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Dissemination and Implementation Research: Connecting Interventions to Practice

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Dissemination and Implementation Research: Connecting Interventions to Practice

March 14, 2014

Health Management and Policy Research Seminar

Anna Hoover, PhD; Coordinating Center Deputy Director

Angela Carman, DrPH, Coordinating Center Faculty



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

Anna Hoover, PhD
Coordinating Center
Deputy Director



Angela Carman, DrPH
Coordinating Center Faculty



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.

Dissemination and Implementation Research

Adoption: The decision of an organization or community to commit to and initiate an evidence-based intervention (EBI)

Adaptation: The degree to which a 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.

Dissemination and Implementation Research

- 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

Dissemination and Implementation Research

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

University of Kentucky PRC: Rural Cancer Prevention Center

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.



Slide courtesy of RCPC

Background

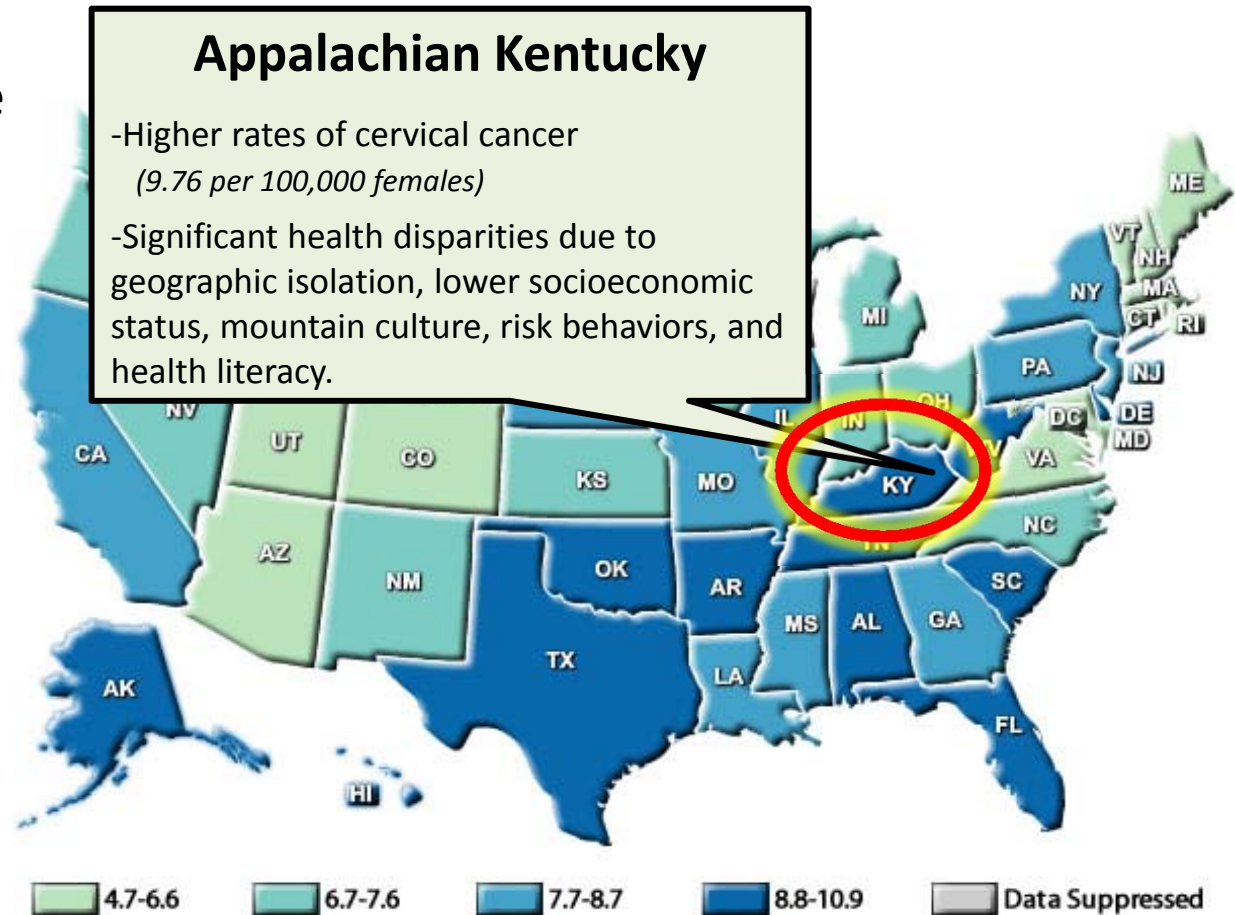
About **12,000 women** are diagnosed with cervical cancer **each year**.

