Dissemination and Implementation Research: Connecting Interventions to Practice

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Dissemination and Implementation Research: Connecting Interventions to Practice
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Health Management and Policy Research Seminar

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at the University of Kentucky College of Public Health
Agenda

• Introductions
• What is Dissemination & Implementation (D&I) Research?
• Example: HPV Video Intervention Project
• Future Directions
Introductions

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Dissemination & Implementation Research

“......the enormous gap between what we know can optimize population health and healthcare delivery and what actually gets implemented in everyday practice”

Meissner et al. Implementation Science 2013, 8:12
Dissemination and Implementation Research

A Glossary for Dissemination and Implementation Research in Health

Borsika A. Rabin, Ross C. Brownson, Debra Haire-Joshu, Matthew W. Kreuter, and Nancy L. Weaver
Dissemination and Implementation Research

**Dissemination:**
An active approach of spreading evidence-based interventions to the target audience via determined channels using planned strategies

**Implementation:**
The process of putting to use or integrating evidence-based interventions within a setting.
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**Adoption:** The decision of an organization or community to commit to and initiate an evidence-based intervention (EBI)

**Adaptation:** The degree to which an EBI is changed or modified by a user during adoption & implementation

**Fit:** The level of match between an EBI and the real or perceived needs, objectives, and structure of an adopting organization.
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• Ethical
  – Maximizing positive health/population health impacts of research findings

• Pragmatic
  – Evaluation - effectiveness, efficiency
  – Funding Opportunities
    • NIH – D&I portfolio, research translation and engagement cores among P30 and P42 centers, etc.
    • CDC – PRC
    • NSF – decision science portfolio
    • RWJF – new interest in systematic study of adaptations
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Health Management and Policy Department:

Mission – “To improve the organization and delivery of personal and public health services in Kentucky and beyond through education, health services research and service”
Pilot HPV Video Intervention Project

D&I Research Example
The Rural Cancer Prevention Center (RCPC) is a planned collaboration of community members, public health professionals, and researchers designed to reduce health disparities associated with cervical, breast, and colorectal cancer among residents of the Kentucky River Health District in Appalachian Kentucky.
About **12,000 women** are diagnosed with cervical cancer **each year**.

**United States**
7.4 per 100,000 females

**Kentucky**
8.8 per 100,000 females

- Higher rates of cervical cancer (9.76 per 100,000 females)
- Significant health disparities due to geographic isolation, lower socioeconomic status, mountain culture, risk behaviors, and health literacy.
Formative Research: Uptake and Adherence for Adult Women, Ages 18-26, Appalachian Kentucky

RCPC’s 1-2-3 Pap Initiative

• Social Marketing Campaign

• Stage 2: 12-minute DVD Intervention
  • Credible Testimonials

• Original Delivery: Nurse to Patient Following First Dose
Published Findings

Nearly half of the women (43.3%) of the women randomized to the DVD intervention completed the 3-dose HPV vaccine series, whereas 31.9% of women assigned to the comparison group completed the series, for a percent relative difference of 35.7% \( (p=0.03) \).
Pilot D & I Research in LHDs: Objective

Measure impact of video intervention on vaccine series completion when implemented by LHDs
D & I Research in LHDs: Research Questions

1) Do specific implementation planning activities, such as the allocation of personnel and other planning resources, identification of project champions, and intra-organizational communication processes, affect the selection of specific channels to disseminate evidence-based public health interventions?
2) Does the use of specific dissemination channels correspond to intervention outcomes as assessed through secondary data analyses of changes in HPV vaccination series completion rates?
D & I Research in LHDs: Research Questions

3) What organizational attributes facilitate or impede adoption of evidence-based public health interventions?
Recruitment:
Public Health Practice-Based Research Networks

• RCPC engaged Public Health PBRNs (PH PBRNs) through the Coordinating Center’s 2013 Annual Grantee Meeting and follow-up telephone calls
• Kentucky and North Carolina PH PBRNs ultimately elected to participate
• 18 Kentucky LHDs were recruited through the Kentucky Health Department Association Meeting
Mixed Methods: Quasi-Experimental Design  
\( (n=18) \)

- Dependent Variable: \( \Delta \) Completion Rates for HPV Series
- Quasi-Independent Variable: Delivery Channel

**Channel 1**  
\( (n=2) \)  
Original clinical setting  
(after Dose 1)

**Channel 2**  
\( (n=3) \)  
Posted to LHD website and/or social media

**Channel 3**  
\( (n=13) \)  
Screened on a loop in waiting room
Welcome to the Madison County Health Department
To protect, promote and improve the health of our community

Kynect Assistance in Clinics

Our Kentucky River Foothills partners will be available in the Richmond clinic on Mondays from 2:00 PM to 6:00 PM and in the Berea clinic on Thursdays from 1:00PM to 4:00 PM to sign people up for health insurance through Kynect, the state’s health insurance exchange.

Cervical Cancer Prevention Video

Kentucky has the third highest death rate from cervical cancer of the 50 states. Please watch a new video about cervical cancer prevention, then call our clinic for more information.
Methods: Qualitative Process Analysis

• Post-project key informant interviews
  – Project-specific benefits and barriers
  – Unplanned adaptations (and drivers of adaptations)
  – Perspectives regarding potential LHD roles in intervention implementations/adaptations
Next Steps and Future Directions

• Theme issue of *American Journal of Preventive Medicine* in 2015 to feature manuscripts describing results of these efforts:
  – Process and outcome evaluations from KY and NC
  – Health communication message adaptation strategies
  – Social network analysis

• Pursue extramural funding to support nationwide dissemination and implementation based on results of this pilot effort

**Dissemination and Implementation Research in Health (R01)**

*R01* Research Project Grant

Reissue of *PAR-10-038*

- **December 5, 2013** - See Notice NOT-TW-14-005. Interest in Type 2 Diabetes Research Topics in PAR-13-055 "Disseminate the Global Alliance for Chronic Diseases (GACD) Initiative.

*PAR-13-055*
For Further Reading


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