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.
We are delighted you are able to join us for this workshop on the emerging field of Designing for Dissemination! As investments in research grow, we are faced with the need to ensure that our innovations and discovery reach those who may benefit. Considering the needs and context of the end users of our research products at the beginning, rather than the end, of the process speeds translation and enhances impact on health—the ultimate goal of the research enterprise.

**Workshop Learning Objectives**—Participants will be able to:

- Describe the scientific rationale for Designing for Dissemination, including biomedical, clinical, and community-based research
- Identify key processes, study designs and outcomes, and products for designing health interventions for successful dissemination, implementation, and sustainability
- Outline a plan for design, evaluation, and dissemination of research products that take the needs of the end users into account

This workbook is designed to support learning and application of the principles and methods of Designing for Dissemination to research across the translational spectrum. Completing the activities in this workbook is intended to help researchers prepare detailed plans for intervention and program design, evaluation, and dissemination of their research.

Workshop sponsors and supporters span multiple institutions and programs affiliated with the University of Colorado School of Medicine that are focused on the broad interdisciplinary science of Dissemination and Implementation. The translational research community is here to support your learning and application of Dissemination and Implementation Science today and in the future.

**Sponsor:** The Adult and Child Consortium for Health Outcomes Research and Delivery Science (ACCORDS)

**Further support from:** Colorado Clinical Translational Sciences Institute (CCTSI); Eugene S. Farley, Jr. Health Policy Center; Geriatric Research Education and Clinical Center (GRECC); Center of Innovation for Veteran-Centered & Value Driven Care, Denver|Seattle (COIN); US Department of Veteran Affairs (VA)

**Workshop planning committee from The University of Colorado School of Medicine**

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<tr>
<th>Name</th>
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<tr>
<td>Hillary Lum, MD, PhD</td>
<td>Assistant Professor, Division of Geriatric Medicine, ACCORDS D&amp;I Program</td>
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<tr>
<td>Bethany Kwan, PhD, MSPH</td>
<td>Assistant Professor, Department of Family Medicine, Director, ACCORDS Education Program</td>
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<tr>
<td>Russell Glasgow, PhD</td>
<td>Research Professor, Department of Family Medicine, Director, ACCORDS D&amp;I Program</td>
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<tr>
<td>Bryan Ford</td>
<td>Program Coordinator, ACCORDS Education Program, Program Coordinator, ACCORDS D&amp;I Program</td>
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<td>Allison Kempe, MD, MPH</td>
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<td>Noy Phimphasone-Brady, PhD</td>
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<td>Daniel Matlock, MD</td>
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<td>Jodi Summers Holtrop, PhD, MCHES</td>
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This workshop would not have taken place without the contributions from: Allison Kempe, MD, MPH; Noy Phimphasone-Brady, PhD; Daniel Matlock, MD; & Jodi Summers Holtrop, PhD, MCHES
Designing for Dissemination (D4D)

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, and contextual characteristics of the target audience and setting. (Brownson, Colditz, & Proctor, 2018, p. 19-46)

Processes, Outcomes, and Products of D4D

Throughout the workshop, we will distinguish the processes, outcomes, and products of designing for dissemination.

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.

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.

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.
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<th>Speakers</th>
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<tr>
<td>7:30 – 8:30 AM</td>
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<td>Registration &amp; Continental Breakfast</td>
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<td>Networking</td>
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<tr>
<td>8:30 – 9:00 AM</td>
<td>Welcome</td>
<td>Workshop Introduction from ACCORDS</td>
<td>Allison Kempe, MD, MPH (Director, ACCORDS)</td>
<td>Lecture &amp; Discussion</td>
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<td>Hillary Lum, MD, PhD</td>
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<tr>
<td>9:00 – 9:45 AM</td>
<td>Plenary Address</td>
<td>Designing Interventions for Real-World Impact: A Conceptual Background</td>
<td>Borsika Rabin, PhD, MPH</td>
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<td>9:45 – 10:50 AM</td>
<td>Ignite Presentations</td>
<td>University of Colorado examples of Designing for Dissemination in different types of translational research</td>
<td>Toan Ong, PhD, Emily Cox-Martin, PhD, Allison Gustavson, PT, DPT, PhD(c), Drew Sayer, PhD, Noy Phimphasone-Brady, PhD</td>
<td>Lecture &amp; Discussion &amp; Comments</td>
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<td>10:50 – 11:00 AM</td>
<td>Break</td>
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<tr>
<td>11:00 – 11:50 AM</td>
<td>Roundtable Discussions</td>
<td>Designing for Context</td>
<td>Facilitators:</td>
<td>Highly Interactive</td>
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<td></td>
<td></td>
<td>• Designing patient-level interventions</td>
<td>• Dan Matlock, MD, MPH &amp; Bethany Kwan, PhD, MSPH</td>
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<td>• Designing primary care-level interventions</td>
<td>• Jodi Summers Holtrop, PhD, MCHES &amp; Amy Huebschmann, MD, MPH</td>
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<td></td>
<td></td>
<td>• Designing hospital and health care system-level interventions</td>
<td>• Borsika Rabin, PhD, MPH &amp; Catherine Battaglia, PhD, RN</td>
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<tr>
<td></td>
<td></td>
<td>• Designing public health/policy interventions (See name badge for session assignment)</td>
<td>• Russ Glasgow, PhD, Jeanette Waxmonsky, PhD &amp; Hillary Lum, MD, PhD</td>
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<td>11:50 – 12:00 PM</td>
<td>Break &amp; Pick-up Lunch</td>
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<tr>
<td>12:00 – 1:00 PM</td>
<td>Plenary Address</td>
<td>Dissemination and Implementation Research: Optimizing the Success of Health Care</td>
<td>David Chambers, DPhil</td>
<td>Lecture &amp; Discussion</td>
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<td>1:00 – 1:15 PM</td>
<td>Break</td>
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<tr>
<td>Time</td>
<td>Room 202</td>
<td>Room 204</td>
<td>Room 304/305</td>
<td>Shore Family Forum</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  
⇒ Heather Gilmartin, PhD, NP | Message Development and Testing: Designing for Social Media  
⇒ Jenna Reno, PhD | Boot Camp Translation: Designing for Dissemination of Evidence to Communities  
⇒ Don Nease, MD & Mary Fisher, MPH | User-Centered Design: Designing Engaging Technology  
⇒ Kelsey Ford, MPH |
| 2:15-2:45 PM    | Participatory Research: Designing for Translation to Public Health  
⇒ Heather Gilmartin, PhD, NP | Microcosting Methods: Designing for Sustainability  
⇒ Martha Meyer, PhD, MPH | Boot Camp Translation: Designing for Dissemination of Evidence to Communities  
⇒ Don Nease, MD & Mary Fisher, MPH | User-Centered Design: Designing Engaging Technology  
⇒ Kelsey Ford, MPH |

2:45 – 3:00 PM  Break

3:00 – 4:00 PM  Panel Discussion  
Moderator: Romana Hasnain-Wynia, PhD
Multilevel Stakeholder Engagement Panel and Q&A.

Panel: Matt Kreuter, PhD, Matt Wynia, MD, Shale Wong, MD, MSPH, Don Nease, MD

4:00 – 5:00 PM  Networking Reception  
Refreshments and snacks provided by ACCORDS
## October 3, 2018 - Day 2 Agenda:

### Getting evidence to practice via marketing and policy: Considering the end user from the beginning

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<td>8:00 – 9:45 AM</td>
<td>Small Group D&amp;I Consultation</td>
<td>Reviewers provide feedback on proposals submitted and accepted for discussion.</td>
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<td>Highly Interactive (for applicants only)</td>
</tr>
<tr>
<td>10:00-10:15 AM</td>
<td>Welcome Remarks</td>
<td>Highlight of Designing for Dissemination Tools</td>
<td>Bethany Kwan, PhD, MSPH (Education Director, ACCORDS)</td>
<td>Lecture &amp; Discussion</td>
</tr>
<tr>
<td>10:15 – 11:15 AM</td>
<td>Plenary Address</td>
<td>Enhancing Dissemination for Health Equity: A Marketing and Distribution Perspective</td>
<td>Matt Kreuter, PhD, MPH</td>
<td>Highly Interactive</td>
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<tr>
<td>11:15 – 12:00 PM</td>
<td>Panel Discussion</td>
<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>
<td>Highly Interactive</td>
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<tr>
<td>12:00 – 12:15 PM</td>
<td>Break &amp; Pick up Lunch</td>
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<tr>
<td>12:15 – 1:15 PM</td>
<td>Plenary Address</td>
<td>Designing For Your Policy Maker</td>
<td>Shale Wong, MD, MSPH</td>
<td>Lecture &amp; Discussion</td>
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<tr>
<td>1:15 PM</td>
<td>Conclusion &amp; Evaluations</td>
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Keynote and Plenary Speakers:

David Chambers, DPhil  
*Deputy Director for Implementation Science*  
*Division of Cancer Control & Population Sciences, National Cancer Institute*

Dr. Chambers manages a team focusing on efforts to build and advance the field of Implementation Science (IS) through funding opportunity announcements, training programs, research activities, dissemination platforms, and enhancement of partnerships and networks to integrate research, practice and policy. Prior to this, Dr. Chambers served as Chief of the Services Research and Clinical Epidemiology Branch (SRCEB) of the Division of Services and Intervention Research at the National Institute of Mental Health (NIMH). At NIMH, he ran the Dissemination and Implementation Research Program within SRCEB, developing a portfolio of grants to study the integration of scientific findings and effective clinical practices in mental health within real-world service settings. He has lead NIH initiatives around the coordination of dissemination and implementation research in health, including research announcements across several NIH Institutes and Centers, annual scientific conferences, and a summer training institute.

