6-11-2013

The Public Health PBRN Program: Building the Science of Public Health Delivery

Glen P. Mays
University of Kentucky, glen.mays@uky.edu

Anna Goodman Hoover
University of Kentucky, aghoov2@uky.edu

Click here to let us know how access to this document benefits you.

Follow this and additional works at: https://uknowledge.uky.edu/hsm_present

Part of the Health Services Research Commons

Repository Citation
https://uknowledge.uky.edu/hsm_present/3

This Presentation is brought to you for free and open access by the Health Management and Policy at UKnowledge. It has been accepted for inclusion in Health Management and Policy Presentations by an authorized administrator of UKnowledge. For more information, please contact UKnowledge@lsv.uky.edu.
THE PUBLIC HEALTH PBRN PROGRAM:
BUILDING THE SCIENCE OF PUBLIC HEALTH DELIVERY

Glen Mays, PhD, MPH
Director and Professor of Health Services & Systems Research

Anna Goodman Hoover, PhD, MA
Deputy Director and Assistant Professor of Health Services Management

Public Health PBRN National Coordinating Center
University of Kentucky College of Public Health
Where Are We Going

- Why Study Public Health Delivery?
- The Problem with Research “on” Practice
- PBRN History and Rationale
- Where Are Public Health PBRNs?
- What Do Public Health PBRNs Look Like?
- What Do They Research?
- What Are the Benefits and Barriers?
- What Is the Role of the National Coordinating Center?
- Future Directions
- Questions
Why study public health delivery?

“The Committee had hoped to provide specific guidance elaborating on the types and levels of workforce, infrastructure, related resources, and financial investments necessary to ensure the availability of essential public health services to all of the nation’s communities. However, such evidence is limited, and there is no agenda or support for this type of research, despite the critical need for such data to promote and protect the nation’s health.”

—Institute of Medicine, 2003
Public health services & systems research

A field of inquiry examining the organization, financing, and delivery of public health services at local, state and national levels, and the impact of these activities on population health.

Mays, Halverson, and Scutchfield. 2003
PHSSR’s place in the continuum

**Intervention Research**
- What works – proof of efficacy
- Controlled trials
- *Guide to Community Preventive Services*

**Services/Systems Research**
- How to organize, implement and sustain in the real-world
  - Reach
  - Enforcement/Compliance
  - Quality/Effectiveness
  - Cost/Efficiency
  - Equity/Disparities
- Impact on population health
- Comparative effectiveness & efficiency
Subtitle D—Support for Prevention and Public Health Innovation

Patient Protection and Affordable Care Act of 2010

SEC. 4301. RESEARCH ON OPTIMIZING THE DELIVERY OF PUBLIC HEALTH SERVICES.

(a) IN GENERAL.—The Secretary of Health and Human Services (referred to in this section as the “Secretary”), acting through the Director of the Centers for Disease Control and Prevention, shall provide funding for research in the area of public health services and systems.

(b) REQUIREMENTS OF RESEARCH.—Research supported under this section shall include—

(1) examining evidence-based practices relating to prevention, with a particular focus on high priority areas as identified by the Secretary in the National Prevention Strategy or Healthy People 2020, and including comparing community-based public health interventions in terms of effectiveness and cost;

(2) analyzing the translation of interventions from academic settings to real world settings; and

(3) identifying effective strategies for organizing, financing, or delivering public health services in real world community settings, including comparing State and local health department structures and systems in terms of effectiveness and cost.
A national research agenda to improve public health delivery

- Public health system organization and structure
- Public health financing and economics
- Public health workforce
- Public health information and technology

Cross-cutting elements
- Quality
- Law and policy
- Equity and disparities
- Metrics and data
- Analytic methods

http://www.publichealthsystems.org/research-agenda.aspx
The Problem

MIND THE GAP
Where are Public Health PBRNs?

- First cohort (December 2008 start-up)
- Second cohort (January 2010 start-up)
- Affiliate/Emerging PBRNs (2011-13)
- (New in 2013)
What Do Public Health PBRNs Look Like?

Connecticut
(35.4% Centrality)

Florida
(15.6% Centrality)
What Do They Research?

**Workforce**

- Effects of Cultural Competency Training on Local Health Departments: A Randomized Trial (KY)
- Analyzing Concordance between Position Descriptions and Practice Standards for Public Health Nurses (OH)
- Local Health Department Workforce Reductions: Implications for Diversity and Health Disparities (WA)
- Evaluation of a Quality Improvement Project to Improve Workforce Diversity (WA)
What Do They Research?

