GMaP Region 4 Implementation Webinar

PRESENTED BY GMAP REGION 4

GMaP is a program funded by the NCI's Center to Reduce Cancer Health Disparities





Welcome FY19 GMaP Regions!!



NEW NATIONAL CANCER INSTITUTE

The Geographic Management Program (GMaP): A 2009 NCI strategy to build regional networks of health disparities researchers through partnerships, collaborative research, integration of biospecimen and community research and training, fostered by a solid regional infrastructure.

Region 4 GMaP,

administratively led by Fox Chase Cancer Center (now part of Temple Health). Currently comprised of more than 40 NCI-funded institutions located in 13 states. More than 800 members.

Our Region 4 Team



- Dr. Linda Fleisher PhD, MPH
 - Co-Director
 - Associate Research Professor
 - Health Communications & Health Disparities



- Dr. Susan G. Fisher, MS, PhD
 - Co-Director
 - Associate Director for Population Science
 - Associate Director for Cancer Health Disparities & Community Engagement



- Carrie Norbeck, MPH, CHES
 - Regional Coordinating Director



- Cassidy Kenny
 - Research Coordinator



GMaP Region 4

CT • IA • IL • IN • MA • MI • MN • NJ • NY • OH • PA • RI • WI

TEMPLE HEALTH

Past & Present: The Goals of GMaP Region 4



FY09-FY11

- Started with 13 NCI-funded institutions
- Focus on **Network needs assessment** and 5-year implementation plan
- Network cohesion Cancer Disparities Research Network



- Collaborative Pilot Projects focused on regional CHD problem: Participation of diverse populations in biospecimens-related research
- Cancer 101 Biospecimens curriculum adapted to 6 population groups (11 institutions participating; 6 NON sites)

FY12-FY14 • CDRN Cohort Study and BMaP Communication Tool projects



- Increase awareness of GMaP and CURE with diverse trainees and investigators; Cancer Health Disparities (CHD) Researchers
- Identifying & Increasing Competitiveness of Potential CURE and/or **CHD Trainees**
- Utilize Diverse Biospecimens/Biobanking as a strategy to reduce cancer health disparities

Career Development Support



Travel Awards

- Offered Fall/Spring
- Competitive
- Priority to those applying for CURE within 1-2 years
- Early Stage Investigators
- Post-event report



Reviews Grant Expert

- Available on requestTimeline -
- Timeline begin 12 weeks prior to submission
- Partial/Full review
- Honorarium to reviewers
- Provide review comments plus phone call to discuss



Pilot Awards

- Offered periodically
- Small grants for developmental activities
- 1 Year duration
- Early stage investigators
- Competitive with expert review

GMaP Region 4

Communications

Oct 23, 2019 E-blast from GMaP Region 4 View this email in your browser GMaP Region 4 Are you attending APHA in Philadelphia Nov. 3-Forward this 6th? Any other Fall conferences? Please complete CDRN E-blast to this short survey to share your contact information. a colleague! GMaP will be in attendance and available for career chats!

GMaP Region 4 has a new website! Check it out at

https://www.foxchase.org/gmap_r4!

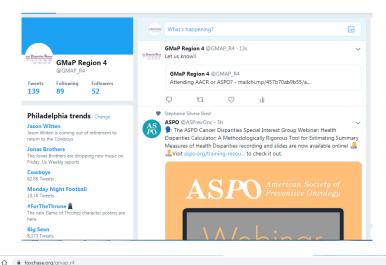
Have you applied for a CURE award this Fall?

If you applied for a CURE (Diversity) F31, K01, K08, or R21 level award through NCI's Center to Reduce Cancer Health Disparities this Fall, we'd like to know. GMaP works with investigators throughout the application process to ensure your best chance for success! Please complete this short survey with your Fall CURE application plans or information.



Have you applied for a CURE award this Fall?

If you applied for a CURE (Diversity) F31, K01, K08, or R21 level award through NCI's Center to Reduce Cancer Health Disparities this Fall we'd like to know. GMaP works with investigators throughout the application process to ensure your best chance for success! Please



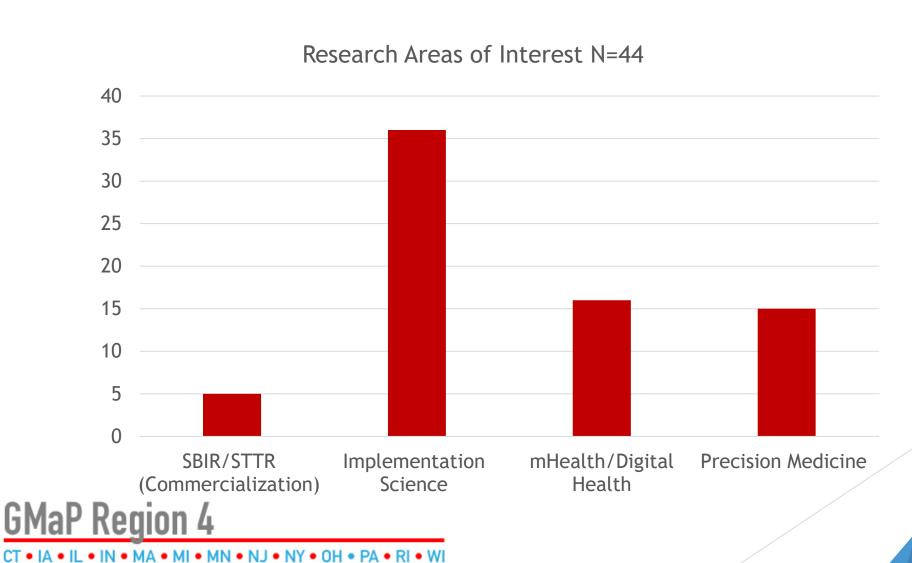


VISIT US AT: www.foxchase.org/gmap r4

GMaP Region 4

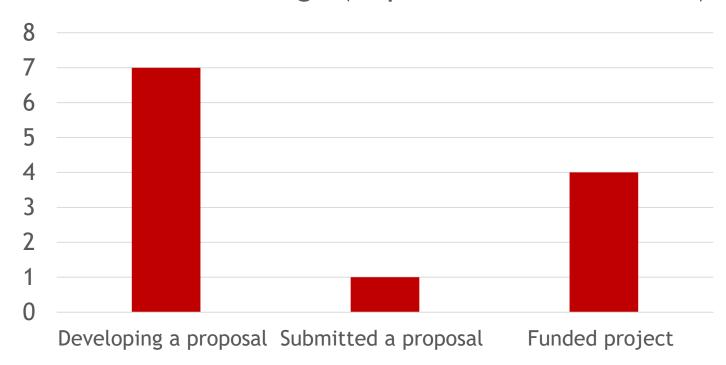
CT • IA • IL • IN • MA • MI • MN • NJ • NY • OH • PA • RI • WI

GMaP Region 4 Membership Survey Responses - Fall 2019



GMaP Region 4 Membership Survey Responses

What stage (Implementation Science)?



Featuring:

Gila Neta, PhD, MPP

▶ Program Officer, National Cancer Institute, Division of Cancer Control and Population Sciences

Rachel Shelton, ScD, MPH

- Assistant Professor, Columbia University, Mailman School of Public Health, Department of Sociomedical Sciences
- Associate Director of Community Engagement Core Resource, Columbia's Irving Institute for Clinical and Translational Research
- ▶ Associate Director of Research, Lerner Center for Health Promotion

Shawna Hudson, PhD

- ▶ Professor and Research Division Chief, Department of Family Medicine and Community Health
- ▶ Director, Center of Advancing Research and Evaluation or Patient-Centered Care (CARE_PC), Rutgers Robert Wood Johnson Medical School
- Co-Director of Community Engagement, NJ Alliance for Clinical and Translational Science (NJ ACTS)

GMaP Region 4

Polling Questions

- Which GMaP Region are you in?
- Which best describes you?
 - ► I am just getting interested in Implementation Science
 - ► I have participated in Implementation Science mentored trainings and am beginning to develop some concepts and proposals
 - ▶ I have had one or two grants focused on Implementation Science
 - ► I am a seasoned Implementation Science researcher



A brief orientation to implementation science at the National Cancer Institute

Gila Neta, PhD, MPP Division of Cancer Control and Population Sciences

GMaP Region 4 Implementation Webinar



Definitions

- Implementation practice: Using interventions in health care and public health settings (i.e., the act of implementing something)
- Implementation science: Studying the use of interventions in health care and public health settings
 - "scientific study of methods to promote the systematic uptake of research findings and other evidence-based practices into routine practice" (Eccles & Mittman 2006)
 - "study of the use of strategies to adopt and integrate evidence-based interventions into clinical and community settings" (Glasgow 2012)

Effective Interventions





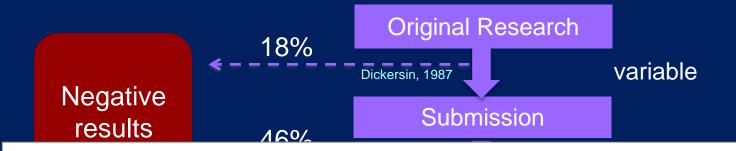




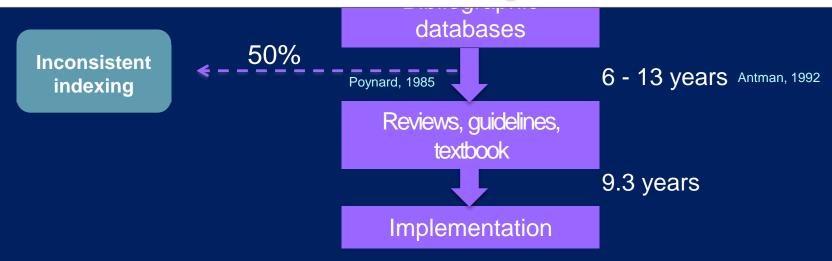




Balas & Boren, 2000



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



Beyond the Evidence for Effectiveness...