Matthew Kreuter, PhD, MPH  
*Kahn Family Professor of Public Health*  
*Brown School, Washington University in St. Louis*  
*Senior Scientist, The Health Communication Research Laboratory*

Dr. Kreuter is founder and senior scientist of the Health Communication Research Laboratory (HCRL). His research seeks to develop, apply and disseminate strategies to increase the reach and effectiveness of health information to low-income and minority populations, and use information and technology to connect them to needed health services. Key partners in this work include United Way 2-1-1, tobacco quitlines, Medicaid managed care companies and other health care organizations.
Borsika Rabin, PhD, MPH
Assistant Professor, Department of Family Medicine and Public Health, University of California San Diego
Dr. Rabin serves as an Implementation Scientist for the Center of Excellence in Stress and Mental Health at the San Diego VA and as the co-lead of the Implementation Core for the Triple Aim QUERI Program for the Veteran Administration Eastern Colorado Health Care System in Denver, Colorado. Her research focuses on dissemination and implementation (D&I) of evidence-based interventions, communication and coordination around care for chronic conditions, and the evaluation and development of interactive, web-based interventions and tools with a special emphasis on cancer survival prediction tools and tools that can support planning for D&I interventions. She designed and developed a number of web-based resources including the Make Research Matter (www.makeresearchmatter.org) web tool, the Cancer Prognostic Resources (www.cancercalculators.org) and D&I Models in Research and Practice (www.dissemination-implementation.org) website.

Shale Wong, MD, MSPH
Professor, Departments of Pediatrics and Family Medicine
Director, Eugene S. Farley, Jr. Health Policy Center
University of Colorado School of Medicine
Dr. Wong is a pediatrician and professor of pediatrics and family medicine at the University of Colorado School of Medicine, teaching child health, advocacy, policy and health care reform with focused interests in integrated care and achieving health equity. She is director of the Eugene S. Farley, Jr. Health Policy Center and Vice Chair for Policy and Advocacy in the Department of Pediatrics. She served as health policy advisor to First Lady Michelle Obama for development and implementation of her signature child obesity initiative, Let’s Move, and assisted in launching Joining Forces to improve wellness and resilience of military families. Additionally, she was a senior program consultant to the RWJF. As a lifelong dancer, she is inspired to advance health through the arts.
Workshop Presenters, Panel Members and Facilitators:

Cathy Battaglia, PhD, RN
Associate Professor, Health System Management & Policy, Colorado School of Public Health
Nurse Scientist, University of Colorado, Seattle-Denver VA Center of Innovation
Dr. Battaglia is a nurse scientist and core investigator at the VA Eastern Colorado Health Care System and Director of the Denver Research Education and Mentor Program at the Denver site of the Seattle-Denver Center of Innovation (COIN). She has a strong background in health services research, dissemination/implementation of interventions in routine clinical practice and mixed methods analyses. Dr. Battaglia is Principal Investigator of the Triple Aim QUERI and the Transition of Care quality improvement project as well as the Site PI of a mixed-methods Investigator- Initiated Research (IIR) grant. As an Associate Professor in the Health System Management and Policy Department in the Colorado School of Public Health at the University of Colorado Denver, she co-directs the Health Services Research PhD program and the Data Science to Patient Value (D2V) Training Core.

Emily Cox-Martin, PhD
Assistant Professor, Division of Medical Oncology, Department of Medicine and Department of Psychiatry
Dr. Cox-Martin received her doctorate in Clinical Psychology with a specialization in Health Psychology from Virginia Tech. She completed her APA clinical internship at the Boston Consortium, and was a National Cancer Institute R25 postdoctoral fellow in Cancer Prevention at the University of Texas MD Anderson Cancer Center. Within the field of Psycho-Oncology Dr. Cox-Martin engages in research at the intersection of cancer and mental health, particularly as it applies to health behavior change and treatment-related sequela (e.g., pain) in cancer survivorship.

Mary Fisher, MPH
Professional Research Assistant, Department of Family Medicine
Mary Fisher, MPH, is the project coordinator for both CCTSI Community Engagement and the SNOCAP Practice-Based Research Networks (PBRNs). Her focus within CCTSI Community Engagement is primarily with supporting the Community Research Liaisons and the Community Engagement Consults & Ethics Committee. Within SNOCAP, Mary works with and among the 5 individual PBRNs, coordinates projects involving SNOCAP practices, co-facilitates Boot Camp Translation work, and works closely with patient advisory groups in both the Denver metro area as well as the San Luis Valley.
**Kelsey Ford, MPH**  
*Senior Professional Research Assistant, Colorado School of Public Health, The mHealth Impact Lab*

Kelsey Ford is a senior professional research assistant within The mHealth Impact Lab, a center for rapid and responsive research of digital health innovations. She has an additional appointment in the Department of Family Medicine, where she works with projects on remote patient monitoring, socio-technical design, and community engagement efforts promoting health information exchange. She has a Master of Public Health degree concentrating in Community and Behavioral Health and a graduate certificate in Human Centered Design and Innovation from Inworks at the University of Colorado Denver. She is a doctoral student in the DrPH program, focusing on mHealth and digital technologies in health promotion.

**Amy Friedman, MA**  
*Chief Experience Officer, Denver Health Hospital*

Amy Friedman is the Chief Experience Officer at Denver Health and serves as a member of the Executive Leadership Team. She provides strategic leadership focusing on initiatives to improve patient and family experience of care to promote a patient and family-centered environment. She established an active Patient and Family Advisory Council at Denver Health and has led the development and implementation of programs to ensure that the voice of patients and families is represented to improve quality of care. Ms. Friedman has extensive customer service experience in the private and public sectors, including serving on the governor’s staff. Ms. Friedman is a member of the Mayor’s Multi-Modal Advisory Committee to support improved transportation for patients and the community at large. She recently partnered with Dr. Romana Hasnain-Wynia, Denver Health’s Chief Research Officer, on a survey to assess how Denver Health patients use information technology for accessing and managing their healthcare. The results of this study will be used to further efforts to engage patients in managing their own healthcare.

**Heather Gilmartin, PhD, NP**  
*Assistant Professor, Dept of Health Systems, Management, and Policy, VA Eastern Colorado Healthcare System*

Dr. Gilmartin is an investigator and nurse scientist at the Denver/Seattle Center of Innovation for Veteran-Centered and Value Driven Care, VA Eastern Colorado Healthcare System, an assistant professor at the University of Colorado, School of Public Health, and adjunct faculty at the University of Colorado, School of Nursing. Her research focuses on understanding and optimizing the culture of healthcare to enhance patient safety and facilitate organizational learning.
Russell Glasgow, PhD  
_President, ACCORDS_  
Director, Dissemination and Implementation Science Program, ACCORDS  
Research Professor, Department of Family Medicine  
VA Geriatric Research Education and Clinical Center (GRECC)  

Dr. Glasgow’s research focuses on issues of designing for implementation and sustainability, adaptations to programs, and pragmatic models and measures. Dr. Glasgow has 15 years of experience in implementation science. He has over 450 peer reviewed publications and has been PI on over 25 grants from the NIH, AHRQ, CDC and the RWJF. He served as Deputy Director of Implementation Science at the National Cancer Institute from 2010-2013.

Allison Gustavson, PT, DPT  
_PhD Candidate, Program in Rehabilitation Science_  

Dr. Gustavson received her doctorate in Physical Therapy from the University of Minnesota and is currently a PhD candidate in the University of Colorado Rehabilitation Sciences Program, under the mentorship of Dr. Jennifer Stevens-Lapsley. Her research interests include 1) exploring the barriers to practice change and the uptake of evidence based practice in post-acute care, 2) developing and refining multi-modal and interdisciplinary interventions to maximize patient outcomes following hospitalization, and 3) employing strategies for implementation and dissemination to post-acute settings nationwide.

Romana Hasnain-Wynia, PhD  
_Chief Research Officer, Denver Health_  

Dr. Hasnain-Wynia oversees Denver Health’s research and sponsored programs through the Office of Research and represents research interests as a member of the Executive Leadership Team. Prior to joining Denver Health, Dr. Hasnain-Wynia served as the director of the Addressing Disparities program at the Patient Centered Outcomes Research Institute where she was responsible for providing strategic oversight and leadership for the program’s funding priorities. Dr. Hasnain-Wynia uses mixed methods approaches in her research and has expertise in designing pragmatic trials in “real world settings.” Recently, Denver Health’s Office of Research partnered with Denver Health’s Chief Experience Officer to conduct a mixed-mode survey to assess whether and how patients use information-technology (IT) for health information access and management. The survey provided information and insight to address a key operational initiative at Denver Health and presented a model for how the Office of Research can support organizational goals.
Jodi Holtrop, PhD, MCHES
Associate Professor, Department of Family Medicine
Senior Implementation Scientist at ACCORDS and the Center on Aging

Dr. Holtrop has extensive experience as an implementation scientist, qualitative and mixed methods researcher, health educator and practice-based research director. She has participated in primary care research for over 20 years, which includes serving as a PI on NIH, AHRQ, and foundation grants and is regularly engaged as co-investigator to lead the dissemination and implementation aspects of studies. Additionally, she is a master certified health education specialist (MCHES) with expertise in patient education and health behavior change, which is applied to intervention development in programs and approaches in a variety of settings.

Amy Huebschmann, MD
Associate Professor of Medicine, Department of Medicine

Dr. Huebschmann's research broadly seeks to improve chronic disease management in primary care, with a focus on designing interventions for dissemination among patients with type 2 diabetes that improve lifestyle behaviors such as physical activity. She has adapted effective methods to screen primary care patients for health risks in response to the different needs of patient and clinic provider end-users (myownhealthreport.org). Dr. Huebschmann has also worked with several partners to promote health equity. This includes the University of Colorado Center for Women's Health Research to identify and address sex differences in cardiovascular outcomes for people with diabetes, and work with colleagues at the University of Colorado San Francisco to understand how better to implement social determinants of health in primary care settings.

