

VERSION 2.0 WORK IN PROGRESS: Evidence Related to Public Health Research December 2019



The Public Health Accreditation Board is a 501(c)3 nonprofit organization dedicated to improving and protecting the health of the public by advancing and ultimately transforming the quality and performance of state, local, tribal, and territorial public health departments.



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This document represents findings from a scan of the literature related to public health research by health departments. It is not meant to be an exhaustive search. If there are other resources on this topic of which you think PHAB should be aware, please contact Jessica Kronstadt at jkronstadt@phaboard.org.

PHAB Domain 10 requires that health departments demonstrate contribution to and application of the public health evidence base. Lifsey et al have noted the importance of evaluating the implementation of population-based interventions to help build the evidence in the field,¹ and others have noted a connection between accreditation and improved evidence-based practice implementation.²

Research Trends in Health Departments

Local health departments

In the 2016 National Association of County and City Health Officials (NACCHO) Profile Study, 11% of local health departments (LHDs) reported that academic institutions have agreements or policies on providing the LHD with access to scientific and professional journals, and 24% reported that faculty from academic institutions served in a consulting role for the LHDs; however medium and large LHDs were more likely to engage in academic partnerships than small LHDs. Additionally, 12% of LHDs reported conducting original research that links health disparities to differences in social or environmental conditions.³

State health departments

According to the Association of State and Territorial Health Officials (ASTHO) Profile, the average number of research studies that state health agencies engaged in over a two-year period rose from 46 in 2012 to 52 in 2016. The most common research activities include collecting, exchanging or reporting data for a study (88%), disseminating research findings to key stakeholders (88%), and analyzing and interpreting study data and findings (88%). In terms of using evidence, state health agencies report using the Community Guide for program planning (78%), grant writing (68%), and policy development (50%).⁴

Evidence-based decision-making (EBDM)

Evidence-based decision-making, according to Kohatsu et al, is “the integration of science-based interventions with community preferences to improve the health of populations”⁵ and per Brownson, Fielding, and Maylahn, involves “summarizing the findings from the best available peer-reviewed evidence, using data and information systems, applying program planning frameworks, engaging the community in assessment and decision-making, conducting sound evaluation, and synthesizing science and communication skills with common sense and political acumen for dissemination to other stakeholders and decision makers.”⁶

One component of EBDM is administrative evidence-based practices (A-EBPs), which are “agency level structures and activities positively associated with performance measures....There are five broad domains of A-EBPs: leadership, workforce development, partnerships, financial processes, and organizational culture and climate.”⁷

Benefits of EBDM

EBDM benefits include:

- “foster[ing] a targeted use of limited resources and that it improves services to the community”⁸
- “adopt[ing]...the most effective and cost-efficient interventions, minimized harm to people and communities, and better health outcomes for individuals and communities,”⁹ and
- Using the best evidence while understanding the community context.¹

EBDM facilitators & barriers

Five key factors related to EBDM have been identified:

- “capacity to conduct evaluation,
- expectations and incentives for using EBDM,
- access to evidence and resources to support EBDM,
- participatory decision-making, and
- leadership support and commitment.”¹⁰

Leadership support and commitment to EBDM is often cited as one of the most important factors to EBDM adoption and implementation,^{7,8,9,11,12,13,14} as is training and regular practice using EBDM^{7,15,16} and a supportive organizational climate focused on improvement and innovation.^{2,11,15} Other ways to support EBDM include expecting the use of EBDM in employee performance plans,¹⁵ specifically stating EBDM as a priority with accountability measures,^{14,13,17} and providing access to literature.^{13,15} However, a study by Fields et al found that use of scientific journals to inform programming was relatively low compared to other factors like funding and legislative mandates, and that many health departments reported cost of subscriptions and time as barriers to accessing and reviewing scientific journals.¹⁸

Some of the biggest gaps in EBDM competencies include economic evaluation, communicating research to policymakers, evaluation designs, and adapting interventions.¹⁹ One strategy for increasing EBDM may be through knowledge brokering – specific training on translating evidence into action.^{14,18} Health departments with greater implementation of EBDM also tend to have strong relationships with academic institutions that may assist with access to resources.⁷

