

**West Nile virus**

*air quality*

**Anthrax**

*safe drinking water*

***E. coli***

*water pollution control*

***Salmonella***

*noise pollution*

**Arsenic**

*risk assessment*

**ENVIRONMENTAL PUBLIC HEALTH:**  
Everyone. Everywhere. Every Day.

**Lead**

*food safety*

**Radiation**

*disaster planning and response*

***Cryptosporidium***

*healthy housing*

**Physical Hazards**

*integrated pest management*

**Mercury**

*pesticide control*

**SARS**

*toxic chemical control*

**hantavirus**

*global environmental issues*

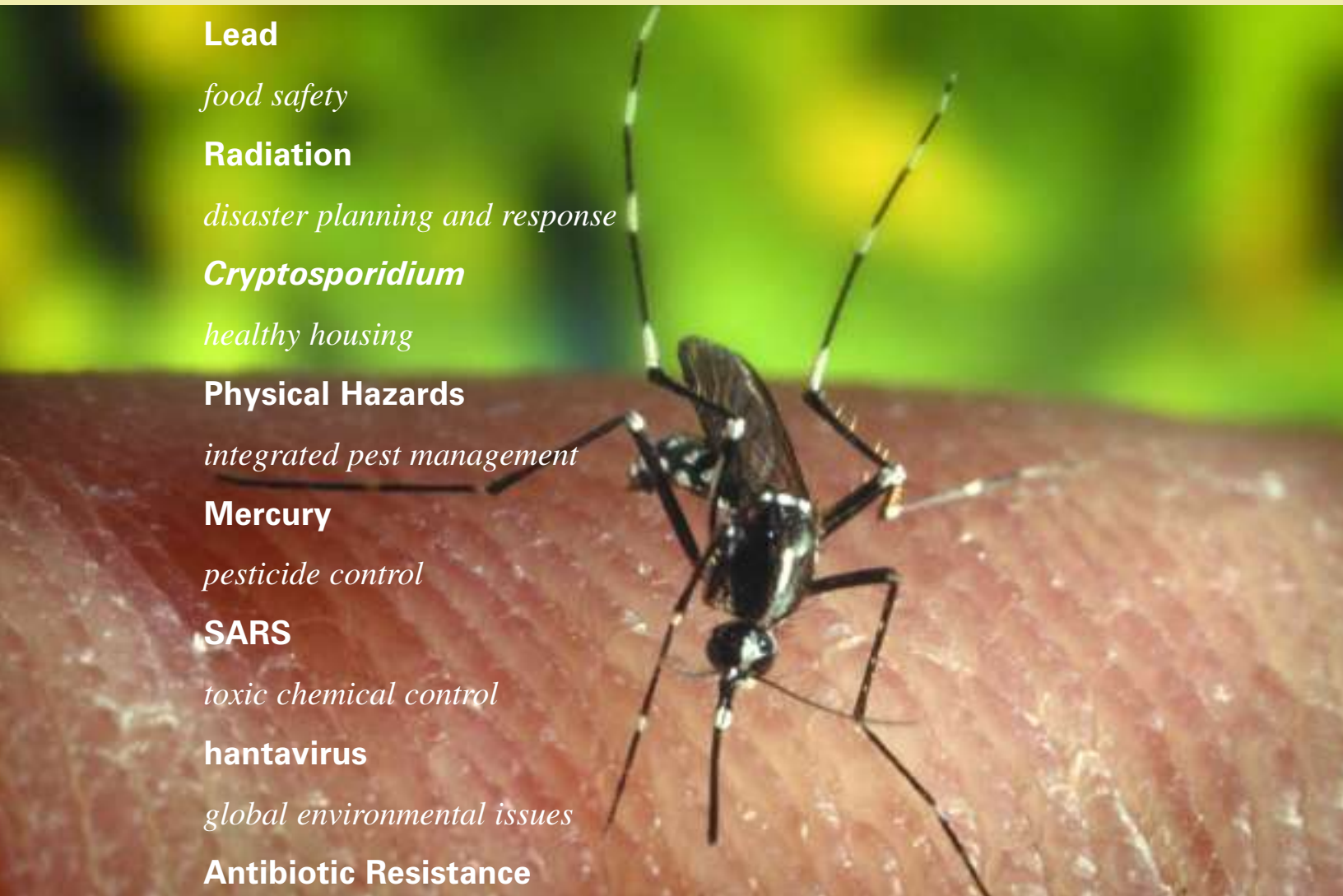
**Antibiotic Resistance**

*biological and chemical terrorism*

**Norwalk Virus**

*solid waste (trash) management*

**Nitrate Atrazine**





“Environmental public health... touches everyone’s life every day.”



