Implementation and Dissemination Science in Cancer Survivorship Care Delivery

David Chambers, DPhil
Deputy Director for Implementation Science,
Division of Cancer Control & Population Sciences (DCCPS)
Session Outline

- A Brief Orientation to the Science of D&I
- D&I Models
- Opportunities
- Resources
It takes 17 years to turn 14 percent of original research to the benefit of patient care.
We assume… “If you build it…”
A Challenge from Multiple Perspectives…

TRUST ME, HAROLD, IT'S NOT OR DEMAND... IT'S SUPPLY AND DEMAND

SNOW CONES

3-15

SAYS WASHINGTON POST WRITERS GROUP VIEV
An Evidence-Based Program for Survivorship Care

- 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
Beyond efficacy/effectiveness

**FIGURE 1. Elements of the RE-AIM Framework**

- **Maintenance**: How do I incorporate the intervention so it is delivered over the long-term?
- **Reach**: How do I reach the targeted population?
- **Adoption**: How do I ensure the intervention is delivered properly?
- **Implementation**: How do I develop organizational support to deliver my intervention?
- **Effectiveness**: How do I know my intervention is effective?
Key Terms

- **Implementation Science** is the study of methods to promote the integration of research findings and evidence into healthcare policy and practice.

- **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 spread and sustain 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 in order to improve patient outcomes and benefit population health.
Studying Implementation

What?
QIs
ESTs

How?
Implementation Strategies

Implementation Outcomes
Feasibility
Fidelity
Uptake
Costs

Service Outcomes*
Efficiency
Safety
Effectiveness
Equity
Patient-centeredness
Timeliness

Health Outcomes
Satisfaction
Function
Health status/symptoms

THE USUAL

THE CORE OF IMPLEMENTATION RESEARCH

* IOM Standards of Care

Implementation Research Methods

Proctor et al, 2009, APMH&MHSR

NIH NATIONAL CANCER INSTITUTE
There are lots of D&I models

- Identified 109 models
- Exclusions
  - 26 focus on practitioners
  - 12 not applicable to local level dissemination
  - 8 end of grant knowledge translation
  - 2 duplicates
- Included 61 models
- Across Construct Flexibility, SEF, D/I

Tabak, Khoong, Chambers, Brownson, AJPM, 2012
Roger’s Diffusion of Innovations

Characteristics of the intervention

Organizational characteristics

Adoption decision

Effective implementation

Outcomes

Environmental context

Damschroder Theoretical Frameworks

D& I Models: Damschroder’s Consolidated Framework for Implementation Research (CFIR)

Damschroder and Damush, 2009
Current Funding Announcements

- NIH: PAR-16-237; 16-238;16-236 (R03, R01, R21)
- NCI leads (16 ICs total, including FIC, NIMH, NHLBI, NHGRI, as well as OBSSR)
- Organizes the D&I research agenda across NIH
- >150 grants funded through NIH since 2006
- 2010 CSR standing review committee
Selected Priority Areas for PARs

- Studies of the local adaptation of evidence-based practices in the context of implementation
- Longitudinal and follow-up studies on the factors that contribute to the sustainability of evidence-based interventions
- Scaling up health care interventions across health plans, systems, and networks
- De-Implementation of ineffective or suboptimal care
D&I Research Training...

Middle East and North Africa (MENA) Implementation Science (IS) Training Course - Principles and Practice

Application Opens: 5 July 2016
Application Closes: 1 August 2016 11:59 PM EDT
Questions? Email PEER@nas.edu

Participants from Bangkok 2015 Training Course present the "abc's" of implementation science. (Photo courtesy of Robert Gasior)
10th Annual Conference on the Science of Dissemination and Implementation in Health

The pre-eminent event to bridge the gap between evidence, practice, and policy in health and medicine.

Quality research generates the evidence needed to optimize health and health care in the United States and elsewhere. However, the full potential of evidence can only be realized if it is effectively incorporated into health practice and policy.

A decade since its inception, the Annual Conference on the Science of Dissemination and Implementation in Health (D&I), co-hosted by the National Institutes of Health (NIH) and AcademyHealth has become the pre-eminent event to bridge the gap between evidence, practice, and policy in health and medicine.

http://www.academyhealth.org/events/site/10th-annual-conference-science-dissemination-and-implementation-health
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

https://nccih.nih.gov/grants/mindbody/framework
Curran et al. (2013). Effectiveness-implementation hybrid designs: Combining elements of clinical effectiveness and implementation research to enhance public health impact. *Med Care.*
“Designing for Dissemination and Implementation”

What is SPRINT?
Discover how this program will expedite the transfer or commercialization of your intervention into practice.

Future Dates will be posted here

LEARN MORE

PROGRAM APPLICATION

SPRINT Training
Reducing the burden of cancer will require creativity, innovation, and faster transfer of scientific knowledge into practical applications. SPRINT is a new training program that leverages the experience and impact of the NSF I-Corps™ program, but is customized specifically for the science of cancer prevention and control interventions to impact behavior change, maintenance and adherence.
Selected D&I Research Projects related to Cancer Survivorship Care

- PCMH Implementation Strategies: Implications for Cancer Survivor Care (PI: Crabtree)
- Modeling to Improve Prostrate Cancer Outcomes Across Diverse Populations (PI: Etzioni)
- Utilizing Electronic Health Records to Measure and Improve Prostate Cancer Care (PI: Hernandez-Broussard)
- Care Coordination for Complex Cancer Survivors in an Integrated Safety-Net System (PI: Craddock Lee)
- Understanding Optimal Delivery Systems for Cancer Care (PI: Miller)

https://maps.cancer.gov/overview/DCCPSGrants/grantlist.jsp?method=dynamic&division=dccps&status=active&menu=division&codes=7647
# Intervention Programs

**Search Criteria Used:** Survivorship/Supportive Care  
[Refine Your Search](https://rtips.cancer.gov/rtips/searchResults.do)

<table>
<thead>
<tr>
<th>Program Title &amp; Description (17 programs alphabetically listed)</th>
<th>Program Focus</th>
<th>Population Focus</th>
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</table>
| **1. Alleviating Depression Among Patients With Cancer (ADAPT-C)**  
Designed to enhance the quality of life for cancer survivors. (2011)  
NCI (Grant number: R01CA105269)  
**Criteria Matched:** Survivorship/Supportive Care | Psychosocial - Coping | Cancer Survivors |
| **2. Breast Cancer Education Intervention (BCEI)**  
Designed to enhance the quality of life for breast cancer survivors. (2007)  
**Criteria Matched:** Survivorship/Supportive Care | Psychosocial - Coping | Cancer Survivors |
| **3. Bright IDEAS: Problem-Solving Skills Training**  
Designed to help reduce the emotional distress in mothers of children recently diagnosed with cancer. (2005)  
NCI (Grant number: ca65520)  
**Criteria Matched:** Survivorship/Supportive Care | Psychosocial - Coping | Caregivers |
| **4. Coping with Chemotherapy**  
Designed to enhance the quality of life of individuals prior to undergoing chemotherapy. (2002)  
NCI (Grant number: CA70875)  
**Criteria Matched:** Survivorship/Supportive Care | Psychosocial - Coping | Cancer Survivors |
dchamber@mail.nih.gov
240-276-5090
@NCIDAChambers