Using Expert Panels to Elicit Potential Indicators and Predictors of EBPH in Local Health Departments

Robert Aronson  
*University of North Carolina at Greensboro*

Kay Lovelace  
*University of North Carolina at Greensboro*

Mark Smith  
*University of North Carolina at Greensboro*

Gulzar H. Shah  
*Georgia Southern University, gshah@georgiasouthern.edu*

Follow this and additional works at: [https://digitalcommons.georgiasouthern.edu/health-policy-facpres](https://digitalcommons.georgiasouthern.edu/health-policy-facpres)

Part of the Health Policy Commons, and the Health Services Administration Commons

**Recommended Citation**

[https://digitalcommons.georgiasouthern.edu/health-policy-facpres/2](https://digitalcommons.georgiasouthern.edu/health-policy-facpres/2)

This presentation is brought to you for free and open access by the Health Policy & Management, Department of at Digital Commons@Georgia Southern. It has been accepted for inclusion in Health Policy and Management Faculty Presentations by an authorized administrator of Digital Commons@Georgia Southern. For more information, please contact digitalcommons@georgiasouthern.edu.
Using expert panels to elicit potential indicators and predictors of EBPH in local health departments

Robert E. Aronson, DrPH, MPH (co-PI), UNCG
Kay Lovelace, PhD, MPH (co-PI), UNCG
Gulzar Shah, PhD, MSS, Mstat (co-I), GSU

Support for this study was provided by a grant from the Robert Wood Johnson Foundation
Disclosure

Neither we, nor our spouses/partners have had a financial, professional or personal relationship that might potentially bias and/or impact the content of the educational activity/session.

Robert Aronson, Kay Lovelace, Mark Smith, Gulzar Shah
Today’s Objectives

• To distinguish between definitions of EBPH that focus on using data in decision making and adopting tested interventions

• To identify state, LHD and community level factors that influence the use of EBPH strategies by local health departments

• To consider how different views of EBPH and different definitions of evidence may create confusion among PHSSR researchers and public health practitioners
Description of Expert Panel Members

- 14 total participants (12 completed the oral components of interviews)

- The 12 represented the following
  - Local health departments (n=1)
  - State health departments (n=3)
  - National public health organizations* (n=6)
  - Academia (n=2)

*NACCHO, NALBOH, ASTHO, Public Health Foundation, National Network of Public Health Institutes, CDC
Methods Used to Gather Input

• Written responses to items from interview guide (11 questions)

• Telephone interviews to expand on and explain responses to the written form

• Working definition: “practices and policies of the [public health] field based on data” from sources such as research, surveillance and evaluation (Green et al., 2009)
Questions Organized around Four Domains

- Defining Evidence-Based Public Health
- What counts as evidence?
- Indicators of EBPH: What does it look like? (related to population health, social determinants of health and health disparities)
- Factors influencing local health departments use of EBPH strategies
Data Analysis Process

- Interviews recorded, transcribed and imported into NVivo
- Designed a preliminary coding guide.
- Trained team of coders
- Finalized coding
- Completed coding, with each transcript coded by two separate investigators
Analysis of Interviews

- Summarized responses from each participant for each of the four domains
- Examined each domain for major themes across all participants
- What themes emerged for the domains?
- Created analytic matrix of domains across all participants
**Example of Data Matrix**

**Defining EBPH**

<table>
<thead>
<tr>
<th>Name</th>
<th>Evidence Based Decision Making</th>
<th>Evidence Based Interventions</th>
<th>Differences with our definition of EBPH</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Working definition</strong></td>
<td>Our working definition of evidence-based public health (EBPH) is “practices and policies of the [public health] field based on data” from sources such as research, surveillance, and evaluation (Green et al., 2009)</td>
<td>“using strategies that have been studied, tested and shown to make a difference”</td>
<td>No difference, but need to define evidence.</td>
</tr>
<tr>
<td><strong>P1</strong></td>
<td>process look at literature collect data to inform needs evaluation of programs</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>P2</strong></td>
<td>7 steps starting with community assessment and ending in evaluation (he sees these steps as different from evidence based decision making) EBPH is a process or series of steps, evidence based decision making is the thinking and concrete actions (active behavior) leading up to a decision about what to do about a health issue. “Evidence based decision making in my view is when we decide what to do about a health problem. We will employ the steps of EBPH to reach a decision and it means taking into account the context, the resources, stakeholder input, literature and making a decision about what to do.” (he recognizes that others refer mostly to intervention strategies shown to produce desirable behavioral or health outcomes)</td>
<td>Our definition is too narrow, misses best processes. He distinguishes 7 steps from decision making. Decisions should not just be based on “data” but also political realities.</td>
<td></td>
</tr>
</tbody>
</table>
Theme: Divergent Expert Opinion about EBPH and Evidence

• What is meant by evidence-based public health? Experts had divergent views on what is meant by the term EBPH
  ◦ Use of tested interventions
  ◦ Decision making for public health based on evidence

• What counts as evidence? Experts had divergent views on what we should consider as evidence
  ◦ Evidence from rigorous scientific studies
  ◦ Evidence from experience
Indicators of EBPH

- What would you be looking for if trying to find out if a local health department is engaged in evidence-based public health?