Allison Kempe, MD, MPH
Director, ACCORDS
Professor of Pediatrics, Colorado School of Public Health

Dr. Kempe is a tenured Professor of Pediatrics at the University of Colorado School of Medicine and the Colorado School of Public Health. She has extensive experience in health services research and program evaluation during the past thirty years with over 170 publications in areas such as immunization and other preventive care delivery, evaluation of prenatal and neonatal health services, pediatric care delivery methods, and evaluation of state health insurance plans for children of low-income families. She is the Director of ACCORDS (Adult and Child Consortium for Health Outcomes Research and Delivery Science) and was the founding Director of the SCORE Research Fellowship (Surgical/subspecialists Clinical Outcomes REsearch). She has received numerous R01 level grants from NIH, CDC and AHRQ and was the PI on a Center of Excellence in Implementation Science and Prevention funded by AHRQ which formed the basis for the current Dissemination and Implementation Science Program at ACCORDS. She has substantial methodological expertise in pragmatic trials in clinical and community settings, comparative effectiveness, program evaluation, and evaluation of evidence for translation into practice.
Bethany Kwan, PhD, MSPH  
Assistant Professor, Department of Family Medicine  
Director, ACCORDS Education Program  
Dr. Kwan is a social psychologist and dissemination and implementation scientist in the Department of Family Medicine at the University of Colorado School of Medicine. She is an investigator and the education program lead for the Adult & Child Consortium for Health Outcomes Research and Delivery Science, where she conducts patient-centered outcomes research on chronic disease in primary care.

Cari Levy, MD, PhD  
Professor of Medicine, Division of Health Care Policy & Research  
Associate Director, Center of Innovation for Veteran-Centered and Value-Driven Care, VA Health Care System  
Dr. Levy is a Professor of Medicine at the University of Colorado School of Medicine with board certification in geriatrics and palliative medicine. Dr. Levy serves as Director of Palliative Medicine at the Rocky Mountain Regional VA and is current President of the American Medical Directors Association. Her research focuses on innovative models of care for older adults and improving end-of-life care in nursing homes.

Hillary Lum, MD, PhD  
Assistant Professor, Division of Geriatric Medicine  
VA Geriatric Research Education and Clinical Center (GRECC)  
Dr. Lum is a geriatrician, palliative care physician, and health services research. Her work focuses on helping older adults with serious illnesses receive care that is aligned with their preferences. She designs, tests, and implements innovative models for advance care planning and palliative care through primary care, community, population health, or policy-based approaches. She was a 2015-2016 Health and Aging Policy Fellow through which she worked at the Colorado Department of Health Care Policy and Financing.

Dan Matlock, MD, MPH  
Associate Professor, Department of Medicine, Geriatrics  
VA Geriatric Research Education and Clinical Center (GRECC)  
Dr. Matlock is the Director of the Colorado Program for Patient Centered Decisions at ACCORDS. His work is on developing and implementing decision aids for high stakes decisions.
Demetria McNeal, PhD, MBA, CPLP  
*Research Associate, School of Public Health, Rocky Mountain Regional Colorado Healthcare System*

Dr. McNeal is an academically trained health communication scientist with prior corporate healthcare experience as well as clinical experience. As a rising dissemination & implementation scientist, she strives to work with clinics and communities to implement evidence-based sustainable health interventions to address health disparities in diabetes and cardiovascular disease within the African American community. Dr. McNeal has dual appointments; Research Associate in the University of Colorado Adult and Child Consortium for Health Outcomes Research and Delivery Science (ACCORDS) and the School of Public Health, Department of Health Systems Management & Policy, and HSR&D Fellow with Rocky Mountain Regional Health Care System.

Martha Meyer, PhD, MPH  
*Post-doctoral Fellow, D2V*

Martha received her MPH and PhD from University of Colorado, Colorado School of Public Health. She is a health services researcher and has expertise health care policy and economics. Martha is completing her post-doctoral fellowship with the Data Science to Patient Value (D2V) initiative under the guidance of Dr. Mark Gritz, a health economist with the Department of Health Care Policy and Research. Martha has focused her post-doctoral training on cost analysis, specifically micro-costing using time-driving activity-based costing to better understand the actual cost and cost drivers of health care interventions.

Donald Nease, MD  
*Green-Edelman Chair for Practice-Based Research, Vice Chair for Research, Department of Family Medicine  
Director of Community Engagement and Research, Colorado Clinical and Translational Sciences Institute*

Dr. Nease is Associate Professor of Family Medicine at the University of Colorado and Director of the SNOCAP Practice Based Research Network Collaborative. Dr. Nease’s passion is to improve health in partnership with communities, patients, clinicians and their practices. He works this territory from the level of individual interactions to community-to-community and population-based interventions. Dr. Nease is engaged actively in partnering with communities and practices throughout Colorado, with special focuses on the San Luis Valley and Longmont.

Toan Ong, PhD  
*Assistant Professor, Pediatrics*

Dr. Ong is an Assistant Professor at the University of Colorado School of Medicine. He has a PhD in Computer Science and Information Systems. He has been involved in national projects funded by AHRQ and PCORI such as SAFTINet, PEDSNet or pSCANNER. He has extensive experience with linking, designing, harmonizing and loading large-scale healthcare datasets. In pSCANNER, Dr. Ong has been involved in developing secure centralized and distributed identity linkage methods. Dr. Ong’s other research interests are schema mapping, record linkage, data mining and natural language processing.
Noy Phimphasone-Brady, PhD
*Postdoctoral Fellow, Department of Family Medicine, Center on Aging, ACCORDS*

Dr. Phimphasone-Brady currently serve as a postdoctoral fellow in implementation science with the Department of Family Medicine, Center on Aging, and the Adult and Child Consortium for Health Outcomes Research and Delivery Science (ACCORDS). Informed by her background training in clinical health psychology, her program of research centers on the study of implementation strategies and local and cultural adaptations of evidence-based interventions to improve behavioral health (obesity, pain, sleep, smoking cessation, etc.) among disadvantaged and medically underserved populations in both primary care and community settings.

Jenna Reno, PhD
*Research Instructor, Data Science to Patient Value (D2V) Program*

Dr. Reno is completed a postdoctoral research fellowship with ACCORDS after her PhD in Communication with an emphasis in health campaign and message design at the University of Kentucky. Her research aims to investigate the role of an evolving media and technology environment on health promotion. Specifically, she focuses on developing, implementing, and evaluating theoretically based, mHealth specific communication and dissemination strategies to promote positive healthcare decisions and health outcomes. Her research examines mediated, technological, and social influences on health and is guided by interdisciplinary theories, specifically persuasion and behavior change theories that address the role of socio-cultural and information processing factors.

Drew Sayer, PhD
*Instructor, Division of Endocrinology, Metabolism, and Diabetes*

Dr. Sayer received his PhD in Nutrition Science from Purdue University where he received training in randomized clinical trial development and neural control of eating behavior in adults with obesity. He has been working with Dr. Jim Hill as a postdoctoral fellow since 2016 and has gained additional training in long-term randomized trials for weight loss and maintenance as well as community-based participatory research methods. Dr. Sayer’s research interests include studying the socio-environmental factors influencing diet and physical activity behaviors with the goal of developing more effective and pragmatic interventions to treat obesity. His work has been supported by protein commodity groups such as the National Cattlemen’s Beef Association, National Pork Board, and American Egg Board.
Judith Shlay, MD, MSPH  
**Associate Director, Denver Public Health**  
**Professor, School of Medicine**

Dr. Shlay has been working on various programs at Denver Public Health over 30 years. She has been the principal investigator for a number of projects focusing on health promotion and disease prevention, HIV-related metabolic and neurologic disorders, immunization delivery, reproductive health, sexually transmitted infections, substance abuse, teen pregnancy prevention, and tobacco prevention. She co-leads the Center for Addictions Medicine at Denver Health. From 2008 to 2012, she was the PI on two CDC-sponsored grants focusing on the feasibility of offering vaccinations through school-located vaccination clinics and billing health insurance plans for reimbursement. This work involved partnerships between public health, Denver Public Schools, and researchers affiliated with ACCORDS and Kaiser. These studies resulted in addressing the important public health function of improving vaccination coverage using alternative settings, which potentially are sustainable. From 2010 to 2016, Dr. Shlay was the PI on an Office of Adolescent Health Tier 2 grant. This randomized controlled trial assessed the use of social media to enhance the impact of the Teen Outreach Program. Partnerships included Denver Public Health, The Boys & Girls Club of Metro Denver and the Colorado School of Public Health.

Jeanette Waxmonsky, PhD  
**Associate Professor, Department of Family Medicine**

Dr. Waxmonsky is the Director of Research Innovation at Jefferson Center’s Office of Healthcare Transformation, and an Associate Professor in the University of Colorado Department of Family Medicine and the Colorado School of Public Health. Her research focuses on community based, integrated healthcare services. She has 15 years of experience in conducting research on the implementation and sustainability of integrated behavioral and medical healthcare interventions for low-income, minority, and vulnerable populations. She has expertise in the implementation and evaluation of integrated care interventions for psychiatric disorders and medical comorbidities, and in the use of evidence based implementation strategies to improve the uptake of evidence-based behavioral health practices.

Matthew Wynia, MD, MPH  
**Director, CU Center for Bioethics and Humanities**

Dr. Wynia is Board certified in Internal Medicine and Infectious Diseases, with additional training in public health and health services research. He led the Institute for Ethics at the American Medical Association for 15 years and founded its Center for Patient Safety before moving in 2015 to become the Director of the University of Colorado’s Center for Bioethics and Humanities (CBH). Dr. Wynia has led national projects on issues including public health and disaster ethics; ethics and quality improvement; communication, team-based care and engaging patients as members of the team; and medicine and the Holocaust. He leads the Stakeholder Engagement Core for the Data Science to Patient Value (D2V) Program.
Learning happens best when applying new content to your own work. As the workshop begins, please take a moment to identify at least one project you are working on that may be relevant to Designing for Dissemination. **Label the project(s) with a brief name** so that you can refer to them in the workbook throughout the workshop. You may come up with new ideas or refine existing ideas — feel free to come back and add to the list throughout the day. For each project, provide a brief description of what the **research products** may be (e.g., the knowledge produced, the devices, materials, or programs developed) and who the **end users** of the research products may be.