System Structure and Performance

Quality Improvement

• Measuring Quality in Local Public Health Emergency Preparedness: the H1N1 Experience (CT)
• Comparative Effectiveness of State vs. Regional Approaches to QI in Public Health (GA)
• QI Collaboratives for Small and Rural Public Health Settings (GA)
• Public Health QI and Evidence-Based Diabetes Prevention (KY)
• Measuring the QI Continuum and Correlates in Public Health Settings (MN)
• Taxonomy of QI Methods, Techniques and Results in Public Health (MN)
• Public Health Accreditation and QI Philosophy (MO)
• QI Strategies & Regional Public Health Structures (NE)
• Regional Public Health Structures & Readiness for Accreditation & QI (NE)
What Do They Research?

System Structure and Performance

Food Safety

• Local Variation in Food Safety and Infectious Disease Control Practices (MA)
• Prevention, Investigation, and Intervention Related to Foodborne Illness in Ohio (OH)
• Direct Observation Methods in Local Public Health Settings: Foodborne Outbreak Practices in Ohio (OH)
What Do They Research?

System Structure and Performance

*Cross-Jurisdictional Sharing and Other Partnerships*

- Community Partnerships and Evidence-Based Prevention (CO)
- Current and Planned Shared Service Arrangements Among Wisconsin Local and Tribal Health Departments (WI)
What Do They Research?

System Structure and Performance

Other

- PHAST Retrospective Data Compilation and Transformation (WA)
- Measuring Quality in Local Public Health Emergency Preparedness (CT)
- Integrated HIV/AIDS and STD Service Delivery in New York (NY)
- Measuring the Quality of Community Health Improvement Planning and Implementation (WI)
- Local Variation in H1N1 Response in North Carolina (NC)
- Local Public Health Responses to the County Health Rankings (FL)
- Utilization and Effectiveness of a Health Equity Index in Mobilizing Local Public Health Action (CT)
- Comparative Effectiveness Research Tools for Examining Public Health Services and Outcomes (NC)
- Variation in Local Public Health Actions to Address Health Inequities (MN)
What Do They Research?

Financing and Economics

• Economic Shocks & Evidence-Based Decision-Making in Public Health (WA)
• Financial Constraints, Regionalization Incentives, and Public Health Responses (CT)
• Variation in Local Enforcement of State Public Health Policy (OH)
• Resource Allocation and Public Health Roles in Safe Routes to Schools (CO)
• Forecasting the Impact of the Economic Recession on Public Health Financing (WI)
• Consolidation of Local Public Health Jurisdictions: Financial Implications (OH)
• The Cost of Doing Business: Developing a Cost Model for a Minimum Package of Local Public Health Services (OH)
What Do They Research?

Information and Technology

• Local Variation in H1N1 Communication and Response in Kentucky (KY)
• Local Information Systems for Studying Public Health Practice and Outcomes (WI)
• Effects of Health Information Exchange Systems on Public Health and Primary Care Alignment (GA)
What Are the Benefits and Barriers?

Benefits
- Structural Heterogeneity
- Geographic Variation
- Context-Based

Barriers
- Structural Heterogeneity
- Geographic Variation
- Context-Based
What Is the Role of the National Coordinating Center?

Agenda Setting
### What Is the Role of the National Coordinating Center?

#### Research Coordination

<table>
<thead>
<tr>
<th>Measure Code</th>
<th>Measure Name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>210</td>
<td>Elevated blood lead level (community)</td>
<td>Quality and effectiveness of detection and treatment to prevent lead poisoning and its long-term consequences.</td>
</tr>
<tr>
<td>220</td>
<td>Elevated blood lead level (individual)</td>
<td>Number of children with elevated blood lead levels (≥5 μg/dL) among children age 0-12 months and 1-4 years.</td>
</tr>
<tr>
<td>230</td>
<td>Elevated blood lead level (in-patient)</td>
<td>Number of in-patient hospitalizations due to lead poisoning.</td>
</tr>
<tr>
<td>240</td>
<td>Elevated blood lead level (out-patient)</td>
<td>Number of out-patient visits due to lead poisoning.</td>
</tr>
</tbody>
</table>

#### Tobacco Prevention and Control Bundle

<table>
<thead>
<tr>
<th>Measure Code</th>
<th>Measure Name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>310</td>
<td>Smoking-related policy exposure (community)</td>
<td>Proportion of adults who report exposure to secondhand smoke in public places, workplaces, and homes.</td>
</tr>
<tr>
<td>320</td>
<td>Smoking-related policy exposure (individual)</td>
<td>Proportion of adults who report exposure to secondhand smoke in their homes.</td>
</tr>
</tbody>
</table>

