Designing Interventions for Real World Impact: A conceptual background

BORSIKA RABIN, PH.D., M.P.H.

BRIDGING THE SCIENCE AND PRACTICE OF DESIGNING FOR DISSEMINATION: GOING FROM UNICORNS TO WORKHORSES

UNIVERSITY OF COLORADO ANSCHUTZ MEDICAL CAMPUS
OCTOBER 2-3, 2018
IF AN INTERVENTION WORKS

AND NOBODY CAN USE IT.....

DOES IT STILL MAKE AN IMPACT?
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.

## What does this really mean?

<table>
<thead>
<tr>
<th>Term:</th>
<th>What we do (examples):</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dissemination</td>
<td>• Understand our target audience&lt;br&gt;• Package the evidence/intervention&lt;br&gt;• Create and use appropriate channels</td>
</tr>
<tr>
<td>Dissemination research</td>
<td>• Measure the rate and speed of dissemination&lt;br&gt;• Identify who was and wasn’t reached&lt;br&gt;• Compare approaches</td>
</tr>
<tr>
<td>Implementation</td>
<td>• Support initial uptake and implementation&lt;br&gt;• Identify and work with local champions&lt;br&gt;• Provide technical assistance/training</td>
</tr>
<tr>
<td>Implementation research</td>
<td>• Measure the level/degree of implementation&lt;br&gt;• Compare strategies&lt;br&gt;• Identify barriers</td>
</tr>
</tbody>
</table>
Designing for Dissemination defined

#1: Designing for Dissemination refers to a set of processes that are considered and activities that are undertaken throughout the planning, development, and evaluation of an intervention to increase its dissemination potential.¹

#2: Designing for diffusion is the taking of strategic steps early in the process of creating and refining an evidence-based intervention to increase its chances of being noticed, positively perceived, accessed, and tried and then adopted, implemented, and sustained in practice.²

#3: The process of ensuring that the products of research (interventions, materials, and findings) are developed in ways that match well with the needs, resources, workflows, [timeframes] and contextual characteristics of the target audience and setting.³

¹ Rabin BA and Brownson RC. Terminology for D&I research in health 2017
³ Brownson, Colditz, & Proctor, 2018, p. 19-46
Knowledge translation approaches

#1. End of Grant KT

The researcher develops and implements a plan for making knowledge users aware of the knowledge that was gained during a project. Includes:
- typical dissemination and communication activities (e.g., conference presentations and publications in peer-reviewed journals)
- more intensive dissemination activities (e.g., tailor message/medium to audience, such as summary briefings to stakeholders, interactive educational sessions with patients, practitioners and/or policy makers, media engagement, or the use of knowledge brokers.
- commercialization of scientific discoveries

http://www.cihr-irsc.gc.ca/e/29418.html
# Knowledge translation approaches

## #2. Integrated KT

Stakeholders or potential research knowledge users are engaged in the entire research process.
Researchers and research users work together to:
- determine the research questions
- decide on the methodology
- involved in data collection and tools development
- interpreting the findings
- helping disseminate the research results

This approach, also known by such terms as collaborative research, action-oriented research, and co-production of knowledge. It should produce research findings that are more likely be relevant to and used by the end users.

http://www.cihr-irsc.gc.ca/e/29418.html
How well are we doing in D4D?

<table>
<thead>
<tr>
<th>Affiliation</th>
<th>n</th>
<th>%</th>
<th>Affiliation</th>
<th>n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brownson et al., 2013</td>
<td></td>
<td></td>
<td>Knoepke et al., 2018</td>
<td></td>
<td></td>
</tr>
<tr>
<td>University</td>
<td>172</td>
<td>65%</td>
<td>University</td>
<td>190</td>
<td>88%</td>
</tr>
<tr>
<td>CDC PRC</td>
<td>63</td>
<td></td>
<td>CDC PRC</td>
<td>14</td>
<td></td>
</tr>
<tr>
<td>NIH</td>
<td>25</td>
<td>9%</td>
<td>NIH/CIHR</td>
<td>2</td>
<td>1%</td>
</tr>
<tr>
<td>CDC</td>
<td>34</td>
<td>13%</td>
<td>CDC</td>
<td>2</td>
<td>1%</td>
</tr>
<tr>
<td>VA</td>
<td>0</td>
<td>0%</td>
<td>VA</td>
<td>11</td>
<td>5%</td>
</tr>
<tr>
<td>Other</td>
<td>34</td>
<td>13%</td>
<td>Other</td>
<td>11</td>
<td>5%</td>
</tr>
<tr>
<td></td>
<td>265</td>
<td></td>
<td></td>
<td>216</td>
<td></td>
</tr>
</tbody>
</table>

It is an obligation of researchers to disseminate their research to those who need to learn about it and make use of the findings.