**FACT:**

About 76 million cases of foodborne illness occur in the U.S. each year with 325,000 hospitalizations and 5,000 deaths and ailments.\*\*

The 30-year increase in life expectancy to 76.7 years from 1900 to 1998 has been attributed largely to environmental public health services.

Environmental public health services have been the backbone of public health in the U.S. since 1798.

## What is environmental public health?

Environmental public health addresses the interrelationship between human health and the environment. It has been described as the art and science of **protecting** against environmental factors that may adversely affect human health. *Human health protection* comes through the many national, state and local environmental public health services.

*air quality*

*safe drinking water*

*water pollution control*

*noise pollution*

*radiation*

*food safety*

*disaster planning and response*

*healthy housing*

*integrated pest management*

*pesticide control*

*toxic chemical control*

*biological and chemical terrorism*

*global environmental issues*

*solid waste (trash) management*

*land use planning*

*community environmental health assessment*

*public education*

*liquid waste management*

**FACT:**

*E. coli* has been associated with eating undercooked beef; a stronger strain of *E. coli* is causing more new serious outbreaks of foodborne diseases.

"Environmental public health practitioners are involved not only in inspections, but perhaps more importantly in surveillance, warnings, permitting, grading, developing compliance schedules and variances, risk assessment, risk communication, public information, exposure evaluation, seeking injunctions and other legal remedies, embargoing, sampling for the values and benefits of public health, plan and design review and approval and epidemiology. Such activities are essential to a modern, effective program."

*Former APHA President (1981)  
Larry Gordon*

## Who are environmental public health practitioners?

- Employees of federal, state, territorial and local agencies (health departments) such as sanitarians, engineers, public health nurses, and professionals who work on environmental public health issues, e.g., industrial hygienists, epidemiologists, chemists, geologists, physicians, economists, public administrators and lawyers
- 4.5% of the total U.S. public health workforce\*
- For every 14,000 persons, there is only one environmental public health practitioner

### Why are they needed?

**PREVENT ILLNESS:** 80% of human disease has been eliminated because of proper sanitation. Environmental public health services continue to be a major factor in the prevention of illness.

**PROTECT LIVES:** An important part of the public response to terrorism and other emergencies is to provide services essential for protecting and ensuring the well-being of people in affected areas with an emphasis on prevention and control of disease and injury.

**SAVE HEALTH CARE COSTS** through preventing illness—many environment-related conditions affect the health and lives of millions of citizens at significant cost.\*\*

\*It is difficult to account for the large number of professionals engaged in environmental public health activities that occur outside of the public health system (for example, in environmental protection, non-government organizations (NGOs) and private companies).

\*\*The annual economic costs of medical care, productivity loss and premature deaths due to foodborne illness associated with just five pathogens are estimated between \$7 million and \$37 million annually. (As cited by Safe Tables Our Priority [S.T.O.P.] *Ten Years After the Jack in the Box Outbreak — Why Are People Still Dying from Contaminated Food?*)

# CRITICAL ISSUES

“The emergence of many new issues and threats... *Cryptosporidium* in drinking water, hantavirus, *E. coli*, West Nile virus, and most recently homeland terrorism... points to the need for a well prepared environmental health system.” CDC 2003

## WORK FORCE

- Aging and retiring workforce—the average age of a public health worker is 46.6 years and retirement rates will be as high as 45% over the next five years. There is a shortage of young professionals.
- Poor compensation and retention—current vacancy and turnover rates of environmental public health practitioners are high in many states because of low pay, minimal advancement opportunities and competition with the private sector.
- Lack of future leadership—no consistent plan or program exists to train the next generation of environmental public health leaders.

## SERVICES

- There are 10 essential public health services for which funding is limited and training is needed. For more information, go to [www.train.org](http://www.train.org).
- The increasing number and complexity of environmental public health issues as well as the emergence of new issues requires the need for a well prepared environmental public health work force and a work force with strong communication skills.
- Environmental public health services are often unnoticed and under funded. There is a need for increased support of these crucial services.