#### Immunization Bundle

<table>
<thead>
<tr>
<th>Measure Code</th>
<th>Measure Name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>410</td>
<td>Childhood immunization completeness (individual)</td>
<td>Proportion of children age 0-4 years who received all recommended doses of vaccines as of the data collection date.</td>
</tr>
</tbody>
</table>

#### Lead Protection Bundle

<table>
<thead>
<tr>
<th>Measure Code</th>
<th>Measure Name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>510</td>
<td>Elevated blood lead level (community)</td>
<td>Quality and effectiveness of detection and treatment to prevent lead poisoning and its long-term consequences.</td>
</tr>
</tbody>
</table>

#### National Coordinating Center Measures Inventory – Measure Descriptions

1. **Tobacco Prevention and Control Bundle**
   - **Smoking-related policy exposure (community)**: Proportion of adults who report exposure to secondhand smoke in public places, workplaces, and homes. This measure is important for understanding the prevalence of secondhand smoke exposure and its impact on public health. Sources include data collected through surveys and other public health surveillance systems.

2. **Immunization Bundle**
   - **Childhood immunization completeness (individual)**: Proportion of children age 0-4 years who received all recommended doses of vaccines as of the data collection date. This measure is crucial for assessing the effectiveness of immunization programs and the coverage of vaccines among the population. Sources include data collected through health care providers and electronic health records.

### Public Health Practice-Based Research Networks

**National Coordinating Center**

- **Domain**: Environmental Health Protection
- **Measure Code**: 210
- **Measure Name**: Elevated blood lead level (community)
- **Description**: Number of cases of elevated blood lead in children age 0-5 years identified in the past 12 months, as per CDC guidelines. Elevated blood lead levels can have long-term effects on cognitive development, behavior, and other health outcomes. Sources include data collected through health care providers and electronic health records.
What Is the Role of the National Coordinating Center?

Capacity-Building
What Is the Role of the National Coordinating Center?

Communication

Public Health PBRN Monthly Virtual Meeting
January 17, 2013
Research-in-Progress Presentation by Kentucky PBRN
Community Outreach and Change for Diabetes Management (COACH 4 DM)
Rick Ingram, EdD, Dr PH, Angela Dearinger, MD, MPH, Robin Pendley, DrPH, and Sarah Wilding, RN, MPA

If you are dialed into the conference line on the telephone, please turn off your computer speakers.
Please mute your telephone until the Q&A. If your telephone does not have a mute button, please press *6 to mute and #6 to unmute.

Public Health PBRN Review | January 2013

PBRN Grantees: Please circulate relevant information to network members. To request additional information or make suggestions for future items, please contact the Public Health PBRN National Coordinating Center (NCC) at publichealthpbrn@uky.edu or (859) 238-2094. Past issues are available in the newsletter archive.

STAT OF THE MONTH
The number of people with diabetes who attended disease self-management sessions on a monthly basis increased by 14%, and the number of people who completed an entire self-management course increased by more than 100%, following implementation of a quality improvement intervention delivered by Kentucky local health departments to improve delivery of evidence-based diabetes self-management support in community settings. The Kentucky Public Health PBRN’s Community Outreach and Change for Diabetes Management (COACH 4 DM) Quality Improvement intervention also found that more than half of participating health departments initiated additional QI projects, while 82% of all program staff indicated that additional QI projects were under consideration in their organizations. Preliminary findings from the study were presented during the Research-in-Progress segment of the January 2013 Public Health PBRN Virtual Meeting. An archive of the presentation will be available on the PBRN website.

PBRN NEWS
RE-ACT Podcast Examines Cross-Jurisdictional Sharing with the Massachusetts Public Health PBRN.
The latest episode of the RE-ACT: Research to Action in Public Health Services and Systems Research podcast is now available online. Host Dr. Paul Halverson speaks with Dr. Justeen Hyde about recent research conducted by the Massachusetts Public Health PBRN to identify characteristics related to successful cross-jurisdictional sharing (CJS) partnerships formed between local health departments. This podcast comes on the heels of a recent PHSRR Matters from the National Coordinating Center for PHSRR that highlights additional CJS-related Quick Strike research from the Wisconsin Public Health PBRN. This PBRN research promises to add momentum to the work of the recently-launched Center for Sharing Public Health Resources.