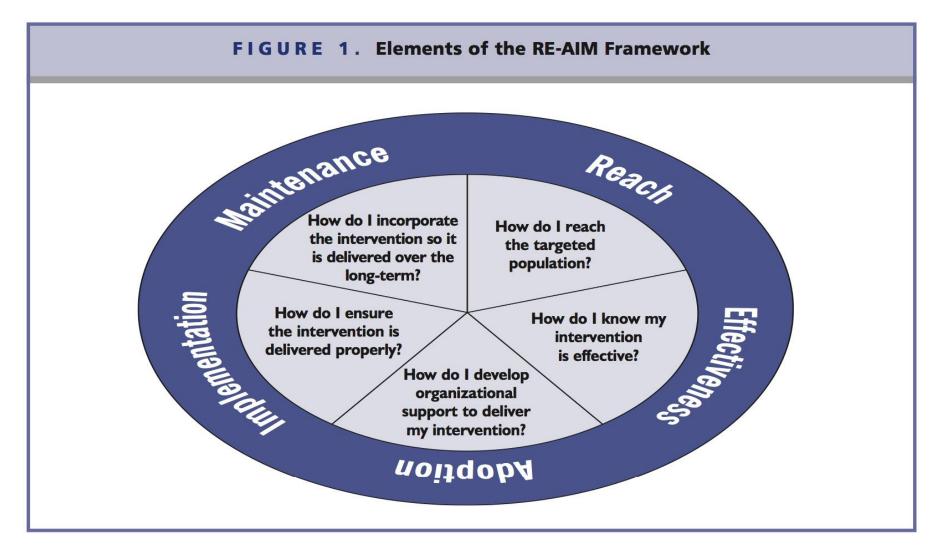
Evidence is only as good as how and whether...

- It is adopted?
- Practitioners and communities are trained to use it?
- Trained practitioners and communities choose to use it?
- •Eligible populations/patients benefit from it?

If we assume 50% threshold for each step... (even w/perfect access/adherence/dosage/maintenance)

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

Beyond Effectiveness





Definitions (from NCI)

Implementation Science intends to bridge the gap between research, practice, and policy by building a knowledge base about how health information, effective interventions, and new clinical practices, guidelines and policies are communicated and integrated for public health and health care service use.

- Dissemination research is the scientific study of targeted distribution of information and intervention materials to a specific public health or clinical practice audience. The intent is to understand how best to communicate and integrate knowledge and the associated evidence-based interventions.
- *Implementation research* is the scientific study of the use of strategies to adopt and integrate evidence-based health interventions into clinical and community settings to improve individual outcomes and population health.

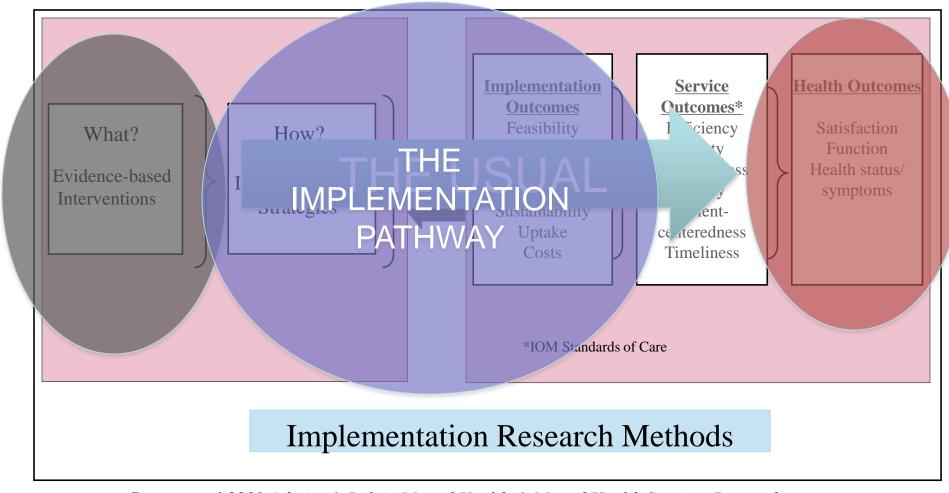
Source: PAR-19-274

Dissemination Research

- How, when, by whom, and under what circumstances evidence spreads
 - Creation
 - Packaging
 - Transmission
 - Reception

→ Turning information into action

Implementation Research



Proctor et al 2009 Admin. & Pol. in Mental Health & Mental Health Services Research

Implementation Strategies

Evaluative & iterative strategies

Interactive assistance

Adapt & tailor to context

Develop stakeholder relationships

Train/educate stakeholders

Support clinicians

Engage consumers

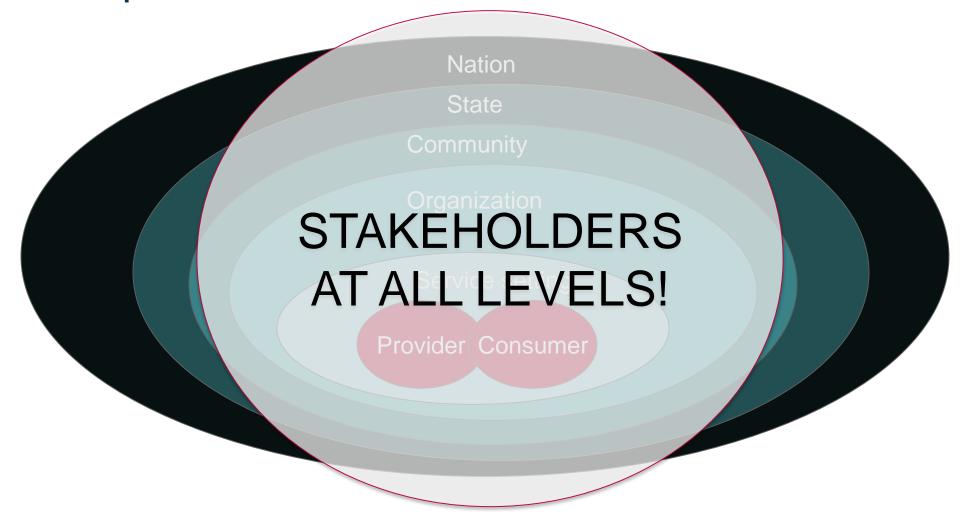
Financial strategies

Change infrastructure

- What barriers are you trying to overcome?
- What resources are you able to leverage?
- Who are your stakeholders?

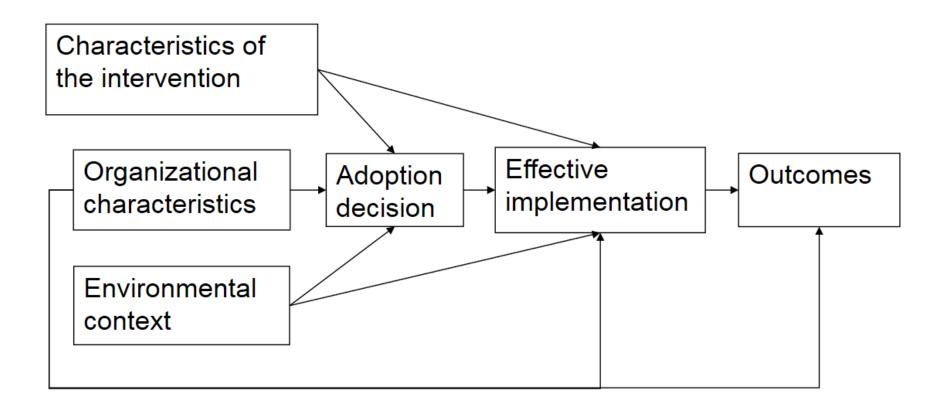


Context Dependent & Multi-level Factors



...As you scale up decision-making from practice to program to policy, does evidence exist to guide implementation?

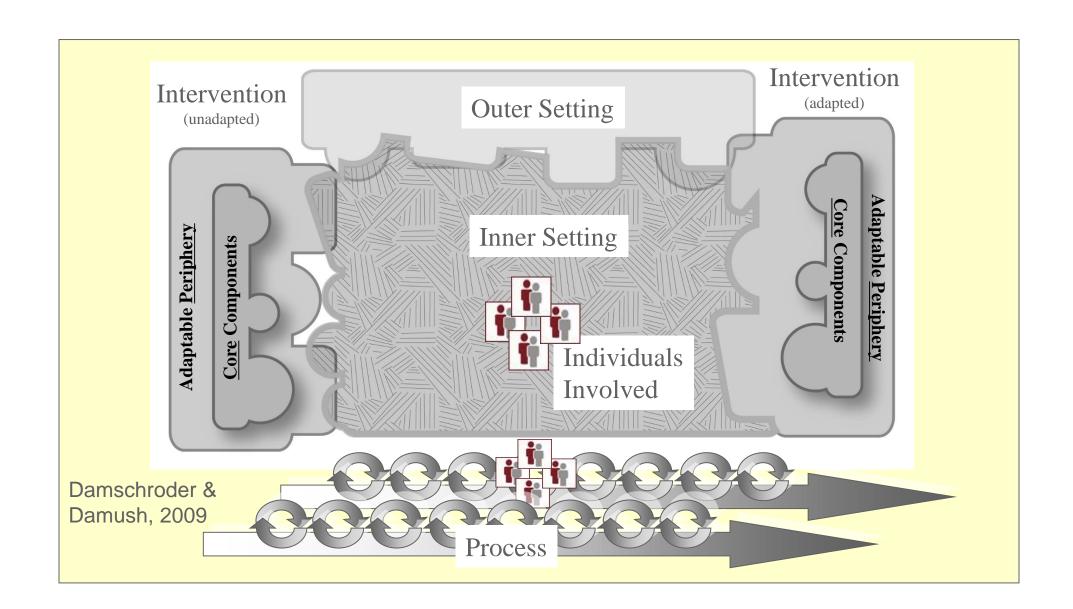
Rogers' Diffusion of Innovations Theory



CIPRS: Stetler & Damschroder Theoretical Frameworks

Krein SL, Olmsted RN, Hofer TP, et al. Am. J. Infect. Control 2006;34(8):507-12.

