

VERSION 2.0 WORK IN PROGRESS: Evidence Related to Public Health Emergency Preparedness April 2020



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.



Public Health Accreditation Board
1600 Duke Street
Suite 200
Alexandria, VA 22314
Phone: 703-778-4549
Fax: 703-778-4556

www.phaboard.org

This document represents findings from a scan of the literature related to public health emergency preparedness (PHEP) activities by health departments. It is not meant to be an exhaustive search. It concludes with articles about the link between accreditation and preparedness. This topic is evolving rapidly. If there are other resources on this topic of which you think PHAB should be aware, please contact Jessica Kronstadt at jkronstadt@phaboard.org. Please note, PHAB has previously conducted evidence scans on related topics—including Public Health Laboratories and Surveillance. Please see: <https://phaboard.org/version-2-0/>.

Progress and Current State

Jurisdictions have made substantial progress in their preparedness capabilities since 9/11.¹ In particular, those areas that receive funding through CDC's Public Health Emergency Preparedness program, have demonstrated dramatic improvements in some of those capacities, such as having an incident command system with pre-assigned roles in place.² A 2020 report from Trust for America's Health notes that "a majority of states have made preparations to expand capabilities in an emergency, often through collaboration."³ Similarly, the 2019 release of the National Health Security Preparedness Index reported continued improvements in preparedness. However, citing gaps in the healthcare delivery domain, the report noted that "current levels of health security remain far from optimal."⁴

Domains in Preparedness

Several efforts have articulated core domains in preparedness.^{4,5,6,7,8,9} Common elements include:

- Governance & leadership
- Communications
- Planning
- Risk assessment
- Resource management
- Collaborative networks
- Community engagement
- Workforce capacity
- Surveillance & monitoring
- Incident management system
- Healthcare delivery
- Countermeasure management
- Environmental & occupational health
- Laboratory testing
- Resilience
- Prevention & mitigation
- Training, exercising, evaluation, and corrective action & continuous quality improvement

Several of these domains are described in greater detail below.

Communications

While communications has always been a central component of preparedness, it has taken on added significance in the context of online information and social media. One commentary posed this question: "As reliance on information from online resources increases, how can public health safeguard the dissemination of accurate information needed for action when lives are at stake?"¹⁰ (p5258)

Consistent with that theme, a checklist for response to infectious disease events includes the following:⁵

- "Communication plans should include multiple communication approaches—including town hall meetings, social media, guest spokespersons, and telephone information lines—to disseminate information quickly and provide the opportunity for 2-way communication with the public;" and
- "Establish procedures and personnel to monitor social media and links with the public to identify and rapidly respond to rumors and misinformation."

In addition, a literature review on preparedness-related communications, noted the following:¹¹

- Timely release of information and trust in the communicator are associated with increased likelihood that individuals will implement recommended changes in behavior.
- Because access to information and information-seeking behavior may differ based on sociodemographic characteristics, public health officials should ensure that communications efforts are targeted to different audiences and take into account the needs of low-literacy populations.

Partnerships and Community Engagement

A 2018 survey about preparedness found that most local health departments have strong partners, particularly with emergency management, state and local governments, and environmental health, but opportunities remain to strengthen partnerships with pharmacies, behavioral health/mental health, and local businesses.¹² Health departments are encouraged to look broadly in terms of potential partners, for example, faith-based organizations can provide key assistance in times of emergencies.¹³ One study found that a larger number of partners is associated with higher levels of administrative preparedness.¹⁴

In addition to coordinating with partner organizations, health departments must conduct outreach directly with community members, moving from a response focused on government to a "whole-of-community" model.¹⁵ As Schoch-Spana framed it, "Community engagement is an integral feature of PHEP, rather than a luxury or standalone activity competing for resources."¹⁶ (P 362) Those authors suggest the following as starting points for local health departments that are just beginning to consider community engagement in their preparedness work: conduct strategic planning that draws a connection between PHEP and partnership work; develop an agency-wide inventory of existing relationships; and update community profiles focusing on where the agency can better understand health priorities and strengthen relationships with influential leaders in vulnerable populations.¹⁶ One analysis suggests the importance of having an explicit policy about community engagement in PHEP.¹⁷

Vulnerable Populations and Equity

Public health experts have highlighted the need to consider groups that will be disproportionately affected by emergencies,¹⁸ including, for example, individuals with access and functional needs.¹⁹ A 2018 survey of local health departments found that nearly all address elderly and people with disabilities in their preparedness planning.¹² Trust for America's Health 2019 report on

preparedness includes a recommendation that state and local governments build health equity leadership and adopt strategies to incorporate equity into preparedness.³

Noting the vulnerability of some populations (e.g., minorities and individuals with low socioeconomic position), a review of the literature points out that “Social networks, small-group discussions led by a health promoter, and culturally tailored messages can be effective in improving disaster preparedness among vulnerable groups.”¹¹

