

Exploring the Linkage Between Accreditation Outcomes and Public Health Emergency Preparedness and Response

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ABSTRACT

Public health emergency preparedness is a critical health department function. The national public health accreditation program may enhance public health preparedness by building the capabilities and overall capacity of health departments and also by improving capabilities specific to preparedness. This study presents findings from a survey sent to health departments 1 year after achieving accreditation, with a focus on accreditation outcomes related to public health preparedness. Between April 2014 and February 2020, 214 health departments responded to the survey. Most respondents indicated that accreditation had positively influenced their health department's performance within each of the selected topic areas that may influence public health preparedness: workforce development; quality improvement efforts; use of evidence and data to drive decisions; and partnerships, accountability, and credibility among external stakeholders. Enhancing overall health department capacity through accreditation may support the ability of health departments to prepare for, respond to, and recover from public health emergencies.

KEY WORDS: accreditation, preparedness, program evaluation, public health, surveys and questionnaires

A robust public health infrastructure provides the foundation for planning and delivering the 10 Essential Public Health Services,¹ as well as health departments' ability to plan for and respond to emergency events.^{1,2} The Public Health Accreditation Board (PHAB)—the organization that oversees the national, voluntary public health accreditation program—has developed standards, measures, and guidance organized around the 10 Essential Public Health Services and addresses the governmental public health system's core functions of assessment, policy development, and assurance.³ The PHAB Standards and Measures also address fundamental public

health activities, including public health emergency preparedness.³

The Centers for Disease Control and Prevention (CDC) Public Health Emergency Preparedness and Response Capabilities and the National Association of County and City Health Officials (NACCHO) Project Public Health Ready (PPHR) are 2 national resources that provide a framework for public health preparedness capacity and capability.^{4,5} The CDC Preparedness Capabilities provide a planning framework for governmental public health preparedness, response, and recovery activities, and seek to support health departments in performing other core planning and assessment activities to ensure preparedness.⁴ PPHR applies a continuous quality improvement (QI) approach to support local health departments in building preparedness capacity and capability.⁵

Both CDC and NACCHO have demonstrated alignment between their respective planning frameworks and the PHAB Standards and Measures.^{5,6} Prior work has highlighted alignment between the PHAB Standards and Measures and the CDC Preparedness Capabilities and PPHR criteria and provides preliminary evidence for how accreditation can strengthen preparedness.^{7,8} Both accreditation and the CDC Preparedness Capabilities strive to improve health department visibility, legitimacy, and

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infrastructure; the quality of public health services; and collaboration with partners.⁶ Linkages between accreditation and PPHR include the emphasis on partnerships and collaboration, communication, workforce development, and analytic capabilities, among others.⁸ Furthermore, similar to accreditation, PPHR aims to improve QI processes and confidence in, and credibility and visibility of, health departments.⁹ Prior studies found a positive association between participation in state-based health department accreditation or other performance improvement programs and health department preparedness capacities¹⁰ and concluded that accreditation may shield preparedness capacities from consequences of financial and workforce losses and other contextual effects.¹¹ In addition, PHAB accreditation of state health departments is a measure for the National Health Security Preparedness Index, and the *Ready or Not: Protecting the Public's Health From Diseases, Disasters and Bioterrorism* report published by Trust for America's Health.¹² PHAB also compiled examples of how accreditation has helped support health departments' preparedness efforts.¹² A recent report from the National Academies of Sciences, Engineering, and Medicine also highlighted accreditation as a potential mechanism for supporting the use of evidence-based preparedness practices.¹³

With the existing alignments between accreditation and preparedness planning frameworks, including the emphasis on QI in all 3 initiatives, there is an opportunity to explore preparedness-related accreditation outcomes that may influence health department preparedness, response, and recovery capabilities.

Methods

To assess the impacts of accreditation on outcomes related to preparedness, NORC analyzed selected outcomes data from a survey fielded to health departments after they had been accredited for 1 year. While PHAB identified 20 of their measures that relate specifically to preparedness,¹⁴ this article focuses on crosscutting capabilities that may support public health emergency preparedness, such as workforce development, QI efforts, evidence and data-driven decision making, and partnerships, accountability, and credibility.

