Designing for impact

MT DIRC Webinar

5 February, 2019

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MT-DIRC
Mentored Training for Dissemination and Implementation Research in Cancer

Washington University in St. Louis

"My question is: Are we making an impact?"

Why did you enter your chosen profession?

“If you build it…”

Definitions

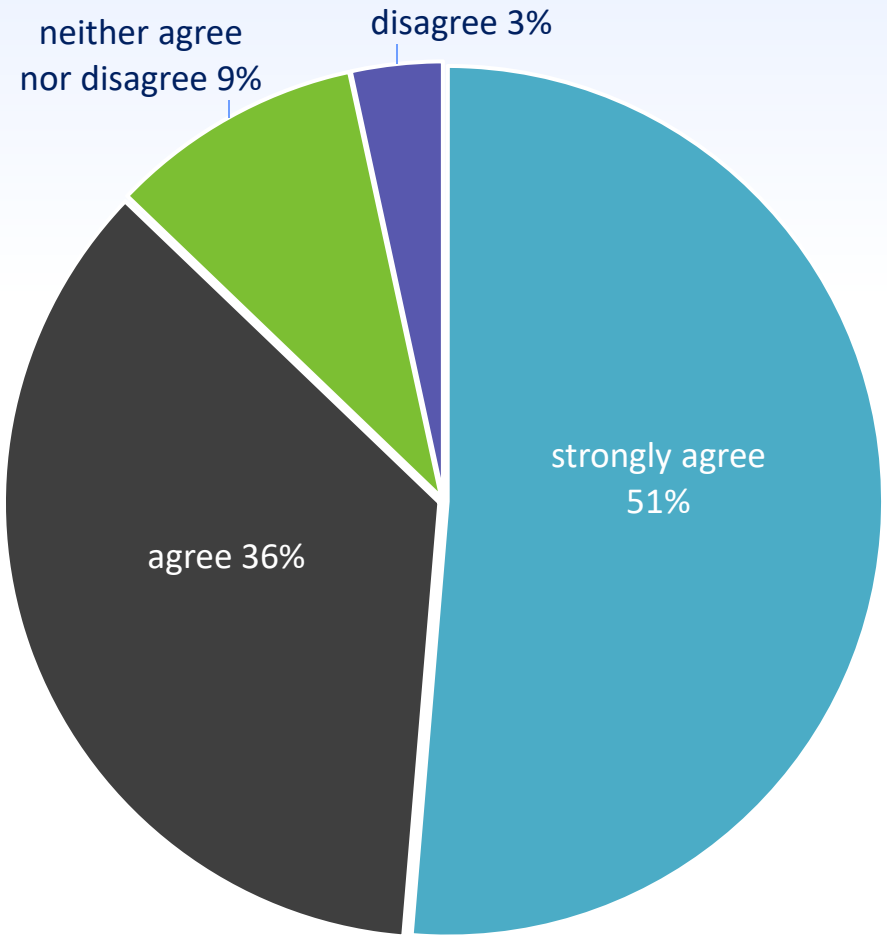
- **Dissemination**
  - An active approach of spreading evidence-based interventions to the target audience via determined channels using planned strategies.
- **Designing for dissemination (D4D)**
  - The process of ensuring that evidence-based interventions are developed in ways that match well with adopters' needs, assets, and time frames.
    - Might apply to any actionable finding or packaging/designing interventions

What do we know about D4D?

Researcher Obligation (n = 266)

Survey question:

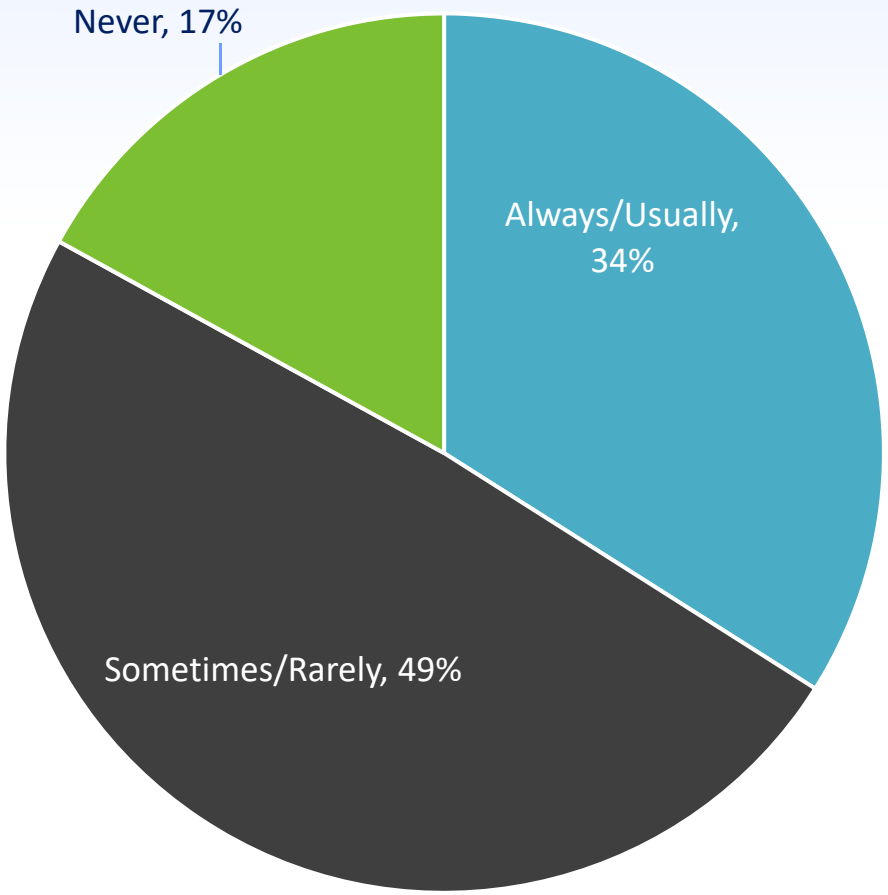
- It is an obligation of researchers to disseminate their research to those who need to learn about it and make use of the findings.