Brownson et al. 2013

Knoepke, Ingle, Matlock, Brownson, & Glasgow 2018
As a part of your research process, how often do you involve stakeholders?

- 17% Always/Usually
- 34% Sometimes/Rarely
- 49% Never

Brownson et al. 2013

- 7.4% Once
- 33.6% Two or three times
- 55.3% Four or more times
- 3.7% Zero

Knoepke, Ingle, Matlock, Brownson, & Glasgow 2018
At what stage in the research process do you usually plan dissemination activities?

- Proposal: 27%
- Data collection/analysis: 18%
- Final report/manuscript: 16%
- All stages: 14%
- Rarely: 24%

Brownson et al. 2013

% Reporting SH Involvement by Stage

Knoepke, Ingle, Matlock, Brownson, & Glasgow 2018
Overall, how do you rate your efforts to disseminate your research findings to non-research audiences?

- Excellent/Good: 30%
- Poor: 35%
- Adequate...
Multivariate predictors of excellent dissemination

- Important for their department (OR=2.3; 95% CI=1.2-4.5)
- Expected by funder (OR=2.1; 95% CI=1.3-3.2)
- Worked in policy/practice setting (OR=4.4; 95% CI=2.1-9.3)
- NIH least effective among settings

## Disconnect between practice and research

<table>
<thead>
<tr>
<th>How local public health agencies learn about research findings?</th>
<th>How researchers perceive they most effectively reach practitioners?</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Professional associations</td>
<td>1. Journal articles</td>
</tr>
<tr>
<td>2. Seminars/workshops</td>
<td>2. Face-to-face meetings</td>
</tr>
<tr>
<td>3. Email alerts</td>
<td>3. Media interviews</td>
</tr>
</tbody>
</table>

What really matters for adopters?

1. **Cost**: dollars or physical infrastructure
2. **Complexity**: the extent to which the innovation is perceived as difficult to teach, adopt, or implement
3. **Compatibility**: the extent to which the innovation is consistent with the adopter’s characteristics
4. **Evidence**: the degree to which the evidence supports action
5. **Trialability**: the degree to which the innovation can be experimented on a limited basis without a large investment
6. **Observability**: the degree to which the results of an innovation are visible to others

D4D T1 through T4

Can we invent a solution to a health problem?
Could the invention work in humans?
Does it benefit patients?
Can it be delivered reliably in practice?
Does it improve public health?
Designing for your Audience
The **processes** of D4D include the methods used to identify and design for the needs and characteristics of patients and communities, the public health system, health care practices and systems, industry, and health policy.

Evaluating the Impact of D4D
Identify the **outcomes** that matter to your audience(s) to ensure communications and messages inform local decisions about adoption and scale-up of evidence-based practices.

Designing Interventions and Dissemination Strategies
The **products** of D4D can include design of novel interventions, technologies or techniques for improving health and health care, and messages, materials and media strategies for disseminating and sustaining evidence-based practices to target audiences.
### Strategies for D4D

#### Domain

<table>
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<tbody>
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<td>Shift research funder priorities and processes</td>
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<td>Develop new measures and tools</td>
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<tr>
<td>Develop new reporting standards</td>
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#### Processes

| Involve stakeholders as early in the process as possible |
| Engage key stakeholders (receptors) for research through audience research |
| Identify theories/frameworks/models for dissemination efforts |
| Identify the appropriate means of delivering the message |

#### Products

| Identify the appropriate message |
| Develop summaries of research in user-friendly, nonacademic formats (audience tailoring) |

Brownson et al. *Am J Public Health* 2013
**System changes**

<table>
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</table>
**What do we do?**

**Answer some questions**
You don’t need to answer all of the questions. Start with the easy ones first. There is one worksheet for each section (with examples), including some evaluation questions.

**Where do we start?**

**Start anywhere**
It doesn’t matter if you start with the outcomes you want to see or the activities you want to implement. Dive right in or take a few minutes to scan the questions below.

**What else?**

**Ask for help**
Your team can help answer questions—refining as you go—and help show the logical connections between what you plan to do and the outcomes you expect.