- What would you see the local health department doing?
Engaged in Evidence-based Decision Making when they used:

- Epidemiology and surveillance data
- Theory, frameworks and planning models informed by evidence
- Surveys conducted and administered using scientific design (BRFSS, American Household Survey)
- Expert opinions from people in the field as well as local “community experts”
- Community perspectives, and
- An understanding of political realities
Engaged in Evidence-based Interventions when they adopted:

- RCT tested interventions
- Interventions supported through systematic reviews (Community Guide)
- Interventions shown to be effective using evaluations that have control groups
- Interventions supported by the experiences of programs that are working
- Promising practices
- Practice-based evidence that is not in peer reviewed journals (e.g., NACCHO model practices)
Predictors of EBPH

- What factors might influence whether local health departments use EBPH strategies, processes, practices, and activities to address population health?
  - State level predictors
  - Board of health predictors
  - Local health department predictors
  - Community predictors
## Predictors of LHDs use of EBPH

### Predictors of LHD Use of EBPH to address population health

<table>
<thead>
<tr>
<th>State</th>
<th>Board of Health</th>
<th>Local Health Department</th>
<th>Community</th>
</tr>
</thead>
<tbody>
<tr>
<td>Incentives</td>
<td>Use core competencies in hiring</td>
<td>Competency of health officer</td>
<td>Education levels</td>
</tr>
<tr>
<td>Penalties</td>
<td>Require health dir. use EBPH</td>
<td>Performance reviews</td>
<td>Income levels</td>
</tr>
<tr>
<td>Technical assistance</td>
<td>Perf. Review of health director</td>
<td>Epidemiologist</td>
<td>Community demands</td>
</tr>
<tr>
<td>Funding/costs</td>
<td>Value evidence</td>
<td>Leadership conveys importance</td>
<td>Concerns about disparities</td>
</tr>
<tr>
<td>Infrastructure</td>
<td>Hold health dir. accountable</td>
<td>“quality” culture</td>
<td>Political dynamics</td>
</tr>
<tr>
<td>Culture</td>
<td>Awareness of pop. health needs</td>
<td>Accreditation</td>
<td>Economic disparities</td>
</tr>
<tr>
<td>Available data sources</td>
<td>Awareness of PH mission</td>
<td>Respond to expect. of funders</td>
<td>Percent below poverty</td>
</tr>
<tr>
<td>Programmatic expertise</td>
<td>Relationship to LHD</td>
<td>Quality Improvement process</td>
<td>Community leadership</td>
</tr>
<tr>
<td>State mandates to use EBPH</td>
<td>Political concerns</td>
<td>Workforce development</td>
<td>Social capital</td>
</tr>
<tr>
<td>Qualifications for health officers</td>
<td>State and local laws for BOH</td>
<td>Public health training of staff</td>
<td>Strong organizations</td>
</tr>
<tr>
<td>Business as usual attitude</td>
<td>Composition of board (right people), representative</td>
<td>Funding</td>
<td>Health department known and</td>
</tr>
<tr>
<td>Politics of state HD appointment</td>
<td>Board development/orientation</td>
<td>Adequate staff</td>
<td>trusted in the community</td>
</tr>
<tr>
<td>Who governs state HD</td>
<td>Understand EBPH, CQI, community engagement</td>
<td>Look upstream</td>
<td>History</td>
</tr>
<tr>
<td>If state BOH, how representative or</td>
<td>Involved in community health assessment and strategic</td>
<td>When trained (staff)</td>
<td>Acknowledgement of concerns</td>
</tr>
<tr>
<td>engaged and effective</td>
<td>planning</td>
<td>Relationship to BOH</td>
<td>Buy in from beginning</td>
</tr>
<tr>
<td>Funding goal EBPH or keep $$ at</td>
<td>Where they get their info</td>
<td>Organizational structure</td>
<td>Sharing progress and challenges</td>
</tr>
<tr>
<td>state level</td>
<td>Understand community, health disparities, social</td>
<td>Partners</td>
<td>Celebrating success</td>
</tr>
<tr>
<td>View toward what level to</td>
<td>determinants, community engagement, health</td>
<td>Regulations</td>
<td></td>
</tr>
<tr>
<td>emphasize state or local</td>
<td>disparities</td>
<td>Is health director MD</td>
<td></td>
</tr>
<tr>
<td>Look at county health rankings</td>
<td></td>
<td>Embracing change</td>
<td></td>
</tr>
<tr>
<td>Centralized or decentralized</td>
<td></td>
<td>Size of health department</td>
<td></td>
</tr>
<tr>
<td>Coordination with state DOH</td>
<td></td>
<td>Integration of services</td>
<td></td>
</tr>
<tr>
<td>Replication of work</td>
<td></td>
<td>Analytic capabilities of staff</td>
<td></td>
</tr>
<tr>
<td>Sustainability across local</td>
<td></td>
<td>Relevant and timely data</td>
<td></td>
</tr>
<tr>
<td>jurisdictions</td>
<td></td>
<td>Planning process</td>
<td></td>
</tr>
<tr>
<td>Coordination with academic partners</td>
<td></td>
<td>CQI culture in place</td>
<td></td>
</tr>
<tr>
<td>Trans-sector work</td>
<td></td>
<td>Ease of implementation</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Academic partnerships</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Cultural competency</td>
<td></td>
</tr>
</tbody>
</table>

