

The National Environmental Health Association (NEHA) represents more than 7,000 governmental, private, academic, and uniformed services sector environmental health professionals in the U.S., its territories, and internationally. NEHA is the profession's strongest advocate for excellence in the practice of environmental health as it delivers on its mission to build, sustain, and empower an effective environmental health workforce.

Policy Statement on the Role of Environmental Health in Preparedness

Adopted: November 2021

Policy Sunset: November 2026

NEHA believes that environmental health professionals play a critically important role in public health preparedness, response, and recovery that serves to mitigate or reduce instances of preventable injury and illness that often occur during and after emergencies and disasters. NEHA also acknowledges that there is wide jurisdictional variability in the recognition, adoption, and implementation of recommendations regarding the role of environmental health in public health preparedness.

NEHA's Policy Statement

NEHA recommends the complete integration of environmental health into public health emergency preparedness to promote the highest level of health and safety for individuals and communities affected by disasters.

To accomplish this, NEHA recommends the following:

- Integrate environmental health into emergency preparedness, response, and recovery planning and exercising.
- Be aware of specific environmental health-related functions and deliverables in Public Health Emergency Preparedness (PHEP) grant capabilities that can be used to support personnel training and other preparedness activities.
- Support the development of more timely, effective, and targeted response to environmental health hazards in disasters by providing practical function and skills-based training for environmental health professionals regarding the roles, functions, and priority activities that environmental health programs should lead, participate, and/or support.
- Focus on collaborative planning and foster communication among environmental health, public health, private sectors, and other personnel to address the environmental health component inherent in emergency response and recovery operations. Additionally, encourage the sharing of environmental health knowledge with non-environmental health personnel.

- Collaborate with federal, state, and local governments to clarify the role of environmental health personnel in the staffing of emergency operation centers, serving as members of specialized environmental health strike teams, or participating on emergency preparedness and response task forces.

Analysis

Environmental health plays an essential role in disaster preparedness, response, recovery, and mitigation. Depending on where a disaster occurs and on the types of environmental health hazards present, the environmental health workforce may be responsible for ensuring the health and safety of the public, surveillance of adequate hygiene and sanitation systems, food and water safety, waste management, temporary shelter operations, infectious disease control, and vectorborne disease control, among other functions. In addition to these core functions, environmental health professionals are often called on to support other response and recovery activities, including but not limited to contract tracing, crowd dispersal, standing up mass vaccination sites, business recovery, and logistics support. These expanded roles have never been clearer than they are in the wake of the COVID-19 pandemic. According to a workforce needs assessment conducted by NEHA (2020), over 80% of the surveyed environmental health workforce indicated that they were tasked with an expanded scope of work outside their regular duties.

A collection of agencies, programs, laws, and certifications exist that provides guidance and informs how the role of environmental health in emergency preparedness and response is understood and funded. The Centers for Disease Control and Prevention's (CDC) Public Health Emergency Preparedness (PHEP) program was developed after 9/11 to help state, local, tribal, and territorial governments successfully prepare for and respond to emergencies and disasters (CDC, 2021). Since its implementation, PHEP has improved the percentage of jurisdictions that can mobilize public health staff during an emergency from 20% before 2002 to 98% in 2018 (CDC, 2021). CDC created the Public Health Preparedness Capabilities: National Standards for State and Local Planning in 2011 (CDC, 2019). The PHEP capabilities guidance was updated in 2018 with an expanded role for environmental health in public health emergency preparedness (CDC, 2019). This iteration of the PHEP guidance also details emergency shelter health and safety criteria composed largely of traditional environmental health capabilities such as verifying water quality and food safety, surveillance of sanitation, vector control, and waste management (CDC, 2019). The numerous environmental health responsibilities detailed in the PHEP capabilities make the involvement of environmental health personnel in preparedness planning essential. In many states and localities, however, the PHEP funding necessary to properly train environmental health personnel to fulfill that role is not reaching the environmental health community.

The first Pandemic and All-Hazards Preparedness Act (PAHPA) was signed into law in 2006 and established the Assistant Secretary for Preparedness and Response (ASPR) within the U.S. Department of Health and Human Services, advanced medical response counter measures

development, and advocated the development of the National Health Security Strategy (Office of the Assistant Secretary for Preparedness and Response, 2019). The goal of PAHPA is to provide the U.S. with enhanced abilities related to all-hazard emergency and disaster preparedness and response with ASPR to lead the collaborative efforts necessary to achieve this goal (Office of the Assistant Secretary for Preparedness and Response, 2019). The Pandemic and All-Hazards Preparedness and Advancing Innovation Act of 2019 (PAHPAIA), for the first time, explicitly mentions including environmental health agencies as public health agencies that have specific expertise potentially relevant to public health security.