Consolidated Framework for Implementation Research (CFIR)

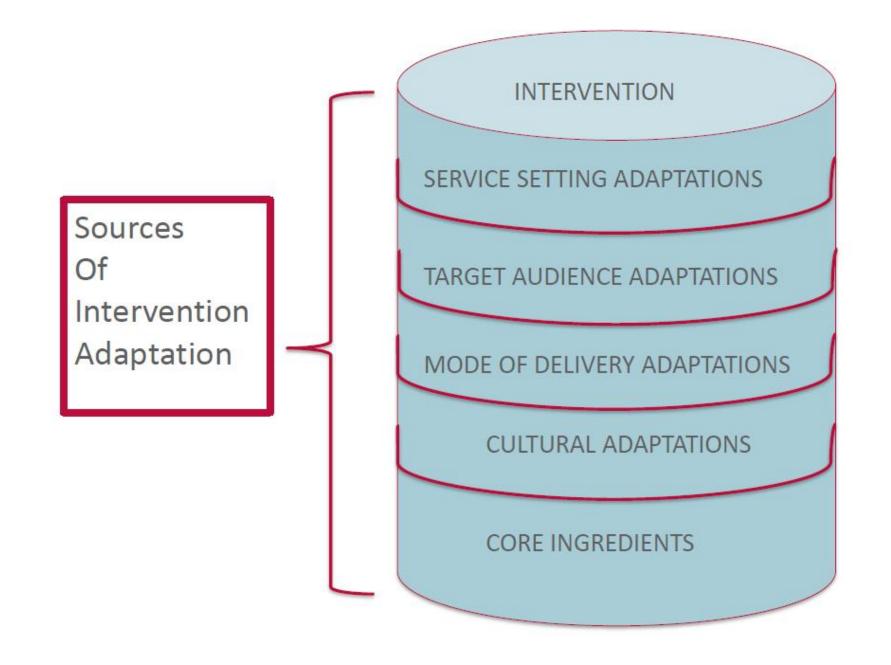


Challenging Traditional Assumptions → Need for Adaptation

Traditional Assumptions:

- Evidence and evidence-based practices are static
- System is static
- Implementation proceeds one practice or test at a time
- Consumers/Patients are homogeneous
- Choosing to not implement is irrational

- ➤ Voltage drop
- > Program drift



Funding Opportunities

R01, Dissemination and Implementation Research in Health (PAR-19-274, Clinical Trial Optional)

This funding opportunity provides research project grants to support discrete, specified research projects led by an investigator in a topic area representing his or her specific interests and competencies. Because the nature and scope of the proposed research will vary from application to application, it is anticipated that the size and duration of each award will also vary. Applications may not exceed 5 years.

R21, Dissemination and Implementation Research in Health (PAR-19-275, Clinical Trial Optional)

This funding opportunity provides grants that are intended to encourage exploratory or developmental research projects by supporting the development of pilot projects or feasibility studies to support creative, novel, and highrisk/high-payoff research. Applicants may request a project period of up to 2 years and the combined budget for direct costs may not exceed \$275,000.

R03, Dissemination and Implementation Research in Health (PAR-19-276, Clinical Trial Not Allowed)

This funding opportunity provides small research grants to support the initiation of studies that are generally for preliminary short-term projects. Applicants for an R03 award may request a project period of up to 2 years and a budget for direct costs of up to \$50,000 per year. While the grant is nonrenewable, there is less competition for these start-up research project funds.

Successful Grant Applications



Reference excerpts from successfully funded research grant applications to help prepare applications for NCI funding.

SAMPLE GRANT APPLICATIONS

Funding Inquiry Staff Contact



Gila Neta, PhD, MPP
Program Officer
netagil@mail.nih.gov

Examples of Funded Grants

R21: Effective Training Models for Implementing Health-**Promoting Practices Afterschool**

Principal Investigator(s)



Rebekka Mairghread Lee, ScD Harvard School of Public Health*

FOA**

PAR 13-054

Award Number

R21#CA201567-01A1

VIEW FUNDED GRANT



R21: Increasing Colorectal Cancer Screening Rates in **Community Health Centers**

Principal Investigator(s)



Bryan Weiner, PhD University of North Carolina at Chapel Hill*

FOA**

PAR 10-040

Award Number

R21#CA161657

VIEW FUNDED GRANT



R01: Using Technology to Scale-Up an Occupational Sun **Protection Policy Program**

Principal Investigator(s)



David B. Buller, PhD Klein Buendel Inc.*

FOA**

PAR 16-238

Award Number

R01#CA210259-01A1

VIEW FUNDED GRANT

R01: Implementing Universal Lynch Syndrome Screening across Multiple Healthcare Systems: Identifying Strategies to Facilitate and Maintain Programs in Different **Organizational Contexts**

Principal Investigator(s)



Alanna Rahm, Ph.D. Geisinger Clinic*

FOA**

PAR 16-238

Award Number

R01#CA211723-01A1

VIEW FUNDED GRANT





Selected Research Questions

- What factors influence the creation, packaging, transmission and reception of valid health research knowledge?
- How can an evidence-based practice be adapted to fit within specific contexts or settings?
- Which strategies best support uptake and sustainability, and how do these strategies work?
- How do you scale up and sustain effective interventions across systems, states and communities
- How do you de-implement practices that are not evidence-based, or are harmful or wasteful?



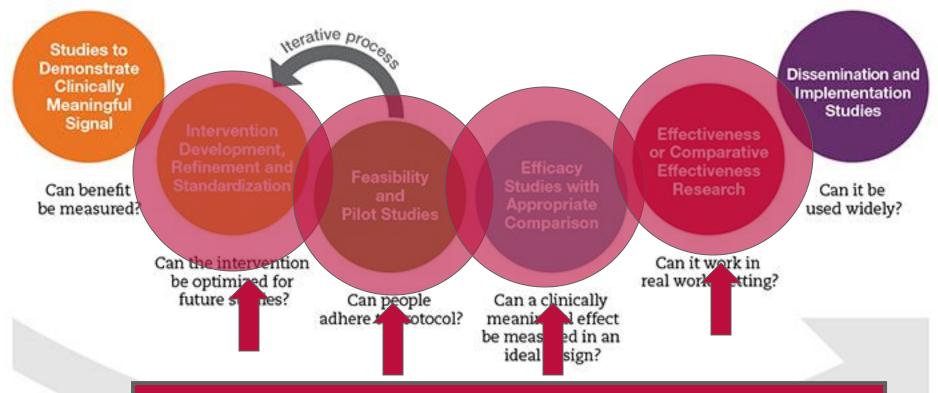
Source: PAR-19-274

Considering Implementation Science Earlier



https://nccih.nih.gov/grants/mindbody/framework

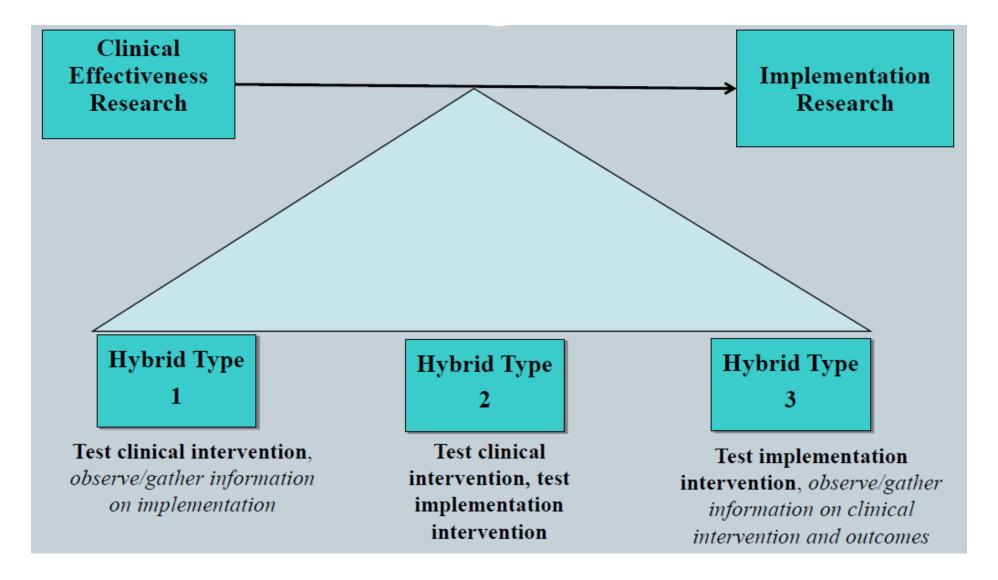
Considering Implementation Science Earlier



Designing for Implementation

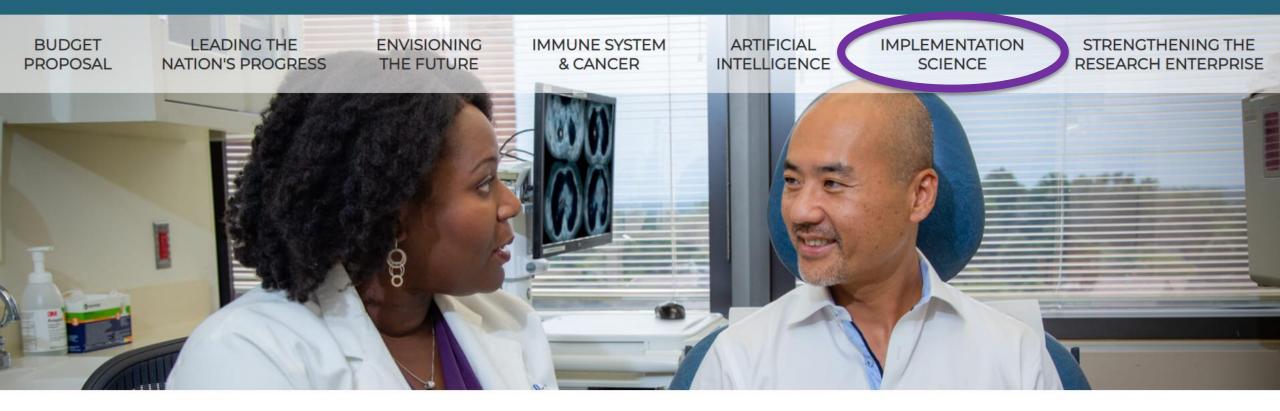
- Who's going to deliver it?
- Fit with ultimate patient population
- Building in tests of training, support, adherence, mediators and moderators to high quality delivery
- Hybrid designs

Hybrid Designs: 1, 2, 3



NIH NATIONAL CANCER INSTITUTE

NCI Annual Plan & Budget Proposal for FY 2021



NCI Annual Plan & Budget Proposal for Fiscal Year 2021

SEARCH Q



Implementation Science

IS Home

Funding Opportunities •

Initiatives ▼

Training & Education ▼

Research & Practice Tools ▼

About IS ▼

Implementation Science Consortium in Cancer (ISCC)

Home / Initiatives / Implementation Science Consortium in Cancer



The objectives of ISCC are to:

- Foster communication among investigators engaged in implementation science projects across the cancer continuum;
- Promote collaborative research projects to fill implementation science gaps that would extend beyond a single study; and
- Identify and develop solutions to common theoretical, methodological or empirical challenges in implementation science in cancer.