### My Project List

<table>
<thead>
<tr>
<th>Project Name</th>
<th>Research Products</th>
<th>Potential End Users of the Research Products</th>
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DESIGNING FOR REAL-WORLD IMPACT

Plenary Address by Dr. Borsika Rabin

**Title:** Designing Interventions for Real-World Impact: A Conceptual Background

**Learning objectives:**
- Identify terminology, theoretical underpinnings, and conceptual models of Designing for Dissemination (D4D)
- Define common Processes, Outcomes, and Products related to D4D

**Strategies for D4D:**
1. Plan for dissemination from the start
2. Engage your target users
3. Select and apply theoretical models
4. Use learnings from the Diffusion of Innovations literature and Social marketing
5. Select measures that work and matter in the ‘real world’
6. Select designs that allow you to evaluate ‘real world’ performance
7. Use an iterative approach to develop your intervention/products
8. Package your intervention to support future adopters

**Advanced discussion topics:**
- How D4D is different from Dissemination science?
- How does D4D differ from D4I and D4S? Do these differ substantially?
- What are some additional D4D strategies?
- How do we measure the impact of D4D and whether D4D is successful?
Dissemination of an Electronic Health Record Linkage Software Solution Using an Animated Explainer Video

Toan Ong, PhD
Assistant Professor, Pediatrics

The advancement of translational data science may benefit from the dissemination of methods for the design of materials to communicate value propositions and scale-up use of novel healthcare informatics tools. We present a process for disseminating an electronic health record linkage software called CU Record Linkage (CURL) for linking patient health records from disparate systems (e.g., clinical and claims data). A 4-minute animated explainer video will be the final product to be used as part of a workshop for investigators and data managers to tell the story of key functionalities and solutions provided by CURL. Three phases have comprised the video creation process including dissemination planning, animation prototyping, and video development. Phase 1 consisted of outlining a plan for the design of the dissemination materials, including identifying goals and a target audience for the dissemination effort. Phase 2 involved posting a job solicitation on Upwork, a global freelancing platform where businesses and independent professionals connect and collaborate remotely. Phase 3 has begun for final development of the video. The storyboard and mock-ups created during Phase 1 were shared with our contractor and used to craft a script that links animation/images to text/audio for each time block of the video.

Chronic Pain Management in Cancer Survivors: Tales of a D&I Newbie

Emily Cox-Martin, PhD
Assistant Professor, Division of Medical Oncology, Department of Medicine and Department of Psychiatry

There are over 15 million cancer survivors in the United States, a number that will only increase over the next decade. As this population grows, it is imperative to address the late effects of their diagnosis and related treatments. Nearly 40% of cancer survivors experience chronic cancer-related pain, which can last for more than a decade after active treatment has ended. Psychological interventions have proven to be efficacious for non-malignant chronic pain; however, many of these have yet to be tested for clinical effectiveness and implementation in cancer survivors. The objective of this study is to investigate the clinical effectiveness and implementation potential of Acceptance and Commitment Therapy (ACT) for chronic pain in cancer survivors seen in an oncology setting. Key areas of exploration include the core and adaptable components of ACT for the target audience as well as determine acceptability, feasibility, and fidelity outcomes in the service setting. Qualitative methods will be used for improved patient engagement in the research process and to evaluate the key concepts of ACT that align with cancer survivors needs. Results of this study will enhance our knowledge of the clinical effectiveness of this psychological intervention for cancer related chronic pain, target factors that will influence the adoption and sustainability of ACT for cancer survivors, and provide preliminary information to improve the dissemination of this intervention.
**Transforming Rehabilitation in Skilled Nursing Facilities**

Allison Gustavson, PT, DPT, PhD(c)

*PhD Candidate, Program in Rehabilitation Science*

Skilled Nursing Facilities (SNFs) provide short-term, rehabilitation services to older adults post-hospitalization. However, recovery of physical function during a SNF stay remains inadequate under usual care and may be a major reason that 63% of SNF patients discharge to institutionalized settings and incur greater costs. Currently, SNF rehabilitation is conducted at low-intensity doses that are unlikely to confer significant gains in physical function. However, specific barriers exist to providing high-intensity rehabilitation in SNFs including: regulatory constraints, treatment time limitations, lack of leadership involvement in care quality, and the absence of clinical advocates of change. These barriers perpetuate the knowledge gap between current clinical practice and best practice, providing an opportunity to shift rehabilitation approaches. To promote a cultural shift in SNF rehabilitation, we designed the “IntenSive Therapeutic Rehabilitation for Older Skilled NursinG HomE Residents” (I-STRONGER) program to address the needs of SNF patients while complying with current rehabilitation reimbursement regulations. I-STRONGER integrates evidence-based principles of physiologic tissue overload (i.e., high-intensity) into rehabilitation interventions, while utilizing concepts from PRISM to address previously documented barriers to cultural change. The implementation of I-STRONGER will be evaluated using the RE-AIM framework. Using designing for dissemination strategies (e.g., integrating techniques to improve health care; disseminating evidence-based practices to target audience) to promote effective rehabilitation approaches has the strong potential to reduce rising healthcare costs by lowering hospital readmissions and rates of discharge to costly, institutionalized settings.

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**Industry-Sponsored Nutrition Research: Biased Market Research or Valuable Public-Private Partnerships?**

Drew Sayer, PhD

*Instructor, Division of Endocrinology, Metabolism, and Diabetes*

The role of the food industry in funding nutrition research is one of the field’s most contentious issues. Differing hardline opinions on the issue have led to the formation of two distinct “camps” among nutrition scientists; one viewing industry-sponsored research as inherently biased with no legitimate role in nutrition research and the other arguing that we must foster industry partnerships to alter the food supply and positively impact nutrition-related diseases. Regardless of the camp to which one belongs, it is readily apparent that industry sponsors have a vested interest in the outcomes of the research studies they fund and desire particular messages to disseminate to the public at their conclusion. In this respect, industry-sponsored nutrition research epitomizes designing for dissemination. This fact necessitates careful consideration of research questions and study designs as well as the management of conflicts of interest to ensure that industry-sponsored nutrition research is scientifically sound and transparent to the public, clinicians, and fellow academics. If properly and transparently designed and conducted, industry-sponsored nutrition research has the potential to positively impact the field of nutrition science and inform public health initiatives to prevent and treat nutrition-related diseases.
Fostering Co-learning: Stakeholder Engagement to Inform Cultural Adaptations and Identify Dissemination Strategies

Noy Phimphasone-Brady, PhD

Postdoctoral Fellow, Department of Family Medicine, Center on Aging, ACCORDS

Despite national efforts to disseminate effective obesity management interventions, such interventions are not broadly implemented and disseminated among Latina women with binge eating disorder (BED), a group who are less likely to seek treatment for obesity or BED. To better understand innovative strategies that align with the needs of this vulnerable group, we partnered and interviewed Latinas with BED (i.e., key stakeholders), in order to learn how to culturally adapt an evidence-based behavioral weight loss (BWL) program to address obesity and binge eating. We also sought to identify key strategies for dissemination in the future with community lay health advisors. Our stakeholder engagement process included building long-term relationships with community organizations and recognizing the community as a strength. Our community relational strategies yielded interviews with 20 Latinas with BED (Age = 30 ± 9.87 years, Body Mass Index = 34.40 ± 6.64 Kg/m2, Binge eating episodes/month = 4 ± 4.92 [data shown as mean ± SD]) in a focus group to determine how to culturally adapt an evidence-based BWL program. Qualitative results revealed a cultural understanding of barriers and facilitators to manual acceptance and sustainability, and key dissemination roadblocks and entrances. Our findings illustrate the strength of maintaining relationships with community organizations, in order to engage with key stakeholders to improve interventions’ acceptability and sustainability for culturally distinct groups. When designing for dissemination, stakeholder engagement is critically important from project beginning to end.

Notes:
DESIGNING FOR CONTEXT

Roundtable Discussions with D4D Experts

**Session Structure:**

Participants will brainstorm and share methods for integrating methods for assessing and addressing contextual and setting characteristics in their research. Facilitated conversations will help participants identify new methods they want to explore in the Concurrent Small group sessions.

**Learning objectives:**

- Understand others’ experiences in D4D within different contexts and target audiences
- Describe both common and unique/Kay D4D issues within these contexts
- Explore strategies for D4D and ways to overcome challenges in this setting

What strategies can be used in “designing for dissemination” for this context and target audience?

What are the unique D4D issues in this context that may not be present in other contexts?

What are the strategies presented to address the unique needs and perspectives of this context?
Title: Dissemination and Implementation Research: Optimizing the Success of Health Care

Learning Objectives:

- To describe integration of Dissemination and Implementation Science into the national research agenda
- To describe the rationale for how Designing for Dissemination fits into the research process at all stages (e.g., precision medicine, learning health system)
- To describe how development of an “adaptome” and dynamic sustainability framework can enhance design and implementation of research products

Notes

Thought questions to consider relevance to your own work

What would you consider to be core components of your intervention, program, or other research product? What adaptations might be needed to fit the context and audience for your work? What adaptations are needed to ensure feasibility and sustainability in target settings and audiences. Reflect upon what you considered in the Designing for Context session. On the next page, using the Adaptations Brainstorming to think about the ways in which your project could be adapted to your target context and audience.
My Project:

Core Components

What adaptations are needed to ensure your products are designed for dissemination and sustainability?

Cultural Adaptations

Mode of Delivery Adaptations

Target Audience Adaptations

Service Setting Adaptations

In the concurrent sessions, participants have the opportunity to attend up to three presentations on methods and approaches consistent with the goal of Designing for Dissemination.

**Learning Objectives:**

After participating in the session, participants will be able to:

- Describe key steps in applying the method to design of interventions, materials, and communication of findings
- Describe the intended purpose and appropriate applications of the method
- Describe the product(s) that can be expected to emerge from use of the method

On the next page, you will find a Methods Brainstorming Matrix to help you track ideas and opportunities for applying the methods to your own work. Refer back to your project list. As presenters describe appropriate applications of the method, for which projects might the method be appropriate for understanding the needs and valued outcomes of your potential end users, and designing products that fit the context in which the products will be used?

Note which methods have promise for your work, how you might use the method (and at what point in your program of research), what types of products it might inform, and what resources are available to help you implement the method. Upon completion of this session, you may have a sense of which method(s) would be a great fit for your work—or you may want to explore other options. These are just a small sampling of methods and many others, and variations on the themes, exist. We encourage you to review the resources provided and seek consultation with the many local D&I resources to select the method(s) most appropriate for your work.