These data were gathered as part of a larger data collection effort conducted by NORC at the University of Chicago. The Robert Wood Johnson Foundation provided the funding for data collection described in this article. NORC continuously fields Web-based surveys to health departments when they

reach milestones in the accreditation process. One response is collected from each health department. The intended respondent is the health department director, but the survey may be completed by the accreditation coordinator (the health department's main point of contact with PHAB) or another designee. The NORC Institutional Review Board reviewed the study and determined it to be not human subjects research. Data reported in this article were collected in the survey sent to health departments approximately 1 year after achieving accreditation. The data were gathered through surveys administered between April 2014 and February 2020. Between April 2014 and February 2020, the survey was administered quarterly to a cohort of health departments who had been accredited for 1 year. Health departments had approximately 4 weeks to complete the survey. Most survey questions prompt respondents to indicate their agreement ("strongly agree," "agree," "disagree," "strongly disagree," or "don't know") with statements about accreditation outcomes. For this analysis, we selected 13 survey items (see the Table) about outcomes within the following categories: workforce development, QI efforts, evidence and data-driven decision making, and partnerships, accountability, and credibility. We selected these outcomes because they are reflected and reinforced across all 3 programs—PHAB accreditation, PPHR, and the CDC Preparedness Capabilities. In the analysis, health departments were categorized as having reported the outcome if they selected "agree" or "strongly agree." The survey instrument was revised twice, in 2015 and 2017; each time, new questions were added. As a result, there are fewer responses for the new questions, compared with the number of responses for questions included in the survey since 2014. We reviewed, cleaned, and analyzed the data to calculate descriptive statistics using SAS software, Version 9.4 (SAS Institute, Inc, Cary, North Carolina).

Results

In total, 245 health departments received the survey and 214 responded, yielding a response rate of 87.3%. Most respondents were local health departments (84%, $n = 180$), followed by state health departments (15%, $n = 31$), tribal health departments (1%, $n = 2$), and 1 army installation health department (0.5%, $n = 1$). The health department director responded to the survey approximately two-thirds of the time (65%, $n = 140$); in some cases, the accreditation coordinator responded (32%, $n = 68$), and the remaining indicated that someone else responded (3%, $n = 6$).

TABLE 1
Outcomes Reported by Health Departments Accredited for 1 Year (N = 214)

	Either Strongly Agree or Agree		Only Strongly Agree		Only Agree	
	n	%	n	%	n	%
<i>Accreditation has . . .</i>						
Workforce development						
Improved health department's ability to identify and address gaps in employee training and workforce development. ^a	117	89.3	50	38.2	67	51.1
Improved health department's staff competencies. ^b	115	68.5	28	16.7	87	51.8
QI efforts						
Stimulated quality and performance improvement opportunities within health department.	205	95.8	113	52.8	92	43.0
Allowed health department to better identify strengths and weaknesses.	203	94.9	112	52.3	91	42.5
Improved health department's overall capacity to provide high-quality programs and services. ^b	137	81.5	40	23.8	97	57.7
Evidence and data-driven decision making						
Health department has used information from QI processes and/or performance management system to inform decisions.	198	92.5	91	42.5	107	50.0
Increased the extent to which health department uses evidence-based practices for public health programs and/or business practices. ^a	90	68.7	20	15.3	70	53.4
Partnerships, accountability, and credibility						
Improved health department's accountability to external stakeholders.	172	80.4	53	24.8	119	55.6
Improved the credibility of health department within community and/or state. ^a	104	79.4	36	27.5	68	51.9
Strengthened health department's relationship with key partners in other sectors. ^a	82	62.6	24	18.3	58	44.3
Helped identify new partners in other sectors. ^a	74	56.5	21	16.0	53	40.5
Improved local policy makers' (other than governing entity) knowledge of health department's roles and responsibilities. ^b	90	53.6	24	14.3	66	39.3
Improved the public's working knowledge of health department's roles and responsibilities. ^b	85	50.6	14	8.3	71	42.3

Abbreviation: QI, quality improvement.

^aN = 131.

^bN = 168.

Outcomes reported by accredited health departments

One year following accreditation, health departments reported many outcomes that may influence their ability to address emergency events. The Table presents accreditation outcomes related to workforce development, QI efforts, use of evidence and data for decision making, and partnerships, accountability, and credibility among external stakeholders. In terms of workforce development, 89.3% of health departments (n = 117 of 131) reported that accreditation improved their ability to identify and address gaps in training and workforce development.