EBDM and accreditation

A study of LHDs found that health departments accredited by PHAB were more likely to report higher EBDM capacity, EBDM resource availability, and evaluation capacity, compared to local health departments that were not preparing for accreditation.²⁰

Academic Health Departments

An academic health department (AHD) "is meant to provide collaborative opportunities across academia and practice, involving practice-based research, field practice experience for students, and public health practice workforce development, leading to practice-informed teaching and academic-informed practice"²¹ and operates as a mutually beneficial partnership between an academic institution and governmental health agency and includes resource-sharing.²²

Academic partnerships can help HDs access journal articles.¹⁸ and LHDs engaged in AHD partnerships are more likely to report support for implementing EBDM and evidence-based interventions.²¹ Clear communication on information sharing, feedback, mission and goals can lead to strengthened relationships.²

Accreditation and AHDs

One survey of LHDs found that a higher proportion of agencies with formal AHD partnerships are accredited, compared to the percentage of LHDs with an informal AHD partnership that are accredited.²¹

The AHD research agenda includes a question about PHAB: Are health departments that participate in AHD partnerships more successful in achieving accreditation through Public Health Accreditation Board than health departments that do not participate in AHD partnerships?²³

Participatory Research

Definition and value

"Community-based participatory research (CBPR) seeks to facilitate relevant, sustainable research tailored to the needs of the communities with which it is engaged. CBPR emphasizes the importance of equitable collaboration between community representatives and professional researchers, while encouraging coeducation and mitigation of power imbalances between community representatives, researchers, and research participants."²⁴ CBPR emerges from "the context of power dynamics in the production of scientific knowledge that has, at best, historically excluded and, at worst, exploited or violated the human rights of members of politically disadvantaged and indigenous communities in the name of science"²⁵ and has the "potential to empower marginalized communities, effectively address local health concerns, and serve as translational science."²⁴

Participatory research often falls into two general (though not consistently labelled) categories:

- Collaborative: using each other's skills and expertise for relatively discrete sections of the research process
- Co-productive: engaging in a whole process of equal control and decision-making²⁶

At its fullest, participatory research engages communities in all aspects of the research process and translating data to action. Activities can range from data collection (e.g., crowdsourcing), problem definition and data collection, to extreme citizen science.²⁵ Participatory research may also lead to improved cost-effectiveness in an era of reduced resources and emerging health threats.²⁷

"When research projects are constructed from the ground up with resources to build capacity in community groups, the mutual collaboration and trust are more likely to take root, and the long-term sustainability of a project will be enhanced."²⁵

Considerations

There are some considerations to be aware of in implementing CBPR.

- Ensuring that rigor is maintained both by accurately representing the community²⁴ and by utilizing the appropriate approach (experiential learning vs. rigorous, randomized control trials).²⁶
- Being aware of who within the community is being engaged and “deeply engaging the local practice community in interpreting data to clarify the meaning of data.”²⁷ Cairney et al warn that engagement of community members who “already are privileged and engaged...may ultimately undermine the very principles that distinguish community-based participatory research as an approach.”²⁶
- CBPR can be used for policymaking that addresses inequities/social determinants of health (SDOH) but must be high quality and conducted in a way that raises awareness of SDOH with both the public and policymakers, engages local leaders and residents, is timely in terms of both data translation and policy suggestions based on that data.²⁸
- CBPR benefits from the establishment of a community advisory/steering group, providing a voice for the community in all aspects of the study, including study design, and communication of results in culturally relevant ways.²⁵
- Israel et al identified 9 basic principles of community participation in research:
 1. “recognize community as a unit of identity
 2. build on strength and resources within the community
 3. facilitate collaborative, equitable involvement of all partners in all phases of the research
 4. integrate knowledge and action for mutual benefit of all partners
 5. promote a colearning and empowering process that attends to social inequalities
 6. involve a cyclical and iterative process
 7. address health from both positive and ecological perspectives
 8. disseminate findings and knowledge to all partners; and
 9. involve a long-term commitment to all partners.”²⁹

Research and American Indians

Special care should be taken with regard to research involving American Indian and Alaska Native (AI/AN) communities as they may “harbor understandable mistrust of research.” James et al suggest that CBPR may be a helpful approach as it “offers strategies to ensure that studies reflect health priorities and community oversight” at all phases, starting with project conception and moving throughout the process to dissemination of results.³⁰

