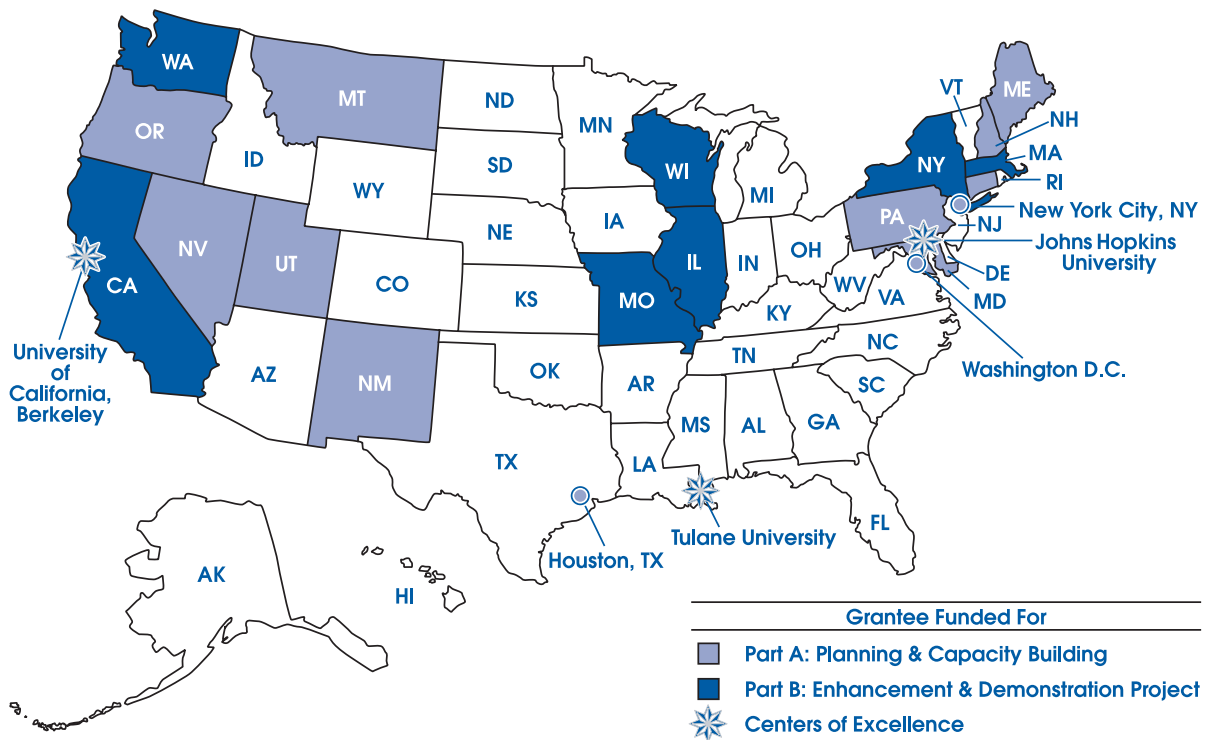


Environmental Public Health Tracking Program: Closing America's Environmental Public Health Gap 2003

CDC's Environmental Public Health Tracking Program Grantees



“This new program provides a strategic opportunity to address some of the most challenging public health problems. By linking environmental and health data on a national level, we will be better equipped to identify problems and effective solutions, thereby reducing the burden of environment-related diseases on the American people.”

*Julie Louise Gerberding, MD, MPH
Director, Centers for Disease Control and Prevention*

Environmental Public Health Tracking: Linking Hazards, Exposures and Health Effects

