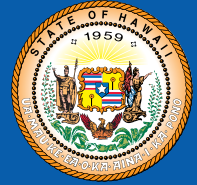




# Environmental Health Activities in Hawaii



## NCEH in Partnership with Hawaii

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 **Hawaii** collaborate on a variety of environmental health projects throughout the state. In **fiscal years 2000–2004**, NCEH awarded more than **\$1.2 million** in direct funds and services to Hawaii for various projects. These projects include activities related to assessing health affects associated with volcanic emissions, assessing the quality of newborn screening programs, and inspecting cruise ships. In addition, Hawaii 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 **Hawaii**.

- **Assessment of Health Effects Associated with Volcanic Emissions**—NCEH is funding the **Hawaii State Department of Health (HI DOH)** to establish a lung-function monitoring program and asthma intervention for children from eight schools in **Hilo**, near the Kilauea volcano. Funding began in fiscal year 2000 and continues through fiscal year 2004.
- **Addressing Asthma from a Public Health Perspective**—NCEH is funding **HI DOH** to develop asthma-control plans that include disease tracking, science-based interventions,

and statewide partnerships to reduce the burden of asthma in home, school, and occupational environments. Funding began in fiscal year 2002 and continues through fiscal year 2004.

*In fiscal years 2000–2004, NCEH awarded more than \$1.2 million in direct funds and services to Hawaii.*

### 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 **Hawaii**.

#### Funding

- **Antiterrorism Funding to Increase State Chemical Laboratory Capacity**—In fiscal year 2003, CDC provided more than \$1 million to **Hawaii** to help expand chemical laboratory capacity to prepare for and respond to chemical-terrorism incidents and other chemical emergencies. This expansion will allow full participation of chemical-terrorism response laboratories in the Laboratory Response Network.

In addition, NCEH funds laboratory development and the purchase of state-of-the-art equipment in Hawaii's public health laboratory to develop a network of chemical laboratories and transfer technology to measure chemical agents.

#### Studies

- **Antioxidant Study Among Vegans in Hawaii**—Little is known about the effects of solely vegetarian diets on people's homocysteine levels. Lower homocysteine levels have been linked to decreased risk for cardiovascular and Alzheimer's disease. In January 2002, NCEH's laboratory measured homocysteine levels for a study of people in **Hawaii** who consume strictly vegetarian diets. Study results showed that homocysteine levels were not significantly

lower in people who ate a solely vegetarian diet compared with the levels in people whose diets contained a full spectrum of foods.

## Services

- **Newborn Screening Quality Assurance Program**—NCEH provides proficiency-testing services and dried-blood-spot, quality-control materials to monitor and help assure the quality of screening program operations for newborns in **Hawaii**. 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.
- **Helping State Public Health Laboratories Respond to Chemical Terrorism**—NCEH is working with **Hawaii**'s public health laboratory to prepare state laboratory scientists to measure chemical-terrorism agents or their metabolites in people's blood or urine. NCEH is transferring analytic methods for measuring chemical-terrorism agents (including cyanide-based compounds and other chemicals) to **Hawaii**. In addition, NCEH instituted a proficiency-testing program to measure the comparability of the state's analytic results with results from the NCEH laboratory.

## 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. Following are examples of such activities that NCEH conducted or supported in **Hawaii**.

- **Public Health Inspections of Cruise Ships**—NCEH established the model Vessel Sanitation Program in 1975 to combine industry cooperation with CDC's ability to aggressively protect the health of travelers. The program helps the industry develop and implement comprehensive sanitation programs to minimize risks for gastrointestinal diseases. Every vessel that has a foreign itinerary and carries 13 or more passengers is subject to two unannounced inspections each year. These inspections result in safer vessels and sanitation programs that protect

the health of passengers and crew members. In 2003, the Vessel Sanitation Program conducted eight inspections of cruise vessels with stops in **Hawaii**.

- **Childhood Lead Poisoning Prevention Program**—The **Hawaii Childhood Lead Poisoning Prevention Program (HI CLPPP)** received NCEH funding from 2000 to 2003. In 2001, the program screened 9,174 children for lead poisoning. Forty-two children under the age 6 years had elevated blood lead levels.

HI CLPPP used NCEH funds to develop and maintain an ongoing surveillance system, assure case-management services to children with elevated blood lead levels, and integrate lead poisoning prevention practices into all activities.

## 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. These issues include 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 to what degree, 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](mailto:NCEHinfo@cdc.gov), or visit the NCEH Web site at [www.cdc.gov/nceh](http://www.cdc.gov/nceh).