Implementation Science

IS Home

Funding Opportunities ▼

Training & Education ▼

Research & Practice Tools ▼

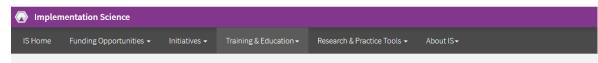
About IS ▼

Improving the impact of cancer control and population science on the health and health care of the population, and fostering the rapid integration of research, practice, and policy.









Training Institute for Dissemination and Implementation Research in Cancer (TIDIRC) OpenAccess

Home / Training & Education / Training in Cancer / Training Institute for Dissemination and Implementation Research in Cancer (TiDIRC) OpenAccess



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.

The course includes six modules:

- Module 1: Introduction to Dissemination & Implementation Science
- Module 2: Fidelity & Adaptation of Interventions in Implementation Science
- Module 3: Implementation Science Models, Theories, & Frameworks
- Module 4: Implementation Science Measures
- Module 5: Study Designs in Implementation Science
- Module 6: Implementation Strategies

Webinars

Home / Training & Education / Webinars

Register for upcoming webinars and view archived sessions from the Implementation Science Webinars series and Research to Reality.





Implementation Science Webinars

Listen in as leaders in the field discuss advanced dissemination and implementation research topics and answer questions from the community.

Research to Reality (R2R) Cyber Seminars

Research to Reality (R2R) Cyber Seminars bring together cancer control practitioners and researchers to discuss moving evidence-based programs into practice.



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get informed

get funded

get published

get connected

get resources

about

about the exchar

The Implementation Science Exchange is a free, online source for those interested in resources to help design acquire funding for, execute and disseminate Implementation Science research projects.

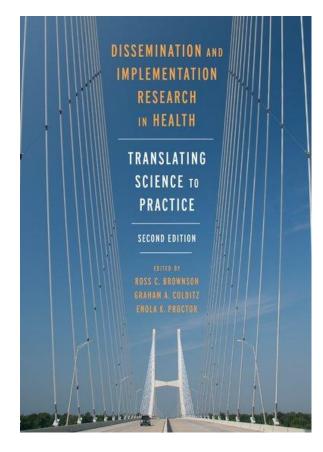
We find (or create) resources, tools, websites, guides, toolkits and sample grant applications to help support researchers in the field of Implementation Science, particularly those new to research or new to the field itself.

Get in touch

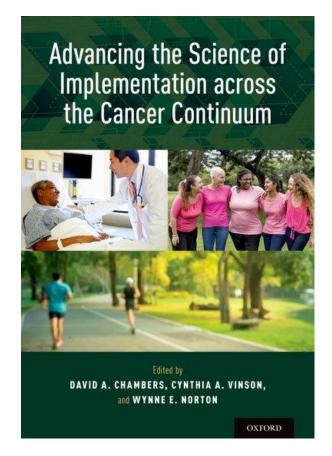
We would love to hear from you! Please contact us if you have comments or suggestions for the site. We're always looking for additional resources that might be of interest to our community.

impsciexchange@unc.edu

Textbooks



December 2017



October 2018





www.cancer.gov/espanol

Developing a Career in Implementation Science

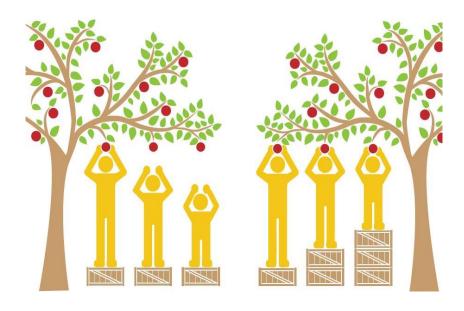
Rachel C. Shelton, ScD, MPH

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SOCIOMEDICAL SCIENCES

Health Equity

Health equity means that everyone has a fair and just opportunity to be as healthy as possible. This requires removing obstacles to health such as poverty, discrimination, and their consequences, including powerlessness and lack of access to good jobs with fair pay, quality education and housing, safe environments, and health care.



If we want more Evidence-Based Practice, we need more Practice-Based Evidence.

Larry W. Green US-PSTF, CDC, HHS

Implementation science is about moving the needle and ensuring that evidence-based practice has an impact on population health and health inequities



The scientific study of methods/strategies to promote adoption and use of evidence-based interventions and practices in real-world clinical and public health settings to improve quality of care

The National Witness Project



RTIPs (NCI): National Witness Project



Research-tested Intervention Programs (RTIPs)

RTIPs - Moving Science into Programs for People

■ RTIPs Home ■ RTIPs Archive ■ Frequently Asked Questions ■ Fact Sheet ■ Contact Us

🥙 Cancer Control P.L.A.N.E.T. Home 🗗

The Witness Project

On This Page

- The Need
- The Program

Community Preventive

- Services Task Force Finding
- Time Required
- Intended Audience
- Suitable Settings
- Required Resources
- About the Study
- Publications

Highlights

Program Title The Witness Project

Purpose Community-based program designed to increase breast cancer screening and promote the practice of mammography among underserved African American women. (1999)

Program Focus Awareness building and Behavior Modification

Population Focus Medically Underserved

Topic Breast Cancer Screening

Age Adults (40-65 years), Older Adults (65+ years), Young Adults (19-39 years)

Gender Female

Race/Ethnicity Black, not of Hispanic or Latino origin

Setting Community, Religious establishments, Rural, Suburban, Urban/Inner City

Origination United States

Funded by NCI (Grant number(s): CA66800)

NCI R03 Grant- Research Question (1)- 2010-2013

What are the characteristics and capacity of LHAs in community settings?

Original Article

Advancing Understanding of the Characteristics and Capacity of African American Women Who Serve as Lay Health Advisors in Community-Based Settings



Health Education & Behavior 2017, Vol. 44(1) 153–164 © 2016 Society for Public Health Education Reprints and permissions: sagepub.com/journalsPermissions.nav DOI: 10.1177/1090198116646365 journals.sagepub.com/home/heb

\$SAGE

Rachel C. Shelton, ScD, MPH¹, Sheba King Dunston, EdD, MPH, CHES¹, Nicole Leoce, MS¹, Lina Jandorf, MA², Hayley S. Thompson, PhD³, and Deborah O. Erwin, PhD⁴



NCI R03 Grant- Research Question (2)

What are the individual, social, and organizational factors that predict activity level and retention African American LHAs?

Shelton et al. Implementation Science (2016) 11:41 DOI 10.1186/s13012-016-0403-9

Implementation Science

RESEARCH

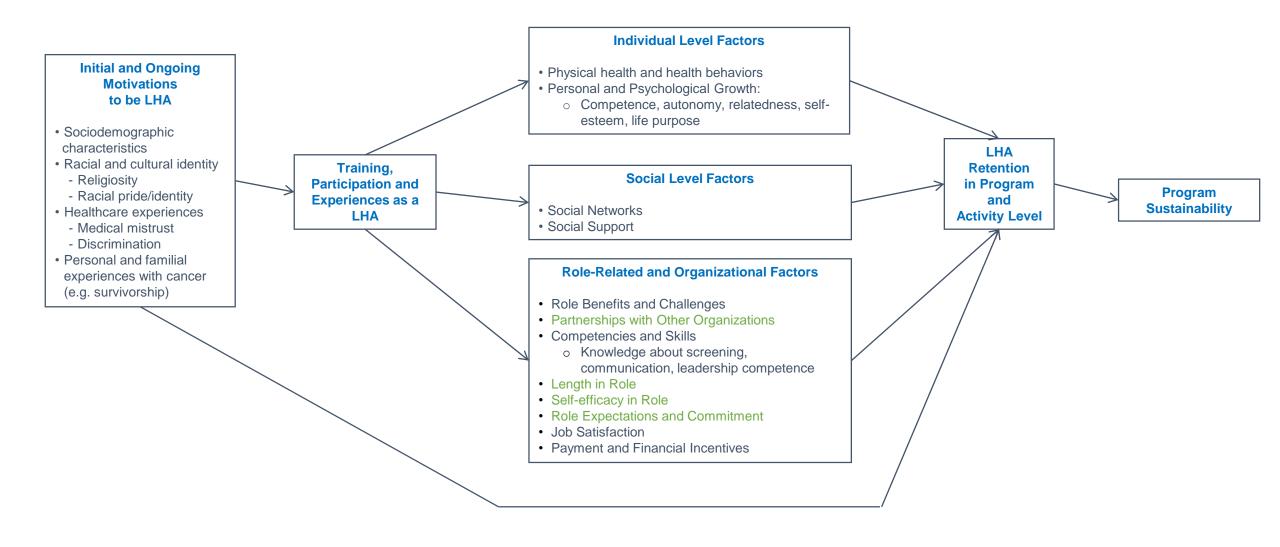
Open Access



Predictors of activity level and retention among African American lay health advisors (LHAs) from The National Witness Project: Implications for the implementation and sustainability of community-based LHA programs from a longitudinal study

Rachel C. Shelton^{1*}, Sheba King Dunston^{1,2}, Nicole Leoce³, Lina Jandorf⁴, Hayley S. Thompson⁵, Danielle M. Crookes⁶ and Deborah O. Erwin⁷

Examining Factors that Predict LHA Retention and Activity



NCI R03 Grant: Research Question

What multi-level and contextual factors influence the sustainability of LHA Programs in low-resource community settings?