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**What do you want to call your project?**

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### Your Community/Organization

- Which problem(s) or issue(s) will you address?
- What is the scale or scope of the problem(s)?
- Who is (are) the target population(s) in need?
- Who are the important stakeholders?
- Who will deliver the program?
- Who is willing to help?
- What key barriers might we anticipate?

### Your Plan

<table>
<thead>
<tr>
<th>Inputs</th>
<th>Outputs</th>
</tr>
</thead>
<tbody>
<tr>
<td>What skills, expertise, partners are needed?</td>
<td>Who will be reached?</td>
</tr>
<tr>
<td>What facilities, settings, and materials are needed?</td>
<td>What activities or programs will be implemented and when?</td>
</tr>
<tr>
<td>How much time will be needed?</td>
<td>Where will activities or programs take place?</td>
</tr>
<tr>
<td>What costs need to be considered?</td>
<td></td>
</tr>
</tbody>
</table>

### Your Expected Outcomes

<table>
<thead>
<tr>
<th>Short-term</th>
<th>Medium-term</th>
<th>Long-term</th>
</tr>
</thead>
<tbody>
<tr>
<td>In the next 12 months, what will change in terms of...</td>
<td>In 1 to 3 years, what will change in terms of...</td>
<td>In 4 to 10 years+, what will change in terms of...</td>
</tr>
<tr>
<td>Awareness?</td>
<td>Behaviors?</td>
<td>Prevalence of issue?</td>
</tr>
<tr>
<td>Attitudes?</td>
<td>Norms?</td>
<td>Incidence of issue?</td>
</tr>
<tr>
<td>Skills?</td>
<td>Practices?</td>
<td>Community environment?</td>
</tr>
<tr>
<td>Resources?</td>
<td>Resources?</td>
<td>Norms or culture?</td>
</tr>
<tr>
<td>Partnerships?</td>
<td>Partnerships?</td>
<td>Sustained resources to address the issue?</td>
</tr>
<tr>
<td>Policies (small p)?</td>
<td>Policies (small p)?</td>
<td>Policies (big P)?</td>
</tr>
<tr>
<td>Policies (big P)?</td>
<td>Policies (big P)?</td>
<td>Policies (big P)?</td>
</tr>
</tbody>
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Template developed by Douglas Fernald, MA and Russell Glasgow, PhD for the UPSTRFAM! Together communities (© September 29, 2017 Douglas Fernald, MA and Russell Glasgow, PhD)
Instrument Review Project

The SIRC Instrument Review Project: A Systematic Review of Dissemination and Implementation Science Instruments

Video of Instrument Review Taskforce at SIRC 2011
Power Point Presentation from ABCT
SIRC_IRP_Update_2013 (video of full presentation coming soon).

Exciting advances have been made in the field of dissemination and implementation (D&I). However, much like the science-practice gap that motivates our field, a communication gap exists among stakeholders at the forefront of this work. Measurement issues have slowed the progression of the field of D&I given the laborious process of systematically developing psychometrically sound yet feasible and cost-effective ways to assess our efforts. The lag occurs between initial development, implementation, and then publication delays the process further, resulting in instances in which independent research teams are devoting considerable resources to unnecessarily redundant work. As a consequence, progress toward the development of commonly used instruments has been very slow, limiting the extent to which researchers have access to and are able to

http://www.seattleimplementation.org/sirc-projects/sirc-instrument-project/
To learn more: http://www.gem-beta.org/GEM-DI
DESIGNING FOR DISSEMINATION (D4D)

Build a plan to develop, implement, evaluate, and disseminate your project

WELCOME TO DESIGN FOR DISSEMINATION TOOL

Whether you are a researcher, policy planner, or community organizer, this tool is designed to guide you on how a project can be designed with greater dissemination potential.

http://design4dissemination.com/home

Develop

You initiated your project with an end goal in mind. Developing a D4D plan will help you develop interventions with key stakeholders.

Implement

Implementing your plan includes working closely with and listening to your stakeholders and operations partners, tracking progress.
**Background**

To customize your report, please enter your name below. This tool will save your name and answers ONLY to provide a customized report at the end. This information will NOT be sold or distributed.

