Top 10 Focus Areas

Safe Drinking Water
Clean Air
Vector Control
Food Safety
Chemical Safety
Healthy Community Design
Healthy Housing
Climate Effects
Emergency Preparedness
Environmental Equity

Background and Need for Action

Environmental Health is the branch of public health that focuses on the interrelationships between people and their environment, promotes human health and well-being, and fosters healthy and safe communities. As a fundamental component of a comprehensive public health system, environmental health works to advance policies and programs to reduce chemical and other environmental exposures in air, water, soil and food to protect residents and provide communities with healthier environments.

Environmental health protects the public by tracking environmental exposures in communities across the United States and potential links with disease outcomes. To achieve a healthy community, homes should be safe, affordable, and healthy places for families to gather. Workplaces, schools, and child-care centers should be free of exposures that negatively impact the health of workers or children. Nutritious, affordable foods should be safe for all community members. Access to safe and affordable multimodal transportation options, including biking and public transit, improves the environment and drives down obesity and other chronic illnesses. Outdoor and indoor air quality in all communities should be healthy and safe to breathe for everyone. Children and adults alike should have access to safe and clean public spaces such as parks. When a disaster strikes, a community needs to be prepared and should have the tools and resources to be resilient against physical (infrastructure and human) and emotional damage. All these activities require the participation of federal, state, local, and tribal governments.

Building an Effective Environmental Health System

Investing in essential governmental environmental health services through dedicated resources will create an effective environmental health system that proactively protects communities and helps everyone attain good health. Federal, state, local, and tribal governments should adopt standard approaches to ensuring environmental health equity, protections and access for all, particularly vulnerable and at-risk populations.

The federal government can help build an effective and strong environmental health system by:

- CREATING AN INTEGRATED INFRASTRUCTURE TO COLLECT AND TRACK CRUCIAL INFORMATION.
- DEVELOPING A WELL-TRAINED AND HIGHLY SKILLED WORKFORCE.
- PROVIDING AMPLE AND SUSTAINABLE FUNDING FROM DIVERSE SOURCES.
- ENSURING THAT POLICY AND PROGRAMS ARE GROUNDED IN EXISTING AND UP-TO-DATE EVIDENCE-BASED RESEARCH.
- ENCOURAGING/INCENTIVIZING CROSS-SECTORAL PARTNERSHIPS TO SUPPORT CONSIDERATION OF HEALTH IMPACTS.
- ASSURING ENVIRONMENTAL HEALTH SERVICES ARE EQUITABLY ACCESSIBLE.

A cohesive environmental health system monitors and measures diseases, hazards, exposures, and health outcomes; can collect data over time; and can present real-time data to quickly respond to emergencies and to identify problems for program planning. All government agencies should assess the environmental health impacts of their programs and policies across all sectors to improve health of all communities and people.

Recommendations

Governmental environmental health services are not a luxury; they are essential to providing basic needs to the public such as safe drinking water, clean air, lead poisoning prevention, climate change adaptation, and more. Everyone should have the opportunity to achieve the highest possible level of health at all stages of life, which encompasses physical, mental, and social well-being and extends beyond the absence of disease. As such, the following recommendations support the uncomplicated right to environmental health:

- **PREVENTION:** Enable federal, state, local, and tribal governments to promote resilient, equitable, and healthy communities for all Americans, especially those who are most vulnerable and most at risk.
- **RESPONSE:** Build and support the governmental environmental health system, including workforce needs as well as tracking disease outcomes and environmental exposures.
- **REAL-LIFE SOLUTIONS:** Strengthen environmental health protections and support peer-reviewed research to inform environmental health decision making and practice.

Case Examples that Demonstrate the Need for a Strong and Equitable System

Environmental health professionals work every day to ensure that the air we breathe, the water we drink, and the food we eat are safe and secure. No one would want a person without a medical degree performing surgery, nor should anyone want the safety of their food or water being determined by a person who is not a highly skilled professional. Offering collaboration early on, enhancing their capabilities to detect and respond to threats, grounding policy and actions in evidence-based research, and ensuring that their services reach everyone are critical tenets of a system that can create resilient communities after a disaster.

Recent major emergencies demonstrate the need for a strong governmental nationwide environmental health system. The Zika virus outbreak, Flint water crisis, and Hurricane Katrina are three examples with stark environmental health implications. These emergencies will not be the last, so we must prepare by investing in a robust environmental health system.

Zika Virus Outbreak

Mosquito-borne diseases have and continue to threaten the public's health with such illnesses as Encephalitis, West Nile Virus Disease, Dengue, Chikungunya, and now Zika Virus Disease. Zika infection - passed from an infected pregnant woman to her fetus and capable of causing devastating birth defects - also can have significant economic consequences on affected communities. There is no vaccine to prevent Zika. The best way to prevent disease-carrying mosquitoes is through community-based mosquito control and public education programs. **Environmental health actions are mobilized through Integrated Mosquito Management Programs that provide mosquito monitoring and surveillance, remove places where mosquitos lay eggs, and carefully apply pesticides to significantly reduce mosquito populations while protecting water systems and minimizing undue human and animal exposure.** These actions, coupled with public education and promoting healthy housing, will undoubtedly result in reduced illness and suffering.

Flint Water Crisis

Due to recent, highly visible events, the safety of, and trust in our nation's drinking water systems have been called into question. The drinking water crisis associated with lead contamination in Flint, MI, sheds a national spotlight on an issue that is occurring across the country. In Flint, due to a change in the source of the city's drinking water without taking the necessary corrosion control steps, the safety of approximately 100,000 people's drinking water was threatened. This resulted in the leaching of lead from the plumbing causing an increase in the blood lead levels in children consuming the water. This was a preventable situation. **Strong policy with sufficient oversight and accountability supported by a skilled and resourced environmental health system is essential to monitor drinking water systems.** The presence of chemical and microbial contaminants must be detected, source waters must be protected, regulations must be enforced, and surveillance systems must be in place that monitor and link water quality to human health data for rapid detection of potential public health problems.

Hurricane Katrina & Super Storm Sandy

Unforgettably, Hurricane Katrina flooded the city of New Orleans in 2005, damaging more than 100,000 homes and Super Storm Sandy hit New York, New Jersey and other neighboring states in 2012, also causing devastating damage to homes and businesses, power supply systems, and other critical infrastructures such as roads. Storms like these have both acute and longer term environmental health impacts capable of causing physical, emotional, and economic harm. Understandably, the victims' focus was on mere survival and not necessarily whether the water coming from their kitchen sink was safe to drink, whether residual mold growth in their home would impact the health of their children, or whether the reconstruction of their home would cause harmful exposures to lead or other building materials or contaminants. **A strong environmental health system provides the necessary safeguards to measure, track, and respond to such concerns and mitigate the adverse health consequences.**