TBM

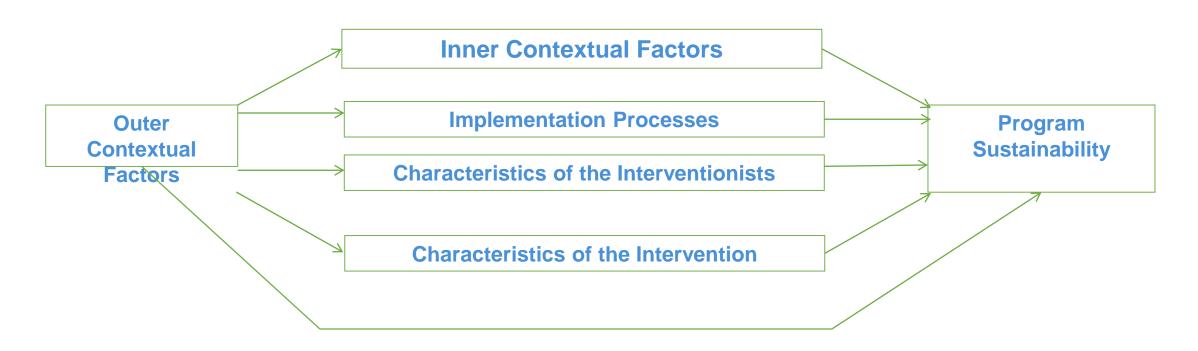
ORIGINAL RESEARCH



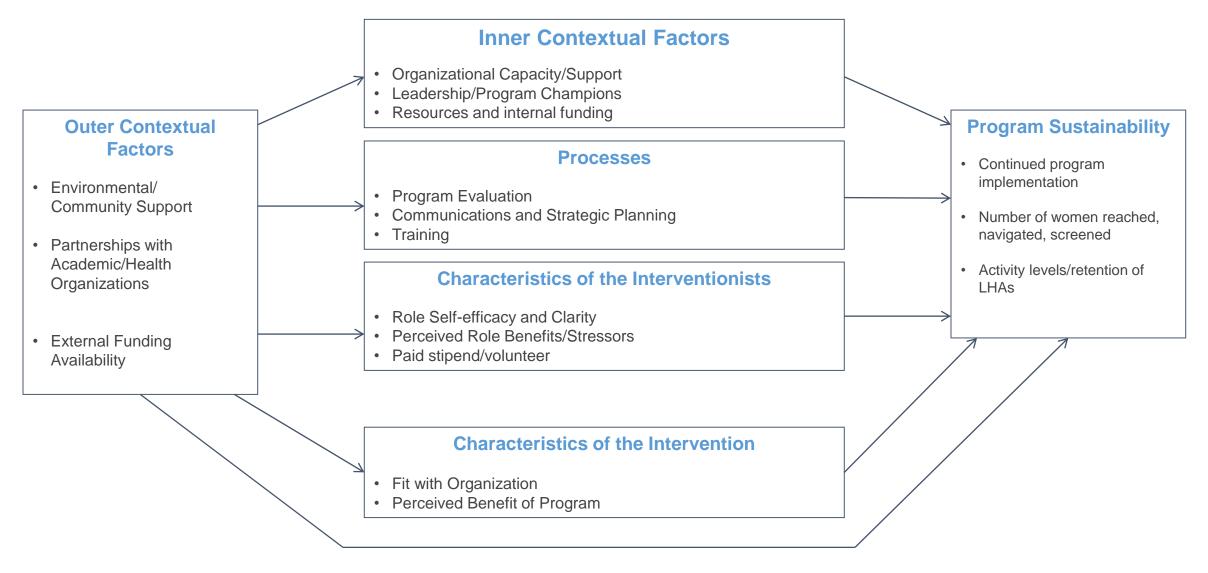
Advancing understanding of the sustainability of lay health advisor (LHA) programs for African-American women in community settings

Rachel C. Shelton, ScD, MPH,¹ Thana-Ashley Charles, MPH,¹ Sheba King Dunston, EdD, MPH,^{1,2} Lina Jandorf, MA,³ Deborah O. Erwin, PhD⁴

Qualitative Investigation: Levels of Influence on Sustainability



LHA Sustainability Framework



Shelton, R. C., Charles, T.-A., Dunston, S. K., Jandorf, L., & Erwin, D. O. (2017). Advancing Understanding of the Sustainability of Lay Health Advisor (LHA) Programs for African-American Women in Community Settings. *Translational Behavioral Medicine*, 7(3), 415-426. doi:10.1007/s13142-017-0491-3

Career Development 2013-2018



Pilot Award: Columbia University

De-implementation: The systematic, structured removal/replacement of low-value practices that no longer are (or never were) supported by evidence, because they are unnecessary, costly, or do not improve outcomes

S Implementation Science

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Commentary Open Access | Published: 09 January 2020

Unpacking the complexities of de-implementing inappropriate health interventions

Wynne E. Norton 2 & David A. Chambers

Implementation Science 15, Article number: 2 (2020) | Cite this article

767 Accesses 68 Altmetric Metrics

Results: Lay Health Advisors Mammography recommendations

Most LHAs report recommending annual mammography screening starting at age 40

80%

91%

Report their site recommends initiating mammography screening at <u>age 40</u>

Report their site recommends <u>annual</u> mammography screening

	American Cancer Society 2015	US Preventive Task Force 2016
Age to Start Mammograms	45	50
Age to Stop Mammograms	When life expectancy <10 years	74
Interval	Annual 45-54; 1-2 years 55+	2 years
Breast Self Exam	No statement	No statement
Clinical Breast Exam	Not recommended	No statement

Research Scholar Grant from American Cancer Society



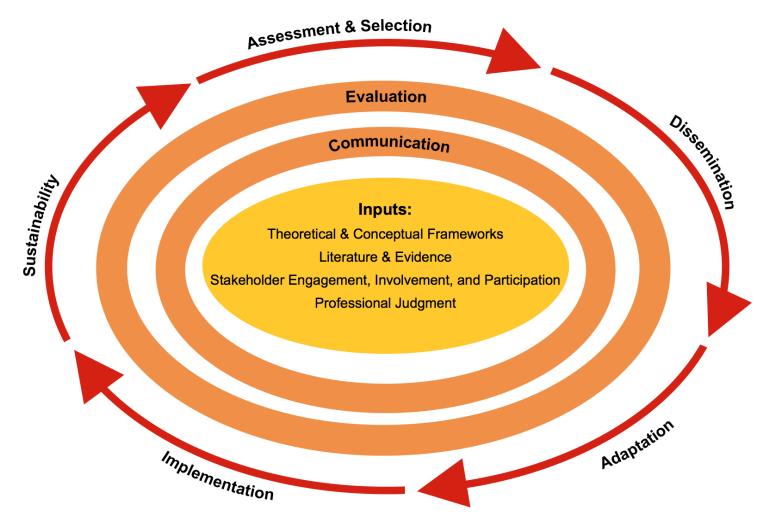
Mixed-methods prospective national study examining predictors of sustainability over 4 years (2018-2022):

- 270 LHAs/leaders
- 20 sites

Specific Aims:

- What factors and strategies that promote or impede NWP program sustainability?
 (qualitative; case study)
- Which factors predict the sustainability and impact of the NWP program nationally? (prospective survey annually)
- 3. How has NWP adapted to meet new cancer screening guidelines and identify barriers and facilitators to de-implementation (e.g. adaptation of program to reflect updated breast/cervical cancer screening guidelines)?

Domains of Dissemination and Implementation (D&I) Research



A ANNUAL REVIEWS

Annu. Rev. Public Health 2018. 39:18.1-18.22

The Annual Review of Public Health is online at publicalth.annualreviews.org

https://doi.org/10.1146/annurev-publhealth-040617-014731

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This article is part of a symposium on Implementation Science and Public Health. For a list of other articles in this symposium, see http:// www.annualreviews.org/toc/publhealth/39/1 Annual Review of Public Health

The Sustainability of Evidence-Based Interventions and Practices in Public Health and Health Care

Rachel C. Shelton, 1 Brittany Rhoades Cooper, 2 and Shannon Wiltsey Stirman 3



⊟ Home Articles Authors Sub

Home » American Journal of Public Health (AJPH) » February 2019

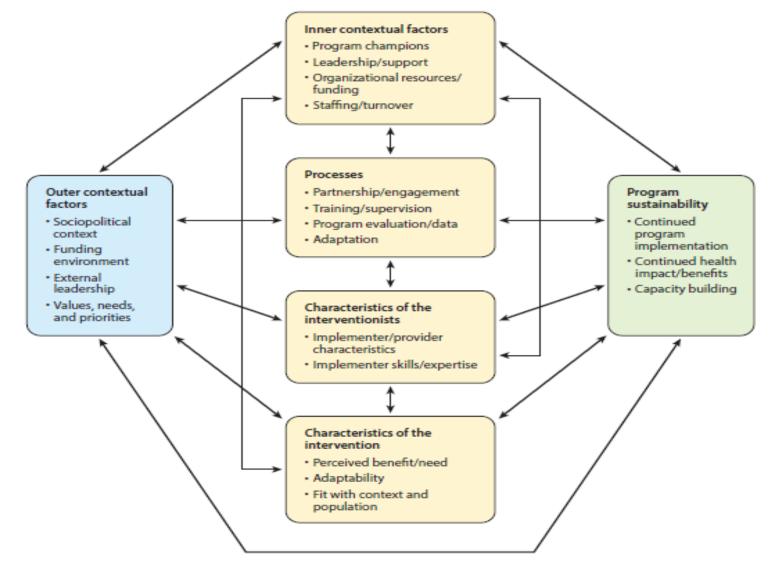
Sustaining Evidence-Based Interventions and Policies: Recent Innovations and Future Directions in Implementation Science

Conceptualizing Sustainability

- **Sustainability:** the continued use of program components at sufficient intensity for the sustained achievement of desirable program goals and population outcomes (Scheirer & Dearing, 2011)
- Components of Sustainability: (Shelton, 2018)
 - Continuation of program components/core elements of intervention; adaptation
 - Continuation of health benefits/health outcomes
 - Capacity-building and maintaining community-level partnerships
 - Institutionalization?