- Borka

**Role**
- Researcher

**Developer**

Who are your stakeholders? Identify who are the specific groups of stakeholders for each of the categories provided below.
- Research community
- Organizational decisionmakers
- Adaptors/users of the evidence-based intervention (e.g., frontline staff, community organizations, school personnel)

Stakeholders are internal and external organizations and individuals that have a vested interest in or are directly or indirectly impacted by the evidence-based intervention. It is critical to identify and engage your stakeholders early and on a regular basis throughout the project. The following questions help you ascertain or assess your level of stakeholder engagement to date. It is important to note that often the key stakeholders are changes over the course of a program.

How have you engaged or planning to engage your stakeholders? You can use multiple strategies to engage stakeholder groups. In this section you can reflect on how you have engaged or are planning to engage the various stakeholders groups you identified earlier.

- Initial study/project idea (including study design, research questions, outcomes, participants, study design)
- Adoption/implementation process

Early and ongoing engagement of stakeholders is critical for the success of your project. The role of various stakeholder groups might be different as time goes by. Keep interacting with stakeholders at various levels as your program evolves. Ensure you get input at all levels: leaders, managers, staff, patients. You may also use various strategies to engage the stakeholders. As you engage your stakeholders, get their reactions, get specific about possible activities and use examples!

What phase of project are you in?
- Planning (I have not yet started the implementation of the project)

The D4D Tool is divided into phases, which reflect the natural progression of most projects: development, implementation, evaluation, and dissemination. The questions you have answered and tips received are relevant to the stage your project is in.

You may also find it helpful to return to the D4D tool and review questions and tips from other stages.

**Designing for Dissemination**

A few key principles:

- Start to design or plan for dissemination in an early stage of conceptualization and development of the intervention
- Form strong partnerships with target users from the start and engage them across the development, implementation, evaluation and dissemination phase
- Have a clear understanding of and design for the characteristics, resources, beliefs, norms, context and wants of target adopters
- Choose study designs and measures that generate rapid, relevant information
- Customize or adapt the intervention for different settings. Usually ‘one size does not fit all’

It helps to think about three types of strategies for designing for dissemination. Your D4D activities should either include or be aligned with each of the following:

1. Systems changes (e.g., shift in priorities, guidelines and incentives; reimbursement criteria, reporting standards)
2. Processes (e.g., early and ongoing engagement of stakeholders, use of Dissemination theories and models, identification of appropriate delivery methods)
3. Products (e.g., appropriate messages, user-friendly summaries, case examples and testimonials, implementation guidance).

[KT Planning Tool](#)

[Make Research Matter Planning Tool](#)

[University Of Colorado Department Of Family Medicine Document On D4D Questions To Consider](#)


Knowledge Translation Planning Template®

INSTRUCTIONS: This template was designed to assist with the development of Knowledge Translation (KT) plans for research but can be used to plan for non-research projects. The Knowledge Translation Planning Template is universally applicable to areas beyond health. Begin with box #1 and work through to box #13 to address the essential components of the KT planning process.

(1) Project Partners

- researchers
- consumers - patients/families
- the public
- decision makers
- private sector/industry
- research funding body
- volunteer health sector/NGO
- practitioners
- other

(2) Degree of Partner Engagement

- from idea formulation straight through
- after idea formulation & straight through
- at point of dissemination & project end
- beyond the project

Consider: Not all partners will be engaged at the same point in time. Some will be collaborators, end users or audiences, or people hired to do specific activities.

(3) Partner(s) Roles

(1) What do the partner(s) bring to the project?

(2) How will partner(s) assist with developing, implementing or evaluating the KT plan?

Action: Capture their specific roles in letters of support to funders, if requested.

(4) KT Expertise on Team

- scientist(s) with KT expertise
- consultant with KT expertise
- knowledge broker/specialist
- KT supports within the organization(s)
- KT supports within partner organization(s)
- KT supports hired for specific task(s)

Notes

To download the form and learn more:
http://www.melaniebarwick.com/training.php
Designing for Dissemination

A participant workbook to supplement the workshop:
Bridging the Science and Practice of Designing for Dissemination:
  Going from Unicorns to Workhorses
University of Colorado Anschutz Medical Campus
  October 2-3, 2018

Featuring Distinguished Guests

David Chambers, DPhil
National Cancer Institute
Matt Kreuter, PhD
Brown School at Washington University in St. Louis

Borsika Rabin, PhD, MPH, PharmD
University of California San Diego
Shale Wong, MD, MSPH
University of Colorado, Farley Health Policy Center

A special thank you to all of our invited guests and speakers, without whom this event would not have been possible.
**System changes**

<table>
<thead>
<tr>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shift research funder priorities and processes</td>
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</tbody>
</table>
Enhancing the QUAlity and Transparency Of health Research

Search for reporting guidelines

Browse for reporting guidelines by selecting one or more of these drop-downs:

- Study type
- Clinical area
- Section of report

Or search with free text

Search Reporting Guidelines

Start again | Help

Displaying 404 reporting guidelines found.

