

**THE PEDIATRIC ENVIRONMENTAL HEALTH SPECIALTY UNIT NETWORK:  
Centers of excellence approach to improve children's environmental health.**

**DESCRIPTION OF INITIATIVE:** The Pediatric Environmental Health Specialty Units (PEHSUs) are a joint effort of the US Centers for Disease Control and Prevention (CDC), Agency for Toxic Substance and Disease Registry (ATSDR) and the Environmental Protection Agency with the Association of Occupational and Environmental Clinics (AOEC). This collaborative project started with one Unit in 1997 and now there are 11 Units in the United States, one in Canada and one in Mexico.

The mission of the PEHSU is to reduce environmental health threats to children; improve access to expertise in pediatric environmental medicine and strengthen public health prevention capacity.

Children are often more sensitive to substances in the environment due to their biology and behavior. Most pediatricians are ill-equipped to handle environmentally-related illnesses and occupational doctors are not trained to address pediatric issues. The PEHSUs, each of which is based at an academic center, have been developed to actively educate and consult with health professionals, on the unique issues relating to children's environmental health.

Each Pediatric Environmental Health Specialty Unit is staffed with experts in addressing environmental health issues, such as acute emergency situations, or chronic conditions that confound pediatricians. PEHSUs respond to questions and concerns from a wide variety of people, including pediatricians and family doctors, public health officials and parents on a range of environmental issues.

In 2004, nearly 5% of national calls and requests to PEHSUs were focused on questions regarding mercury. These include mercury-related fish consumption advisories, folk remedies, and products. Additional calls were concerned with lead, mold, pesticides, arsenic, gas and fumes, water and air pollutants and other topics.

**MAINSTREAMING/SUSTAINABILITY:** The fundamental concept of establishing a specialized unit to address children's environmental health issues has shown to be successful, and has been replicated in Spain, Mexico and Canada. Other countries are seeking information and materials on how to replicate this model.

Each Unit has benefited from the efficiencies of an established network by sharing specialized information from individual centers. In the US for example, the Unit in Atlanta has expertise in PCB's while the Chicago Unit is known for work on mercury and mold.

The U.S. Government through the EPA and CDC/ATSDR is committed to continuing to support the PEHSUs with financial resources and the development of tools to support service delivery.

**REPLICATING THE INITIATIVE:** The Pediatric Environmental Health Specialty Unit (PEHSU) model can easily be replicated in countries where there is political interest, a trainable core of health care

professionals and available materials for outreach and education. Because the Units are usually located at children's hospitals or universities, overhead is limited.

### **LESSONS LEARNED:**

1) Community-Based Centers Linked to Key Institutions Are Critical to Achieving Results: The linkage of PEHSUs to teaching hospitals and universities is critical to integrating them to the formal health care infrastructure. The affiliation of some centers to Poison Control Centers and occupational health clinics provides a natural multi-focal care center. As environmental health centers, establishing linkages with the appropriate government bodies, regulatory agencies and non-governmental organizations has been critical to providing effective service. The PEHSUs effectively bring together various governmental entities and nonprofit organizations in new ways.

2) Communities and PEHSU staff Interests and Activities May Vary: Geographical and population differences may result in the development of specific project areas to meet local issues, citizen concerns and institutions. Therefore, program planning, priority activities and the division of management responsibilities for each PEHSU must be flexible to respond to local area's environmental problems.

3) Solutions to Unique and Common Problems and Challenges should be Shared: Children's environmental health issues span geopolitical boundaries. Parents and caregiver's confront similar issues in many parts of the world. PEHSUs are a model for confronting these common problems with the best information that is available and the experience of colleagues around the world.

On the web at <http://www.aoec.org/pesu.htm>