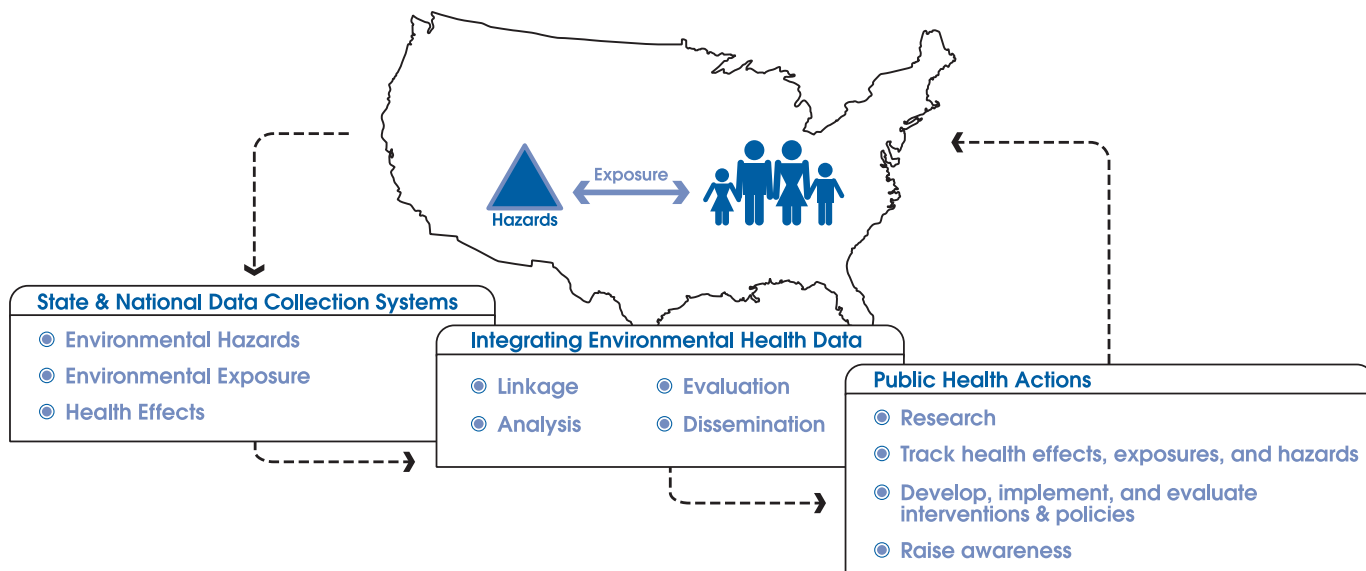
The environment plays an important role in human development and health. Researchers have linked exposures to some environmental hazards with specific diseases; for example, exposure to asbestos and lung cancer. Other associations between environmental exposures and health effects are suspected but need further research; for example, the link between exposure to disinfectant by-products and bladder cancer. Currently, few systems exist at the state or national level to track many of the exposures and health effects that may be related to environmental hazards. Tracking systems that do exist are usually not compatible with each other, and data linkage is extremely difficult.

Environmental public health tracking is the ongoing collection, integration, analysis, and interpretation of data about environmental hazards, exposure to environ-

mental hazards, and human health effects potentially related to exposure to environmental hazards. It includes dissemination of information learned from these data.

The mission of environmental public health tracking is to improve the health of communities. Using information from an environmental public health tracking network, federal, state, and local agencies will be better prepared to develop and evaluate effective public health actions to prevent or control chronic and acute diseases that can be linked to hazards in the environment. Health-care providers can provide better care and targeted preventive services. In addition, the public will have a better understanding of what is occurring in their communities and what actions they may take to protect or improve their health.

Framework for the Environmental Public Health Tracking Network



CDC's Environmental Public Health Tracking Program

CDC's goal is to develop a national network that will (1) be standards-based; (2) allow direct electronic data reporting and linkage within and across health effect, exposure, and hazard data; and (3) interoperate with other public health systems.

In 2001, CDC assembled four workgroups, comprising representatives from 30 national organizations, to elicit

information on data technology, needs assessment, and public health action. The final report from these workgroups is available on CDC's Web site at <http://www.cdc.gov/nceh/tracking/background.htm>. CDC has assembled an internal workgroup that meets every 2 months to coordinate activities and categorical programs that contribute to the environmental public health tracking program mission.

CDC's Internal Workgroup

- Agency for Toxic Substances and Disease Registry
- Epidemiology Program Office
- National Center for Chronic Disease Prevention and Health Promotion
- National Center on Birth Defects and Developmental Disabilities
- National Center for Health Statistics
- Office of Integrated Health Information Systems
- National Center for Injury Prevention and Control
- National Institute for Occupational Safety and Health
- National Center for Environmental Health

With appropriations of \$17.5 million in fiscal year 2002, CDC funded 17 states, 3 local health departments, and 3 schools of public health to begin development of a national environmental public health tracking network and to develop capacity in environmental public health at the state and local levels.

CDC Offered Two Competitive Grant Programs for State Health Departments and Schools of Public Health.