<table>
<thead>
<tr>
<th>Room #</th>
<th>202</th>
<th>204</th>
<th>304/305</th>
<th>Shore Family Forum</th>
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<tbody>
<tr>
<td>Project</td>
<td>Purpose</td>
<td>Resources</td>
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<tr>
<td>Example</td>
<td>Design materials to disseminate evidence on new sepsis guidelines with nurses</td>
<td>CCTSI Boot Camp Training, Boot Camp Manual</td>
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<tr>
<td>Example</td>
<td>Flyers and a social media campaign targeting nurses</td>
<td>CTSI Boot Camp Training, Boot Camp Manual</td>
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Example: Sepsis Guidelines for Nurses
Primary Aim of the I-Corps@CCTSI program:
Teach innovation teams a structured and repeatable methodology for enhancing customer discovery, clarifying value propositions and developing a business model hypothesis. I-Corps Team can expect to:

- Build an entrepreneurship culture that embraces “adapt and pivot” of an idea, service or product offering— a pivot is not a failure.
- Increase the success rate for follow-on funding: SBIR/STTR grants, other incubator and pilot funding.
- Ultimately, create greater impact of our translational research innovation.

I-Corps is the first program to apply lean-startup up principles to complex engineering, technology, and science-based startups. Utilizing the Business Model Canvas™ as the learning template, I-Corps teams are educated across each segment of the business model however the emphasis of the course is to “get out of the building” by talking and listening to targeted customers through the customer discovery process.

**Business Model Canvas™ definitions:**
- Key partners – the network of suppliers/partnerships that bring in external resources and activities.
- Key activities – most important activities that need to be performed well.
- Key resources – most important assets required to offer and deliver the value proposition.
- Value propositions – a clear statement that explains how your product/service creates value for a customer segment.
- Customer relationships – outlines what type of relationship is established and maintained with each customer segment.
- Channels – the way in which a value proposition is communicated and delivered to a customer segment.
- Customer segments - groups of people a company aims to reach and create value for with a dedicated value proposition.
- Cost structure - all costs incurred to operate a business model.
- Revenue streams – how an organization captures value with a price that customers are willing to pay.
I-Corps @ CCTSI Short Course Design

Fall 2018 program in-class dates: October 18, 19 and November 9, 2018.
Spring 2019 program in-class dates: April 11, 12 and May 3, 2019.

Short Course Delivery
Customer Discovery: Target 30 interviews.
Course culture: Developed by entrepreneurs. Limited time. Direct, open and tough feedback. Friendly “Shark Tank”.

Required text: *Business Model Generation; Value Proposition Design*

Team time commitment
In-Class: Approx. 20 hours. Out-of-the Office: Approx. 40 hours (30 interviews and weekly office hours).
Classroom deliverables:
- Interviews: minimum of 30 customer discovery interviews
- Team workshops
- Presentations: 2 team presentations (opening and closing session)
- Participation in weekly office hours

Targeted Learning Audience: Teams with an innovation idea starting or refining their business proposition.

<table>
<thead>
<tr>
<th>CCTSI Innovation Training</th>
<th>Level of Training</th>
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<tbody>
<tr>
<td><strong>Introductory</strong></td>
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<tr>
<td>Individual</td>
<td>• BEST Bioentrepreneurship Workshop</td>
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<td>• CU Innovations seminars</td>
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<td>Team</td>
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<td></td>
<td>• I-Corps@CCTSI</td>
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<td></td>
<td>• CU Innovation Fellowship</td>
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<td>• Bioentrepreneurship Graduate Certificate</td>
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<td>• National I-Corps™ (NIH/NSF)</td>
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<td>• StartUp Health Colorado Academy</td>
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Presenters:
Demetria M. McNeal, PhD, EMBA, CPLP
Research Associate
Adult and Child Consortium for Health Outcomes Research and Delivery Science (ACCORDS) School of Public Health, Health System, Management & Policy
demetria.mcneal@ucdenver.edu

Dan Holtrop, MA
Sr. Professional Research Assistant
Colorado Clinical & Translation Sciences Institute (CCTSI)
daniel.holtrop@ucdenver.edu

References:
CU CCTSI I-Corp: http://www.ucdenver.edu/research/CCTSI/programs-services/icorpsatccsi/ Pages/default.aspx
NSF I-Corp: https://www.nsf.gov/news/special_reports/i-corps/
Message Development and Testing: Designing for Social Media
Jenna E. Reno, PhD; Data Science to Patient Value (D2V), University of Colorado Denver

Message design is the process of connecting insights about the priority audience with key information the audience needs to know in order to make the change the program desires. Successful, well-designed messages are simple, memorable, easily understood, culturally appropriate, and meaningful to the audience.

**Message Development Processes**

1. Specify call to action (desired behavior, health decision, outcome)
2. Determine relevance of target audience members’ facilitators/barriers (formative research)
3. Identify applicable health communication or behavior theory (if any)
   a. Use theory tenants/components to guide message development
   b. Verify content validity (e.g., reference theory experts, manipulation checks)
4. Identify appropriate social media sites/apps and message packaging (e.g. text only, image + text, infographic, gif, video, hashtags, etc.)
   a. Consider target audience when choosing social media channel
   b. Message packaging (static, animated, video, etc.) choices should consider:
      i. Financial/design resources
      ii. Message clarity
      iii. Message source
      iv. Message engagement
5. Approach design process iteratively
   a. Get feedback from experts and target audience members
6. Process Evaluation and Outcome Evaluation

**Resources required:**

- Time: 1-6 months
- Expertise: health comm or behavior theory, health literacy, social marketing, advertising
- Materials/Resources: varies based on design/dissemination plan; may include:
  - Graphic design(er)
  - Web developer/programmer
  - Marketing/advertising/PR professionals

**Strengths of the method:** Theory or evidence-based message design builds on previous research for identifying what works (or perhaps what doesn’t).

**Caveats or limitations of the method:** Thorough formative research and message pre-testing is time and money intensive but can lead to greater message impact.
Extended Parallel Process Model (Witte, 1992) aka How to Use Fear Appeals

<table>
<thead>
<tr>
<th>Audience</th>
<th>Audience Characteristics</th>
<th>Desired behavior</th>
<th>Barriers</th>
<th>Facilitators</th>
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</thead>
<tbody>
<tr>
<td>1. Latinx Parents of Adolescents (ages 11-17) 2. Latinx Young Adults (ages 18-26)</td>
<td>1. Decision-makers; Higher rates of HPV related cancers 2. Decision-makers; Higher rates of HPV related cancers</td>
<td>1. Get more information about HPV vaccines à get vaccinated. 2. Get more information about HPV vaccines à get vaccinated.</td>
<td>1. Lack of knowledge/concern about HPV 2. Lack of knowledge/access</td>
<td>1. Care about children's long-term health 2. Care about their short-term health</td>
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</table>

**Key Promise**

The HPV vaccine lowers your chances of getting (certain types of) male and female cancers.

- The HPV vaccine effectively prevents high-risk strains of HPV.
- Most Americans will be exposed to HPV at some point in their life.
- HPV also causes genital warts.

**Support Points**

Educate yourself on how to prevent cancer and/or genital warts by getting the HPV vaccine.

**Message**

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**Example: A Simple Message Design Project for HPV Vaccine Promotion as Cancer Prevention**

<table>
<thead>
<tr>
<th>External Stimuli</th>
<th>Message Processing</th>
<th>Outcomes</th>
<th>Process</th>
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<tr>
<td>MESSAGE COMPONENTS</td>
<td>PERCEIVED EFFICACY (Self-efficacy, Response Efficacy)</td>
<td>Protection Motivation</td>
<td>Adaptive Changes</td>
</tr>
<tr>
<td>Self-efficacy</td>
<td>PERCEIVED THREAT (Susceptibility, Severity)</td>
<td>No Threat Perceived (No Response)</td>
<td>Adaptive Changes</td>
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<tr>
<td>Response efficacy</td>
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<tr>
<td>Susceptibility</td>
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<td>Severity</td>
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<td>Maladaptive Changes</td>
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**Messages:**
- Most Americans will be exposed to HPV by the time they turn 25. Nearly 90% of genital wart cases can be prevented by getting vaccinated for HPV. Click here to find out what you need to know about HPV.
- This year 4,100 women will die from cervical cancer. The HPV vaccine is 98% effective at preventing infections that cause cervical cancer. Click here to get answers to your questions about HPV.
- HPV is a harmful disease. Click here to get more info.

**Additional Readings:**

- How to Design SBCC Messages. TheHealthCOMpass.org
Martha Meyer, PhD, MPH | Data Science to Patient Value (D2V) Post-Doctoral Fellow

**Why** measure cost for your next health care intervention? Because the cost of delivering care is the ultimate driver of health care spending. A lack of understanding of the true costs (in distinction from charges) of health care delivery poses a challenge for demonstrating the project value or if the project is sustainable.

*In the news recently. The actual cost for a knee replacement was $10,550 at Gunderson Health System in La Crosse WI: the list price was $50,000 in 2016.*

**What** can you do? Measure the actual cost of your intervention using a well-known method from industry called time-driven activity-based costing or TDABC. TDABC is a micro-costing tool designed by Kaplan and Anderson. It only requires two parameters: 1) time used related to the intervention; and 2) the cost per time unit (e.g. personnel, supplies, treatment).

**When** to use TDABC? To measure actual cost for a new procedure or process, identify cost variation, or improve value for patients.

**How** to apply TDABC. The key TDABC steps are as follows:

1. Design phase
   - Determine the intervention level (patient, procedure, practice) and the cost perspective (system, insurer, society).
   - Determine availability of cost data and level of analysis for your intended audience.
   - Process map the current system or work flow (e.g. patient flow through clinic).

2. Study or implementation phase
   - Measure and/or observe the activity (e.g. RN chart review time, call time).
   - If direct observation is not possible, use reported average time for each step in the process map.

3. Analysis or summary phase
   - Obtain and calculate cost (e.g. RN salary, benefits, exam room).
   - Consider direct cost and indirect cost/allocated cost.

4. Report out phase
   - Tailor your results to the audience (e.g. practice manager, CFO, community leader) and show the cost and saving associated with your intervention.
   - Expand into additional analysis: cost-benefit analysis (CBA), cost-effectiveness analysis (CEA), or return on investment (ROI).