## FACT:

In a recent survey by the Association of State and Territorial Health Officials, 11 of the 37 reporting states identified a shortage of environmental public health workers because of low pay, minimal advancement opportunities, and competition with the private sector.

Because of an ill-prepared water treatment system, more than 403,000 people in Milwaukee became ill during a two-month period in 1993 from drinking water that had been contaminated with *Cryptosporidium*. Fifty people died.



# A National Strategy to Revitalize Environmental Public Health Services

A CDC Initiative >> [www.cdc.gov/nceh/ehs/default.htm](http://www.cdc.gov/nceh/ehs/default.htm)

Unless otherwise cited, CDC's National Strategy is the source for information presented in this brochure.

## Overarching Goal

Enhance and revitalize the system of environmental public health services in order to address the broad range of issues facing states and communities.



## Organizations Involved in Revitalizing Environmental Public Health Services

**AMERICAN PUBLIC HEALTH ASSOCIATION** [www.apha.org](http://www.apha.org)

**ASSOCIATION OF ENVIRONMENTAL HEALTH ACADEMIC PROGRAMS** [www.aehap.org/index.php](http://www.aehap.org/index.php)

**ASSOCIATION OF PUBLIC HEALTH LABORATORIES** [www.aphl.org/Environmental\\_Health/index.cfm](http://www.aphl.org/Environmental_Health/index.cfm)

**ASSOCIATION OF SCHOOLS OF PUBLIC HEALTH** [www.asph.org/](http://www.asph.org/)

**ASSOCIATION OF STATE AND TERRITORIAL HEALTH OFFICIALS** [www.astho.org/?template=environment.html](http://www.astho.org/?template=environment.html)

**ENVIRONMENTAL COUNCIL OF THE STATES** [www.sso.org/ecos/](http://www.sso.org/ecos/)

**NATIONAL ASSOCIATION OF COUNTY AND CITY HEALTH OFFICIALS** [www.naccho.org/projects.cfm](http://www.naccho.org/projects.cfm)

**NATIONAL ASSOCIATION OF LOCAL BOARDS OF HEALTH** [www.nalboh.org/index.htm](http://www.nalboh.org/index.htm)

**NATIONAL CONFERENCE OF STATE LEGISLATURES** [www.ncsl.org/programs/esnr/toxics.htm](http://www.ncsl.org/programs/esnr/toxics.htm)

**NATIONAL ENVIRONMENTAL HEALTH ASSOCIATION** [www.neha.org/](http://www.neha.org/)

**CENTERS FOR DISEASE CONTROL AND PREVENTION, NATIONAL CENTER FOR ENVIRONMENTAL**

**HEALTH, ENVIRONMENTAL HEALTH SERVICES** [www.cdc.gov/nceh/ehs/](http://www.cdc.gov/nceh/ehs/)

**CENTERS AND COMMUNITIES OF EXCELLENCE** [www.cdc.gov/nceh/ehs/CapacityBuilding/excellence.htm](http://www.cdc.gov/nceh/ehs/CapacityBuilding/excellence.htm)

## Support Environmental Public Health Services

Environmental public health practitioners are responsible for protecting and preventing public exposure to harmful agents. Protection of the public's health comes through the many services they provide, including monitoring air quality, safe drinking water and food safety, integrated pest management (e.g., West Nile virus), toxic chemical control, disaster planning and control (terrorism) and public education. State and local environmental public health programs are typically under-funded and stretched beyond capacity. Environmental public health practitioners are often not sufficiently trained or supported to handle the emerging and complex environmental public health issues they face every day. Programs lack infrastructure to manage these issues, and research is needed. There is a need to continue and *increase* the federal funding that is so critical to these programs. Without this support, the environmental public health systems may not be able to fulfill their responsibilities, resulting in an increased risk to the public's health. CDC, NCEH, Environmental Health Services Branch is spearheading an effort to revitalize environmental public health services. For more information on this program, visit [www.cdc.gov/nceh/ehs](http://www.cdc.gov/nceh/ehs), or call APHA's Director of Government Relations and Affiliate Affairs at **(202) 777-2541**.

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### More information?

Please send an email to [ephs@apha.org](mailto:ephs@apha.org) or call APHA's Director of Government Relations and Affiliate Affairs at (202)777-2541.

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### American Public Health Association

800 I Street, NW  
Washington, DC 20001  
(202) 777-2742  
fax: (202) 777-2534  
e-mail: [ephs@apha.org](mailto:ephs@apha.org)