Justification

The importance of the role of the environmental health workforce has been recognized in the most recent iterations of key preparedness documents, including PHEP capabilities and the 2019 PAHPAIA. These documents provide the foundation for integrating environmental health personnel into all aspects of emergency preparedness and response training. Previous iterations of these documents failed to call out environmental health and references to environmental health in the new iterations are spread throughout the documents, rather than encapsulated in a separate capability for environmental health preparedness (Dyjack, 2017).

The National Qualification System (NQS) supplements the resource management component of the National Incident Management System and establishes guidance and tools to assist stakeholders in developing processes for qualifying, certifying, and credentialing deployable emergency personnel. (Federal Emergency Management Agency, 2021) The essential role of environmental health in disaster response is specified under this system as providing professional technical assistance, consultation, and support in environmental health specialty areas, including environmental epidemiology, toxicology, and exposure assessment/risk analysis. The environmental health team is activated to assess postdisaster environmental hazards and threats to human health and safety, as well as to monitor postdisaster environmental health and safety conditions in water, food, waste, soil, debris, air, shelters, building environments, and other environmental health-related areas. In addition, environmental health professionals assess postincident disease hazards and threats in vector and pest populations, such as mosquitoes and rodents, and recommends and implements corrective actions or control measures (U.S. Department of Homeland Security, 2019a, 2019b, 2020).

It is essential that environmental health personnel be involved in all elements of disaster preparedness and response to avoid preventable exposures and the adverse health outcomes that could result (Noji, 2005). Exposure to dust and smoke containing high levels of chemicals and particulates such as dioxin, polychlorinated biphenyls, and asbestos following the attack on the World Trade Center has caused adverse outcomes for firefighters and other emergency responders (Landrigan et al., 2004). Had environmental health personnel been involved in the preparedness planning and response process they could have provided training and assistance to help emergency response personnel properly don necessary personnel protective equipment to reduce or eliminate harmful exposures. In order for environmental health personnel to provide

this critical training for first responders they must first be involved in all aspects of emergency preparedness and response training.

Training is critical to help environmental health personnel translate technical knowledge about emergency response into practice and communicate that information to community stakeholders (Gamboa-Maldonado et al., 2012). With 26% of environmental health personnel poised to retire within 5 years, the importance of training in this field can only increase (Brooks et al., 2019). It can be difficult to fund emergency preparedness and response training as much of the funding for environmental health comes from groups that environmental health personnel serve as regulators (Gamboa-Maldonado et al., 2012). Only with the inclusion of environmental health in the newest iteration of the PHEP capabilities could PHEP funding be used for environmental health-specific training. Given the adoption of these revised capabilities, it is essential that environmental health be present, active, and empowered to fulfill their specialized functions related to disaster preparedness, response, recovery, and mitigation.

References

Brooks, B.W., Gerding, J.A., Landeen, E., Bradley, E., Callahan, T., Cushing, S., Hailu, F., Hall, N., Hatch, T., Jurries, S., Kalis, M.A., Kelly, K.R., Laco, J.P., Lemin, N., McInnes, C., Olsen, G., Stratman, R., White, C., Wille, S., & Sarisky, J. (2019). Environmental health practice challenges and research needs for U.S. health departments. *Environmental Health Perspectives*, 127(12), 125001. <https://doi.org/10.1289/EHP5161>

Centers for Disease Control and Prevention. (2019). *Public health emergency preparedness and response capabilities: National standards for state, local, tribal, and territorial public health*. https://www.cdc.gov/cpr/readiness/00_docs/CDC_PreparednesResponseCapabilities_October2018_Fin al_508.pdf

Centers for Disease Control and Prevention. (2021). *Center for Preparedness and Response: CDC's Public Health Emergency Preparedness program: Every response is local*. <https://www.cdc.gov/cpr/whatwedo/phep.htm>

Dyjack, D. (2017). Long overdue: Environmental health and public health emergency preparedness collide. *Journal of Environmental Health*, 80(2), 57–58. <https://www.neha.org/membership-communities/get-involved/blog/long-overdue-environmental-health-and-public-health>

Federal Emergency Management Agency. (2021). *NIMS components—Guidance and tools*. <https://www.fema.gov/emergency-managers/nims/components>

Gamboa-Maldonado, T., Marshak, H.H., Sinclair, R., Montgomery, S., & Dyjack, D.T. (2012). Building capacity for community disaster preparedness: A call for collaboration between public environmental health and emergency preparedness and response programs. *Journal of*