**What** are the alternatives approaches to assess costs? There are two approaches to measure cost or the resources utilization: Macro-costing or gross costing is a broad top-down method and micro-costing (TDACB) is a specific bottom-up method. The micro-costing estimation provides the true costs to the healthcare system of the intervention. Whereas, Macro-costing approach to costing generally uses charges or reimbursement amounts to estimate the average cost of events or units.
When TDABC may not be the best option and possible alternatives:

- Limited study time and resources. Activity observation can be time and labor intensive. Alternative: use average reported time or work Relative Value Units (wRVU) for billable procedures.
- Unable to obtain direct cost (supplies, equipment). Alternative: list price from supplier.
- Unable to obtain indirect cost or allocated cost cannot be determined at the level of the intervention. Alternative: use an average and estimate to the intervention level.
- Intervention is at the system level. Alternative: use average cost available at CMS, the macro-costing method.

Resources and assistance available to help you.

- Technical Assistance can be found on the D2V website under the Tools & Resources tab. [http://www.ucdenver.edu/academics/colleges/medicalschool/programs/d2v/Pages/D2V.aspx](http://www.ucdenver.edu/academics/colleges/medicalschool/programs/d2v/Pages/D2V.aspx)

- References and examples:

- Recommended readings on the TDABC method from Harvard Business Review: [https://www.isc.hbs.edu/health-care/vbhcd/Pages/TDABC-Recommended-Readings.aspx](https://www.isc.hbs.edu/health-care/vbhcd/Pages/TDABC-Recommended-Readings.aspx)

User-Centered Design: Designing Engaging Technology

Kelsey L. Ford, MPH1,2,3, Susan L. Moore PhD, MSPH2,4,5, Sheana Bull, PhD, MPH1,2

1University of Colorado Anschutz Medical Campus, 2Colorado School of Public Health - The mHealth Impact Lab, 3Inworks – University of Colorado Denver, 4Denver Health, 5Adult and Child Consortium for Health Outcomes Research and Delivery Science (ACCORDS)

<table>
<thead>
<tr>
<th>Term</th>
<th>Definition</th>
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<tbody>
<tr>
<td>Design Thinking</td>
<td>Method for the practical, creative resolution of problems using the strategies designers use during the process of designing</td>
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<tr>
<td>User-centered Design</td>
<td>Framework of processes in which usability goals, user characteristics, environment, tasks and workflow of a product, service or process are given extensive attention at each stage of the design process</td>
</tr>
<tr>
<td>Human-centered Design (HCD)</td>
<td>Design and management framework that develops solutions to problems by involving the human perspective in all steps of the problem-solving process</td>
</tr>
<tr>
<td>User Experience/User Interface (UX/UI)</td>
<td>User interface design or user interface engineering is the design of user interfaces for machines and software, such as computers, home appliances, mobile devices, and other electronic devices, with the focus on maximizing usability, navigability, and the user experience</td>
</tr>
<tr>
<td>Digital Behavior Change Interventions (DBCIs)</td>
<td>Digital health solutions using mobile apps, SMS (text) messages, wearable and ambient sensors, social media, and interactive websites to improve health by supporting behavior change</td>
</tr>
<tr>
<td>Behavior Change Techniques (BCTs)</td>
<td>“Active components” or constructs operationalized in an intervention to test and validate behavior change theories</td>
</tr>
</tbody>
</table>

Human-centered Design Principles & Descriptions

<table>
<thead>
<tr>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Empathize</td>
</tr>
<tr>
<td>Define</td>
</tr>
<tr>
<td>Ideate</td>
</tr>
<tr>
<td>Prototype</td>
</tr>
<tr>
<td>Test</td>
</tr>
</tbody>
</table>
User-Centered Design: Designing Engaging Technology

User-experience – 101 Key Takeaways

- **Promote usability & navigability.**
  - Usability Models (PACMAD & Extended PACMAD)
  - “Don’t Make Me Think” – Steven Krug

- **Health communication matters.**
  - Message framing, literacy-level
  - Language diversity

- **Simple design.**
  - Too much text = gets ignored
  - Distill interfaces to main elements
  - Visual grammar

- **Narrative design.**
  - Storytelling to structure content from:
    - Critical material →
    - Background & context →
    - Nice to have

- **Diversify your content.**
  - Videos, activities, images, icons
  - Create “call to actions” on every screen

- **Interoperability with other commonly used apps.**
  - Think beyond individual-focused, specific disease state
  - Use Application Programming Interfaces (API)
  - Think: Syncing to Google Maps, Outlook, MyFitnessPal

Notes:
### Achieving rapid and efficient development

**Description**
- Consider adopting methods from engineering and other data-intensive domains in the development cycle.
- Use Bayesian and related approaches to improve the predictive modeling capabilities of DBCIs.
- Leverage advances in data science such as machine learning, but ensure that human input is retained as needed.

**Methods**
- Agile Science
- Bayesian and related approaches
- Predictive modeling
- Data Science & machine learning
- Streamline research protocols
- Rapid recruitment, online methods

### Understanding and promoting engagement

**Description**
- Specify and establish empirically what constitutes “effective engagement” for each DBCIs, that is, sufficient engagement to achieve the intended outcomes.
- Identify and develop valid and efficient combinations of objective and subjective measures to build and test multidimensional models of engagement.
- Develop DBCIs with a person-centered and iterative approach, using mixed methods to progressively refine the DBCI to meet user requirements.

**Methods**
- Theory-based not theory-informed
- Measure macro-engagement (BCTs)
- Differentiate from micro-engagement (swipes/clicks)
- Build and test multidimensional models of engagement
- Mixed methods, iterative user-testing

### Advancing models and theories

**Description**
- Use the large amounts of real-time, ecologically valid data generated by DBCIs to test and advance models and theories of behavior change.
- Develop methods able to efficiently analyze large, complex data sets to test dynamic theoretical propositions and allow personalization of DBCIs.
- Specify the circumstances in which a proposed mechanism of action of a DBCI will produce a targeted effect and build an ontology to organize knowledge resulting from this.
- Develop DBCIs using a modular approach.
- Support interdisciplinary research collaborations and transdisciplinary thinking.

**Methods**
- Ecological Momentary Assessments (EMAs)
- Just-in-time-adaptive interventions (JITAIs)
- Operationalize BCTs in modular approach to apply and validate theory
- Behavioral Intervention Technology (BIT) model
- Academic-industry partnerships

### Evaluating effectiveness

**Description**
- Evaluate at all phases in the development cycle.
- Design evaluations for generalizability.
- Use methods of DBCI evaluation that capitalize on their unique characteristics.
- Use features of DBCIs to optimize control and access rich data streams.
- Choose comparators that minimize contamination.

**Methods**
- Alternatives to RCT
- Multiphase optimization strategy (MOST) framework
- Micro randomized controlled trials (mRCTs)
- Sequential multiple assignment randomized trial (SMART)

### Evaluating cost-effectiveness

**Description**
- At every stage, including concept development, identify all the relevant future costs and benefits.
- Take account of projected uptake as well as reach.
- Select a modeling framework appropriate for the complexity of the projection.
- Separately evaluate societal, personal, and health care cost-effectiveness.

### Ensuring regulatory, ethical, and information governance

**Description**
- Ensure compliance with appropriate ethics or institutional review board processes.
- Identify and adhere to regulatory processes that may be required for digital medical devices.
- Ensure compliance with national standards for data handling, sharing, and interoperability, where appropriate.
- Provide clear and transparent information on how data from the intervention will be used and shared.
Resources

- Human-centered Design
  ◊ Workshops, courses, certificate programs offered at Inworks (https://inworks.ucdenver.edu/w/)
  ◊ Inworks is an initiative of the University of Colorado Denver | Anschutz Medical Campus that draws together faculty, staff and students from across the two campuses, as well as entrepreneurs and leaders from industry, government, education and the community, to address problems of importance to human society.
  ◊ Our mission is to impart skills and habits of mind that allow people to collaboratively create impactful solutions to human problems.

- The mHealth Impact Lab
  ◊ Our mission is to facilitate the rapid and rigorous development, implementation, and evaluation of mobile and digital technology for health promotion and disease prevention that address inequities in health outcomes https://mhealthimpactlab.com/our-work/

- Designing Digital Health Interventions – special series

- Creative Methods for Idea Generation in Communities
  ◊ Google Design Sprint Kit – free online toolkit outlining design thinking phases (e.g., Understand, Sketch, Decide, Prototype, Validate) and resources/activities to innovate around a problem space. https://designsprintkit.withgoogle.com/

- Agile Manifesto
  ◊ Rooted in computer science principles, the Manifesto highlights the need for incremental, deliberate, and iterative process to designing software for users. http://agilemanifesto.org/
What is Brainwriting?

Brainwriting is when a group of people get together and write out ideas on a specific topic. The process involves people writing ideas onto a sheet of paper, then passing the paper to other members of the group. Participants are given time to read, reflect and expand on each other’s ideas. The goal of passing papers is to share ideas, trigger new ideas, and prompt innovative and out-of-the-box thinking.

Why use the Brainwriting Approach in Participatory Research?

The brainwriting process is similar to brainstorming in that ideas are being generated and shared in a group. However, the brainwriting process allows for all voices to be heard for no one has to wait their turn or worry that their idea might not be good enough to share. It also minimizes the risk of certain people dominating the conversation or taking the group off topic. A brainwriting session can be hosted by one person and data collection is easy. The participants do all the documentation, so there is no need for recording devices or notetaking. A limitation of the method is the requirement for competency in using written language.

What is a Premortem?

A premortem is the hypothetical opposite of a postmortem. In public health, a postmortem allows a team to learn what caused a patient’s death. Everyone benefits, except the patient. The same idea can be translated to research. A premortem in research planning comes at the beginning rather than the end, so that the research plan can be adapted and improved rather than autopsied. Unlike a typical problem identification session in which participants are asked what might go wrong, the premortem pretends/assumes that the research program has been implemented and failed and so asks what did go wrong. The stakeholder’s task is to generate plausible reasons for the failure.