Accreditation also has a notable impact on health department QI efforts; 95.8% of respondents (n = 205 of 214) reported that accreditation stimulated quality and performance improvement opportunities within their health department. Most respondents (92.5%, n = 198 of 214) also reported that information from QI and performance management efforts informs decisions, which leads to more data-driven decision making within the health department. The majority of respondents (68.7%, n = 90 of 131) reported that accreditation also increased the extent to which the health department uses evidence-based practices.

According to respondents, accreditation leads to increased partnerships, accountability, and credibility among external stakeholders. One year after accreditation, 62.6% of health departments ($n = 82$ of 131) reported that accreditation strengthened their relationships with key partners in other sectors, and 56.5% ($n = 74$ of 131) said that it helped them identify new partners in other sectors. More than one-half of health departments reported improved knowledge of their roles and responsibilities among local policy makers (53.6%, $n = 90$ of 168) and the public (50.6%, $n = 85$ of 168).

Discussion and Conclusion

This analysis aimed to examine selected preparedness-related accreditation outcomes reported by health departments accredited for 1 year. Respondents reported accreditation-related outcomes and improvements in specific areas under the following topic areas: workforce development, QI, evidence and data-driven decision making, and partnerships, accountability, and credibility. The results provide supportive evidence that by advancing overall health department capacity, accreditation also supports the national guidelines, criteria, and activities established as important for building and sustaining preparedness capability within the governmental public health system. This is consistent with research suggesting that North Carolina's state accreditation program may confer protection from contextual effects, such as funding cuts, on health department preparedness capacities.¹¹

Overall, QI was the most robust topic area, with between 81.5% and 95.8% of respondents reporting QI outcomes resulting from accreditation. Quality improvement outcomes hold particular importance for preparedness capacity, as there is evidence that programs that improve health department performance—such as accreditation—support preparedness capacity.¹⁰ In the face of the COVID-19 pandemic and ongoing cuts to public health and preparedness funding,¹⁵ it is essential that health departments pursue other mechanisms for improving the quality of their preparedness programs. In fact, the PHAB has highlighted examples of accredited health departments applying QI processes to fundamental preparedness functions, such as COVID-19 testing,¹⁶ public health laboratory performance,^{17,18} and communicable disease investigations.¹⁹ A recent case report also summarized how PHAB accreditation supported a health department's ability to respond to a Zika outbreak.²⁰

These data also illuminate opportunities for improving health department preparedness capability

and capacity by improving staff competencies, use of evidence-based practice, health department credibility, partnerships, and policy maker and public knowledge of health department roles and responsibilities. Strengthening these areas can bolster health department capacity and performance overall, in addition to functions specific to preparedness emphasized by PPHR and the CDC Preparedness Capabilities. In particular, the CDC Preparedness Capabilities accentuate the importance of community partnerships to support public health preparedness and response. Nearly half of health departments surveyed by PHAB regarding the COVID-19 pandemic indicated that partnerships they developed and strengthened with other sectors and local stakeholders as part of their accreditation preparation and maintenance activities were “very helpful” for their agency's response.²¹ Partnerships are critical in supporting preparedness and represent one area of impact of accreditation.

There are several limitations to consider when interpreting findings. First, the study relied on self-reported data rather than objective measures. Second, individuals reported organization-level outcomes, which may not represent the perceptions of all health department staff. Third, outcomes were not specific to preparedness; however, based on the authors' interpretations, they link to key preparedness criteria and standards outlined in existing public health preparedness frameworks. Finally, health departments completed the survey over a 6-year time period, depending on when they achieved accreditation. During this period, the public health landscape shifted and major public health emergencies occurred, such as Ebola, Zika, and the onset of COVID-19. Therefore, attitudes about and outcomes of accreditation may differ, depending on when they achieved accreditation.

Implications for Policy & Practice

- Accreditation may be a tool for improving health department capability and capacity for public health emergency preparedness, response, and recovery activities. It is possible that some of these improvements could support the response to the COVID-19 pandemic.
- Health departments may be able to leverage accreditation to improve health departments' partnerships, overall and as they relate to preparedness.
- There are also opportunities to leverage accreditation as a tool for improving health department accountability and credibility.

Future research should continue to explore the intersection and effects of accreditation on public health preparedness, response, and recovery capabilities. For example, researching specific types of partnerships improved through accreditation, the extent to which workforce development improvements affect preparedness and nonpreparedness staff, and whether and how QI processes developed for accreditation have been applied to preparedness activities or functions may provide additional information about the impacts of accreditation on the public health system. Research could also examine the association between evaluation findings and how health departments performed on relevant accreditation measures.

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