Most recently added records are displayed first.

1. Systems Perspective of Amazon Mechanical Turk for Organizational Research: Review and Recommendations

2. ESPACOMP Medication Adherence Reporting Guideline (EMERGE)
Standards for Reporting Implementation Studies (StaRI) Statement

Hilary Pinnock,¹ Melanie Barwick,² Christopher R Carpenter,³ Sandra Eldridge,⁴ Gonzalo Grandes,⁵ Chris J Griffiths,⁶ Jo Rycroft-Malone,⁷ Paul Meissner,⁸ Elizabeth Murray,⁹ Anita Patel,⁹ Aziz Sheikh,¹ Stephanie J C Taylor⁶ for the StaRI Group

ABSTRACT
Implementation studies are often poorly reported and indexed, reducing their potential to inform initiatives to improve healthcare services. The Standards for Reporting Implementation Studies (StaRI) initiative aimed to develop guidelines for transparent and accurate reporting of implementation studies. Informed by the findings of a systematic review, BMJ Open, doi:10.1136/bmjopen-2016-013318) details each of the items, explains the rationale, and provides examples of good reporting practice. Adoption of StaRI will improve the reporting of implementation studies, potentially facilitating translation of research into practice and improving the health of individuals and populations.
Introduction

There are major problems with failure to replicate research findings. Contributing to this problem is a failure to report on factors related to external validity. Frequently, researchers have little knowledge whether findings apply more generally, especially to low-resource settings and underserved populations. The CONSORT flow diagram has improved reporting on variables related to internal validity, but it has very limited detail on issues related to external validity. A recent CONSORT update and other publications have called for more transparent reporting on external validity and context, and information regarding the sustainability of interventions. All of these elements influence the generalizability of findings from outcomes research.

Methods

Drawing on theory, a prior meeting, and recent recommendations for reporting factors related to external validity, the authors propose an expansion of the basic CONSORT flow diagram for clinical trials to concisely summarize these data that recent CONSORT statements and other guidelines have recommended.

Results

The authors propose the use of an expanded CONSORT figure and illustrate its utility with an example. The expanded CONSORT figure adds data about participation and representativeness at the levels of settings and staff, and about intervention sustainability after project support ends. The authors provide an expanded CONSORT figure reporting template, and demonstrate its use.
Introduction

There are major problems with failure to replicate research on factors related to external validity. Frequently, more generally, especially to low-resource settings and usual care, improved reporting on variables related to internal validity. A recent CONSORT update and other papers on external validity and context, and information regarding these factors influence the generalizability of findings from one setting to another.

Methods

Drawing on theory, a prior meeting, and recent recommender statements, the authors propose an expansion of the basic CONSORT statements and guidelines to include data that recent CONSORT statements and guidelines may not have taken into account.

Results

The authors propose the use of an expanded CONSORT figure that adds data about participation rates, staff, and about intervention sustainability after project suspension. This expanded CONSORT figure reporting template, and demonstrate its potential to improve the reporting of external validity.

Expanded Consort Figure

Contextual Data and Participation Rates

<table>
<thead>
<tr>
<th>Setting</th>
<th>Total Number of Potential Settings (n)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Settings Eligible (n and %)</td>
</tr>
<tr>
<td></td>
<td>Settings Excluded (n and %)</td>
</tr>
<tr>
<td>3</td>
<td>Settings that Participate (n and %)</td>
</tr>
<tr>
<td></td>
<td>Settings that Decline (n and %)</td>
</tr>
<tr>
<td>4</td>
<td>Agents or Staff Eligible (n and %)</td>
</tr>
<tr>
<td></td>
<td>Agents or Staff Excluded (n and %)</td>
</tr>
<tr>
<td>5</td>
<td>Agents or Staff that Participate (n and %)</td>
</tr>
<tr>
<td></td>
<td>Agents or Staff that Decline (n and %)</td>
</tr>
</tbody>
</table>

Key Differences (or none)
Participating vs. Non-Participating

Between Conditions

Key Differences (or none)
Participating vs. Non-Participating

Key Differences (or none)
Between Conditions

Participating vs. Non-Participating

Key Differences (or none)
Between Conditions

Participating vs. Non-Participating

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Between Conditions

Participating vs. Non-Participating
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Recommendations to increase the D&I potential of interventions

“Too often, again, there’s a tendency to try to screen out those who might make the particular signal of an intervention more complicated. Yet, those very same people are the ones who we want to benefit from these interventions. So a better fit between the patient population, as they exist in real-world settings, and the efficacy and effectiveness trials that are initially establishing the evidence base for the intervention would be incredibly helpful.”

