



Environmental Health Activities in Pennsylvania



NCEH in Partnership With Pennsylvania

NCEH is the National Center for Environmental Health (NCEH), a part of the Centers for Disease Control and Prevention (CDC). NCEH's work focuses on three program areas: identifying environmental hazards, measuring exposure to environmental chemicals, and preventing health effects from environmental hazards. NCEH has approximately 450 employees and an annual budget for 2003 of approximately **\$182 million**; its mission is to promote health and quality of life by preventing or controlling those diseases or deaths that result from interactions between people and their environment.

NCEH and partners throughout **Pennsylvania** have teamed up on a variety of environmental health projects throughout the state. From **fiscal years 2001 through 2003**, NCEH awarded more than **\$7.1 million** in direct funds and services to Pennsylvania for various projects. These projects include activities related to asthma control and intervention, environmental public health tracking, biomonitoring, and childhood lead-poisoning prevention. In addition, Pennsylvania also benefits from national-level prevention and response activities conducted by NCEH or NCEH-funded partners. For example, NCEH measures human exposure to chemicals and shares the results in the *National Report on Human Exposure to Environmental Chemicals*. Pennsylvania can use these data to plan, implement, evaluate, and strengthen its environmental public health prevention and control efforts.

Identifying Environmental Hazards

NCEH identifies, investigates, and tracks environmental hazards and their effects on people's health. Following are examples of such activities that NCEH has conducted or supported in **Pennsylvania**.

Asthma Activities

- **Controlling Asthma in American Cities**—Under this project, NCEH is funding **Children's**

Hospital of Philadelphia to influence asthma outcomes (asthma hospitalizations, asthma emergency department visits, and unscheduled

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visits) among the pediatric asthma population in a specific region of Philadelphia. Children's Hospital is using the "You Can Control Asthma" curriculum to provide asthma-management classes for the community; visiting the homes of patients with severe asthma to assess environmental triggers and teach patients about asthma; and training physicians, school nurses, and parents on how to teach others about asthma.

- **Replication and Implementation of Scientifically Proven Asthma Interventions**—NCEH is funding the **Philadelphia Department of Public Health (Phil DPH)** to implement the Asthma Care Training (ACT) curriculum, an asthma intervention that can decrease acute-care visits, decrease hospitalizations, and increase compliance with asthma care plans.

Since September 2002, Phil DPH has initiated ACT classes in seven of the eight community health care centers in **Philadelphia**. The department also has recruited and trained 14 nurses to teach the ACT curriculum, eight of whom continue to participate actively in the program. Phil DPH has publicized the availability of the program through the community health care centers for medical referrals.

Environmental Public Health Tracking Activities

- **Planning and Capacity-Building**—NCEH is funding a project through which the **Pennsylvania Department of Health (PADOH)** and the **Pennsylvania Department of Environmental Protection (PADEP)** are collaborating to develop an integrated

environmental public health tracking network that will include both environmental databases and environmental health outcome databases. Environmental public health tracking is the ongoing collection, integration, analysis, interpretation, and dissemination of data on environmental hazards, exposures to those hazards, and related health effects.

To develop such an integrated environmental public health tracking network in Pennsylvania, PADOH and PADEP are forging partnerships between traditional health-focused entities and environmental agencies at the federal, state, and local levels; expanding the expertise of the departments' personnel and purchasing the latest technology infrastructure; developing standardized electronic data elements; and building mechanisms for disseminating information to stakeholders.

Measuring Exposure to Environmental Chemicals

NCEH measures environmental chemicals in people to determine how to protect people and improve their health. Following are examples of such activities that NCEH has conducted or supported in **Pennsylvania**.

Funding

- **Antiterrorism Funding to Increase State Chemical Laboratory Capacity**—In fiscal year 2003, CDC provided \$2,436,293 to **Pennsylvania** to assist the state in expanding its chemical laboratory capacity to prepare and respond to chemical terrorism incidents and other chemical emergencies. This program expansion will allow for full participation of chemical-terrorism response laboratories in the Laboratory Response Network.
- **Biomonitoring Planning Grant**—In fiscal year 2001, NCEH awarded a grant to **Pennsylvania** to develop a plan for implementing a biomonitoring program for the state. In this way, the state could make decisions about which environmental chemicals within its borders were of health concern and could make plans for measuring levels of those chemicals in the Pennsylvania population.

