



Environmental Health Activities in Rhode Island



NCEH in Partnership with Rhode Island

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 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 throughout **Rhode Island** collaborate on a variety of environmental health projects throughout the state. In **fiscal years 2000–2003**, NCEH awarded more than **\$4.6 million** in direct funds and services to Rhode Island for various projects. These projects include activities related to asthma, newborn screening quality assurance, and childhood lead poisoning prevention. In addition, Rhode Island 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 **Rhode Island**.

Asthma

- **Addressing Asthma from a Public Health Perspective**—NCEH is funding **Rhode Island** to implement statewide comprehensive asthma-control plans. Funding began in fiscal year 2001 and continues through fiscal year 2006.
- **Managed-Care and Community Intervention**—NCEH is funding a demonstration project in which the **Neighborhood Health Plan of Rhode Island**, a nonprofit managed-

care organization, is working with the communities of **Woonsocket**, **Central Falls**, and **Pawtucket** to implement a broad, community-based intervention to improve health outcomes for children with asthma. Funding began in fiscal year 2003 and continues through fiscal year 2004.

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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 **Rhode Island**.

Funding

- **Antiterrorism Funding to Increase State Chemical Laboratory Capacity**—In fiscal year 2003, CDC provided more than \$508,000 to assist **Rhode Island** in expanding 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. NCEH has begun to fund laboratory development and the purchase of state-of-the-art equipment in Rhode Island's state public health laboratory in support of developing a network of chemical laboratories and of transferring technology to measure chemical agents.

Services

- **Newborn Screening Quality Assurance Program**—NCEH provided proficiency-testing services and dried blood-spot quality-control materials to monitor and help ensure the quality of newborn screening program operations in the state. 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.

- **Lipid Standardization Program**—CDC provides accuracy-based analytical measurement standardization support to a lipid research laboratory in **Rhode Island** involved in one or more ongoing lipid metabolism longitudinal studies or clinical trials investigating risk factors and complications associated with cardiovascular disease.
- **Blood Lead Laboratory Reference System (BLLRS)**—In **Rhode Island**, one laboratory participates 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. NCEH provides BLLRS materials to the laboratories four times a year without charge.
- **Helping State Public Health Laboratories Respond to Chemical Terrorism**—NCEH is working with **Rhode Island's** public health laboratory to prepare state laboratory scientists to measure chemical terrorism agents or their metabolites in people's blood or urine. NCEH has conducted training on operating state-of-the-art laboratory instruments and on using specific methods to analyze these agents. Additionally, NCEH has transferred methods for measuring cyanide and trace metals to the state laboratory and has instituted a proficiency testing program to test the comparability of analytical results from the state laboratory and NCEH.

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 **Rhode Island**.

- **Rhode Island Childhood Lead Poisoning Prevention Program**—The **Rhode Island Childhood Lead Poisoning Prevention Program (RI CLPPP)** has received CDC funding since 1990. The purpose of the program is to provide screening services, nonmedical and medical

case management, environmental management, laboratory services, consultation, and educational outreach services to the community. In **Rhode Island**, the number of children younger than 6 years of age who were screened for lead increased 2.8% from 1997 to 2001—from 33,826 to 34,765. At the same time, the number of children younger than 6 years of age with elevated blood lead levels has decreased 35% from 1997 to 2001—from 3,119 to 2,026.

In fiscal year 2003, NCEH awarded funding to RI CLPPP to support its comprehensive Childhood Lead and Surveillance Program. The purpose of this program is to provide the impetus for the development, implementation, expansion, and evaluation of state and local childhood lead poisoning prevention program activities, which include statewide surveillance capacity to determine areas at high risk for lead exposure.

Rhode Island has a critical shortage of affordable housing. An estimated 80% of **Rhode Island's** housing units have lead-based paint, and many of these deteriorating units are rental properties. The housing shortage provides little incentive for landlords to maintain lead-safe housing and places families in the position of having to compromise their children's health.

- **Elevated Blood Lead Levels Among Dominican Children**—In June 2003, in connection with unexplained elevated blood lead levels in three young Dominican children, the **Rhode Island Department of Health** learned about a yellow/peach-colored powder called *litargirio*. At the request of the state epidemiologist, CDC assisted in an Epi-Aid investigation to assess the prevalence of *litargirio* use and to determine the risk factors associated with *litargirio* use among Latinos in Providence.

The *litargirio* that affected these children had been purchased from the Dominican Republic by a relative, but it also is available at local botanicas that cater to the Latino community. People in the Latino community use *litargirio* as a deodorant/antiperspirant and as a treatment for fungal infections and burns. Laboratory analysis of *litargirio* samples that affected these children revealed that they contained up to 79% lead.

Before these cases in Rhode Island, no cases of lead poisoning associated with the use of *litargirio* had been reported.

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 threaten human health and 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 exposure), biomonitoring to determine whether and how much of selected chemicals in the environment get into people, 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 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.