Integrated Sustainability Framework















Whole system



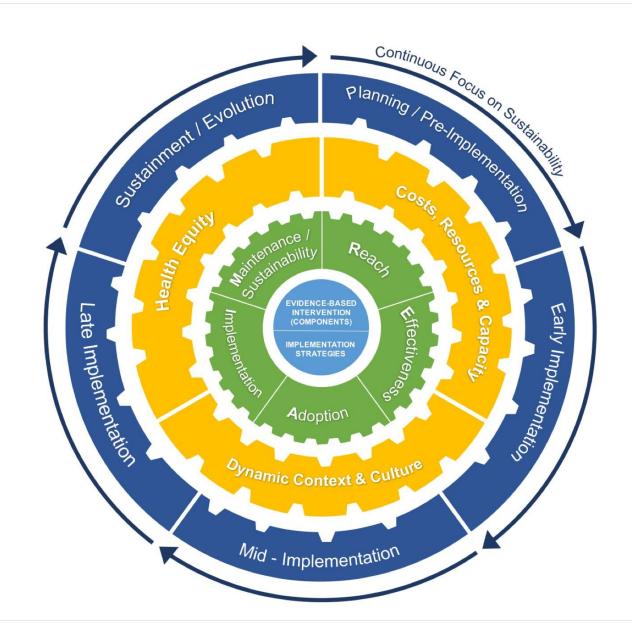
Global

An Extension of RE-AIM to Enhance Sustainment: Addressing Dynamic Context and Promoting Health Equity over Time

Rachel C. Shelton^{1*}, David A. Chambers², Russell E. Glasgow³

Figure 1. An Extension of RE-AIM to Enhance Sustainment (Frontiers Public Health 2020)

Cross-cutting issues and iterative application of RE-AIM to guide adaptations and evaluability of EBIs/implementation strategies, addressing dynamic context and promoting equity across the life cycle of an EBI



Training Institute for Dissemination and Implementation Research in Cancer (TIDIRC) OpenAccess

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IMPLEMENTATION SCIENCE CONSORTIUM IN CANCER





IRVING INSTITUTE FOR CLINICAL AND TRANSLATIONAL RESEARCH







2020 TIDIRH AUSTRALIA COURSE

DISSEMINATION & IMPLEMENTATION

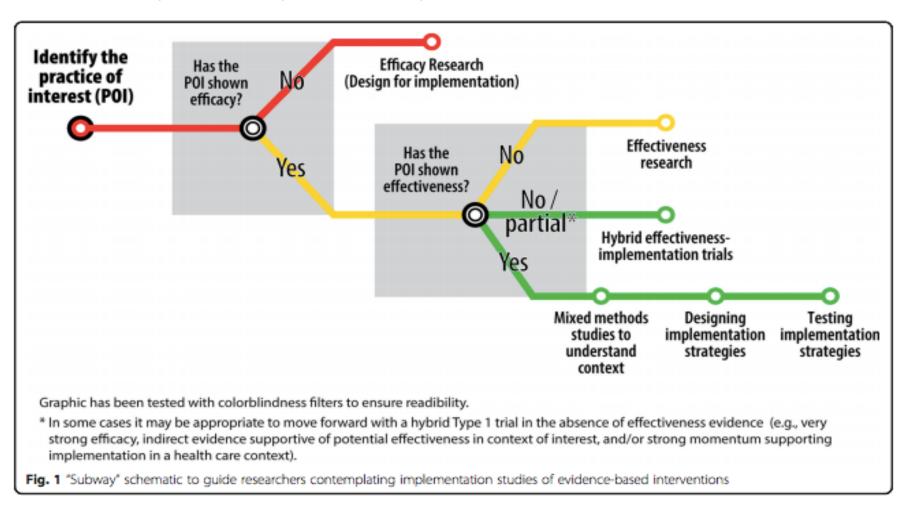
BRIDGE THE 'KNOW-DO' GAP

Scoping implementation science for the beginner: locating yourself on the "subway line" of translational research

Meghan B. Lane-Fall , Geoffrey M. Curran & Rinad S. Beidas

BMC Medical Research Methodology, 19, Article number: 133 (2019) | Cite this article

2354 Accesses | 2 Citations | 68 Altmetric | Metrics



Areas of Interest in Field: Future D&I

- Tension between fidelity and adaptation
- Sustainability and scale-up
- De-implementation or de-adoption
- Selection of implementation strategies
- Mechanisms and Measures
- Meaningful participatory implementation science
- Policy D&I
- Health equity and context

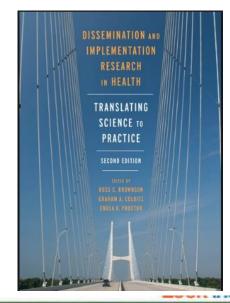
Resources

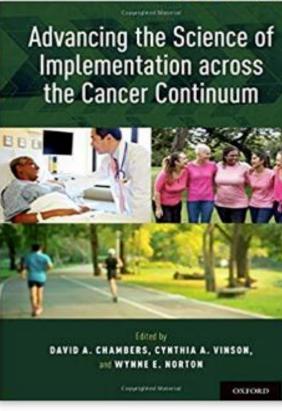
NIH Annual D&I Conference (December; DC)

 Consortium for Implementation Science newsletter and listsery

- Research to Reality and D&I/NCI webinars/fireside chats
- Brownson D&I Research in Health textbook (2nd ed, 2018)

• D&I across Cancer Continuum Textbook





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Implementation Science

IS Home

Funding Opportunities -

Initiatives -

Training & Education →

Research & Practice Tools -

Abou

Examples of Funded Grants

A behavioral design approach to improving a Chagas disease vector control campaign in Peru | BMC Public Health | Full Text

Home / Funding Opportunities / Examples of Funded Grants

TAT Implementation Science Resource Hub

IMPLEMENTATION SCIENCE TRAINING

Classroom, web-based, and workshop learning opportunities at the UW





My Insights as a Dissemination and Implementation (D&I) Science Reviewer and Researcher

Shawna V. Hudson, Ph.D.

Professor and Research Division Chief
Department of Family Medicine and Community Health
Rutgers Robert Wood Johnson Medical School

Professor of Health Education, Society & Policy Rutgers School of Public Health

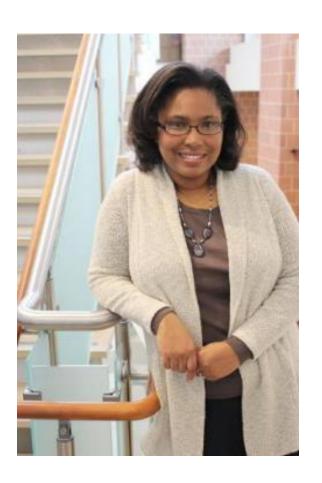
Director of Community Engagement, NJ Alliance for Clinical and Translational Science

Member
Rutgers Cancer Institute of New Jersey
Institute for Health, Health Care Policy and Aging Research

June 29, 2020

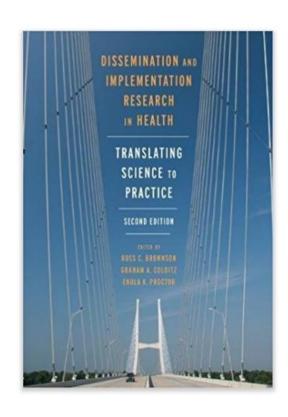
Shawna V. Hudson, PhD

- Professor of Family Medicine and Community Health, Research Division Chief
- Medical Sociologist and Mixed Methods Researcher
- Dissemination and Implementation Research in Health Study Section [DIRH]
 - Standing Committee Member 2015-2019
- Patient-Centered Outcomes Research Institute (PCORI) Dissemination & Implementation Merit Reviewer 2018
- NJ ACTS Community Engagement Core Director
- GMAP Region 4 Stakeholder (K01, R01 PI)
- Program of Research:
 - Cancer survivorship
 - Cancer prevention and control
 - Vulnerable Populations



Is it D, I or D&I?

KNOW YOUR SCIENCE



Dissemination and Implementation Research

- Dissemination is "the targeted distribution of information and intervention materials to a specific public health or clinical practice audience."
 - how, when, by whom, and under what circumstances evidence spreads throughout the agencies, organizations, front line workers and consumers of public health and clinical services
- Implementation is "the use of strategies to adopt and integrate evidence-based health interventions into clinical and community settings to improve individual outcomes and benefit population health."
 - Seeks to understand the behavior of healthcare professionals and support staff, healthcare organizations, healthcare consumers and family members, and policymakers in context as key influences on the adoption, implementation and sustainability of evidence-based interventions and guidelines (e.g., USPSTF or Community Guide)

NIH PAR 19-274: Dissemination and Implementation Research in Health (R01)

Dissemination and Implementation Research

- Studies typically involve both interdisciplinary cooperation and trans-disciplinary collaboration,
- Utilize theories, empirical findings, and methods from a variety of fields not traditionally associated with health research.
 - Information science, clinical decision-making, organizational and management theory, economics, individual and systems-level behavioral change, public health, business and public administration, statistics, anthropology, learning theory, engineering, and marketing
- Includes significant and ongoing collaboration with stakeholders from multiple public health and/or clinical practice settings as well as consumers of services and their families/social networks
- Encouraged: team science, community engaged research, action research, citizen science, and related frameworks that engage stakeholders and end users throughout the research process

NIH PAR 19-274 : Dissemination and Implementation Research in Health (R01)

Types of D&I Research Questions

- Questions about factors influencing adoption, implementation, and sustainability of evidence based programs, policies, practices
 - Testing of models or frameworks; relationships between constructs;
 predictors of implementation outcomes; measurement studies
- Questions related to the development and evaluation of strategies (or groups of strategies) to increase adoption, implementation, and sustainability
- Questions related to scale-up
- Questions related to sustainability

Studies should build knowledge both on the overall effectiveness of the strategies as well as "how and why" they work



Are you proposing D&I research, to contribute to D&I science or both?