Studies

- **Exposure to the Fuel Additive Methyl Tert-Butyl Ether (MTBE) and Fuel From**

Contaminated Groundwater—Residents of **Buckingham** were concerned about the potential health effects resulting from exposure to a large underground gasoline spill. At the request of **PADOH** and the Agency for Toxic Substances and Disease Registry, NCEH measured gasoline-related volatile organic compounds (VOCs) in the blood of approximately 20 Buckingham residents over a 6-month period. The analysis of the samples found no significantly elevated levels of these VOCs in the residents' blood. NCEH also measured these compounds in the blood of 12 residents of **Hazleton** and found no significantly elevated levels in the blood of those residents. Hazleton residents were selected because area homes also were affected by an underground gasoline spill.

Services

- **Blood Lead Laboratory Reference System (BLLRS)**—BLLRS is a CDC standardization program designed to improve the overall quality of laboratory measurements of lead in blood. In **Pennsylvania**, 11 laboratories participate in BLLRS. This program allows these laboratories to evaluate their performance on laboratory tests. CDC provides BLLRS materials free of charge to these laboratories four times a year.
- **Lipid Standardization Program (LSP)**—NCEH provides standardization support to four lipid research laboratories in **Pennsylvania** that are involved in epidemiologic studies and clinical trials investigating risk factors and complications associated with cardiovascular disease. LSP, supported by CDC's Lipid Reference Laboratory (the cornerstone of the National Reference System for Cholesterol to which these lipid measurements are traceable), provides quarterly analytical performance challenges and statistical assessment reports to allow program participants to monitor performance, thus ensuring the accuracy and comparability of study results and findings.

Preventing Health Effects From Environmental Hazards

NCEH promotes safe environmental public health practices to minimize exposure to environmental hazards and prevent adverse health effects. Following are examples of such activities that NCEH has conducted or supported in **Pennsylvania**.

- **Childhood Lead-Poisoning Prevention—PADOH** (state and local partners in building capacity to eliminate childhood lead poisoning as a major public health problem) has received NCEH funding since 1992; NCEH began awarding separate funding to the **Philadelphia Childhood Lead-Poisoning Prevention Program** in 2001. In Pennsylvania, the number of children younger than 6 years of age who have been screened for blood lead levels has increased 17% from 1997 to 2001—from 39,200 to 45,738, respectively. In addition to more children being tested, the number of children younger than 6 years of age with elevated blood lead levels has decreased 59%—from 9,644 in 1997 to 4,259 in 2001. Pennsylvania and Philadelphia have implemented primary prevention activities through which they provide education to pregnant women on lead-poisoning prevention.
- **Building Communities of Excellence Through Environmental Health Capacity-Building**—In fiscal year 2003, NCEH established a 3-year cooperative agreement with the **Allegheny County Health Department in Pittsburgh** to build capacity within its health department for environmental health services-related activities. Environmental capacity in Allegheny County has been improved through the hiring of an epidemiologist who has developed standards for conducting epidemiologic investigations and methodologies for collecting and analyzing data. Funding is being used to conduct videoconferences that have allowed grantees across the country to share experiences and information about environmental issues and programs and to develop a comprehensive set of environmental indicators.
- **Rodent Control and Environmental Improvements**—In fiscal year 2001, NCEH funded **Phil DPH** for an Urban Commensal Rodent Control and Environmental Improvement and Safety Project. The purpose of this program is to demonstrate that a comprehensive approach to eliminating commensal rodent infestation also will prevent, eliminate, or reduce the consequences of diseases and injuries associated with unhealthful home environments. The health department is conducting several community-based demonstration projects to conduct rodent control.

Resources

NCEH develops materials that public health professionals, medical care providers, emergency responders, decision makers, and the public can use to identify and track hazards in the environment that pose a threat to human health and to prevent or mitigate exposure to those hazards. NCEH's resources cover a range of environmental public health issues, including air pollution and respiratory health (e.g., asthma, carbon monoxide, and mold issues), biomonitoring to determine whether and how much of substances in the environment are getting into people, childhood lead poisoning, emergency preparedness and response for chemicals and radiation, environmental health services, environmental public health tracking, international emergency and refugee health, laboratory sciences as applied to environmental health, radiation studies, safe chemical weapons disposal, specific health studies, vessel sanitation, and veterans' health.

For more information about NCEH programs, activities, and publications and other resources, contact the NCEH Health Line toll-free at 1-888-232-6789, e-mail NCEHinfo@cdc.gov, or visit the NCEH Web site at www.cdc.gov/nceh.