The 2002 competitive grants program for funding states offered two developmental program options described as Part A (Planning & Capacity Building) and B (Enhancement & Demonstration Project). Part A offered state and local health departments the opportunity to receive funding of \$400,000-\$600,000 per annum for 3 years to develop plans and components of a standards-based, coordinated, and integrated environmental public health tracking (surveillance) system. Part B offered state and local health departments funding of \$600,000-\$800,000 per annum for 3 years to develop or enhance exposure or

health effect surveillance systems and conduct projects to assess the utility of linking and reporting health effect data with exposure or hazard data for guiding appropriate public health action or practice. These states also will work on the blueprint and components of a standards-based tracking system. Part A and B options were offered because state and local public health agencies faced different health challenges and capacities for building and implementing an environmental public health tracking program.

A competitive grants program also was offered to schools of public health to establish Centers of Excellence in Environmental Public Health Tracking. These Centers provide expertise and support to CDC and state and local health departments in developing and using data from environmental public health tracking systems at the local, state, and national levels and investigate potential links between health effects and the environment.

Examples of Funded Program Activities

Part A Grantee The New York City (NYC) Department of Health and Mental Hygiene (DOHMH) will use program funds to assess, evaluate, and enhance NYC health effect, exposure, and hazard surveillance systems. Their program, Environmental Connections, will build on existing DOHMH environmental public health tracking systems. Objectives include formalizing existing working relationships between DOHMH and the New York Department of Environmental Protection; evaluating existing data systems for air, food, water, pesticide use, and the indoor environment as they relate to existing health-related data systems in NYC; and assessing the need for changes to regulations and legislation to facilitate environmental health tracking.

Part B Grantee The Washington State Department of Health (WSDH) plans to develop a blueprint for environmental public health tracking, enhance existing exposure and health effects surveillance systems, and conduct projects aimed at demonstrating data linkage to show the value of electronic reporting and the utility of linked data for policy development. WSDH's primary project involves the enhancement of the Washington Electronic Disease Surveillance System's electronic hospital reporting of birth defects, the development of population-based exposure data, including a state biomonitoring program, and the enhancement of environmental monitoring and data analyses of persistent toxins such as mercury and polychlorinated biphenyls.

Centers of Excellence Grantee The Tulane University Health Sciences Center's goals are to provide expertise and support to state and local health agencies to develop the National Environmental Public Health Tracking Network and to investigate potential links between health effects and the environment. Specifically, Tulane plans to conduct the following activities: develop an Internet interface for databases

on water quality, asthma, and blood lead, which can be refined for use with other data sources; develop statistical methods for a Geographic Information System and trend analysis using existing and innovative data sources; design a mercury exposure monitoring strategy; and conduct an epidemiology study on the relationship between chronic lead exposure and adverse cognitive and neurobehavioral effects.

Examples of CDC's External Partners

- Association of Public Health Laboratories
- Association of State and Territorial Health Officials
- Council of State and Territorial Epidemiologists
- Environmental Council of the States
- National Aeronautics and Space Administration
- National Association of County and City Health Officials
- U.S. Environmental Protection Agency

Environmental Public Health Indicators Project

The state and local health departments that have been funded as part of the National Environmental Public Health Tracking Program will evaluate the utility of environmental public health indicators (EPHIs). Health indicators are used to measure the health of a community, county, city, state, or the nation. Indicators may be used to assess baseline status and trends, track progress toward program goals and objectives, and build core surveillance capacity in state and local agencies. An EPHI framework was designed to be needs-based and to assist the states in meeting Healthy People 2010 objectives. The best indicators reliably predict the relationship between human health and the

environment, are routinely collected, and have well-accepted definitions and data collection standards.

EPHIs provide information about a population's health status with respect to environmental factors and may be particularly useful when measurable links are not clear. As such, they can be used to measure health or a factor associated with health in a specific population. For example, because the amount of lead in paint in older homes is difficult to measure, we use blood lead measurements in children to indicate both the lead paint hazard and the risk for childhood lead poisoning. For more information about EPHIs, visit <http://www.cdc.gov/nceh/indicators>.

Future Directions

As additional funding becomes available, CDC plans to

- Fund additional state and local health departments to increase their capacity building and demonstration projects
- Fund additional schools of public health to develop Centers of Excellence in environmental public health tracking
- Fund technical development activities required to support a national network
- Assess stakeholder information needs for future data dissemination activities
- Expand training and education activities in collaboration with national and professional organizations

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