- **Education levels**: Income levels
- **Community demands**: Concerns about disparities
- **Concerns about disparities**: Political dynamics
- **Economic disparities**: Percent below poverty
- **Community leadership**: Social capital
- **Social capital**: Strong organizations
- **Health department known and trusted in the community**: History
- **History**: Acknowledgement of concerns
- **Acknowledgement of concerns**: Buy in from beginning
- **Sharing progress and challenges**: Celebrating success
- **Celebrating success**:
Example Predictors (State level)

- Incentives/Penalties
- State mandates
- **Technical assistance and support** *
- **Leadership and Culture of SHD**
- **Governance structure related to LHDs** *
- **Politics surrounding SHD and director**
- Funding that supports EBPH
- **Quality improvement practices** *

* Indicates critical factors.
Example Predictors (LHD level)

• Leadership and culture of LHD
• Relationship to Board of Health*
• Academic training of health director*
• Size of the health department*
• Number and type of professional staff*
• Relationship and partnering with community
• Funding*
• Access to relevant and timely data
Example Predictors (Community level)

- Socio-demographics of county*
- Presence/absence of social and health disparities*
- **Trust of the health department**
- Community concerns/demands
- Partnerships with LHD
- **Community leadership**
- Strong community organizations
- Social capital
Combining definitions of EBPH with definitions of “evidence”

What is EBPH?

Evidence-based decision making
Evidence from Science
Evidence from Experience

Evidence-based interventions
Evidence from Science
Evidence from Experience
Figure 1: Defining EBPH and Evidence
Evidence used in Evidence-Based Decision Making

“Scientific Evidence” (acontextual)
- Explicit research-based knowledge
- Epidemiology and surveillance data
- Theory and frameworks informed by evidence
- Surveys conducted and administered using scientific design (BRFSS, American Household Survey)

“Experiential Evidence” (contextual)
- Tacit and contextual knowledge
- Expert opinions from people in the field as well as local “community experts”
- Community perspectives
- Understanding political realities
Evidence used when selecting **Evidence-Based Interventions**

**“Scientific Evidence”** (acontextual)

- Rigorously tested interventions (RCT or quasi-experimental)
- Interventions supported through systematic reviews (Community Guide)

**“Experiential Evidence”** (contextual)

- Experiences with programs that are working
- Promising practices
- Practice-based evidence that is not in peer reviewed journals (e.g., NACCHO model practices)
Implications for practitioners

• If EBPH means using tested interventions
  ◦ What if there is a paucity of tested interventions?
  ◦ What are acceptable sources of interventions?
  ◦ What if these interventions are seen as not appropriate to the context and population?

• If EBPH means using evidence in decision-making
  ◦ What kinds of decisions need to be made?
  ◦ What if there is a paucity of evidence or access to evidence?
  ◦ What are acceptable sources of evidence?
Implications for the training of practitioners

- Want practitioners to be able to identify and use sources of evidence based interventions
- Do not want practitioners to attempt to use tested interventions uncritically or without considerations of the local context
- Want to develop critical skill set in practitioners that helps them to also become generators of evidence
- Do not want practitioners to ignore important evidence from experience
Implications for Researchers

- Definitions of EBPH as well as “evidence” influence how we operationalize these constructs
- Questions in routinely available data do not easily map onto these constructs
- Current routinely available data do not include indicators for many of the predictors seen as important by our expert panelists
Need for more nuanced view

- Using evidence to
  - Determine that something should be done
  - Deciding what should be done
  - Determine how something should be done
- Using interventions and approaches supported by various levels of evidence
- Using administrative practices and processes supported by various levels of evidence
Thank you!

- Robert Wood Johnson Foundation
- All of our Expert Panelists