Involving Stakeholders

Survey question:

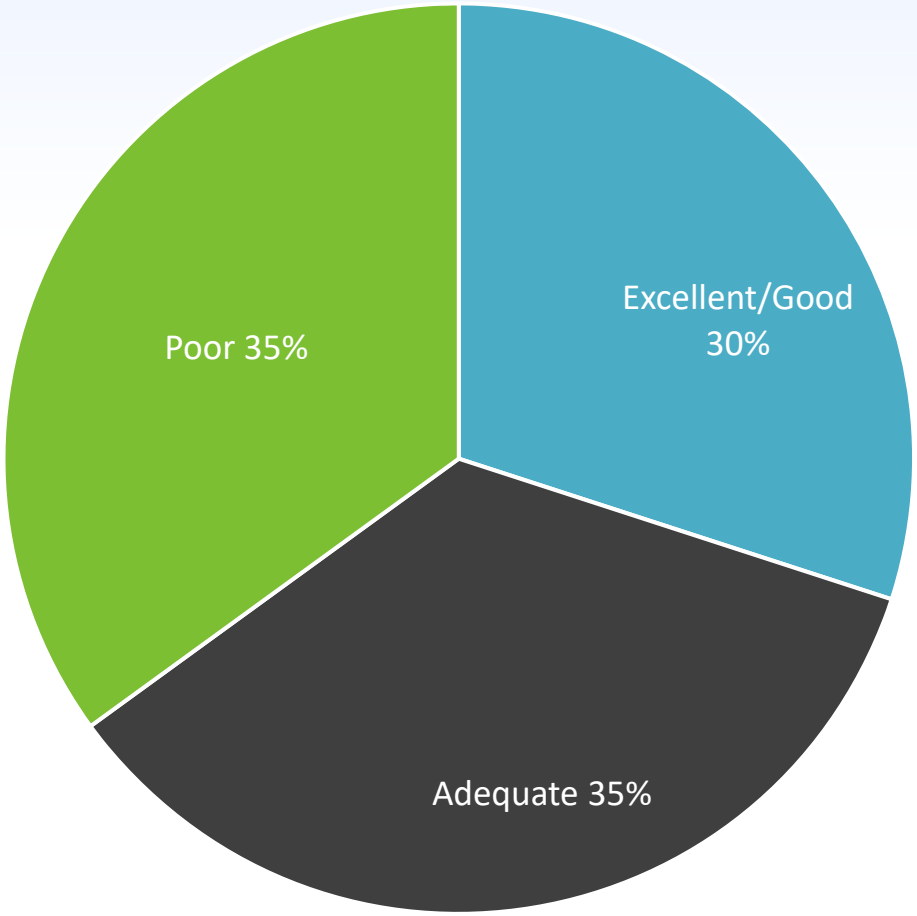
- As a part of your research process, how often do you involve stakeholders?



Rate Efforts

Survey question:

- Overall, how do you rate your efforts to disseminate your research findings to non-research audiences?



