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

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Using expert panels to elicit potential indicators and predictors of EBPH in local health departments

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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>
</tbody>
</table>
| **P1**     | process  
look at literature  
collect data to inform needs  
evaluation of programs | “using strategies that have been studied, tested and shown to make a difference” | No difference, but need to define evidence. |
| **P2**     | 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) | 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. |
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 trusted in the community</td>
</tr>
<tr>
<td>Politics of state HD appointment</td>
<td>Board development/orientation</td>
<td>Adequate staff</td>
<td>History</td>
</tr>
<tr>
<td>Who governs state HD</td>
<td>Understand EBPH, CQI, community engagement</td>
<td>Look upstream</td>
<td>Acknowledgement of concerns</td>
</tr>
<tr>
<td>If state BOH, how representative or engaged and effective</td>
<td>Involved in community health assessment and strategic planning</td>
<td>When trained (staff)</td>
<td>Buy in from beginning</td>
</tr>
<tr>
<td>Funding goal EBPH or keep $$ at state level</td>
<td>Where they get their info</td>
<td>Relationship to BOH</td>
<td>Sharing progress and challenges</td>
</tr>
<tr>
<td>View toward what level to emphasize state or local</td>
<td>Understand community, health disparities, social determinants, community engagement, health disparities</td>
<td>Organizational structure</td>
<td>Celebrating success</td>
</tr>
<tr>
<td>Look at county health rankings</td>
<td>Open meetings</td>
<td>Partners</td>
<td></td>
</tr>
<tr>
<td>Centralized or decentralized</td>
<td>Collaboration with comm. partners and stakeholders to tailor EBPH to groups</td>
<td>Regulations</td>
<td></td>
</tr>
<tr>
<td>Coordination with state DOH</td>
<td></td>
<td>Is health director MD</td>
<td></td>
</tr>
<tr>
<td>Replication of work</td>
<td></td>
<td>Embracing change</td>
<td></td>
</tr>
<tr>
<td>Sustainability across local jurisdictions</td>
<td></td>
<td>Size of health department</td>
<td></td>
</tr>
<tr>
<td>Coordination with academic partners</td>
<td></td>
<td>Integration of services</td>
<td></td>
</tr>
<tr>
<td>Trans-sector work</td>
<td></td>
<td>Analytic capabilities of staff</td>
<td></td>
</tr>
</tbody>
</table>

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**Incentives**: Incentives, Penalties, Technical assistance, Funding/costs, Infrastructure, Culture.

**Board of Health**
- Use core competencies in hiring
- Require health dir. use EBPH
- Perf. Review of health director
- Value evidence
- Hold health dir. accountable
- Awareness of pop. health needs
- Awareness of PH mission
- Relationship to LHD
- Political concerns
- State and local laws for BOH
- Composition of board (right people), representative
- Board development/orientation
- Understand EBPH, CQI, community engagement
- Involved in community health assessment and strategic planning
- Where they get their info
- Understand community, health disparities, social determinants, community engagement, health disparities
- Open meetings
- Collaboration with comm. partners and stakeholders to tailor EBPH to groups

**Local Health Department**
- Competency of health officer
- Performance reviews
- Epidemiologist
- Leadership conveys importance
- “quality” culture
- Accreditation
- Respond to expect. of funders
- Quality Improvement process
- Workforce development
- Public health training of staff
- Funding
- Adequate staff
- Look upstream
- When trained (staff)
- Relationship to BOH
- Organizational structure
- Partners
- Regulations
- Is health director MD
- Embracing change
- Size of health department
- Integration of services
- Analytic capabilities of staff
- Relevant and timely data
- Planning process
- CQI culture in place
- Ease of implementation
- Academic partnerships
- Cultural competency

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