Direct Observation of Local Public Health: Applying Lessons from Primary Care to a Public Health Practice Based Research Network

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Ohio Research Association for Public Health Improvement
Public Health Practice-Based Research Network
What is RAPHI?

RAPHI is an organized group of public health agencies engaged in ongoing collaborations with public health research centers to conduct rigorous, applied studies designed to identify ways of improving the organization, financing and delivery of public health services in real world community settings.
What is RAPHI?

- RAPHI is a Public Health Practice-Based Research Network (PH PBRN)
- 1 of 12 funded PH PBRNs and 12 affiliate PH PBRNs nationally (total 24)
- PH PBRNs support the development & dissemination of evidence-based public health practices
  - Resulting in improved performance, greater accountability and more stable funding
- Funded by the Robert Wood Johnson Foundation (RWJF)
  - Project began in December 2009 and is currently funded through 2013
RAPHI

- Translate and Apply Data
- Identify Questions of Common Interest
- Engaged Research Partners
- Engaged Public Health Practice
- Engaged Community Partners
- Analyze and Interpret Data
- Apply Rigorous Research Methods
- Exchange Data
Membership

- Membership is open to:
  - 125 local health departments in Ohio
  - 7 public health academic programs in Ohio
  - The Ohio Department of Health
  - Ohio Public Health Partnership

- Executive Committee consists of:
  - 2 Principal Investigators
  - 1 Project Coordinator
  - 1 representative from Academic Public Health in Ohio
  - 1 representative from the Ohio Department of Health
  - 1 representative from a Local Health Department in Ohio
  - 1 representative from the Ohio Public Health Partnership
  - 1 representative Ohio Public Health Training Center
Motivating & Recruiting Involvement

- Many hands make light work
- Research questions are initiated from the passion of the public health practice community
- Need to demonstrate the value and worth of local public health
- Need to understand what works and what doesn’t
- Need to identify and disseminate best practices in Ohio health departments
- Opportunity to build closer partnerships
- Funding uniquely available through RAPHI to address Ohio public health priorities
Current Projects

- Investigating the Use of Public Health Information Technology in Local Health Departments
- Variation in Enforcement of the Ohio Smoke Free Work Place Act by Local Health Departments
- Analyzing the Difference between Position Descriptions for Ohio Public Health Nurses and Standard Descriptions of PH Nursing Competency and Scope of Practice
- The Future of Teaching in Local Health Departments: Budgetary Decreases and the Extent and Nature of Student Experiences in Governmental Public Health
- Local Ohio Public Health Law (LOPHL) Database
- Partnership for Integrated Community Health
- A Depth Investigation of the Role and Value of the Small Jurisdiction Local Health Departments in the US Public Health System
- Direct Observation of Local Public Health: The Role of the Local Health Department in Prevention, Investigation, and Management of Foodborne Outbreak
Direct Observation of Local Public Health

Lack of credible evidence regarding the types and levels of workforce, infrastructure, related resources, and financial investments in public health limit elaboration of a rational approach to changing the public health system in the face of health reform.
## Direct Observation Insights

<table>
<thead>
<tr>
<th>Insights from the Direct Observation of Primary Care Study⁴</th>
<th>Suggested Implications for Public Health Research</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conduct research from a generalist perspective</td>
<td>Conduct research from a public health practice perspective</td>
</tr>
<tr>
<td>Involve clinicians and office staff from community practices</td>
<td>Involve public health practitioners and office staff from local health departments</td>
</tr>
<tr>
<td>Commit to a transdisciplinary team</td>
<td>Commit to a transdisciplinary research team, given the transdisciplinary nature of public health practice</td>
</tr>
<tr>
<td>Use a multimethod research approach</td>
<td>Use a multimethod research approach</td>
</tr>
<tr>
<td>Remain open to emerging ideas and insights</td>
<td>Remain open to emerging ideas and insights</td>
</tr>
<tr>
<td>Think big, but start small</td>
<td>Think big, but start small</td>
</tr>
</tbody>
</table>
Purpose: Using the Foodborne Illness as a public health archetype, the Direct Observation of Local Public Health (DOLPH) study will seek to illuminate the “Black Box” of public health practice—structure, process, and outcome of the local health department (LHD) role in Foodborne Illness prevention, investigation, and intervention.
Foodborne Illness as an Archetypal Public Health Problem