KNOW YOUR SCOPE





PREVENTING CHRONIC DISEASE PUBLIC HEALTH RESEARCH, PRACTICE, AND POLICY

Dissemination and Implementation Science for Public Health Professionals: An Overview and Call to Action

ESSAY — Volume 15 — December 20, 2018 Am) score 51

Paul A. Estabrooks, PhD¹; Ross C. Brownson, PhD², Nicolaas P. Pronk, PhD⁴, (view author affiliations)

Suggested citation for this article: Estabrooks PA, Brownson RC, Pronk NP. Dissemination and Implementation Science for Public Health Professionals: An Overview and Call to Action, Prev Chronic Dis 2018;15:180525. DOI: http://dx.doi.org/10.5888/pcd15.180525

A Selective Review of the Origins of Dissemination and Implementation Science

Preventing Chronic Disease has a mission to enhance communication between researchers, public health professionals, and policy makers to integrate research and practice experience with a goal of improved population health. As a result, those involved in dissemination and implementation (DI) science — a growing field of study that examines the process by which scientific evidence is adopted, implemented, and sustained in typical community or clinical settings — have submitted and published their rigorous and relevant work in the journal with a high degree of success. Over the previous 2 years, the journal also added a new article type — Implementation Evaluation — to facilitate submission of articles that examine the implementation of evidence-based public health interventions in community and clinical settings. In an effort to continue the focus on DI, we wrote this commentary with the following objectives: 1) to provide a brief DI description, 2) to demonstrate the shared systems–based focus of DI science and public health practice, and 3) to highlight pathways to move public health-focused DI science forward. We reflect on our own learnings and by doing so hope to motivate more public health researchers and practitioners to engage in DI research.

DI research emerged — by name — over the past 25 years (1), but its roots can be traced to a much earlier time (2–4). A review of current DI research areas likely would not have seemed out of place in the 1930s through the 1960s. Some examples include the need for clinically relevant and community-relevant research (5), engaging systems and communities as partners in the co-creation of evidence (6), and examining the characteristics of interventions to determine which are more likely to be taken to scale and sustained (7). These topics can be

On This Page
A Selective Review of the Origins of Dissemination and Implementation Science
Current Dissemination and Implementation Theoretical, Process, and Outcome Models
The Natural Overlap of Public Health and Dissemination and Implementation Science: Systems-Based Approaches
A Call to Action for Public Health Practice and Dissemination and Implementation Science
Acknowledgments
Author Information
References
Table

3 Pathways through D&I Review

CHOOSE YOUR PATH

Choosing your review...

- Have you chosen a program announcement that specifies need for a D&I approach or component?
- Are you using D&I methods to inform your approach but not in response to a D&I specific PAR?
- Is your science in response to the D&I PAR-19-274, 275 or 276?



Option 1. Look for a PAR with D&I interest

PAR-17-217: U.S. Tobacco Control Policies to Reduce Health Disparities (R0 Department of Health and Human Services Part 1. Overview Information Participating Organization(s) National Institutes of Health (NIH (http://www.nih.gov)) Components of Participating Organizations National Cancer Institute (NCI (http://www.nci.nih.gov/)) Funding Opportunity Title U.S. Tobacco Control Policies to Reduce Health Disparities (R01) Specific Research Objective and Scope of this FOA Activity Code R01 (//grants.nih.gov/grants/funding/ac_search_results.htm? The central charge of the FOA is to understand how to improve the effectiveness of existing tobacco control text_curr=r01&Search.x=0&Search.v=0&Search_Type=Activity policy strategies to reduce health disparities in tobacco use, as well as studying new policy approaches to reducing health disparities in tobacco use. Announcement Type Research topics of interest include, but are not limited to the following: Related Notices 1. Comprehensive smoke-free polices (e.g. how to increase adoption and implementation of comprehensive None smoke-free policies in workplaces, homes, vehicles etc.); Funding Opportunity Announcement (FOA) Number 2. Policies related to coverage for tobacco dependence treatment (e.g. state, local and/or federal policies PAR-17-217 affect access to, affordability, and use of cessation services among vulnerable populations, and the impact of surcharges on tobacco users); Companion Funding Opportunity PAR-17-218 (https://grants.nih.gov/grants/guide/pa-files/PAR-3. Overarching policy environment (e.g. studies that examine the dynamic interplay of different tobacco (//grants.nih.gov/grants/funding/ac search results.htm? control policies on tobacco use, how tobacco control policies may work together to reduce tobacco use text_curr=r21&Search.x=0&Search.v=0&Search_Type=Activit among both youth and adults, focusing on how to accelerate progress in communities that have experienced Number of Applications slower declines in tobacco use, etc.); and

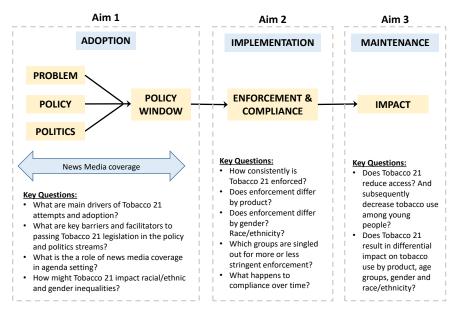
4. Dissemination and implementation of research findings.

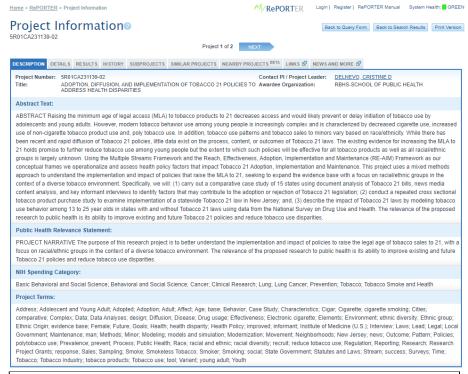
Rutgers Robert Wood Johnson Medical School

See Section III. 3. Additional Information on Eligibility



Tobacco 21 Study Design





R01CA231139 Delnevo (MPI) Hudson (MPI) Specific Aims (07/01/2011 – 06/30/2023)

<u>Aim 1.</u> Identify factors that may contribute to the <u>adoption</u> or rejection of Tobacco 21 legislation via a comparative case study.

<u>Aim 2.</u> Conduct a repeated cross sectional tobacco product purchase study to examine Tobacco 21 <u>implementation</u>.

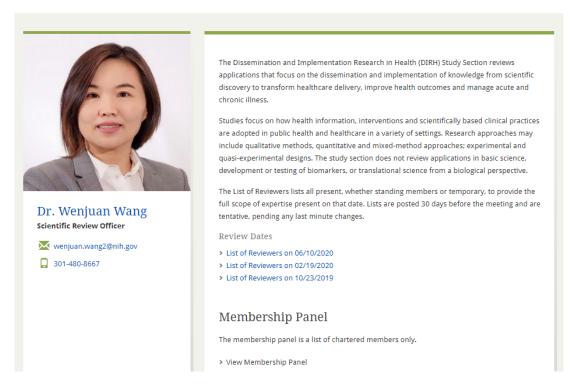
Aim 3. Describe the effects of Tobacco 21 laws.



Option 2. Look for study section with D&I expertise

Home > Study Sections > DABP > HDM

Dissemination and Implementation Research in Health Study Section – **DIRH**



https://public.csr.nih.gov/StudySections/DABP/HDM/DIRH



Option 2. Look for study section with D&I expertise

Shared Interests and Overlaps

Health Services Organization and Delivery (HSOD): Applications focused on the organization, delivery, utilization and outcomes of health services, including availability, access and acceptability, quality of care and financing of health care, are reviewed in HSOD. Applications focusing on the dissemination and integration of evidence-based health interventions to improve health services outcomes, including acceptability, quality of care and cost-effectiveness, are reviewed in DIRH.

Community Level Health Promotion (CLHP): Applications that test the efficacy and effectiveness of community-level interventions that focus on preventing or moderating health risks and/or adherence to disease treatments are reviewed in CLHP. Applications which focus on the dissemination, as well as the integration of evidence-based, community-level health interventions, are reviewed in DIRH.

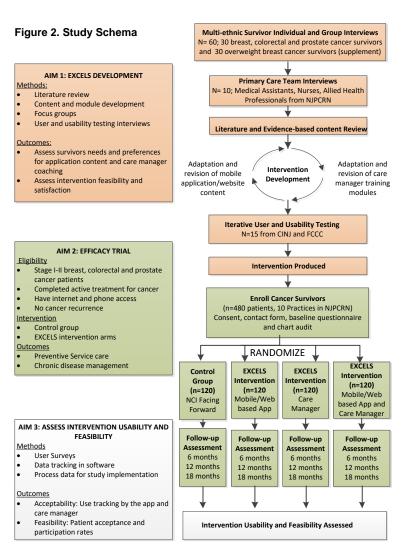
Health Disparities and Equity Promotion (HDEP): Intervention studies that primarily focus on mechanisms and processes underlying health disparities are reviewed in HDEP. Applications focusing on the dissemination, adoption, and integration of evidence-based interventions that address health disparities, are reviewed in DIRH.

Nursing and Related Clinical Sciences (NRCS): Applications focusing on treatment modalities, supportive strategies and related patient and/or caregiver outcomes of care may be assigned to NRCS if in institutional or specialty care settings, or CMPC if in community, primary care or home-based settings. Applications focusing on patient and/or caregiver outcomes of care specifically related to the adoption and integration of evidence-based health interventions are reviewed in DIRH.

Biomedical Computing and Health Informatics (BCHI): Applications focusing on the development and testing of mobile applications or platforms ("Apps"), and other clinical informatics methods are reviewed in BCHI. Applications that assess the dissemination and/or the adoption and integration of evidence-based mobile health (mHealth) applications or clinical decision support tools are reviewed in DIRH.

https://public.csr.nih.gov/StudySections/DABP/HDM/DIRH

EXCELS Study Design





R01CA176838 Hudson (PI) Specific Aims (09/30/2013 – 08/31/2020)

•Aim 1. Develop the EXCELS Intervention to Facilitate Engaged Selfmanagement of Cancer Follow-up for Cancer Survivors. .

