



## Environmental Hazards & Health Effects

*We must be able to breathe, drink, eat, and live in the environment without fear for our health.*

# Division of Environmental Hazards



## Our Mission:

*Investigate the relation between human health and the environment*

## Our Goals:

- *Increase knowledge*
- *Develop, implement, and evaluate policies and programs to prevent and control disease*

## Our Tools:

- *Research*
- *Education*
- *Partnership*

*CDC's Division of Environmental Hazards & Health Effects (EHHE) focuses primarily on the following:*

## Air Pollution and Respiratory Health

EHHE researches and investigates the effects of airborne environmental agents on respiratory diseases. Focus areas include asthma and mold.

### *Asthma*

Despite some evidence of stabilizing death rates and declining hospitalization rates, asthma remains an important cause of illness and death in the United States. Rates of emergency department visits have continued to slowly increase and large disparities persist, with African Americans having rates of emergency department visits, hospitalizations, and death three times higher than those for whites.



Through its National Asthma Control Program, EHHE works with state grantees to reduce the number of

deaths, hospitalizations, emergency department visits, school days or workdays missed, and limitations on activity due to asthma. The program has three components: (1) tracking: collecting and analyzing data on an ongoing basis to understand when, where, and in whom asthma occurs; (2) interventions: ensuring that scientific information is translated into public health practices and programs to reduce the burden of asthma; and (3) partnerships: ensuring that all stakeholders have the opportunity to be involved in developing, implementing, and evaluating local asthma control programs.

### *Mold*

Mold exposure does not always present a health problem indoors; however, people who are allergic to mold may commonly experience allergic symptoms when exposed to it. Certain people with chronic respiratory disease may have trouble breathing, although mold does not appear to represent a major public health burden in terms of illness and death. Because we know that mold can cause illness in some persons, EHHE is developing an agenda for research, service, and education related to mold. EHHE has funded the Institute of Medicine to conduct a study on the relation between damp or moldy indoor environments and the manifestation of adverse health effects. EHHE also is working with the Council of State and Territorial Epidemiologists to develop an inventory of state indoor air quality programs.



## Chemical and Radiologic Terrorism

EHHE is developing guidelines for emergency department management of casualties following a radiologic event. EHHE participates regularly in emergency response drills, working closely with other federal, state, and local agencies to develop, test, and implement extensive national radiologic emergency response plans. EHHE will coordinate federal, state and local partners in assessing human health risks from chemical threats to water, air, and food.

# Health Effects

*Programs dedicated to investigating the relation between human health and the environment.*



## Environmental Public Health Tracking

The environment plays a significant role in human development and health. Some links between environmental exposures and disease, such as lead and impaired cognitive development in children, are well documented. Others, such as a possible link between disinfectant byproducts and bladder cancer are suspected but not yet proven.

EHHE defines environmental public health tracking as the ongoing collection, integration, analysis, and interpretation of data on environmental hazards, exposure to environmental hazards, and health effects potentially related to exposure to environmental hazards. EHHE is leading creation of the National Environmental Public Health Tracking Network. The standards-based network will allow direct electronic data reporting and linkage within and across health effect, exposure, and hazard data and will interoperate with other public health systems. EHHE also develops innovative methods and



tools for tracking environmental hazards and associated health effects, disseminates environmental public health information to diverse audiences, and studies the links between environmental hazards, exposures, and health effects.

## Health Studies

EHHE investigates the human health effects of exposure to environmental hazards ranging from chemical pollutants to natural, technologic, or terrorist disasters. The results are used to develop, implement, and evaluate strategies for preventing or reducing harmful exposures. The following are examples of current health study subject areas:

### *Cancer Clusters*

A cancer cluster is a greater-than-expected number of cancer cases that occurs within a group of people in a geographic area over a period of time. EHHE provides cancer cluster information and resources through its Web site, responds to inquiries about cancer clusters, and works with state health departments to address public health concerns about potential cancer clusters.

### *Concentrated Animal Feeding Operations*

EHHE is working with states to define routes of exposure and potential human health effects from exposures to wastes and residues from concentrated animal feeding operations.

### *Disasters*

EHHE conducts research related to acute and chronic health effects from exposures to extreme heat and cold and to hazards related to natural (e.g., earthquakes, floods, hurricanes, tornadoes) and other (e.g., industrial chemical accidents, terrorism) disasters.

### *Pesticides*

EHHE evaluates the public health impact of nonwork-related exposures to pesticides, investigates outbreaks, and conducts prevention activities.