Predictors of excellent dissemination

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

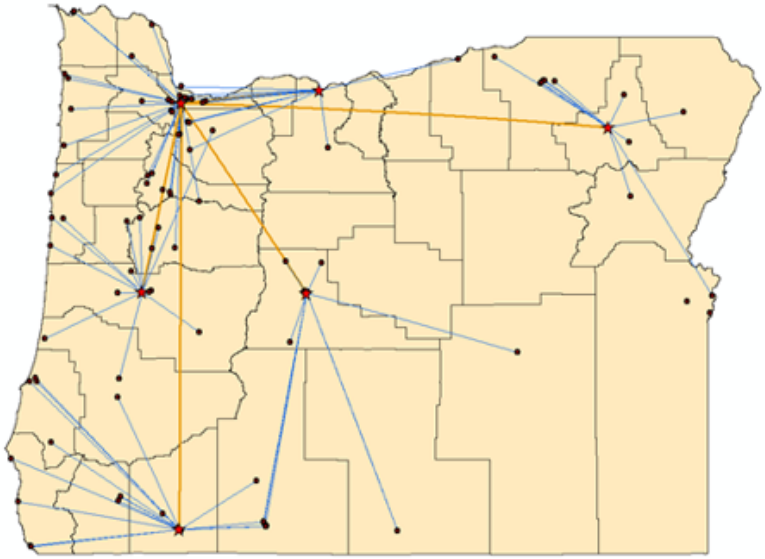
Questions to consider…

1. Which principles of designing for dissemination did you implement in planning and implementing your projects?
2. What impacts of your projects did you hope to achieve?
3. What actual impacts were realized?
4. What unanticipated factors did you experience that you would advise fellows to consider when seeking to enhance the impact of their work?

Oregon Context

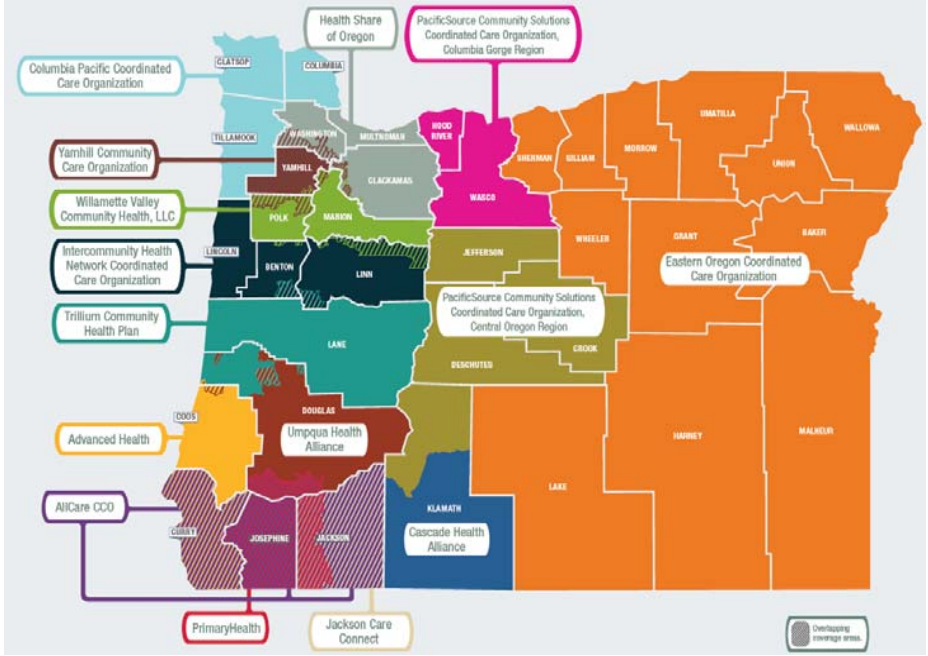
Oregon Rural Practice-based Research Network

ORPRN's mission is to improve the health of rural Oregonians by promoting knowledge transfer between communities and clinicians.



Connection, Involvement, Community Health

Westfall JM, Mold J, Fagnan, LJ. Practice-based Research – "Blue Highways" on the NIH Roadmap. *JAMA* 2007;297:403-406.



Oregon's 15 Coordinated Care Organizations (CCOS)

Example 1: Spilled Milk

Engaging the Underserved: A Process Model to Mobilize Rural Community Health Coalitions as Partners in Translational Research*

Melinda M. Davis, Ph.D.[1], Susan Aromaa, M.S.[2], Paul B. McGinnis, M.P.A.[3], Katrina Ramsey, M.P.H.[4], Nancy Rollins, B.F.A.[5], Jamie Smith, M.P.H., B.S.N., R.N.[6], Beth Ann Beamer, R.N.[7], David I. Buckley, M.D., M.P.H.[8], Kurt C. Stange, M.D., Ph.D.[9], and Lyle J. Fagnan, M.D.[10]

Abstract

Purpose: Community engagement (CE) and
research translation. Process models to develo
Method: Academic partners transformed fou
Health Improvement and Research Partnershi
kickoff/orientation meeting, delivery of eight re
research (CBPR) pilot studies addressing child
session evaluations, observational field notes,
Results: Forty-nine community members parti
and usefulness was high. Community membe
search (e.g., formulating research questions, se
CBPR pilot studies.
Conclusions: The CHIRP process builds on e
training and pilot studies around community-i
health disparities in rural and underserved com

Original Research

Milk Options Observation (MOO): A Mixed-Methods Study of Chocolate Milk Removal on Beverage Consumption and Student/Staff Behaviors in a Rural Elementary School

