Environmental Health Activities in Texas

NCEH in Partnership With Texas

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 more than 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 **Texas** have teamed up on a variety of environmental health projects throughout the state. From **fiscal years 2001 through 2003**, NCEH awarded more than **$4.9 million** in direct funds and services to Texas for various projects. These projects include activities related to asthma surveillance, water use, and childhood lead-poisoning prevention. In addition, Texas also 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 has conducted or supported in **Texas**.

Asthma

- **Addressing Asthma From a Public Health Perspective**—In September 2001, NCEH began funding the **Texas Department of Health (TDH)** to engage in planning activities, begin to implement asthma interventions, and enhance surveillance activities related to asthma. TDH and the **American Lung Association of Texas** have formed a community coalition to address asthma across the state. The **Asthma Coalition of Texas (ACT)** addresses asthma-related issues in the areas of medical management, epidemiology and surveillance, environment, patient education, advocacy and government, and asthma in schools.

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Rural Health Activities

- **Risk Factors for Microbiologic Contamination of Produce: A Field Study of Domestic and Imported Produce in Fields and Packing Sheds**—NCEH is currently conducting a field study in **Texas** to identify specific farming and processing (packing shed) practices, the critical control points, and the risk factors associated with fecal contamination of domestically grown produce. This information will be used to design scientifically based and effective intervention measures. The sources of contamination and risk factors that contribute to deterioration of microbiologic safety of fresh produce in the field and during packing need to be determined to prevent such deterioration.
- **Tropical Storm Allison Assessment**—In 2001, NCEH worked with the **Houston Department of Health and Human Services (HDHHS)** to evaluate the community's immediate public health needs after Tropical Storm Allison flooded much of southeast **Texas** and caused billions of dollars in flood-related damage and approximately 25 deaths. The rapid needs assessment results identified increased illness in people living in flooded homes, suggesting a need for rapid resolution of flood-related damage.

Environmental Public Health Tracking

- **Planning and Capacity-Building**—NCEH is funding a project through which **HDHHS** is developing an integrated environmental public health tracking network that will include both environmental databases and environmental health outcome databases. HDHHS is collaborating with the **University of Texas Health Sciences Center** on this project and

is building on existing local data systems and integrating with the TDH chronic disease, injury, and birth defects surveillance systems.

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 **Texas**.

Funding

- **Antiterrorism Funding to Increase State Chemical Laboratory Capacity**—In fiscal year 2003, CDC provided more than $1.1 million to **Texas** 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.

Studies

- **Water-Use Activities**—A water-use study was carried out in **Texas** and North Carolina; urine and blood samples were analyzed for the presence of disinfection byproducts (DBPs). DBPs are formed from the reaction of disinfection agents with organic material already present in water. Using chlorine is the most common way to disinfect water. Chlorine also reacts with other substances to form chemicals called trihalomethanes (e.g., chloroform). The link between exposure to DBPs and bladder cancer is well established, and studies have suggested that other adverse health effects, such as spontaneous abortion and birth defects, may result from exposure to DBPs. To further our understanding of the water-use activities that lead to exposure to DBPs, NCEH collected blood and urine samples as well as air and water samples while people performed water-use activities (such as bathing) in their homes. Data from the study are now being analyzed and are being prepared for publication in the peer-reviewed literature.
- **Organophosphate (OP) Pesticides**—The Agency for Toxic Substances and Disease Registry has funded a **University of Texas (Houston)** study that investigated whether an association exists between environmental factors and an increased incidence of a spinal cord defect (known as a neural tube defect) among infants living near the Texas-Mexico border. NCEH collaborated with ATSDR by measuring urinary levels of current-use OP pesticides in study participants. Levels of poylchlorinated biphenyls and organochlorine pesticides were also measured in pregnant women and in umbilical cord blood. The data are currently being analyzed.

Services

- **Lipid Standardization Program (LSP)**—CDC provides accuracy-based analytical measurement standardization support to two lipid research laboratories in **Texas** involved in one or more ongoing lipid metabolism longitudinal studies or 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 over time and thus ensure the accuracy and comparability of study results and findings.
- **Blood Lead Laboratory Reference System (BLLRS)**—In **Texas**, nine laboratories participate in NCEH's standardization program to improve the overall quality of laboratory measurements of blood lead levels. This program assists laboratories nationwide in evaluating their performance on these critical laboratory tests. CDC provides BLLRS materials to the laboratories four times a year without charge.

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 **Texas**.

- **Childhood Lead-Poisoning Prevention**—**HDHHS** has received funding for childhood lead-poisoning prevention since 1992. The **Texas Childhood Lead Poisoning Prevention**

Program has received NCEH funding for surveillance since 1997. Texas has developed culturally competent programs, and all materials are available in English and Spanish. Texas works with community members and community organizations to develop and deliver health education programs.

Elevated blood lead levels in children became reportable in Texas in 1996. The Child Lead Registry was established in 1996 and a program was instituted to ensure proper medical and environmental follow-up of children with elevated blood lead levels. In addition, a data system is used for appropriate investigation, education, and intervention to prevent additional incidents of 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 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.

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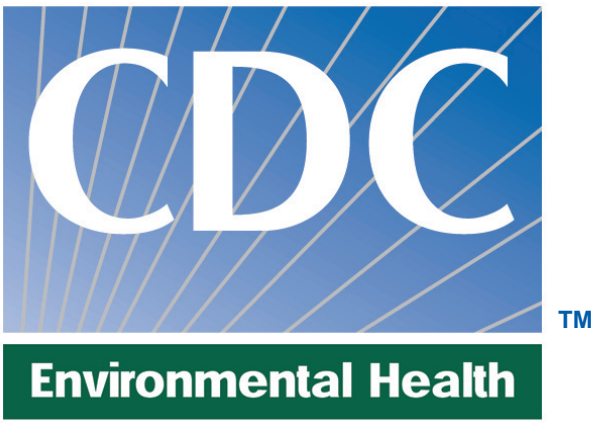
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