United States

7.4 per 100,000 females

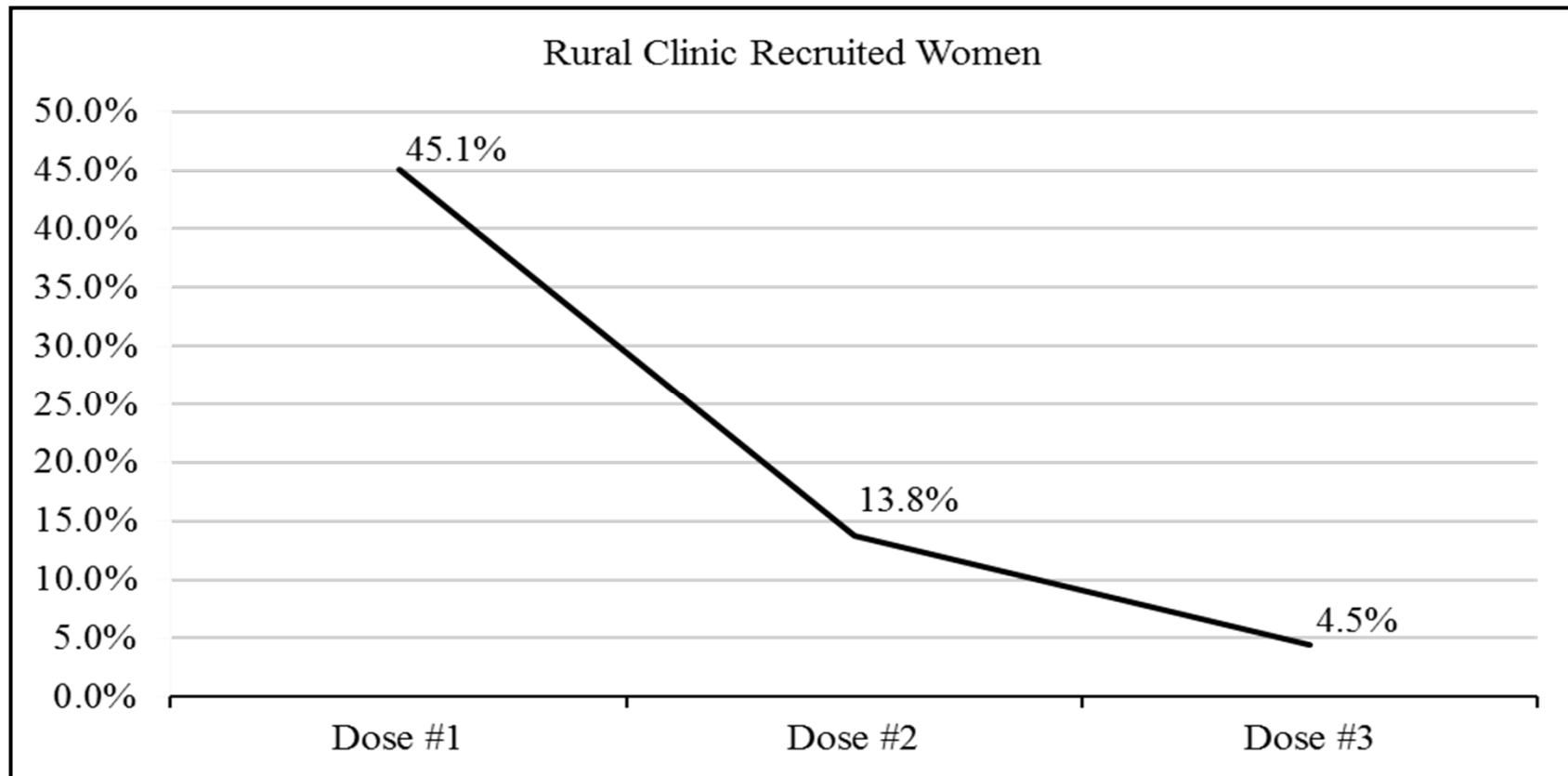
Kentucky

8.8 per 100,000 females



Slide courtesy of RCPC

Formative Research: Uptake and Adherence for Adult Women, Ages 18-26, Appalachian Kentucky