The Journal of School Nursing
2017, Vol. 33(4) 285-298

DOI: 10.1177/1059840517703744
journals.sagepub.com/home/jsn
SAGE

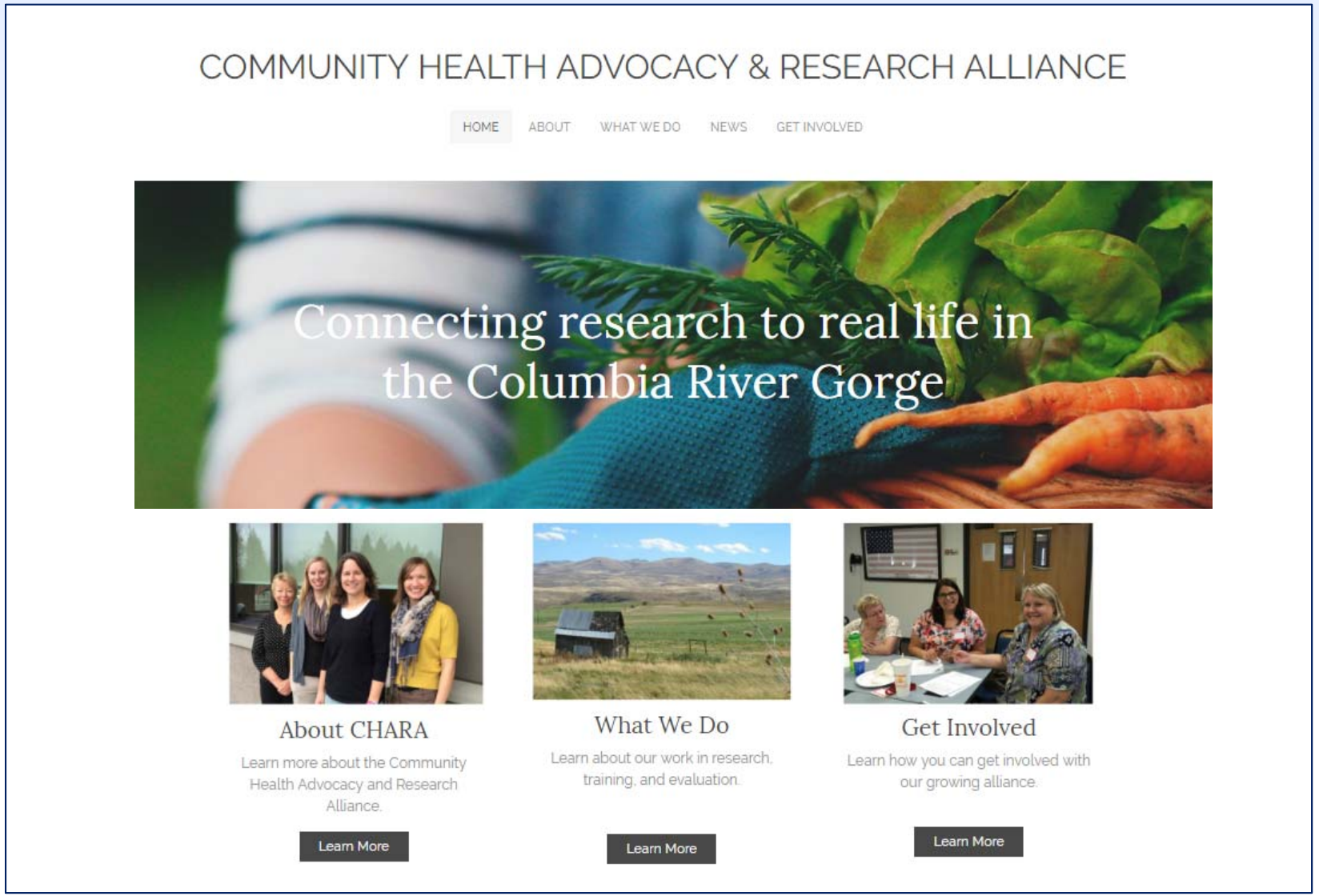
Melinda M. Davis, PhD[1], Margaret Spurlock, MPH[2], Katrina Ramsey, MPH[3], Jamie Smith, MPH, BSN, RN, NCSN[4], Beth Ann Beamer, RN[5], Susan Aromaa, MS[6], and Paul B. McGinnis, MPA[7]

