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How EHAC Contributes to a Stronger Environmental Public Health Workforce

Editor's Note: To promote the growth of the environmental health profession and the academic programs that fuel that growth, the National Environmental Health Association (NEHA) has teamed up with the National Environmental Health Science and Protection Accreditation Council (EHAC) to publish two columns a year in the *Journal*. The mission of EHAC is to enhance the education and training of students in environmental health science and protection.

Through this column, EHAC will share current trends within undergraduate and graduate environmental health programs, as well as highlight available resources and the efforts to further the environmental health field. The conclusions of this column are those of the author(s) and do not necessarily represent the views or official position of NEHA.

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Overview
The environmental public health workforce forms a vital backbone of public health protection, ensuring safe air, water, food, and communities. Yet recent national analyses reveal a system under strain. Chronic underfunding, workforce reductions, and inconsistent education have weakened the nation's capacity to prevent, detect, and respond to environmental and occupational health threats. A review of published materials identifies many defi-

ciencies in the current environmental public health workforce.

Rebuilding the workforce will require a coordinated investment in staffing, consistent quality education, leadership development, and equity-driven training to meet the growing complexity of environmental public health challenges. The National Environmental Health Science and Protection Accreditation Council (EHAC, 2026), through its accreditation process, contributes significantly to this reconstruction by promoting rigorous, sci-

ence-based education and hands-on training to produce workforce-ready graduates who are eager and able to address complex and ever-changing environmental public health issues.

In this column, we outline key deficiencies identified in environmental public health practice and highlight how graduates of EHAC-accredited programs are instrumental in building a resilient and competent environmental public health workforce.

Key Deficiencies Identified in the Workforce

Workforce Shortages and Infrastructure Gaps

The environmental public health workforce is critically understaffed to adequately provide essential environmental and public health services; one report estimated a need for 9,500 additional full-time equivalents in staffing nationwide (de Beaumont & PHNCI, 2021). Shortages are most acute in local and rural health departments, where environmental public health professionals often serve as the primary public health workforce (de Beaumont & PHNCI, 2021). Over the past decade, budget and staffing reductions have further weakened the system's capacity to prepare for and respond to both chronic and emerging environmental public health threats.

Inconsistent Education and Professional Preparation

Many practitioners lack formal academic preparation in environmental public health

sciences, and fewer than one half of environmental public health professionals enter the field from accredited programs (Gerding et al., 2019). This variability contributes to wide gaps in workforce competency, particularly in applied analytical skills and risk assessment.

Skills Gaps in Core and Emerging Practice Areas

Across jurisdictions, environmental public health professionals report limited preparedness in several essential practice areas, including inspections and investigations, risk assessment, climate adaptation, pollution prevention, vector control, disaster response, and hazardous materials management (National Environmental Health Association [NEHA], 2024). In one survey, 26 of 51 supervisors reported that new hires lacked proficiency in key competencies such as community engagement, risk communication, GIS, systems thinking, and toxicology, all of which are increasingly vital to contemporary environmental public health practice (Environmental Health & Equity Collaborative, 2021).

Leadership and Strategic Capacity Deficits

Environmental public health professionals consistently highlight the need for stronger skills in leadership development, critical thinking, and adaptive problem-solving (Gerding et al., 2019). Despite this known deficit, formal leadership training opportunities remain limited.

Community-Representation Challenges

The environmental public health workforce has limited community representation. Few practitioners report confidence in identifying or addressing structural inequities, highlighting persistent gaps in cultural competence and in training on the social determinants of health (Porter et al., 2023).

Training and Professional Development Deficits

Fewer than one half of environmental public health employers offer competency-based training, and only approximately 20% provide structured skill-building programs (Environmental Health & Equity Collabora-

tive, 2021). This lack of ongoing professional development contributes to uneven performance across jurisdictions.

EHAC Graduates Are Key to a Resilient and Competent Workforce

EHAC-accredited environmental public health programs play a crucial role in building a resilient and well-prepared workforce. Graduates enter the profession ready to address current and emerging challenges because they receive rigorous scientific training, strong analytical and critical-thinking preparation, and real-world field experience. Evidence from supervisor questionnaires, hiring officials, and analyses of the financial value of EHAC-accredited education shows that these graduates meet job expectations and can effectively manage complex environmental public health issues.

For example, the U.S. Public Health Service (USPHS) Commissioned Corps considers graduates with a bachelor's or master's degree from an environmental public health program accredited by EHAC uniquely qualified to apply for a commission (Commissioned Corps of the U.S. Public Health Service, 2026). Environmental health officers in the USPHS are essential to safeguarding public health across the nation and around the globe during disasters by aiding in response and recovery, preventing illness and injury, and ensuring responder protection and community resilience. Therefore, EHAC-accredited programs are producing professionals who form a reliable and essential backbone of the environmental public health workforce.

Evidence of Workforce Readiness Among EHAC Graduates

Directors of EHAC-accredited programs administered surveys to alumni from the past 5 years and to their supervisors. Although response rates were modest, likely due to staffing constraints, the results revealed clear and consistent trends: EHAC graduates possess many of the scientific, analytical, and risk-focused skills widely identified as gaps in the current workforce (EHAC, 2025a, 2025b, 2025c, 2025d).