David Chambers, D. Phil.
Deputy Director of Implementation Science, National Cancer Institute

Narrative library link to video
Recommendations to increase the D&I potential of interventions

“Branding and marketing are relevant here at a number of levels. One is that I think that the universe of evidence-based programs, the ones that are closer to adoption have probably done a better job of thinking through some of the questions that branding and marketing people think through. Understanding audiences, understanding constraints, considering cost, those are classic sort of, kind of marketing level strategies. We don’t always do that in preparing our program.”

Matt Kreuter, Ph.D.
Kahn Family Professor of Public Health, Washington University in St. Louis

Narrative library link to video
A fundamental obstacle to successful dissemination and implementation of evidence-based public health programs is the near-total absence of systems and infrastructure for marketing and distribution.

Steensma, Kreuter, Casey, Bernhardt 2017
<table>
<thead>
<tr>
<th>Room 202</th>
<th>Room 204</th>
<th>Room 304/305</th>
<th>Shore Family Forum</th>
</tr>
</thead>
<tbody>
<tr>
<td>Demetria McNeal, PhD, MBS, CPLP &amp; Dan Holtrop, MA</td>
<td>Jenna Reno, PhD</td>
<td>Martha Meyer, PhD, MPH</td>
<td>Kelsey Ford, MPH</td>
</tr>
<tr>
<td>Heather Gilmartin, PhD, NP</td>
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<td>Panel Discussion</td>
<td>Multilevel Stakeholder Engagement Panel and Q&amp;A.</td>
<td>Panel: Matt Kreuter, PhD, Matt Wynia, MD, Shale Wong, MD, MSPH, Don Nease, MD</td>
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<td>Moderator: Romana Hasnain-Wynia, PhD</td>
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<td>Operational Partners Panel and Q&amp;A</td>
<td>Panel: Amy Friedman, MA, Cari Levy, MD, PhD, Romana Hasnain-Wynia, PhD, Judy Shlay, MD</td>
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<td>Moderator: Russ Glasgow, PhD</td>
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<td>Plenary Address</td>
<td>Enhancing Dissemination for Health Equity: A Market and Distribution Perspective</td>
<td>Matt Kreuter, PhD, MPH</td>
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<td>Plenary Address</td>
<td>Designing For Your Policy Maker</td>
<td>Shale Wong, MD, MSPH</td>
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Strategies for D4D

Domain

System changes

Shift research funder priorities and processes

Shift researcher incentives...

...summaries of research in user-friendly, nonacademic formats (audience tailoring)


Processes

- Involve stakeholders as early in the process as possible
- Engage key stakeholders (receptors) for research through audience research
- Identify theories/frameworks/models for dissemination efforts
- Identify the appropriate means of delivering the message
Beginning With the Application in Mind: Designing and Planning Health Behavior Change Interventions to Enhance Dissemination

Lisa M. Klesges, Ph.D.
Department of Preventive Medicine
University of Tennessee Health Science Center

Paul A. Estabrooks, Ph.D.
Kaiser Permanente Colorado

David A. Dzewaltowski, Ph.D.
Community Health Institute
Kansas State University

Sheana S. Bull, Ph.D.
University of Colorado Health Sciences Center

Russell E. Glasgow, Ph.D.
Kaiser Permanente Colorado
## RE-AIM Planning Approach to Enhance Translation and Dissemination