Policy and Legal Research

“Public Health Law Research (PHLR) is defined as “the scientific study of the relation of law and legal practices to population health.”³¹

Policy surveillance is defined as “ongoing systematic collection, analysis, interpretation, and dissemination of information about a given body of public health law and policy.”³² This collection of data allows for rigorous evaluation.³³

Within legal research, three broad areas of inquiry that deserve closer attention have been identified:

1. The structural role of law in shaping the organization, powers, prerogatives, duties, and limitations of public health agencies and thereby their functioning and ultimately their impact on public health (“infrastructure”).

2. The way that public health system characteristics influence the implementation of interventional public health laws ("implementation").
3. The individual and system characteristics that influence the ability of public health systems and their community partners to develop and secure the enactment of legal initiatives to advance public health ("innovation").³⁴

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⁴ Association of State and Territorial Health Officials. ASTHO profile of state and territorial public health, volume 4. <http://www.astho.org/Profile/Volume-Four/2016-ASTHO-Profile-of-State-and-Territorial-Public-Health/>. Published 2017.

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⁶ Brownson RC, Fielding JE, Maylahn CM. Evidence-based decision making to improve public health practice. *Frontiers in Public Health Services and Systems Research.* 2013;2(2):2. Cited by Stamatakis KA, Hino AA, Allen P, McQueen A, Jacob RR, Baker EA, Brownson RC. Results from a psychometric assessment of a new tool for measuring evidence-based decision making in public health organizations. *Eval Program Plann.* 2017;60:17–23.

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¹³ Hu H, Allen P, Yan Y, Reis RS, Jacob RR, Brownson RC. Organizational supports for research evidence use in state public health agencies: a latent class analysis. *J Public Health Manag Pract.* 2019;25(4):373-381.

¹⁴ Dobbins M, Traynor RL, Workentine S, Yousefi-Nooraie R, Yost J. Impact of an organization-wide knowledge translation strategy to support evidence-informed public health decision making. *BMC Public Health.* 2018;18(1):1412.

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VERSION 2.0 WORK IN PROGRESS: Public Health Research – What Have We Learned from Accredited Health Departments? August 2019



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This document summarizes what PHAB has learned about how health departments (HDs) are addressing measures related to public health research. In particular, it focuses on the reasons that health departments struggled with 4 of the measures in Domain 10. It also includes findings from Section II of accredited HDs' Annual Reports.

Below is a summary of the distribution of assessments for measures in Domain 10. These data are for 303 HDs, including 179 HDs assessed under Version 1.0 and 124 HDs assessed under Version 1.5. The assessments are from the Site Visit Report written by the peer reviewers. HDs may have been required to address these measures prior to accreditation (as part of an Action Plan) or following accreditation (as part of an Annual Report). As such, the data reflect HDs at a point in time in their accreditation journey; HDs may have strengthened their capacity in these areas as part of their accreditation work.

Measure	%Fully Demonstrated	%Largely Demonstrated	%Slightly Demonstrated	%Not Demonstrated	N
10.1.1	76.2%	16.2%	5.0%	2.6%	303
10.1.2 S	82.9%	17.1%	0.0%	0.0%	41
10.2.1	95.0%	2.3%	2.0%	0.7%	303
10.2.2	87.1%	7.6%	3.0%	2.3%	303
10.2.3	40.9%	38.6%	13.2%	7.3%	303
10.2.4 S	70.7%	19.5%	4.9%	4.9%	41

To better understand HDs' performance on these Measures, PHAB conducted an analysis of the conformity comments of HDs that were assessed as Not or Slightly Demonstrated (ND/SD) in at least 5% of the first 303 Site Visit Reports. The results of those analyses are shown below. For each Measure, the most common reasons for the assessment are listed, including the number of HDs for which that reason was indicated. One HD could have multiple reasons listed. The reasons are linked to specific required documentation listed in the PHAB Standards and Measures. For reference, please see:

https://www.phaboard.org/wp-content/uploads/2019/01/PHABSM_WEB_LR1.pdf.