Consistency and Rigor in Academic Preparation

A major strength of EHAC-accredited programs is the consistency and rigor of their

academic preparation. This preparation reduces variation in workforce competency, supports effective teamwork and risk management, and enhances collaboration, especially in resource-limited health departments. Supervisors consistently reported that graduates were well prepared in environmental public health-related sciences and specialty areas (EHAC, 2025a, 2025b). In total, 100% of surveyed supervisors indicated that graduates of EHAC-accredited graduate programs were proficient in key scientific and mathematical disciplines (EHAC, 2025a, 2025b). In comparison, 45% of surveyed supervisors reported similar proficiency among undergraduate graduates (EHAC, 2025c, 2025d). To support undergraduate students in mastering these challenging domains, EHAC encourages programs to innovate in how they cover core scientific and mathematical content.

A Risk-Informed and Science-Based Education

Accreditation criteria for undergraduate and graduate programs are grounded in core environmental public health risk concepts, including risk assessment, risk communication, and risk management. Also, EHAC accreditation requires robust instruction in the natural sciences, toxicology, epidemiology, biostatistics, and a broad range of technical environmental public health areas. Supervisors affirmed this preparation, noting that 100% of graduates of EHAC-accredited graduate programs were proficient to highly proficient in epidemiology, toxicology, and core risk-related competencies (EHAC, 2025a, 2025b). This foundation prepares graduates to evaluate evidence systematically and approach complex problems analytically.

Experiential Learning That Strengthens Workforce Readiness

EHAC-accredited programs provide at least 180 hours of field experience for undergraduate students and a culminating experience for graduate students. These experiences further strengthen environmental public health professional readiness by developing communication skills, community engagement abilities, professional relationships, and confidence. Many students also participate in the National Environmental Public

Health Internship Program (NEHIP), an opportunity available only to students in EHAC-accredited programs. It is an internship program managed by the National Environmental Health Association and funded by the Centers for Disease Control and Prevention. NEHIP participants consistently report substantial growth in professionalism, confidence, and understanding of environmental public health career pathways, as well as meaningful hands-on and community-based experience (NEHA, 2026).

Evolving Standards That Align With Workforce Needs

To align with evolving workforce demands, the governing council of EHAC continuously updates its accreditation standards. Recent revisions to the graduate guidelines require competency in environmental public health sciences adapted from the *Core Competencies for Public Health Professionals* (The Council on Linkages, 2021). EHAC competencies emphasize risk assessment, risk management, and risk communication, as well as expanded technical domains, including GIS, emerging hazards, climate hazards, and emerging technologies (e.g., nanotechnology, big data). External advisory committees, now an EHAC-required component of both undergraduate and graduate programs, help ensure that curricula remain relevant by guiding programs on regional priorities, current practice needs, and opportunities for internships and job placements.

Developing Strategic Leaders for the Workforce

Employers consistently identify leadership, critical thinking, and adaptive problem-solving as essential workforce skills, and EHAC graduates have demonstrated strength in these areas (EHAC, 2025a, 2025b, 2025c, 2025d). Through its rigorous accreditation standards, EHAC supports the development of strategic capacity across the profession by ensuring strong scientific grounding and practical experience at the undergraduate level. EHAC promotes the further development of advanced analytical and leadership competencies at the graduate level. As a result, EHAC contributes to the education of graduates capable of managing current and emerging threats, leading teams, and addressing gaps in environmental public health capacity.

Filling Workforce Gaps and Representation

EHAC annual reporting showed that, between 2023 and 2025, 40–90% of graduates secured environmental public health-related positions in local or federal government, with at least 60% obtaining employment within 3 months of graduation (EHAC, 2025a, 2025b, 2025c, 2025d). These outcomes demonstrate that EHAC graduates are filling critical workforce gaps, particularly in local and rural health departments where environmental public health professionals often serve as the primary public health staff (de Beaumont & PHNCI, 2021).

Building a workforce that represents the communities it serves is important for strengthening community trust and enhancing the relevance and impact of environmental public health practice. In recognition of these needs, EHAC's latest policy revision requires the establishment of external advisory committees for both undergraduate and graduate programs. These committees can offer insight and advise programs about relevant environmental public health concerns and community needs. Through their involvement, these committees help build future practitioners who can better serve their communities and address potential disparities that might affect environmental public health outcomes.

Financial and Operational Benefits in a Resource-Constrained Environment

Lastly, ongoing budget and staffing reductions have weakened the nation's ability to respond to both routine and emerging environmental public health threats. In this resource-constrained context, EHAC graduates provide clear financial and operational value. These graduates enter the workforce prepared to make immediate contributions, reducing the need for costly supplemental training and minimizing productivity losses associated with onboarding underprepared staff (Neistadt & Murphy, 2009). By arriving workforce-ready, EHAC graduates help agencies deploy limited resources more efficiently and maintain stronger operational capacity during shortages.

Conclusion

The environmental public health workforce stands at a crossroads. As climate-driven disasters, emerging technologies,

and persistent inequities continue to shape the profession's landscape, its effectiveness increasingly depends on its ability to grow, diversify, and adapt strategically. EHAC-accredited programs play a vital role in meeting this moment by cultivating practitioners who are ready on day one. These programs ensure their graduates are grounded in strong scientific preparation, equipped with essential risk-based tools, exposed to the breadth of environmental public health technical areas, and equipped with applied experience.

Moreover, EHAC-accredited graduate programs follow competency-based criteria that further equip students with analytical reasoning, leadership capacity, and strategic decision-making. EHAC's criteria for degree programs help develop professionals who can manage today's EPH challenges and are prepared to lead teams, inform policy, and respond to emerging threats with confidence and rigor. Strengthening and supporting EHAC-accredited programs is a direct investment in a resilient and representative workforce prepared to safeguard environmental public health for generations to come. ✨

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