Resilience

The Department of Health and Human Services defines community health resilience as “the ability of a community to use its assets to strengthen public health and healthcare systems and to improve the community’s physical, behavioral, and social health to withstand, adapt to, and recover from adversity.”²⁰ Amobi and colleagues have suggested that “community-led work that involves community members organizing toward shared goals builds resiliency, or the ability to ‘bounce forward’ from adversity, by fostering social capital, community pride and local communication channels.”²¹ (p. 292) When issuing the 2019 Association of State and Territorial Health Officials (ASTHO) President’s Challenge, Amobi asked public health professionals to consider this idea of “bouncing forward” along with notions of community leadership and social cohesion.²²

The emphasis on resilience has also manifested itself in the development of a Resilience Intelligence Network to harness learnings from clinical trials,²³ and the development of the Composite of Post-Event Well Being (COPEWELL) assessment tool.²⁴

Assessment

Health departments use a variety of assessment tools. The CDC developed the Community Assessment for Public Health Emergency Response (CASPER) methodology to quickly gather household-level data about health status, which “can be used by emergency managers to make informed decisions, allocate scarce resources, provide valid information to the news media to dispel rumors, support funding needs for recovery efforts and plan for future disasters.”²⁵ (p. S186)

As an example of a different type of assessment, Drexel University’s Dornsife School of Public Health developed a tool to calculate the expected impact of a hazard on such domains as human health, health care services, in-patient health care infrastructure, community health, and public health services.²⁶

Public Health Emergency Management

Public health emergency management “is an emergent field of practice that draws on specific sets of knowledge, techniques, and organizing principles found in the fields of emergency management and public health that are necessary for the effective management of complex health events and emergencies with serious health impacts.”⁹ It draws on existing frameworks, including the emergency management cycle (mitigation, preparedness, response, and recovery) and the incidence management system.⁹

Drills and exercises are common practice in preparedness and several studies reinforce the importance of trainings that provide opportunities for coordination between public health, public safety, environmental, and health care organizations to establish relationships prior to an incident.^{Error! Bookmark not defined.} Others have noted how using PHEP tools, including the incidence management system, can also be applied more broadly to agency efforts addressing communicable diseases.²⁷

Administrative preparedness

The National Association of County and City Health Officials (NACCHO) describes administrative preparedness as “the process of ensuring that the fiscal, legal, and administrative authorities and practices that govern funding, procurement, contracting, and hiring are appropriately integrated into all stages of emergency preparedness and response.”²⁸ Their 2018 survey indicates that most local health departments have at least one expedited procedure in place (e.g., receiving and using emergency funding, reducing time for contracting/procurement; reducing time to hire/reassign staff).¹² As one aspect of administrative preparedness, laws play a critical role in creating “the infrastructure through which emergencies are detected, prevented, declared, and addressed.”²⁹ Another focus is on the funding mechanisms for public health emergencies and how they can be accessed.³⁰

Preparedness and Accreditation

The PHAB accreditation standards have been cross-walked with CDC's Public Health Preparedness Capabilities and there is significant overlap.³¹ Recognizing the importance of having a strong public health infrastructure to prepare and respond to emergencies, the National Health Security Preparedness Index includes as an indicator whether the state health department is PHAB accredited.³² State health department accreditation is also featured as one of the 10 indicators included in the Trust For America's Health annual report “Ready or Not.”³

Several health departments have shared their stories about how PHAB accreditation has played a role in readying them to respond to emergencies. In a case study, the Florida Department of Health describes how preparation for accreditation helped identify opportunities to strengthen an integrated surveillance system and how partnerships with health care and other community organizations enabled them to provide health information and testing in hard-to-reach and underserved populations.³³ To read about other examples of how accreditation has influenced health department preparedness activities, see <https://phaboard.org/wp-content/uploads/Public-Health-Emergency-Preparedness-April-2020.pdf>.

Studies on other Accreditation Programs

Studies on North Carolina's state-based accreditation program have also identified a link between accreditation and preparedness. A 2009 study found that among local health departments in North Carolina, those that were accredited performed a greater scope of activities in response to the H1N1 outbreak and implemented them more rapidly than non-accredited health departments in the state.³⁴ Another study compared local health departments accredited in North Carolina with similar health departments in other states. While preparedness capabilities declined for all health departments as funding dried up, there appeared to be a protective effect among the state-accredited health departments and they saw fewer significant decreases in their capacity.³⁵

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³ Trust for America's Health. *Ready or not: protecting the public's health from diseases, disasters, and bioterrorism 2020*. Washington, DC: Trust for America's Health; 2020.

⁴ National Health Security Preparedness Index 2019: Release summary of key findings. Lexington, KY: University of Kentucky; May 2019.

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