Measure 10.1.1: Applicable evidence-based and/or promising practices identified and used when implementing new or revised processes, programs, and/or interventions

Among the 23 HDs assessed as ND/SD, the most common challenges were:

- Documentation did not describe incorporation of Evidence-Based Practice (EBP) into the design of a new or revised process, program, or intervention (14 HDs)
- Examples provided were out of PHAB's scope of authority (12 HDs)
- Documentation was outside appropriate timelines (6 HDs)

Measure 10.2.2: Access to expertise to analyze current research and its public health implications

Among the 16 HDs assessed as ND/SD, the most common challenges were:

- Unclear documentation of expertise from job descriptions, etc. (8 HDs)
- Documentation provided was not about research analysis/interpretation (7 HDs)
- Relationship not formalized by an MOU/agreement for extremal support (5 HDs)

Measure 10.2.3: Communicated research findings, including public health implications

Among the 62 HDs assessed as ND/SD, the most common challenges were:

- Documentation provided was not research as defined by PHAB (e.g., documentation provided was CHA data) (46 HDs)
- Findings were not shared with the state/Tribal/local health department (35 HDs)
 - Primary issue was local HDs not sharing with state
- Documentation lacked evidence of distribution/presentation/communication of findings (15 HDs)

Measure 10.2.4S: Consultation or technical assistance provided to Tribal and local health departments and other public health system partners in applying relevant research results, evidence-based and/or promising practices

Among the 4 HDs assessed as ND/SD, the most common challenge of this state-only measure was:

- Deficiencies documenting the provision of TA for application of research, evidence-based and/or promising practices (TA may have been provided, but for something other than research application) (4 HDs)

Annual Reports

A total of 349 Annual Reports (ARs) submitted by 192 HDs that had completed at least one Annual Report by December 2018 were reviewed. Although research is not a central focus of the Annual Reports, a review of these reports yields some insights about the topic. For example, 48 HDs indicated they had published an article related to accreditation/QI. This is just one way that HDs may be contributing to the public health evidence base. (It is important to note that they might also be publishing on other topics that would not be captured in this question.)

In addition, the Annual Reports were searched for references to “academic health departments.” These references most commonly occurred in a part of the Annual Reports that asks about emerging public health issues. Nineteen HDs specifically mention being an academic health department or working towards it. These partnerships with academia take many different forms, including:

- Fostering innovation;
- Participating in core elements of accreditation requirements, including quality improvement, performance management, strategic plans, community health assessments, community health improvement plans;
- Participating in internship programs; and
- Engaging in project specific work, with examples related to climate change and healthcare-associated infections.

VERSION 2.0 WORK IN PROGRESS:

Summary of Recommendations about Research Standards from the PHAB Research Advisory Council

August 2019



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On June 12, 2019, PHAB convened its Research Advisory Council, comprised of experts in public health research. The Council provided feedback on measures relating to public health research, found in Domain 10.

Below are several suggestions that emerged from the Council's discussion.

Measure	Potential Revisions
10.1.1	<ul style="list-style-type: none"> Large local health departments should be assessed on evidence-based practices. Comments suggested that the evidence used by health departments should be more rigorous or that sources of evidence should be tiered and the quality of the evidence used should be considered.
10.2.2	<ul style="list-style-type: none"> The phrasing of 'analyze research' may be confusing. A recommended alternative is "review and interpret evidence." It was suggested that examples be provided for documentation. There was also discussion about the difference between evaluation and research, and how those are addressed and defined in the S&M. To avoid this confusion, it was suggested that Domain 10 be framed to be about the translation of existing evidence and its application to the department.
10.2.3	<ul style="list-style-type: none"> The phrase 'research' should be changed or elaborated on to include terms like 'peer-reviewed' and 'validated.' There was disagreement that local health departments should be required to share research findings with the state. It was considered more appropriate for local health departments to share with their constituents. Council members questioned why health departments would not be allowed to provide documentation of research conducted by their own agencies (as the Measure currently defines research as being published by those outside the department). They reflected on the fact that the current Standards do not require that health departments demonstrate how they are contributing to the evidence base. Council members suggested that could be a requirement for reaccreditation.
10.2.4	<ul style="list-style-type: none"> It was recommended that a library assistance be provided for research capabilities.

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