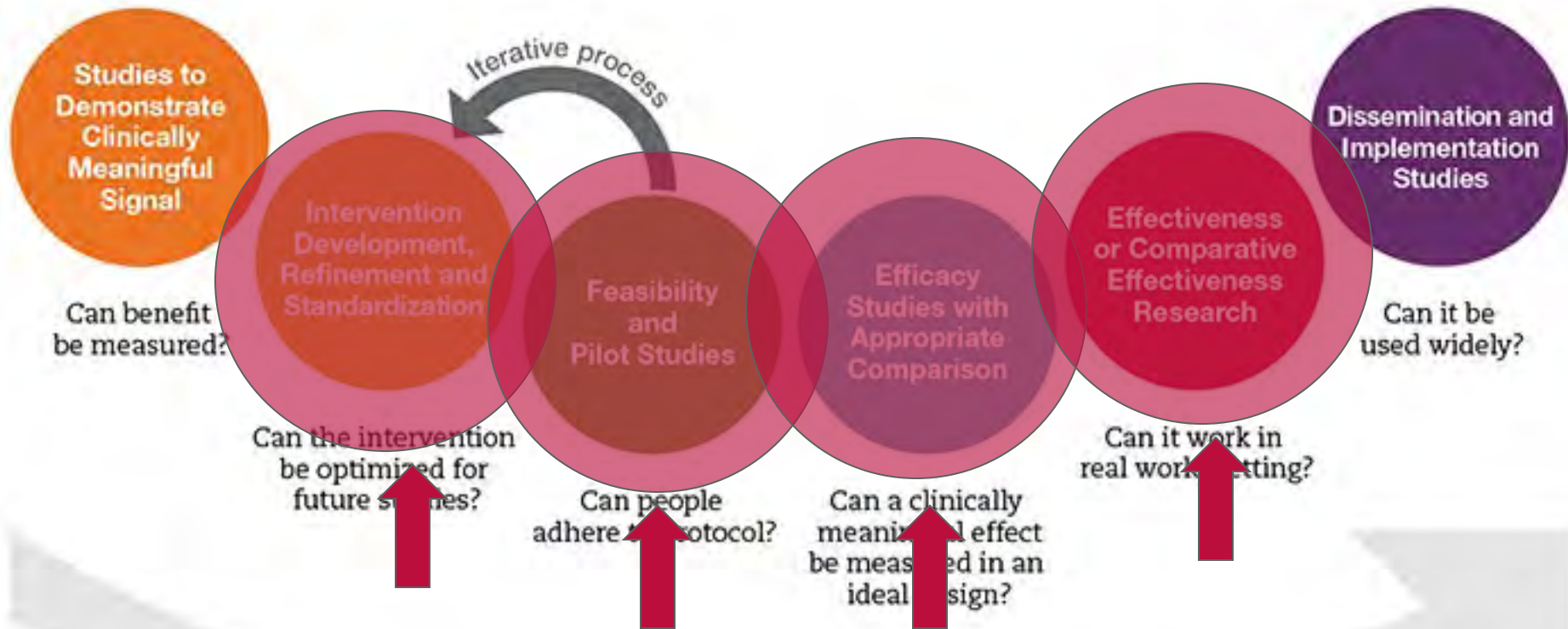
**Four Projects (3 for LCS, 1 for TUT for Cancer Survivors)**  
**More than 300 sites expected to be part of trials**

# Need: Understanding De-Implementation



Norton, Chambers, & Kramer, *JCO*, 2018

# Considering D&I earlier



An earlier focus on...

- Who's going to deliver it?
- Fit with ultimate patient population
- Building in tests of training, support, adherence, mediators and moderators to high quality delivery
- Hybrid designs

COMMENTARY

Open Access



## Navigating the field of implementation science towards maturity: challenges and opportunities

David A. Chambers<sup>1\*</sup> and Karen M. Emmons<sup>2</sup>

# Embracing the goal of “big tent”

The implementation science community should embrace the goal of a “big tent,” in which all partners can contribute to the development and execution of implementation studies.



This goal may be aided by addressing a set of observations to support this community of science and practice.

# THANK YOU!



**NINR Collaborators (2005-present):** Martha Hare, PhD, RN; Karen Kehl, PhD; Lynn Adams, PhD; Augie Diana, PhD; Karen Huss, PhD, RN, APRN-BC, FAAN, FAAAAI; Dara Blachman-Demner, PhD; Mary Bowen, PhD; Paul Cotton, PhD

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