Allows observation of:

- prevention (food inspection)
- surveillance (epidemiology)
- investigation of infectious gastroenteritis (epidemiologic investigation)
- diagnosis (public health labs)
- partnership (particularly with medical care services)
- collaboration (cross jurisdictional LHD, Ohio Department of Health, Centers for Disease Control)
- decision-making (public health leadership)
- infection control (medical director, public health nursing)
- intervention (public health leadership, medical director)
- risk communication (public information officer)
DOLPH Research Structure

- Seven Academic Programs
  - DOLPH Liaison(s) at each
  - Regular Distance Meetings
- 3 to 5 local health departments per program
  - Regular contact with Liaison to report on progress and assure opportunity for feedback
- 3 to 5 student observers
  - Statewide and local training
The DOLPH Approach to Exploration of the Role of Local Health Departments in Foodborne Outbreaks
Black Box of Local Public Health

Policy and Legal Authority
Funding
Partnership
Human Capital
Population Needs

LHDs and Delivery Systems

Service Delivery

Health, Economics, and Systems Outcomes

Sources of Valid and Error Variation
Illuminating the Black Box of Local Public Health
DOLPH Tools—Structural Component

- LHD Profile
- LHD Leadership Profile
- Sanitarian Profile
- LHD Disease Investigation Team Profile
- Jurisdictional Profile
DOLPH Tools—Prevention Component

- Brief Pre-Inspection Interview
- Observational Protocol
- Brief Post-Inspection Interview
### DOLPH Observational Protocol Validity and Inter-Rater Reliability

<table>
<thead>
<tr>
<th>Variable</th>
<th>N</th>
<th>Percent Correct</th>
<th>Gold Standard</th>
</tr>
</thead>
<tbody>
<tr>
<td>RS admits uncertainty</td>
<td>27</td>
<td>85.2%</td>
<td>(Not at all)</td>
</tr>
<tr>
<td>PIC uses humor</td>
<td>27</td>
<td>55.6%</td>
<td>(Not at all)</td>
</tr>
<tr>
<td>RS uses humor</td>
<td>27</td>
<td>85.2%</td>
<td>(More than once)</td>
</tr>
<tr>
<td>PIC interrupts RS</td>
<td>27</td>
<td>74.1%</td>
<td>(Not at all)</td>
</tr>
<tr>
<td>RS uses unexplained jargon</td>
<td>27</td>
<td>100%</td>
<td>(Not at all)</td>
</tr>
<tr>
<td>Argumentation occurs</td>
<td>27</td>
<td>96.3%</td>
<td>(Not at all)</td>
</tr>
<tr>
<td>RS gives Positive Feedback</td>
<td>27</td>
<td>96.3%</td>
<td>(More than once)</td>
</tr>
<tr>
<td>RS gives Negative Feedback</td>
<td>27</td>
<td>88.9%</td>
<td>(Not at all)</td>
</tr>
<tr>
<td>RS threaten punitive action</td>
<td>27</td>
<td>100%</td>
<td>(No)</td>
</tr>
<tr>
<td>Favors offered to RS</td>
<td>27</td>
<td>96.3%</td>
<td>(No)</td>
</tr>
<tr>
<td>RS gave clear feedback</td>
<td>27</td>
<td>92.6%</td>
<td>(More than once)</td>
</tr>
<tr>
<td>RS discuss improvement plan</td>
<td>27</td>
<td>85.2%</td>
<td>(More than once)</td>
</tr>
<tr>
<td>RS confirms understanding</td>
<td>27</td>
<td>63.0%</td>
<td>(More than once)</td>
</tr>
<tr>
<td>RS offers education</td>
<td>26</td>
<td>55.6%</td>
<td>(More than once)</td>
</tr>
<tr>
<td>RS elicits questions</td>
<td>26</td>
<td>66.6%</td>
<td>(Once or more)</td>
</tr>
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## DOLPH Observational Protocol
### Validity and Inter-Rater Reliability