Abstract

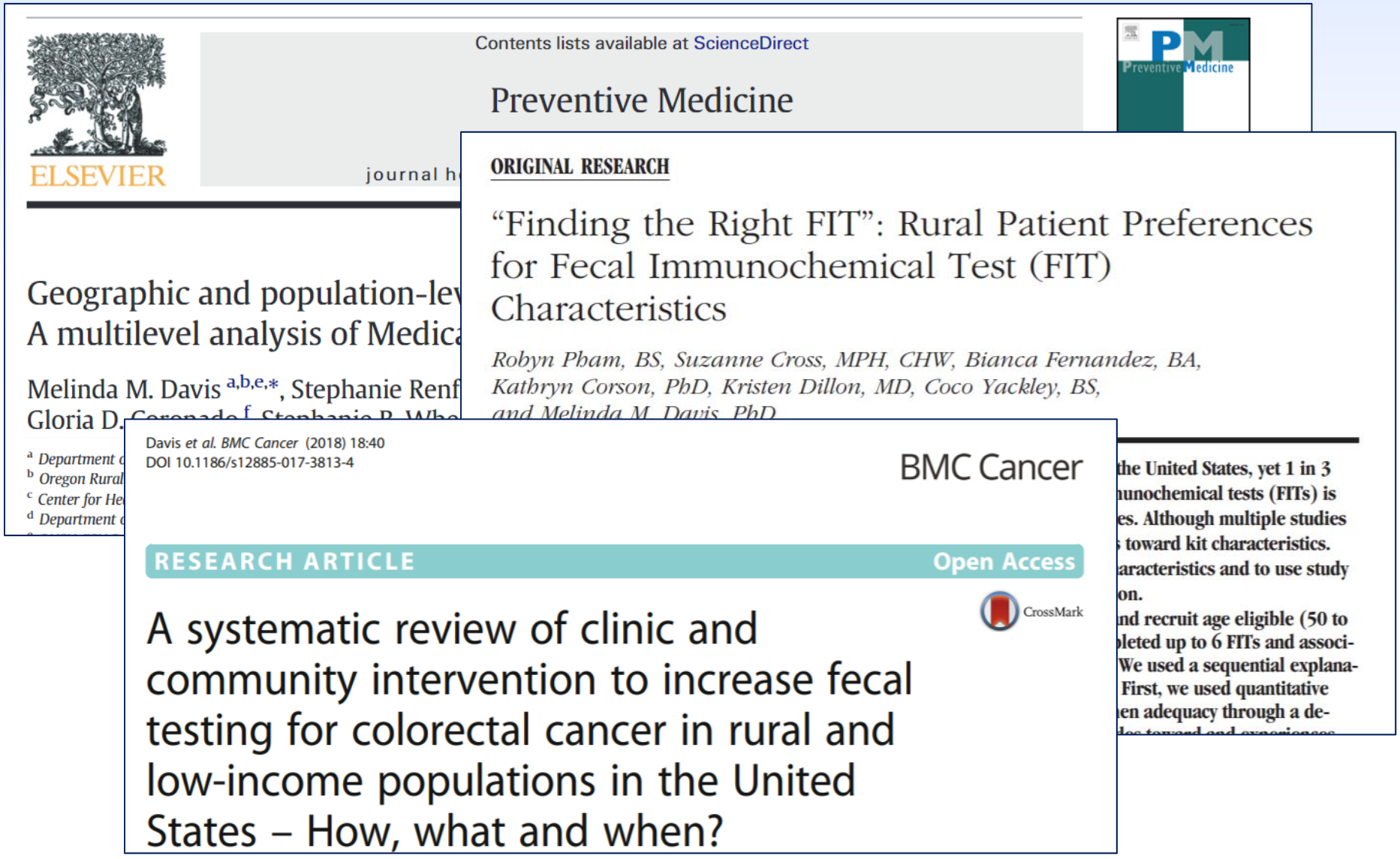
Providing flavored milk in school lunches is controversial, with conflicting evidence on its impact on nutritional intake versus added sugar consumption and excess weight gain. Nonindustry-sponsored studies using individual-level analyses are needed. Therefore, we conducted this mixed-methods study of flavored milk removal at a rural primary school between May and June 2012. We measured beverage selection/consumption pre- and post-chocolate milk removal and collected observation field notes. We used linear and logistic mixed models to assess beverage waste and identified themes in staff and student reactions. Our analysis of data from 315 unique students and 1,820 beverages choices indicated that average added sugar intake decreased by 2.8 g postremoval, while average reductions in calcium and protein consumption were negligible (12.2 mg and 0.3 g, respectively). Five thematic findings emerged, including concerns expressed by adult staff about student rebellion following

https://www.communityresearchalliance.org/

Example 2: CRC Screening



Example 2: Research



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Contents lists available at ScienceDirect

Preventive Medicine

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Geographic and population-lev
A multilevel analysis of Medica

Melinda M. Davis [a,b,e,*], Stephanie Renf
Gloria D. Coronado [f], Stephanie R. Whe

[a] Department
[b] Oregon Rural
[c] Center for He
[d] Department

ORIGINAL RESEARCH

"Finding the Right FIT": Rural Patient Preferences for Fecal Immunochemical Test (FIT) Characteristics