<u>Aim 2.</u> Evaluate the Efficacy of EXCELS Intervention in a Randomized Controlled Trial..

<u>Aim 3.</u> Assess/Refine Intervention Usability and Acceptability for Primary Care Patients.

Option 3. Apply to the D&I PAR

1/17/2020

PAR-19-274: Dissemination and Implementation Research in Health (R01 Clinical Trial Ontional)

Department of Health and Human Services Part 1. Overview Information

Participating Organization(s)

National Institutes of Health (NIH (http://www.nih.gov))

Components of Participating Organizations

National Cancer Institute (NCI (http://www.nci.nih.gov/))

National Heart, Lung, and Blood Institute (NHLBI (http://www.nhlbi.nih.gov))

National Human Genome Research Institute (NHGRI (http://www.nhgri.nih.gov/))

National Institute on Aging (NIA (http://www.nia.nih.gov))

National Institute on Alcohol Abuse and Alcoholism (NIAAA (http://www.niaaa.nih.gov))

National Institute of Allergy and Infectious Diseases (NIAID (http://www.niaid.nih.gov))

National Institute of Arthritis and Musculoskeletal and Skin Diseases (NIAMS (http://www.niams.nih.gov))

Eunice Kennedy Shriver National Institute of Child Health and Human Development (NICHD

(http://www.nichd.nih.gov))

National Institute on Deafness and Other Communication Disorders (NIDCD (http://www.nidcd.nih.gov))

National Institute of Dental and Craniofacial Research (NIDCR (http://www.nidcr.nih.gov))

National Institute on Drug Abuse (NIDA (http://www.nida.nih.gov))

National Institute of Environmental Health Sciences (NIEHS (http://www.niehs.nih.gov))

National Institute of Mental Health (NIMH (http://www.nimh.nih.gov))

National Institute of Neurological Disorders and Stroke (NINDS (http://www.ninds.nih.go

National Institute of Nursing Research (NINR (http://www.ninr.nih.gov))

National Institute on Minority Health and Health Disparities (NIMHD (http://www.nimhd.n

National Center for Complementary and Integrative Health (NCCIH (http://www.nccam.n

All applications to this funding opportunity announcement should fall within the mission of following NIH Offices may co-fund applications assigned to those Institutes/Centers.

Division of Program Coordination, Planning and Strategic Initiatives, Office of Disease P (http://prevention.nih.gov/default.aspx))

Office of Behavioral and Social Sciences Research (<u>OBSSR (http://obssr.od.nih.gov</u>))
Office of Research on Women's Health (<u>ORWH (http://orwh.od.nih.gov</u>))

Funding Opportunity Title

Dissemination and Implementation Research in Health (R0 Optional)

Activity Code

R01 (//grants.nih.gov/grants/funding/ac_search_results.htm? text_curr=r01&Search.x=0&Search_y=0&Search_Type=Activity) Research Project Grant

Key characteristics of dissemination and implementation (D&I) research that applicants should consider including in their applications (where applicable) include but are not limited to:

- Understand how effective interventions work, particularly multi-level or multi-component interventions, to inform how those interventions can optimally be delivered when implemented in various settings.
- Understand the relevance of health interventions, where applicable, to meet the needs of underserved populations and/or low-resource settings.
- Incorporate theories, models, and/or frameworks appropriate for D&I to inform study hypotheses, measures, and outcomes.
- Consider extant literature on barriers to and facilitators of the dissemination and implementation of practices to improve health.
- Incorporate the identification of mediators, moderators, and mechanisms of action that explain the impact of dissemination or implementation strategies on relevant outcomes.
- Consider and characterize the multi-level context and environment in which the proposed research will be conducted.
- Consider the use of qualitative and/or mixed methods approaches.



Be ready to contribute findings to D&I Science

Significance

Specific to this FOA: What is the estimated public health benefit of the research? Do the existing data, public health and patient needs justify dissemination and implementation? If the aims of the proposed project are achieved, how will dissemination and implementation knowledge be advanced? How broad a reach (to the population that will benefit from the knowledge/intervention) will be achieved and how equitable will reach and outcomes likely be through the knowledge/service delivery contexts selected? Has consideration been given to the resource requirements and costs of the intervention? Will potential adopters and organizations be able to determine the applicability of the results to their setting?

Innovation

Specific to this FOA: Does the proposed dissemination or implementation research contribute new and innovative concepts, outcomes, measures, and/or design approaches to the field? Does the study proposed promise to speed the translation of research into practice and/or produce novel and robust findings?

Investigator(s)

Specific to this FOA: Are the investigators part of stakeholder teams or have strong links and engagement of stakeholders necessary to accomplish the project aims? Is there clear evidence of dissemination and implementation research expertise as part of the team?



Be ready to contribute findings to D&I Science

Approach

Specific to this FOA: Does the applicant demonstrate an understanding of dissemination and implementation research principles? Has the applicant justified the study design on the basis of the current state-of-the-art and or contextual factors relevant to dissemination and/or implementation? Is the dissemination or implementation approach appropriate to the problem and population using research methods that are relevant, rigorous and practical? Are the procedures to assess and analyze the dissemination or implementation strategies appropriate? Are the measurements and analysis plan linked to the study aims, and does the analysis incorporate the best available data to track dissemination or implementation process and impact, including cost-effectiveness? Where applicable, does the proposed plan for analysis take into account hierarchical relationships among multiple levels of outcomes (e.g. patient, provider, system)? How appropriate are the plans to sustain effective dissemination and implementation approaches once the research-funding period has ended?

If the project involves human subjects and/or NIH-defined clinical research, are the plans to address

- 1) the protection of human subjects from research risks, and
- 2) inclusion (or exclusion) of individuals on the basis of sex/gender, race, and ethnicity, as well as the inclusion or exclusion of individuals of all ages (including children and older adults), justified in terms of the scientific goals and research strategy proposed? If clinical, community or public health settings are involved, are stakeholders sufficiently engaged throughout the phases of the proposed study?

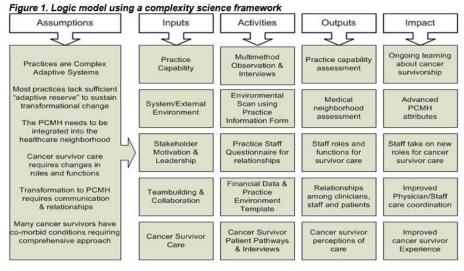
Environment

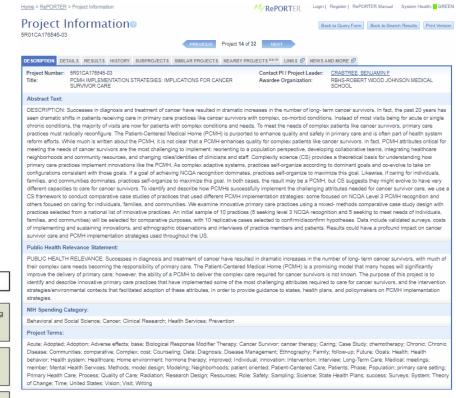
Specific to this FOA: Are the applicants positioned to influence large or influential networks capable of taking the results of the proposed study to scale to achieve public health impact? Do the proposed approaches take advantage of unique features of the intervention delivery environment or employ useful, collaborative arrangements? Is there evidence of institutional support to sustain dissemination or implementation strategies once the research funding ends?



PCMH Study Design

- Observational study of 14 primary care practices purposefully selected as exemplars
- Ongoing data analysis, both within each case and between cases





R01 CA176545 Crabtree (PI) Specific Aims (09/01/2014 – 12/31/2018)

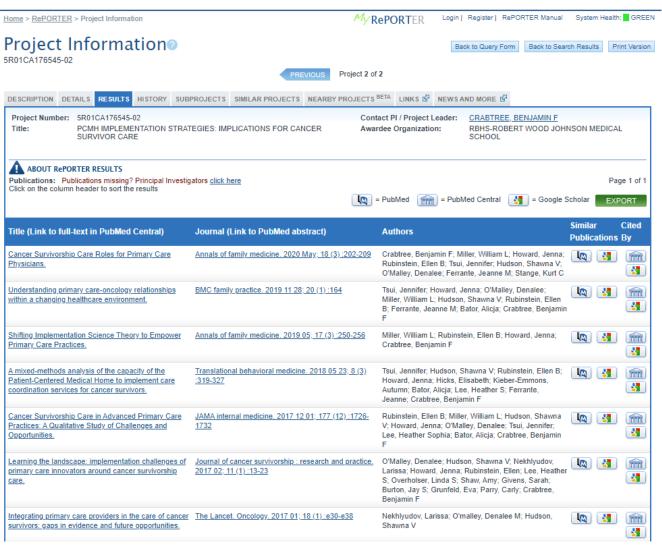
Aim 1. Compare cancer survivor care in practices that evolved to acquire NCQA level 3 recognition with those that evolved to meet needs of individuals, families and communities.

Aim 2. Examine care innovations practices use to meet the complex needs of cancer survivors.

<u>Aim 3.</u> Identify and describe environmental attributes that enable innovation in primary care practices so they can transform into a PCMH while meeting the complex needs of cancer survivors.



Contributions to D&I Science



Closing advice for navigating D&I Review

- Know your science
 - Is it D?
 - Is it I?
 - Is it D&I?
- Know your scope
 - Are you proposing D&I research?
 - Are you proposing to contribute to D&I science?
- Choose your pathway
 - Have you chosen a program announcement that specifies need for a D&I approach or component?
 - Are you using D&I methods to inform your approach but not in response to a D&I specific PAR?
 - Is your science in response to the D&I PAR-19-274, 275 or 276?



Thank you for participating in GMaP Region 4 Implementation Science Webinar!

- To join GMaP or learn more, visit us at: www.foxchase.org/gmap_r4
- We would love your feedback!

▶ Please look for an email with a short survey from our Regional Coordinating

Director, Carrie Norbeck

