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UNCOVER Environmental Health

ENVIRONMENTAL HEALTH PRACTICE CHALLENGES AND RESEARCH NEEDS FOR U.S. HEALTH DEPARTMENTS: A VISUAL ABSTRACT

Describing the environmental health (EH) workforce and practice

EH professionals protect the health of our communities, for example air quality, food safety and vector control. UNCOVER EH is a groundbreaking study that describes the practice, work and challenges faced by EH professionals, one of the largest segments of the public health workforce.

Improvements to delivery of programs in health departments

EH practitioners are critical to the public health delivery system.

- EH professionals are strategically positioned to diagnose, intervene and prevent emerging threats.
- Addressing the 6 primary EH topic areas is crucial for future EH practice challenges and needs.

Research Methods

1. Surveyed 1,736 EH professionals
2. Identified 6 primary topic areas
3. Focus groups discussed the 6 topic areas
4. Created 4-5 problem statements for each of the 6 topics

EH Professionals Reported Challenges in Six Key Areas

Food safety programs currently have minimal capacity for identifying and regulating illegal food vendors and ingredients, and governing bodies may lack understanding of the value of interventions.

Vectors and public health pests are environmental health threats due to limited public education and awareness of vector control. A lack of coordination and communication of vector prevention between governmental partners, planners and contractors contributes to a disconnect in vector control and community design.

Healthy homes programs are affected by limitations in regulatory authority to assess housing and implement corrective actions (e.g. lead remediation), lack of public awareness (e.g. radon testing), and reactive rather than proactive approaches (e.g. mold exposure).

Wastewater management is an emerging issue due to emerging water quality threats, inconsistent national implementation, limited data to support transitions from prescriptive to performance-based standards, and aging wastewater infrastructure.

Drinking water quality is threatened when there is a lack of monitoring of contaminants. Additional factors that hinder water safety include changes in population growth patterns, inconsistent infrastructure policies and decreased public trust in regulation of drinking water by health departments.

Emerging issues include emergency response and sustainable community planning not being clearly defined and current regulations and guidelines being outdated. Sustainability and community planning are topics receiving much attention from local and state governments, but the environmental health workforce has an undefined role to play.

ENVIRONMENTAL HEALTH PRACTICE RECOMMENDATIONS

Training

Professional credentials.
Requiring the Registered Environmental Health Specialist/Registered Sanitarian credentials for EH professionals would increase consistency, capacity, quality and preparedness for emerging threats.

Academic preparation.
Robust science-based training in EH, particularly through expansion of EH students and academic programs, represents a critical training need.

Strategic national training.
A national training program should be launched to meet EH staff training needs. This includes involvement from agencies, academia, and other organizations.

Research

Translational science partnerships.
EH professionals can develop new strategic connections among academic and government researchers and health departments to maximize impact of translational research.

Nontraditional partnerships.
To address local challenges, enhance resiliency and support evidence-based decision making, EH professionals should expand and strengthen existing partnerships by working more closely with other public health disciplines, nonprofits, and universities.

Joint leadership program.
A cross-disciplinary public health leadership program including EH professionals should be pursued to facilitate cooperation and understanding of roles and expertise.

Partnerships

Strategic research initiative.
A national scale research initiative is necessary to strengthen the science on EH professionals' challenges and needs for emerging health threats in local communities.

Integration with existing programs.
EH professionals in health departments should closely integrate with translational research teams, community outreach, and citizen science activities to support innovation and increase research impact with local communities.

Content from Brooks et al. 2019. *Environmental Health Perspectives* *ehp.niehs.nih.gov/EHP5161*

The Centers for Disease Control and Prevention, National Environmental Health Association, and Baylor University have partnered on the Understanding the Needs, Challenges, Opportunities, Vision, and Emerging Roles in Environmental Health (UNCOVER EH) initiative. UNCOVER EH seeks to assess and improve the profession and practice of environmental health. Learn more at www.neha.org/uncover-eh and www.cdc.gov/nceh/ehs/uncover-eh.