<table>
<thead>
<tr>
<th>Dimensions for Dissemination</th>
<th>Questions to Ask of Potential Programs</th>
<th>Strategies to Enhance Future Translation and Dissemination</th>
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</thead>
</table>
| **Reach** (individual level) | 1. What percentage of the target population would come in contact with your program?  
2. Will you reach the most needy?  
3. Will research participants reflect the targeted population? | Formative evaluation with potential users and nonusers  
Small-scale recruitment studies to enhance methods  
Identify and reduce participation barriers  
Use multiple channels of recruitment |
| **Effectiveness** (individual level) | 1. Will the intervention likely affect key targeted outcomes?  
2. What unintended adverse consequences may occur?  
3. How will impact on quality of life be assessed? | Incorporate tailoring to individuals  
Reinforce messages via repetition, multiple modalities, social support and systems change  
Consider stepped care approaches  
Evaluate adverse outcomes and quality of life for program revision and cost-to-benefit analysis |
| **Adoption** (setting or organizational level) | 1. What percentage of target settings and organizations will use the program?  
2. Do organizations include high-risk or underserved populations?  
3. Does program fit with organizational goals and capacities? | Conduct formative evaluation with adoptees and nonadoptees  
Recruit settings that have contact with the target audience  
Develop recruitment materials outlining program benefits and required resources  
Provide various cost options and customization of the intervention |
| **Implementation** (setting or organizational level) | 1. Can different levels of staff successfully deliver the program?  
2. What proportion of staff within a setting will agree to program delivery?  
3. What is the likelihood that various components will be delivered as intended? | Provide delivery agents with training and technical assistance  
Provide clear intervention protocols  
Consider automating all/part of the program  
Monitor and provide staff feedback and recognition for implementation |
| **Maintenance** (individual and setting levels) | 1. Does the program produce long-term individual behavior change?  
2. Will organizations sustain the program over time?  
3. What are characteristics of persons and settings showing maintenance? | Minimize level of resources required  
Incorporate “natural environmental” and community supports  
Conduct follow-up assessments and interviews to characterize success at both individual and setting levels  
Consider incentives and policy supports |

Klesges et al. *Beginning with the application in mind: Designing and planning health behavior change interventions to enhance dissemination*  
*Annals of Behavioral Medicine, 2005, Volume 29, Issue 2.*
This interactive website was designed to help researchers and practitioners to select the D&I Model that best fits their research question or practice problem, adapt the model to the study or practice context, fully integrate the model into the research or practice process, and find existing measurement instruments for the model constructs. The term ‘Models’ is used to refer to both theories and frameworks that enhance dissemination and implementation of evidence-based interventions more likely.

**Select**
Search for D&I Models

**Adap**
Read strategies for adapting D&I Models to research or practice context

**Integrate**
Read strategies for incorporating D&I Models into the full spectrum of your project

**Measure**
Find measurement instruments for D&I Model constructs

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<td>Identify the appropriate message</td>
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<td>Develop summaries of research in user-friendly, nonacademic formats (audience tailoring)</td>
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<tr>
<td>Time</td>
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| 1:15-1:45 PM | i-Corps: Designing for Commercialization  
⇒ Demetria McNeal, PhD, MBS, CPLP & Dan Holtrop, MA | Message Development and Testing: Designing for Social Media  
⇒ Jenna Reno, PhD | Microcosting Methods: Designing for Sustainability  
⇒ Martha Meyer, PhD, MPH | User-Centered Design: Designing Engaging Technology  
⇒ Kelsey Ford, MPH |
| 1:45-2:15 PM | Participatory Research: Designing for Translation to Public Health  
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⇒ Don Nease, MD & Mary Fisher, MPH | User-Centered Design: Designing Engaging Technology  
⇒ Kelsey Ford, MPH |

Roundtable Discussions
- Designing patient-level interventions
- Designing primary care-level interventions
- Designing hospital and health care system-level interventions
- Designing public health/policy interventions

Facilitators:
- Dan Matlock, MD, MPH & Bethany Kwan, PhD, MSPH
- Jodi Summers Holtrop, PhD, MCHES & Amy Huebschmann, MD, MPH
- Borsika Rabin, PhD, MPH & Catherine Battaglia, PhD, RN
- Russ Glasgow, PhD, Jeanette Waxmonsky, PhD & Hillary Lum, MD, PhD

1:15 – 2:45 PM
(25 minute sessions)
Concurrent Small Group Sessions
Introduction to Methods for Designing for Dissemination
(See name badge for session assignment)
Facilitators will give 10 min overview, followed by 15 min discussion of method
Highly Interactive
Questions to consider

- How D4D is different from Dissemination science?
- At what stage of research does D4D become relevant?
- What are some promising D4D strategies?
- How do we measure the impact of D4D and whether D4D is successful?
Bridging the Science and Practice of Designing for Dissemination:
Going from Unicorns to Workhorses