Slide courtesy of RCPC

Crosby, et al., *Journal of Rural Health*, 2011

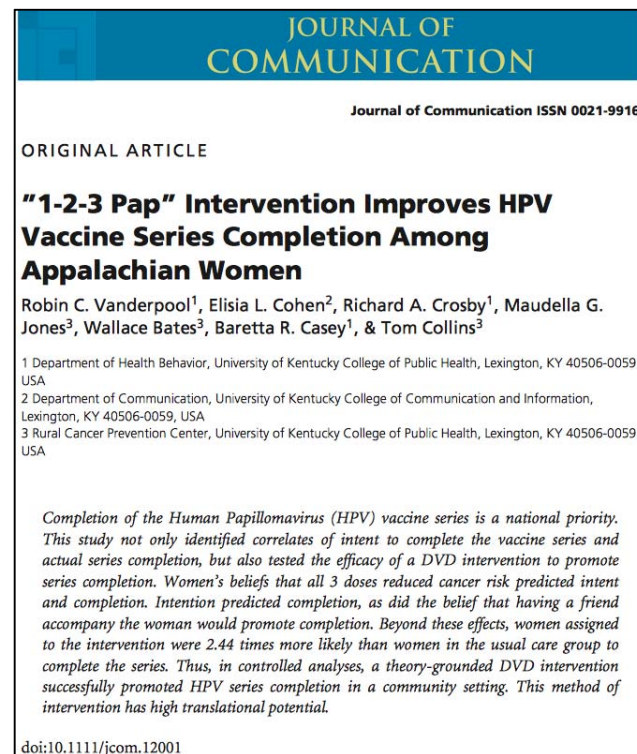
RCPC's 1-2-3 Pap Initiative

- 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% ($p=.03$).



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?

D & I Research in LHDs: Research Questions

- 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



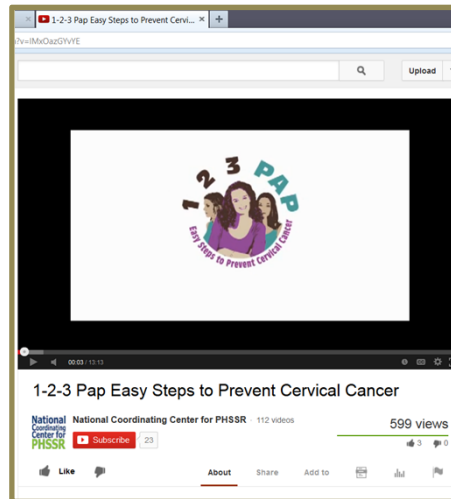
Mixed Methods: Quasi-Experimental Design (*n=18*)

- Dependent Variable: Δ 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



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Richmond
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Hours of Operation

Clinic

Mon, 8AM-6PM
Tues-Thurs, 8AM-4:30PM
Fri, 8AM-12PM

H.A.N.D.S.

Mon, 8AM-6PM
Tues, 9:30AM-6PM
Wed-Thurs, 8AM-4:30PM
Fri, 8AM-12PM

Environmental, MEPCO and
Administration
Mon-Fri 8AM-4:30PM

After Hours

Public Health and Environmental
Emergencies Only

[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 "Dissemination and Implementation Research in Health" to support the Global Alliance for Chronic Diseases (GACD) Initiative.
 - May 30, 2013 ([NOT-OD-13-074](#)) - NIH to Require Use of Updated Electronic Application Forms for Due Dates on or after September 25, 2013.
 - [March 15, 2013](#) - See Notice NOT-AI-13-034. Notice of Clarification of NIAID's Participation.
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PAR-13-055

For Further Reading

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