Factors Affecting Evidence-Based Decision Making in Local Health Departments

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Background: Data indicating the extent to which evidence-based decision making (EBDM) is used in local health departments (LHDs) are limited.

Purpose: This study aims to determine use of decision-making processes by New York State LHD leaders and upper-level staff and identify facilitators and barriers to the use of EBDM in LHDs.

Methods: The New York Public Health Practice-Based Research Network implemented a mixed-methods study in 31 LHDs. There were 20 individual interviews; five small-group interviews (two or three participants each); and two focus groups (eight participants each) conducted with people who had decision-making authority. Information was obtained about each person's background and position, decision-making responsibilities, how decisions are made within their LHD, knowledge and experience with EBDM, use of each step of the EBDM process, and barriers and facilitators to EBDM implementation. Data were collected from June to November 2010 and analyzed in 2011.

Results: Overall, participants supported EBDM and expressed a desire to increase their department's use of it. Although most people understood the concept, a relatively small number had substantial expertise and experience with its practice. Many indicated that they applied EBDM unevenly. Factors associated with use of EBDM included strong leadership; workforce capacity (number and skills); resources; funding and program mandates; political support; and access to data and program models suitable to community conditions.

Conclusions: EBDM is used inconsistently in LHDs in New York. Despite knowledge and interest among LHD leadership, the LHD capacity, resources, appropriate programming, and other issues serve as impediments to EBDM and optimal implementation of evidence-based strategies.
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Background and Purpose

Evidence-based decision making (EBDM) has been defined by Brownson et al.[1] as the process of "making decisions on the basis of the best-available peer reviewed evidence (both quantitative and qualitative research), using data and information systems systematically, applying program-planning frameworks (that often have a foundation in behavioral science theory), engaging the community in assessment and decision making, conducting sound evaluation, and disseminating what is learned to key decision makers and stakeholders."

There is a significant body of conceptual literature on EBDM,[2,3] which is increasingly seen as a strategy to promote efficacy and efficiency in public health practice.[4] However, the literature on real-world applications of EBDM, including the processes by which it is adopted and factors that affect implementation, remains relatively sparse. Available reports suggest that common barriers to EBDM include inadequate incentives, funding, resources, legislative support, data, and expertise.[5–7] These reports, though highly informative, come largely from one set of surveys[7] and do not include details that illustrate the application (or lack thereof) of EBDM to specific decisions. Researching the actual decision-making practices carried out by local health departments (LHDs) is key to understanding if and how the steps of EBDM are

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carried out and making recommendations for increasing their use in these practice settings.

The New York Public Health Practice-Based Research Network (NY-PHPBRN) was established in 2009 as a mechanism for conducting public health practice research in New York State. The network is led by the New York State Department of Health's Office of Public Health Practice in collaboration with the State University of New York at Albany School of Public Health. Members of the NY-PHPBRN represent both academic and practice organizations, including the New York Association of County Health Officials, several LHDs, and other partners. This membership allows for greater access to the practice community, particularly LHDs. A specific focus of the NY-PHPBRN is to strengthen the capacity of LHDs to provide essential public health services using policies and programs that have been shown to work.

To learn more about how LHDs apply EBDM in their everyday practice, the NY-PHPBRN carried out a mixed-methods study focused on the decision-making processes carried out in LHDs across New York and barriers and facilitators to the use of EBDM by these agencies. The study included an extensive literature review and primary data collection using qualitative and quantitative research methods. The qualitative component relied on interviews and focus groups with LHD leaders and other upper-level staff in order to gain a detailed and nuanced perspective of how decisions are made. The subsequent quantitative component consisted of a statewide survey of managerial-level staff in the practice areas of physical activity and nutrition, childhood lead poisoning, and immunization, in order to determine more specifically which aspects of EBDM were being used and in what ways. Overall, the study goal was to learn what facilitates and impedes the use of EBDM in LHDs so that more decisions would be made this way. This article describes the qualitative component only.

Methods

Research staff conducted 20 individual interviews; five small-group interviews (two or three participants each); and two focus groups (eight participants each) with LHD personnel having decision-making authority. Upper-level staff were chosen because they oversee department policies and set priorities. To clarify, every county in New York is served by an LHD. The five counties in New York City are served by the New York City Department of Health and Mental Hygiene.

Local health departments in counties with populations of at least 250,000 residents are required to be led by a person who has a New York physician's license (called a "commissioner") and board certification in preventive medicine or an MPH. LHDs in counties with populations of less than 250,000 may be led by a physician, but this is not a requirement. The smaller counties are otherwise led by a "health director" who does not need an MD. The health directors must have an MPH or another master's degree with core competencies in public health. All LHD leaders are hired locally, but their appointments must be approved by the New York State Department of Health.[8] Upper-level staff included commissioners, health directors, assistant commissioners, division directors, and program managers.

Altogether, 47 people participated in the study between June and November 2010, including seven commissioners, 21 health directors, and 19 other upper-level staff. Overall, 31 LHDs of various sizes and regional locations were represented in the study sample (Table 1). All but nine of the LHDs were considered "full-service" departments that provide comprehensive public health services to county residents, including community health assessment, health education, disease control, and environmental and family health services. "Partial-service" departments provide all of the key services of full-service departments, except those focused on environmental health.

The interview participants included 12 key informants and 19 other LHD leaders who represented a cross-section of New York counties based on county socioeconomic and geographic characteristics (e.g., region, size, and population density). Key informants were selected by NY-PHPBRN steering committee members based on diverse characteristics, including their reputation as dynamic leaders, knowledge of and interest in EBDM, and employment in counties with unique characteristics (e.g., smallest and largest LHD budgets in the state). The key informants were specifically recruited because they were considered atypical and were interviewed first because it was presumed that they would provide valuable insights and perspectives about the topic area that could

Table 1. Characteristics of LHDs in the sample

	Number of LHDs in New York	Number of LHDs in sample	% of LHDs in sample
Size of county population in 2008			
Small (<140,000)	40	19	47.5
Medium (140,000–250,000)	5	3	60.0
Large (>250,000)	11	9	81.1
Region			
Western	17	11	64.7
Central	13	4	30.8
Capital	18	10	55.5
New York City metropolitan area	10	6	60.0
Services delivered			
Full-service	37	22	59.5
Partial-service	21	9	42.9

LHD, local health department