



Environmental Health Activities in Mississippi



NCEH in Partnership with Mississippi

The National Center for Environmental Health (NCEH) is 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 that result from environmental hazards. NCEH has approximately 450 employees and a budget for 2004 of approximately \$189 million; its mission is to promote health and quality of life by preventing or controlling diseases and deaths that result from interactions between people and their environment.

NCEH and partners in **Mississippi** collaborate on a variety of environmental health projects throughout the state. In **fiscal years 2000–2004**, NCEH awarded more than **\$830,000** in direct funds and services to Mississippi for various projects. These projects include activities related to asthma and pesticide exposures. In addition, Mississippi benefits from national-level prevention and response activities conducted by NCEH or NCEH-funded partners.

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 conducted or supported in Mississippi.

Asthma

- **Controlling Asthma from a Public Health Perspective**—NCEH is funding the **Mississippi Department of Health** to create a statewide asthma-control plan that the department and its partners can implement. This plan will include tracking, science-based asthma interventions, and a partnership of state entities. Funding began in fiscal year 2003 and continues through fiscal year 2005.
- **Inner-City Asthma Intervention**—NCEH is funding the **Jackson-Hinds Comprehensive Health Center** to provide inner-city families

with asthma education and individualized asthma-control plans. The Inner-City Asthma Intervention

program is based on the National Cooperative Inner-City Asthma Study (NCICAS), a multifaceted, multimodal intervention to address a range of problems that affect children who have asthma, and their families. NCICAS demonstrated that an individually tailored intervention carried out by masters-level social workers trained in asthma management can reduce asthma symptoms among children in the inner city. This program targets children 6 to 12 years of age of low socioeconomic status who live in urban areas and have moderate to severe asthma. Funding began in fiscal year 2001 and continues through fiscal year 2005.

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Environmental Public Health Studies Projects

- **Pesticide Exposure after Spraying for West Nile Virus in 2002**—To evaluate the risk from exposure to pesticides used in public health spraying to control West Nile virus, NCEH assessed human exposure to mosquito-control pesticides applied to control the mosquito vector of West Nile virus in **Mississippi**. The NCEH laboratory compared urinary levels of permethrin metabolites in people living in areas that were sprayed for mosquitoes with levels in people living in areas that were not sprayed for mosquitoes. Results showed that the study population exposed to mosquito-control pesticides had the same level of pesticides as the population that was not exposed to pesticides.

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 conducted or supported in **Mississippi**.

Funding

- **Antiterrorism Funding to Increase State Chemical Laboratory Capacity**—In fiscal year 2003, CDC provided more than \$1.1 million to **Mississippi** to help the state expand its chemical laboratory capacity to prepare for and respond to chemical-terrorism incidents and other chemical emergencies. This program expansion will allow full participation of chemical-terrorism response laboratories in the Laboratory Response Network. NCEH has begun to fund laboratory development and the purchase of state-of-the-art equipment in **Mississippi's** state public health laboratory in support of developing a network of chemical laboratories and of transferring technology that will measure chemical agents.

Services

- **Helping State Public Health Laboratories Respond to Chemical Terrorism**—NCEH is working with **Mississippi's** public health laboratory to prepare state laboratory scientists to measure chemical terrorism agents or their metabolites in individuals' blood or urine. NCEH is transferring analytic methods for measuring chemical-terrorism agents (including cyanide-based compounds and other chemicals) to **Mississippi**. In addition, NCEH instituted a proficiency-testing program to measure the compatibility of the state's analytic results with results from the NCEH laboratory.
- **Blood Lead Laboratory Reference System (BLLRS)**—Three laboratories in **Mississippi** participate in NCEH's standardization program to improve the overall quality of laboratory measurements of blood lead levels. This program helps laboratories nationwide evaluate their performance on these critical laboratory tests. NCEH provides BLLRS materials to the laboratories four times a year without charge.
- **Newborn Screening Quality-Assurance Program**—NCEH provided proficiency-testing services and dried-blood-spot, quality-control materials to monitor and help assure the quality of screening program operations for newborns in **Mississippi**. The importance of accurate screening tests for genetic metabolic diseases cannot be overestimated. Testing of blood spots

collected from newborns is mandated by law in almost every state to promote early intervention that can prevent mental retardation, severe illness, and premature death.

Preventing Health Effects That Result from Environmental Hazards

NCEH promotes safe environmental public health practices to minimize exposure to environmental hazards and prevent adverse health effects. Prevention of childhood lead poisoning is an example of such activities. Although NCEH has not recently conducted or supported any such activities in **Mississippi**, we continue to look for opportunities to provide technical assistance to the state in matters of preventing childhood lead poisoning.

Resources

NCEH develops materials that public health professionals, medical-care providers, emergency responders, decision makers, and the public can use to identify and track environmental hazards that threaten 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 poisoning, and mold exposures), biomonitoring to determine whether selected chemicals in the environment get into people and how much, childhood lead poisoning, emergency preparedness for and response to 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 disposal of chemical weapons, specific health studies, vessel sanitation, and veterans' health.

For more information about NCEH programs, activities, and publications as well as 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.