Frontiers Analyzes Wellness Incentives, Hospital Community Benefits, Social Media Adoption: The PBRN program’s journal Frontiers in Public Health Services and Systems Research opens 2013 with a new volume of emerging studies on public health delivery. The University of Pennsylvania’s Harold Schmidt examines the public acceptability of workplace wellness incentive programs, finding that reward-based incentives are favored by the public over penalty-based ones by a factor of four, and that the acceptable size of penalty-based programs is quite small. The findings have important implications for recently released HHS draft regulations on employer wellness programs to be implemented under the federal Affordable Care Act. Also in the issue, George Washington University’s Sara Rosenbaum and colleagues offer a comparative analysis of federal and state community benefit reporting systems for tax-exempt hospitals. The authors find that most state programs lack the specificity and clarity that is
What Is the Role of the National Coordinating Center?

Technical and Administrative Assistance

Grants Administration Update:
Budget Extension/Revisions

- All requests for award extensions or budget revisions must be requested in writing to the PBRN National Coordinating Center-Formal Process
- Extension Request Questions
  - What end date are you requesting?
  - What caused the change in the program/project?
  - What scope of work will occur during the extension period?
  - Is this new work or work originally planned under the grant?
  - What will be the new timeline, benchmarks and/or deliverables?
  - If approved, how will you keep us informed that the new timeline is being met?
- Budget Revision Worksheet and Budget Narrative
  - Reallocation of funds
  - Anticipate spending >10% in any budget category
- When?
  - Revisions: Before funds are spent
  - Extensions: At least 3 weeks before end of grant date
Future Directions

Cost Studies

2013 Request for Proposals
Proposal Deadline: March 29, 2013

PUBLIC HEALTH DELIVERY AND COST STUDIES: USING PRACTICE BASED RESEARCH NETWORKS TO IDENTIFY THE COMPONENTS AND COSTS OF EFFECTIVE PRACTICE

PURPOSE
Public Health Practice-Based Research Networks (PBRNs) is a national program of the Robert Wood Johnson Foundation (RWJF) that supports researcher-practitioner networks dedicated to discovering ways to improve the delivery of public health services. A public health PBRN brings multiple public health agencies together with research partners to design and implement comparative studies in real-world practice settings. The Public Health Delivery and Cost Studies Award will support selected PBRNs in implementing studies designed to identify the costs of delivering high-value public health services, and to elucidate the delivery system characteristics that influence the effectiveness, efficiency, and equity of these services. Two categories of awards are available. Category One awards will support focused studies of up to 12 months in duration that estimate the costs of delivering specified public health services, and compare these costs across multiple public health settings within a PBRN using a standard methodology. Category Two awards will support larger comparative studies of up to 18 months in duration that investigate how delivery system characteristics influence the cost of delivering public health services and the effectiveness and/or equity of delivering these services. The Public Health PBRN National Coordinating Center at the University of Kentucky College of Public Health will coordinate the studies and facilitate the use of standardized approaches to enable data from the individual studies to be pooled for comparative analysis across large numbers of practice settings.

BACKGROUND
The scope and scale of public health activities vary widely across communities, as do the institutional and financial arrangements used to produce these activities. However, important gaps in knowledge exist about the causes and consequences of this variation, the degree of alignment with community needs and preferences, and the effects on population health. Efforts to improve the quality, efficiency, and outcomes of public health practice require an in-depth understanding of how these activities are produced and delivered within communities. Very little empirical evidence currently exists concerning what economists and management scientists term the production functions for public health activities—the mechanisms through which the inputs of time, money, labor, and information are transformed into programs, services, and policies designed to protect and promote health.

There is also a critical gap in scientific and professional knowledge concerning resources required to deliver a basic set of public health protections for a defined community or population group. This
Future Directions

Injury Prevention

CDC
Injury Prevention
Future Directions

Dissemination and Implementation

Potential Research Questions

- Can specific online dissemination tools (e.g., static web pages, open access journals, and podcasts) be accessed easily by local and state health departments? If not, why not?

- Are intended recipients of evidence-based information people who would be able to take action on it? If not, why not, and what individuals are in positions that would allow them to take evidence-based action?
Future Directions

Making Connections

- Public Policy
  - national, state, local laws
- Community
  - relationships among organizations
- Organizational
  - organizations, social institutions
- Interpersonal
  - family, friends, social networks
- Individual
  - knowledge, attitudes, skills

PAP

1 2 3

Easy Steps to Prevent Cervical Cancer
Harvesting the power of public health systems: Toward “rapid-learning systems”
For More Information

Supported by The Robert Wood Johnson Foundation

Email: publichealthPBRN@uky.edu
Web: www.publichealthsystems.org
Journal: www.FrontiersinPHSSR.org
Archive: www.works.bepress.com/glen_mays

Phone: 859-218-0013; Fax: 859-257-3748

University of Kentucky College of Public Health
Lexington, KY