When should you use the Brainwriting Premortem Approach?

A brainwriting premortem approach is perfect when designing for translation, such as with a recent transitions of care program that was expanded to 11 VA medical centers. The method engages participants to learn what real or potential barriers exist with a project. Many people are reluctant to speak up about concerns during the planning stages because they think it’s already a done deal and don’t want to rock the boat. By making it safe for dissenters who are knowledgeable about processes and practices to share their concerns, you can improve a projects chances of success. After these barriers are identified, the research team can review the written information and look for ways to strengthen or adapt the program. This may lead to another brainwriting session that targets specific issues.

Materials and Set-up

Materials:

1. Multiple pens of the same color
2. Multiple sheets of blank paper (write on top of each page, “Why did the program fail?”)
3. Sign-in sheet (name, role in the organization or community), if desired

Set-up:

1. Schedule approximately 1 hour for the session:
   a. Program briefing (30 minutes)
   b. Brainwriting premortem exercise (10 minutes)
   c. Debriefing (20 minutes)
2. 4-10 participants per table
3. Place 4-10 chairs around a single table
4. Put plain white paper in the center, equivalent amount to two times the number of participants
5. Place a pack of pens in the center of the table
Brainwriting Premortem Steps

**Step 1:** Introduce the program being implemented. Allow time for questions before beginning the activity.

**Step 2:** Introduce brainwriting premortem activity using the script guide:

- We want to get your thoughts on the program we've been discussing. To do this, we are going to start an activity called a brainwriting premortem. This process is going to be different than a traditional group brainstorming activity where everyone shouts out ideas and I write them on a board. We are using a silent, written brainstorming activity. You will be writing out your ideas and then pass the papers to others, so people can agree or expand on them. This is about getting your insights, so we can strengthen or adapt this program.

- To set the stage, I want you to imagine that the program has been running in your organization for about a year, and it’s been a huge failure. It’s not been producing the promised results. People are not happy about any part of it. We want you to imagine that the program failed so we can identify how to address these failure points proactively.

- I want you to write out specific reasons why the program failed. What aspects of your organization/community made it fail? What aspects of the population made it impossible to be successful? Who dropped the ball? Where were the issues in the system that made this program crash and burn?

- Each of you will start off with a piece of paper. You will have 10 minutes to work. Begin with writing as many reasons why the program failed that pop into your head. When you run out of ideas, put your paper in the center of the table and select a page that someone else has been working on. Read everything on the paper and add to someone else's idea or start a new one. This is a group effort, so you can and should build off each other’s ideas.

- As you are reading other ideas, if you see an idea that you agree is important, but you can’t expand on it, put a check next to it. If you see an idea you disagree with – write out why. You can then start a new idea, or you can continue writing about the failure point -- go deeper.

- After the 10 minutes is up, I’ll collect the papers. The group can discuss or debrief as time allows. Our goal is to use this information to strengthen or adapt the program. I may be reaching out to you again to identify solutions to some of these issues. However, if you have anything particular to share, please contact me directly.

- To give you space to be fully honest and open, we will only be reporting the data from the group, not from individuals. We hope you will dig deep into your daily experiences of working in this organization/community. Be creative, there is no such thing as a bad idea. Though you may be the first to think of something, it may be real to everyone else in the room.

**Step 3:** Start brainwriting premortem activity. The facilitator’s role is to keep people writing!

**Step 4:** Collect papers and allow group to debrief with each other as needed. You can present the results back to the group at the next meeting and ask them to brainwrite ideas on how to address the barriers identified

**References and Resources:**

To set the stage, I want you to imagine that the program has been running for about a year, and it’s been a huge failure.

I want you to write out specific reasons why the program failed.

Begin with writing out as many ideas that pop into your head.

When you run out of ideas, put your paper in the center of the table. Grab a page that someone else has been working on and read through it. If it prompts more ideas – keep writing!

Thank you. We will use this information to help us adapt and strengthen our program.

The protocol was produced as part of a Veterans Health Administration funded study. Reprinted by permission: Heather M. Gilmartin, Denver-Seattle Center of Innovation, VA Eastern Colorado Healthcare System, May 23, 2018. heather.gilmartin@va.gov
What is Boot Camp Translation?

A process by which academic researchers and staff and community members partner to translate evidence-based medical information and jargon, and clinical guidelines into concepts, messages, and testable interventions that are locally relevant, meaningful, and engaging to community members.

Why do Boot Camp Translation?

- Medical jargon and concepts may not be meaningful to community members and patients.

- Strategies are needed to improve the lack of meaningful conversations between patients and providers about health and treatment options — and lack of action on recommendation.

- Patients and community members who better understand the relevance of a health condition are better prepared to discuss the issue and more motivated to take action.

- Change the local conversation about the health issue.

Boot Camp Translation and the Patient-Centered Care

Boot Camp Translation (BCT) was developed by the High Plains Research Network Community Advisory Council in rural eastern Colorado. BCT addresses the core concepts of patient-centered care by addressing one of the barriers to advancing the quality of care in the United State. Specifically, the process maintains the scientific integrity of the robust evidence base in healthcare while honoring the local and cultural aspects of community and health.

BCT is not a rhetorical process that simply takes guidelines and changes a few medical terms. BCT is not a series of focus groups. BCT is not to be rushed. BCT alters the conceptual framework that patients and community members hold for certain medical conditions.

How has Boot Camp Translation already been used?

BCT has translated evidence-based medical care, guidelines, and recommendations into reliable clinical opportunities for communities on topics such as colon cancer testing, asthma diagnosis and management, high blood pressure care, medication assisted treatment for opioid use disorder, prevention of mental and emotional health problems, and diabetes. Partnerships of community members, health providers, and academicians can successfully determine the message content, tools, and ways to disseminate the messages and tools in ways that maintain scientific integrity and assure they are locally relevant and culturally appropriate.

What’s the process?

Boot Camp Translation includes an iterative, flexible schedule combining face-to-face meetings, short focused teleconferences, and emails. Boot Camp Translation requires flexibility and modification. Boot Camp Translation requires about 20-25 hours of participant time over a 8-12 month time span, depending on the scope of the project.
Example Boot Camp Translation Schedule *(this is flexible and tailored to project needs)*

<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
<th>Duration</th>
</tr>
</thead>
<tbody>
<tr>
<td>January 7</td>
<td>In-person Kick Off Meeting: Extended meeting with intense education session, Q&amp;A, reactions</td>
<td>6.5 hours (includes lunch and 2 15-min breaks)</td>
</tr>
<tr>
<td>Jan 24</td>
<td>Conference call</td>
<td>30 minutes</td>
</tr>
<tr>
<td>Feb 12</td>
<td>Conference call</td>
<td>30 minutes</td>
</tr>
<tr>
<td>Feb 22</td>
<td>Conference call (if needed)</td>
<td>30 minutes</td>
</tr>
<tr>
<td>March 21</td>
<td>In-person meeting</td>
<td>2-3 hours</td>
</tr>
<tr>
<td>April 12</td>
<td>Conference call</td>
<td>30 minutes</td>
</tr>
<tr>
<td>April 30</td>
<td>Conference call</td>
<td>30 minutes</td>
</tr>
<tr>
<td>May 16</td>
<td>Conference call (if needed)</td>
<td>30 minutes</td>
</tr>
<tr>
<td>June 14</td>
<td>In person meeting</td>
<td>2-3 hours</td>
</tr>
<tr>
<td>July 2</td>
<td>Conference call</td>
<td>30 minutes</td>
</tr>
<tr>
<td>2-3 weeks</td>
<td>Schedule more conference calls as needed</td>
<td>30 minutes</td>
</tr>
<tr>
<td>Sept 12</td>
<td>In-person meeting: Review final product or outcome, bring process to close, discuss next steps, celebrate</td>
<td>2 hours</td>
</tr>
</tbody>
</table>

**Kick-Off Meetings (6 hours)**

*Scientific presentation:*
- Robust, evidence-based, scientific presentation on the health topic.
- Given by local and state medical experts.
- Provides a common understanding and language for all project team members.

*Brainstorming:*
- Facilitated conversation to elicit initial reactions from the group.
- No wrong answers or ideas.
- Transitions into initial discussion on key ideas or concepts about the issue (what is the message?) and ways to engage patients/community (how to get the message out?).
- Captures all ideas; often demands a focused facilitator and patience from the group.

**Conference Calls (30 minutes)**
- Address one specific task.
- Alternate call times so that all members have an opportunity to participate.

**Subsequent in-person meetings (2-4 hours)**
- Narrow program/intervention focus.
- Refine the conceptual framework and language of the main messages.
- Extended conversations about how to move the intervention messages into the community or practice – strategies that vary depending on target community.
- Finalize materials and distribution plans.

Contact: Linda Zittleman, MSPH (Director, Training Faculty) linda.zittleman@ucdenver.edu I 303-724-9716  
Don Nease, MD (Training Faculty) donald.nease@ucdenver.edu I 303-724-7283  
Mary Fisher, MPH (Training Faculty) mary.fisher@ucdenver.edu I 303-724-9953  
Website: www.bootcamptranslation.org
STAKEHOLDER ENGAGEMENT FOR D4D
Panel Discussion

Learning Objectives:
- Describe the role of stakeholder engagement in Designing for Dissemination
- Identify stakeholder groups relevant to the design, implementation, dissemination, and sustainability of your research products
- Identify appropriate processes for engaging diverse stakeholder partners

Panel Participants:
Matt Kreuter, PhD, Matt Wynia, MD, Shale Wong, MD, MSPH, Don Nease, MD

Notes:

Thought questions related to the panel discussion:
What types of stakeholders have you or do you plan to engage? Who else might be important to engage? How can you begin or enhance your work with stakeholders? What new or different methods of engagement would you like to explore? On the next page, use the 7Ps stakeholder matrix to brainstorm different stakeholder types and specific individuals or organizations you will approach for engagement.