Robyn Pham, BS, Suzanne Cross, MPH, CHW, Bianca Fernandez, BA, Kathryn Corson, PhD, Kristen Dillon, MD, Coco Yackley, BS, and Melinda M. Davis, PhD

the United States, yet 1 in 3
nunochemical tests (FITs) is
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nd recruit age eligible (50 to
leted up to 6 FITs and associ-
We used a sequential explana-
First, we used quantitative
en adequacy through a de-

Davis et al. BMC Cancer (2018) 18:40
DOI 10.1186/s12885-017-3813-4

BMC Cancer

RESEARCH ARTICLE Open Access

CrossMark

A systematic review of clinic and community intervention to increase fecal testing for colorectal cancer in rural and low-income populations in the United States – How, what and when?

Example 2: TA Contract

- Funder: Oregon Health Authority
  - Transformation Center
  - Health Promotion & Chronic Disease Prevention
- Mode:
  - Webinars
  - Consultation Calls
  - Tailored Implementation Support

CCO Consultations & TA Requested

CCO	FIT Education	Direct Mail	Practice Assessment	Member Education & Outreach
AllCare	X			X
Cascade Health Alliance	X		X	
Columbia Pacific			X	
EOCCO	X	X	X	X
FamilyCare	X	X		
PrimaryHealth		X		X
PacificSource Central Oregon		X		
PacificSource Columbia Gorge	X			X
Western Oregon Advanced Health		X		X
Yamhill CCO		X	X	

Metrics

CCO	2015 CRC rate (%)	2016 CRC rate (%)	Difference (%)
AllCare	38.7	43.1	↑4.4
Cascade Health Alliance	43.8	51.8	↑ 8
Columbia Pacific	46.6	47.9	↑ 1.3
EOCCO	36.0	40.9	↑ 4.9
FamilyCare	48.8	52.6	↑ 3.8
PacificSource Columbia Gorge	47.3	51.1	↑ 3.8
PrimaryHealth of Josephine County	44.3	53.5	↑ 9.2
Western Oregon Advanced Health	47.7	47.4	↓0.3
Yamhill CCO	49.4	49.9	↑ 0.5

Source: Oregon Health Authority, Office of Health Analytics. 2017 benchmark: 50.8%

Example 2: Lessons from Summit Family Medicine

- How do we select the right modality for the context?
- How can we vary implementation support based on practice readiness?
  - Stop skimming off the top
  - Enable "amending the soil"
  - Support improvement over time
- How can we best align cross sector initiatives (clinic, payers, researchers)?

We met in a church near the clinic to ensure sufficient space and time (May 3rd, 2017)

"Daddy works in a magical, faraway land called Academia."

Davis *et al. BMC Health Services Research* (2017) 17:497
DOI 10.1186/s12913-017-2413-y

BMC Health Services Research

RESEARCH ARTICLE Open Access

A qualitative study of clinic and community member perspectives on intervention toolkits: "Unless the toolkit is used it won't help solve the problem"

Melinda M. Davis[1*], Sonya Howk[2], Margaret Spurlock[3], Paul B McGinnis[4], Deborah J. Cohen[5] and Lyle J. Fagnan[6]

Abstract

Background: Intervention toolkits are common products of grant-funded research in public health and primary care settings. Toolkits are designed to address the knowledge translation gap by speeding implementation and dissemination of research into practice. However, few studies describe characteristics of effective intervention toolkits and their impl
users want in interven

Methods: In this quali
of community health
2010 and January 201
case comparative anal

Results: Ninety six par
participated in 18 sess
through expert in tool
wanted toolkits target
a quick start guide, wi
participants experienc
essential for interventi

Conclusions: Given the emphasis on toolkits in supporting implementation and dissemination of research and clinical guidelines, studies are warranted to determine when and how toolkits are used. Funders, policy makers, researchers, and leaders in primary care and public health are encouraged to allocate resources to foster both toolkit development *and* implementation. Support, through practice facilitation and organizational leadership, are critical for translating knowledge from intervention toolkits into practice.