Environmental Health, 75(2), 24–29. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4651206/>

Landrigan, P.J., Lioy, P.J., Thurston, G., Berkowitz, G., Chen, L.C., Chillrud, S.N., Gavett, S.H., Georgopoulos, P.G., Geyh, A.S., Levin, S., Perera, F., Rappaport, S.M., Small, C., & NIEHS World Trade Center Working Group. (2004). Health and environmental consequences of the World Trade Center disaster. *Environmental Health Perspectives*, 112(6), 731–739. <https://doi.org/10.1289/ehp.6702>

National Environmental Health Association. (2020). *NEHA COVID-19 environmental health workforce needs assessment II report*. <https://emergency-neha.org/covid19/wp-content/uploads/2020/11/COVID-19-EH-Workforce-Needs-Assessment-II-Report.pdf>

Noji, E.K. (2005). Public health issues in disasters. *Critical Care Medicine*, 33(1), S29–S33. <https://doi.org/10.1097/01.ccm.0000151064.98207.9c>

Office of the Assistant Secretary for Preparedness and Response. (2019). *Pandemic and All Hazards Preparedness Act*. <https://www.phe.gov/Preparedness/legal/pahpa/Pages/default.aspx>

Pandemic and All-Hazard Preparedness and Advancing Innovation Act of 2019, H.R. 269, 116th Cong. (2019–2020). <https://www.congress.gov/bill/116th-congress/house-bill/269>

U.S. Department of Homeland Security. (2019a). *View position qualification: Environmental health specialist* (ID 12-509-1048). <https://rtlt.preptoolkit.fema.gov/Public/Position/View/12-509-1048?p=6>

U.S. Department of Homeland Security. (2019b). *View resource typing definition: Environmental health team* (ID 12-508-1135). <https://rtlt.preptoolkit.fema.gov/Public/Resource/View/12-508-1135?q=environmental%20health%20team>

U.S. Department of Homeland Security. (2020). *View position qualification: Environmental health team leader* (ID 12-509-1049). <https://rtlt.preptoolkit.fema.gov/Public/Position/View/12-509-1049?q=environmental%20health%20team>

Drafted by the NEHA Preparedness Program Committee, NEHA Technical Advisors, and NEHA Staff

NEHA Preparedness Program Committee

Chair: LCDR Latasha A. Allen, MSPH MEDM

Environmental Health Officer, U.S. Public Health Service

Office of the Assistant Secretary for Preparedness and Response

U.S. Department of Health and Human Services

Sauda Yerabati

Center for Environmental Health
California Department of Public Health

Cochair: Jackie Littlepage, REHS

Director of Environmental Health/Health Inspectors
Lake County Public Health Agency

Marcy A. Barnett, MEP, CEM, REHS

Director, Emergency Preparedness, Response, & Recovery
National Network of Public Health Institutes

CDR Mark Byrd, MPH, REHS, CPFS

Regional Emergency Coordinator
Office of the Assistant Secretary for Preparedness and Response, Region 6
U.S. Department of Health and Human Services

LCDR Kai Elgethun, MPH, PhD

U.S. Public Health Service
Region 8 Director
Office of Community Health and Hazard Assessment
Agency for Toxic Substances and Disease Registry
Centers for Disease Control and Prevention

Cynthia L.E. Goldstein, MPH, REHS

Environmental Health Administrator
Florida Department of Health in Polk County

C. Addison Houston, MCRP

Environmental Health Emergency Response Planner
Public Health—Seattle & King County

Christine Ortiz Gumina, MPH

Program Manager, Emergency Preparedness, Response, & Recovery
National Network of Public Health Institutes

Andrew R. Roszak, MPA, JD, EMT-Paramedic

Executive Director
Institute for Childhood Preparedness

Jeff Rubin, PhD, CEM

Andrea Skewes, MPH, CPH, REHS
Preparedness Field Assignee
Center for Preparedness and Response
Centers for Disease Control and Prevention

Christopher Sparks, MPH, MPA, RS
Chief Sanitarian
City of Houston

Duane Stansbury, MPH, RS
Health Commissioner
Warren County Health District

NEHA Staff
Georgia Lo
Intern
National Environmental Health Association

Michèle Samarya-Timm, MA, HO, REHS, MCHES, DLAAS
Senior Project Coordinator, Environmental Health
National Environmental Health Association

Edited by:
Kristen Ruby-Cisneros
Managing Editor, *Journal of Environmental Health*
National Environmental Health Association