Resources for Stakeholder Engagement
CSU Center on Public Deliberation: https://cpd.colostate.edu/what-is-deliberation/
Participedia: https://participedia.net/en/methods/deliberation
National Coalition for Dialogue and Deliberation: http://ncdd.org/
Liberating structures: http://www.liberatingstructures.com/
### 7 P’s Stakeholder Matrix


<table>
<thead>
<tr>
<th>Stakeholder Category</th>
<th>Definition</th>
<th>Possible Stakeholder Roles</th>
<th>Project Specific</th>
<th>What specific groups or individuals will you engage?</th>
<th>What needs, contextual factors, and preferences must be considered?</th>
<th>How are these stakeholder types engaged in the project?</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Patients and the public</strong></td>
<td>Current and potential consumers of patient-centered health care and population-focused public health, their caregivers, families, and patient and consumer advocacy organizations</td>
<td>Decision to become involved in the program? Identify decisions, questions, benchmarks for success, input agent for OI/evaluation, interpret findings, offer solutions</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Providers</strong></td>
<td>Individuals (e.g., nurses, physicians, mental health counselors, pharmacists, and other providers of care and support services) and organizations (e.g., hospitals, clinics, community health centers, community-based organizations, pharmacies, EMS agencies, skilled nursing facilities, schools) that provide care to patients and populations</td>
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</tr>
<tr>
<td><strong>Purchasers</strong></td>
<td>Employers, the self-insured, government and other entities responsible for underwriting the costs of health care</td>
<td>Decision about paying for program, how to select patients for inclusion in the program, whether to incorporate program into SOP as part of the health plan, how consistent with existing structures and services vs duplicative/overlapping?</td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

Note: The table continues with additional rows for other stakeholder categories.
<table>
<thead>
<tr>
<th>Stakeholder Category</th>
<th>Definition</th>
<th>Possible Stakeholder Roles</th>
<th>What specific groups or individuals will you engage?</th>
<th>What needs, contextual factors, and preferences must be considered?</th>
<th>How are these stakeholder types engaged in the project?</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Policy makers</strong></td>
<td>The White House, Department of Health and Human Services, Congress, states, professional associations, intermediaries, and other policy-making entities; public policy makers and policy advocates working in the non-governmental sector.</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td><strong>Product makers</strong></td>
<td>Drug and device manufacturers; industry partners</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Principal investigators</strong></td>
<td>Other researchers and their funders</td>
<td>Funders and investigators can begin immediately to identify appropriate intermediate and long-term benchmarks for evaluating the effectiveness of engagement, keeping in mind that the optimal organization.</td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>
DESIGNING FOR YOUR MARKET

Plenary Address with Dr. Matt Kreuter

Title: Enhancing Dissemination for Health Equity: A Marketing and Distribution Perspective

Learning Objectives:

• Describe the difference between expert and user review, and how to get more of the latter
• Describe the importance of demand and how to detect its presence or absence
• Describe how to apply a marketing approach to maximize acceptance and spread

Notes:

Thought questions for marketing strategies for your own work:
What industries might you need to engage for getting your product to market? What team expertise is needed to prepare marketing materials? What resources are available on campus or in the community for promotion & marketing?
Learning Objectives:

- Describe the unique needs and perspectives of different operational partners
- Identify successful strategies for working with operational partners to design interventions or design implementation and dissemination strategies

Panel Participants:

Amy Friedman, MA, Cari Levy, MD, PhD, Romana Hasnain-Wynia, PhD, Judy Shlay, MD

Notes:

Thoughts questions related to the operational panel discussion:

Who are your key operational partners? What does your operational partner need from a researcher to design interventions and implementation strategies? What Products (Implementation or Dissemination Tools) are needed for implementation to meet operational partner’s needs? You may want to return to the stakeholder matrix, the methods matrix, and the adaptations brainstorming page to add to your list of who to engage, what D4D methods may be used, and what adaptations may be needed to fit the needs of operational partners.
DESIGNING FOR THE POLICYMAKER

Plenary Address with Dr. Shale Wong

Title: Designing for Your Policy Maker

Learning Objectives:

- Identify processes for engaging policymakers
- Identify outcomes that matter to policymakers
- Identify packaging and distribution channels for communicating to policy makers

Notes:

Thought questions keeping policy in mind:

What aspects of your work rely upon health policy and/or national funding priorities? How might you engage policymakers to support dissemination and sustainability of your research products?
Throughout this workshop, you have drafted various components of a Designing for Dissemination (D4D) Plan. Recall that the definition of D4D is 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, and contextual characteristics of the target audience and setting. Your D4D plan includes:

- Identification of key stakeholders that should be engaged to ensure products are designed for the needs and characteristics of the target audience and setting (See Stakeholder Matrix; reflect upon operational partners panel, stakeholder panel, and Wong plenary)

- Consideration of design features, core elements, and adaptations of your research products to promote feasibility and sustainability in the target context (See Adaptations Brainstorming, reflect upon notes from Rabin and Chambers plenaries and Context Roundtable Discussions)

- Identification of D4D Methods (processes) used to create and disseminate products (interventions, materials, knowledge) (See Methods Brainstorming Matrix, reflect upon notes for Kreuter plenary)

<table>
<thead>
<tr>
<th>D4D Plan Elements</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Stakeholders, Context, and Setting</strong></td>
</tr>
<tr>
<td><strong>Processes</strong></td>
</tr>
<tr>
<td><strong>Outcomes</strong></td>
</tr>
<tr>
<td><strong>Products</strong></td>
</tr>
</tbody>
</table>
D4D REFERENCES AND RESOURCES

Suggested readings, interactive tools, education, and templates

BOOKS:


Authoritative edited reference book in the D&I science field. Recently updated and contains several chapters on theories, approaches, user centered design and the research literature related to designing for dissemination (D4D). Best single source on D&I science.


Classic book on the PRECEDE-PROCEED model for public health planning and evaluation. Contains research, practice and policy applications of this widely used model.


An introduction to health and social marketing.


The classic text on how opinions, ideas and products diffuse over time though communication channels and networks. The ‘DOI’ model and its variants are still among the most widely used models of designing for dissemination. The DOI model’s concepts such as early vs. late adopters and diffusion curves have had a seminal influence on D4D.

WEBSITES:

Designing for Dissemination Tool - [http://design4dissemination.com/home](http://design4dissemination.com/home)

Free, on-line tool to guide users on how a project can be designed with greater dissemination potential. Provides a series of questions and produces a tailored printout on suggestions for producing products more likely to disseminate successfully.

Dissemination & Implementation (D&I) Models - [https://www.dissemination-implementation.org](https://www.dissemination-implementation.org)

Website developed by Dr. Rabin and colleagues summarizing and providing guidance on selection and use of over 90 D&I theories and frameworks and their application.

National Cancer Institute Implementation Science - [https://cancercontrol.cancer.gov/IS/](https://cancercontrol.cancer.gov/IS/)

Website of Dr. Chambers implementation science program at NCI; has information and resources on a variety of D&I topics, resources, coming events and research funding.

ACCORDS D&I Program [http://www.ucdenver.edu/accords/implementation](http://www.ucdenver.edu/accords/implementation)

Our D&I program website that provides information on D&I related events, publications and presentations, and a variety of D4D resources.


Summarizes lessons learned and concludes that dissemination efforts need to take into account the message, source, audience, and channel. Practitioners and policy makers can be more effectively reached via news media, social media, issue or policy briefs, one-on-one meetings, and workshops and seminars.


To address changes in context over time, this article proposes a Dynamic Sustainability Framework that involves: continued learning and problem solving, ongoing adaptation of interventions with a primary focus on fit between interventions and multi-level contexts, and expectations for ongoing improvement as opposed to diminishing outcomes over time.


This paper argues for the development of strategies to advance the science of adaptation in the context of implementation. Efforts to build the resulting adaptome will include the construction of a common data platform to house systematically captured information about variations in delivery of evidence-based interventions across multiple populations and contexts, and provide feedback to intervention developers, as well as the implementation research and practice communities.


An illustrative case study that describes how careful planning and partnership development early in the intervention development process can improve the success of enhancing the reach and effectiveness of an intervention to other audiences beyond the audience for whom the intervention messages were originally designed.


This paper describes design activities that can be applied and combined for the purpose of spreading effective cancer communication innovations including lessons learned from diverse literature on dissemination and design principles and social systems to support the design of evidence-based intervention with high dissemination potential.


Discusses how DOI concepts can be applied during planning for roll-out of an evidence based intervention for HIV prevention. Discusses the importance of formative evaluation and knowing one’s target audience.


A strategic review of the literature and public health impact and implications of dissemination/diffusion interventions. Discusses how DOI can be combined with other theories and D&I models and methods to produce population impact.

Illustrates how RE-AIM can be used to help design a program to prevent falls among people with multiple sclerosis (MS). Used RE-AIM questions to structure initial discussions with clinicians, people with MS, and representatives of professional societies, and addressed factors important to consider in the development of a broadly applicable program.


Provides a resource for primary care practices to assess whether evidence-based interventions are suitable to adopt or adapt to meet their needs.


Critiques standard approaches to disseminating evidence based programs and explains how and why a marketing and distribution system would enhance dissemination.


Provides a qualitative process evaluation of progress, barriers, facilitators, and proposed solutions to operationalize nine recommendations to prepare Kosovo to implement World Health Organization (WHO) prevention and treatment of postpartum hemorrhage guideline.


Summarizes all policy related dissemination projects funded by the NIH during the years noted.


Discusses the development of and user centered design for an implementation support tool to facilitate the routine incorporation of a readiness assessment as an early step in implementation. Designed to help practices to save time and resources for implementation.

**LOCAL TRAINING OPPORTUNITIES & FUNDING OPPORTUNITIES:**

Colorado School of Public Health Courses
- T4 Introduction to Implementation Science in Health  
  Instructor: Borsika Rabin, PhD, MPH
- T4 Designs and Mixed Methods in Implementation Research  
  Instructor: Jodi Summers Holtrop, PhD, MCHES
- Designing for Dissemination and Sustainability  
  Instructor: Elaine Morrato, DrPH, MPH, CPH

Colorado Clinical and Translational Sciences Intitute (CCTSI)
- Colorado Immersion Training
- Pilot Grant Program
- Boot Camp Translation

Data to Patient Value (D2V)
- Pilot Grant Program
- Community Engagement Web Training Resources
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