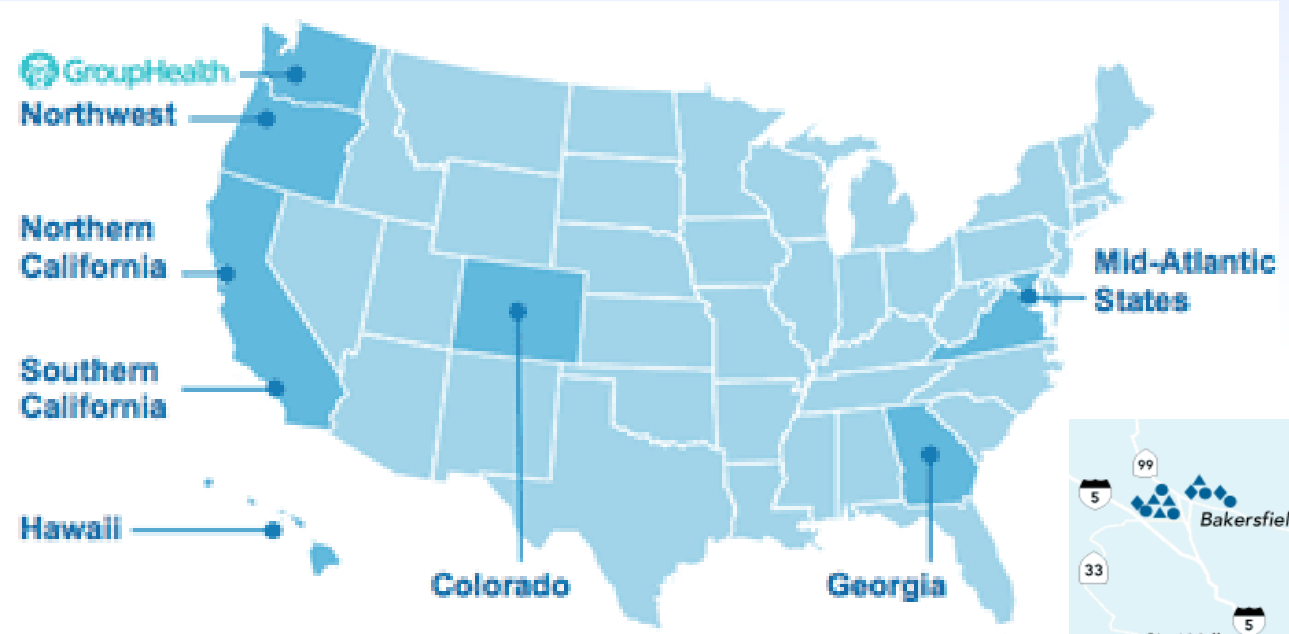
"I appreciate the nuts and bolts, how-to of the toolkit. The harder part is the practical. Who do you have do this and with what resources? Having instructions is different than having someone knowledgeable to help make the change. Toolkits can be helpful, but also intimidating…they're different than working with a practice facilitator or other another clinic that's done it. It's different than having a cheerleader in the practice to actually help you make the change."

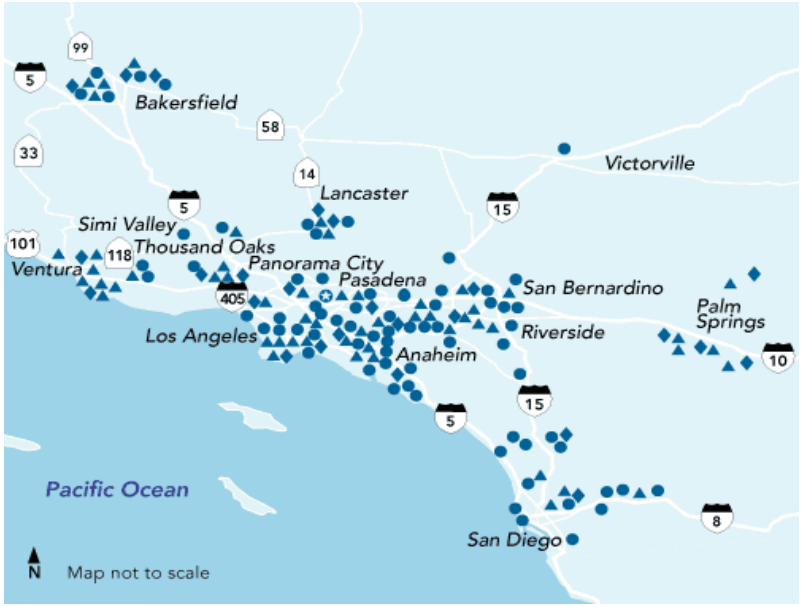
"EvidenceNOW offers free assistance, but making use of the assistance requires unpaid labor from physicians and staff. Unlike payers such as Medicare and health insurance companies, AHRQ cannot provide funding to practices to support their quality improvement efforts. Small primary care practices have no organizational slack to put unpaid effort into activities that are not likely to have an immediate payoff. An offer to give free swimming lessons to a drowning person—no matter how well-intentioned—may not be enthusiastically received. Just get me out of the water!"

Casalino LP. Technical Assistance for Primary Care Practice Transformation: Free Help to Perform Unpaid Labor? *Annals of Family Medicine*. 2018;16(Suppl 1):S12-S15.

D4D: Health Systems

- Kaiser Permanente





So much research happening!

- Each region:
  - Externally funded research group
  - Internally funded national and regional projects
  - Clinician pilot studies at medical centers
- Dissemination challenges even within integrated systems

Scale up and spread: how?