### *Harmful Algal Blooms*

EHHE is supporting surveillance programs, epidemiologic studies, and laboratory research to further define the relation between exposure to organisms involved in harmful algal blooms, such as *Pfiesteria piscicida*, and human illness.

### *Water, Air, and Food*

EHHE works with laboratory partners to determine whether human exposure to environmental pollutants in water, air, or food has occurred; to measure the extent of exposure to chemicals or toxins; and to assess ground and surface water contamination.

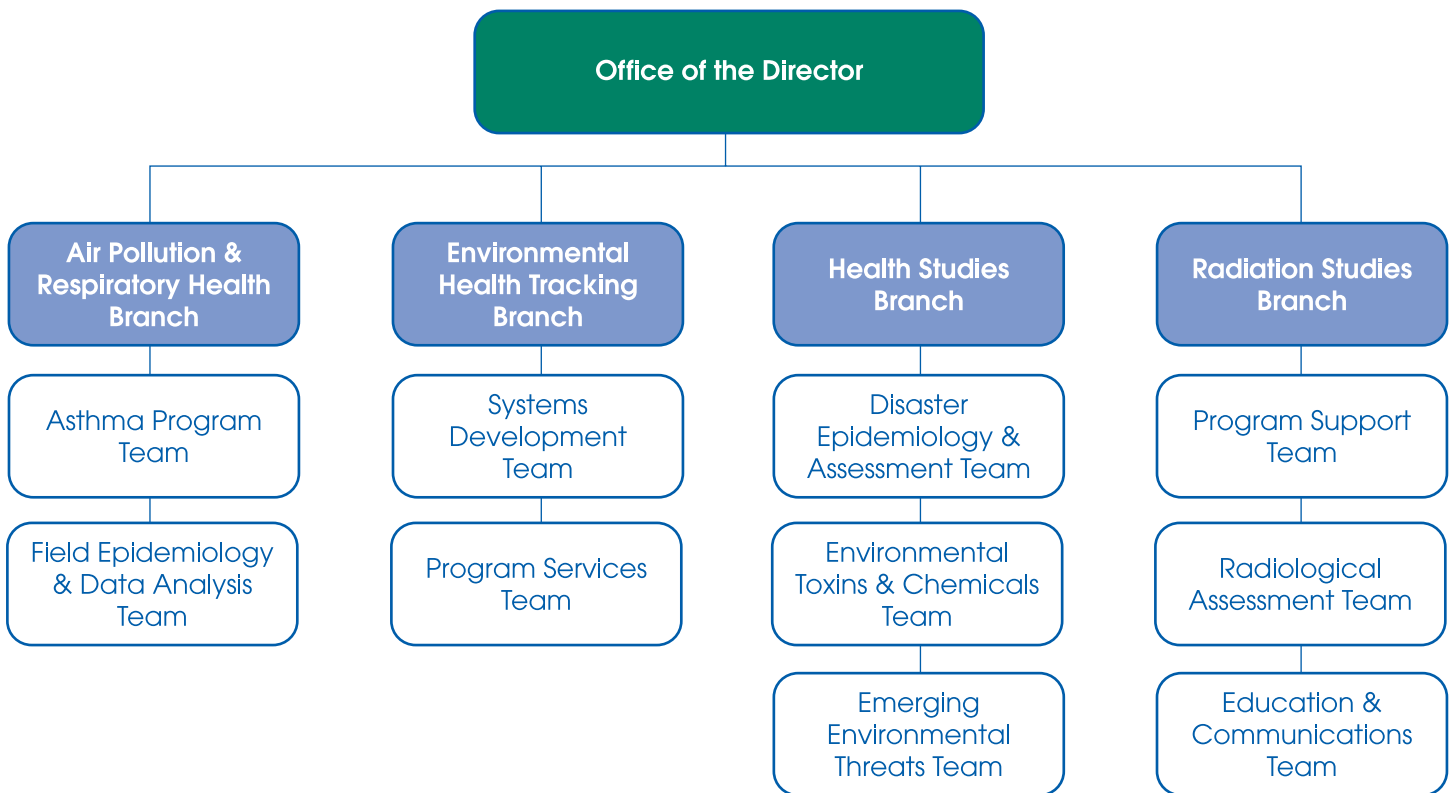
### **Radiation Studies**

EHHE identifies potentially harmful environmental exposures to ionizing radiation and associated toxicants, conducts energy-related health research, and responds to protect the public's health in the event of an emergency involving radiation or radioactive materials.



*Centers for Disease Control and Prevention  
National Center for Environmental Health (NCEH)*

## **Division of Environmental Hazards & Health Effects**



June 2006

NCEH Pub. No. 02-0750

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