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<th>Variable</th>
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</thead>
<tbody>
<tr>
<td>RS accompanied by PIC</td>
<td>25</td>
<td>88.9%</td>
<td>(No)</td>
</tr>
<tr>
<td>PIC voiced raised</td>
<td>27</td>
<td>96.3%</td>
<td>(No)</td>
</tr>
<tr>
<td>RS voiced raised</td>
<td>26</td>
<td>92.6%</td>
<td>(No)</td>
</tr>
<tr>
<td>PIC cooperative</td>
<td>27</td>
<td>100%</td>
<td>(Yes)</td>
</tr>
<tr>
<td>PIC engagement</td>
<td>27</td>
<td>96.3%</td>
<td>(Engaged)</td>
</tr>
<tr>
<td>PIC thank RS</td>
<td>26</td>
<td>96.3%</td>
<td>(Yes)</td>
</tr>
<tr>
<td>RS thank PIC</td>
<td>26</td>
<td>96.3%</td>
<td>(Yes)</td>
</tr>
<tr>
<td>PIC question RS judgment</td>
<td>27</td>
<td>96.3%</td>
<td>(No)</td>
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<tr>
<td>PIC question RS fairness</td>
<td>27</td>
<td>100%</td>
<td>(No)</td>
</tr>
<tr>
<td>PIC question RS authority</td>
<td>27</td>
<td>100%</td>
<td>(No)</td>
</tr>
<tr>
<td>Electronic record used</td>
<td>24</td>
<td>88.9%</td>
<td>(No)</td>
</tr>
<tr>
<td>Check-out time</td>
<td>26</td>
<td>59.3%</td>
<td>(1-5minutes)</td>
</tr>
<tr>
<td>RS accompanied by PIC</td>
<td>25</td>
<td>88.9%</td>
<td>(No)</td>
</tr>
<tr>
<td>Inspection results discussed privately</td>
<td>27</td>
<td>59.3%</td>
<td>(No)</td>
</tr>
</tbody>
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# DOLPH Observational Protocol

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<th>Variable</th>
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<tr>
<td>PIC admits uncertainty</td>
<td>26</td>
<td>48.1%</td>
<td>(Once)</td>
</tr>
<tr>
<td>RS Interrupts PIC</td>
<td>27</td>
<td>14.8%</td>
<td>(Once)</td>
</tr>
<tr>
<td>PIC question RS knowledge</td>
<td>27</td>
<td>7.4%</td>
<td>(Yes)</td>
</tr>
<tr>
<td>Hand on Doorknob Syndrome</td>
<td>27</td>
<td>37.0%</td>
<td>(Yes)</td>
</tr>
<tr>
<td>PIC uses humor</td>
<td>27</td>
<td>55.6%</td>
<td>(Not at all)</td>
</tr>
<tr>
<td>RS offers education</td>
<td>26</td>
<td>55.6%</td>
<td>(More than once)</td>
</tr>
<tr>
<td>Inspection results private</td>
<td>27</td>
<td>59.3%</td>
<td>(No)</td>
</tr>
<tr>
<td>Check-out time</td>
<td>26</td>
<td>59.3%</td>
<td>(1-5 minutes)</td>
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Qualitative Preliminary Feedback: Registered Sanitarian Interviews

Perceptions

- Difficult to record the multiple tasks without dialogue, but the violation report at the end of the inspection should be helpful
- Students are not intrusive, act/dress professionally and are accurately capturing the full range of actions
- “The study is definitely helpful to dispel a lot of half truths – people think we [RS] are coming in to shut them down. We have good relationship with our [food service] operators.”
Qualitative Preliminary Feedback: Student Observer Interviews

Themes

- Methodology allows for observation of
  - Interpersonal interactions between Person In Charge and RS
  - Differences in the process of FSE Inspections
- Observers are able to better understand
  - Role of food safety education
  - Variation in Food Service Establishments
- Observers comment on great experience observing RS
Thank You, Steve!