- Example initiative within KPSC to stop the "never-ending pilot" problem
  - Appoint scale-up and spread leaders at each center
  - Identify pilots that appear to be successful through competitive process
  - If appropriate, work with researchers to evaluate
  - Using pre-identified network of Workflow Consultants and Improvement Advisors, identify channels, messaging, and targets

Example D4D Projects

- Distress screening in medical oncology
- Study aims include dissemination of effective practices
- How to identify the necessary channels, messaging, and individuals/teams?

Side note: Showing up

- All of the important implementation/CBPR efforts are just as important here!

Networks & Self-Organization

- Self-organization: Patterns of how people interrelate are influenced by how they find it most effective to complete tasks given locally available resources and contexts.
- *A priori* identification of networks (small, mid-size, large) and how they self-organize can facilitate dissemination

How complexity science can inform scale-up and spread in health care: Understanding the role of self-organization in variation across local contexts

Holly Jordan Lanham [a,b,c,*], Luci K. Leykum [a,b,c], Barbara S. Taylor [d,e], C. Joseph McCannon [f], Curt Lindberg [g], Richard T. Lester [h,i]

Relevant Networks

- Medical center level—small teams: medical oncologists, nursing teams, administrative leads, depression care managers, LCSW
- Regional—mid-size teams: Oncology chiefs, behavioral health leaders, health IT infrastructure
- National—large teams
- At all levels: what is going on now that might facilitate dissemination?

D&I tools

- Discover effective practices for dissemination within networks with familiar tools
- E.g, informational interviews guided by CFIR, ORCA—adapting questions for dissemination

Organizational readiness to change assessment (ORCA): Development of an instrument based on the Promoting Action on Research in Health Services (PARIHS) framework

Christian D Helfrich †, Yu-Fang Li †, Nancy D Sharp † and Anne E Sales †

(Readiness for change) Opinion leaders in your organization:

a) believe that the current practice patterns can be improved

b) encourage and support changes in practice patterns to improve patient care

c) are willing to try new clinical protocols

d) work cooperatively with senior leadership/clinical management to make appropriate changes

Ex: Behavioral Health Redesign

- Goal alignment: "100% aligns with our goals...we treat our patients not their illness, but the people that they are, and part of that is their psychological well-being."—Nursing regional lead

Unforeseen Challenges

- Competing approaches and/or priorities
  - Regional approach successful in Southern California will not be considered in another region
  - Work towards compromise?
- Health IT infrastructure
  - EPIC (or any other vendor) and its many issues
  - How to work with multiple system types?

Questions to consider…

1. Which principles of designing for dissemination did you implement in planning and implementing your projects?
2. What impacts of your projects did you hope to achieve?
3. What actual impacts were realized?
4. What unanticipated factors did you experience that you would advise fellows to consider when seeking to enhance the impact of their work?

Which Principles of Designing for Dissemination* were used in planning and implementing the projects?

Domain	Subdomain
System Changes	Shift research funder priorities & processes
	Shift researcher incentives and opportunities
	Develop new measures and tools
	Develop new reporting standards
	Identify infrastructure requirements
Processes	Involve stakeholders as early in the process as possible
	Engage key stakeholders (receptors) for research through audience research
	Identify models for dissemination efforts
	Identify the appropriate means of delivering the message
Products	Identify the appropriate message
	Develop summaries of research in user friendly, nonacademic formats (audience tailoring)

*Owen N, Goode A, Sugiyama T, et. al. (2018) Designing for dissemination in chronic disease prevention and management. In Brownson RC, Colditz GA, Proctor EK eds. Dissemination and Implementation Research in Health, 2nd edition; 107-120; New York, NY; Oxford University Press.

Hopes Vs. Doubts

Aspirational Impacts

Real World Outcomes

Learning Systems For Public Health Implementation*

- Need for Expedient Progress
- Broad Engagement of Partners and Community Sectors
  - Given lack of perceived relevance, participatory approaches are critical to uptake
- Access to both evidence and skilled leadership in evidence-based decision-making
  - Building capacity in the local context, use of local data, generalizable evidence with adequate contextual information to judge its relevance to other settings

*Klesges LM (2019) Cancer prevention and public health promotion. In Chambers DA, Vinson CA, Norton WE eds. Advancing the Science of Implementation Across the Cancer Continuum; 123-125; New York, NY; Oxford University Press.

Developing and Maintaining Partnerships*

- Reflect on our capacities and our institution's capacities to engage in partnership
- Identify potential partners and partnerships through appropriate networks, associations, and leaders
- Negotiate or reframe the ultimate health issue for research
- Create and nurture structures to sustain partnerships through constituency building and organizational development

*Wallerstein N, Duran B, Minkler M, Foley K. (2005) Developing and maintaining partnerships in communities. In Israel BA, Eng E, Schulz AJ, Parker EA eds. Methods in Community-based Participatory Research for Health; 31-51; San Francisco, CA; Jossey-Bass.

Questions/Discussion