

Environmental Public Health: *The Power of Partnerships*

The National Institute of Environmental Health Sciences (NIEHS) has been a long-standing leader in fostering partnerships between community groups and researchers to address local, real-world environmental health concerns. Successful partnerships have resulted in many positive changes, including changes in chemical regulatory policies, and decreased use of toxic building materials for house construction in some communities.

NIEHS is beginning to implement its integrated **Partnerships for Environmental Public Health (PEPH) program**, reaching beyond traditional research models to more thoroughly integrate community needs and expertise into environmental health research, and to give communities the tools they need to promote health and reduce the risk of disease across the populations at highest risk.

The Challenge

- Translate research findings so they can be used for community action.
- Effectively communicate environmental public health information.
- Help communities meet future environmental public health challenges.

The Goal

Prevent, reduce or eliminate environmental exposures that may lead to adverse health outcomes in communities, by engaging the community in all stages of the research, outreach and education activities.

The Plan

- Build on NIEHS' past successes of fostering partnerships between community groups and researchers.
- Implement a 10-year plan for the NIEHS PEPH program.
- Establish an infrastructure to coordinate and support a variety of research and dissemination activities.
- Continue to provide grant support for projects where researchers work with communities to address local environmental problems.
- Increase national awareness of NIEHS as a trusted resource of materials.

A Role for Public Health Professionals

NIEHS recognizes the importance of engaging public health professionals to address the complexities of environmental public health, especially nurses and state and local health departments. Every public health professional has a role to play in developing strategies to prevent or reduce adverse environmental and health outcomes. Nurses and other public health professionals are often the first point of contact for community members with environmental health concerns. The unique location of state and local public health departments at the intersection of surveillance, health care delivery, and health care decision making, establishes them as extremely valuable partners in tackling environmental health concerns of the communities they serve. Therefore, it is vital that these public health professionals have access to science-based resources and materials, or are poised to help develop new materials that can be readily shared with patients and citizens concerned about potential adverse health effects from environmental exposures.

Successful NIEHS-Sponsored Partnerships Across the Country

Improving Land Use in California

A consortium of partners, led by the community-based organization Environmental Health Coalition, is empowering several low-income communities of color within the San Diego metropolitan area, Logan, National City and Chula Vista, to take action in land use issues that affect the health of their families and neighborhoods. The partnerships resulted in the following outcomes: \$1.5 million to update the Barrio Logan Community Plan, adoption of a new ordinance that prohibits diesel trucks from practicing driving near schools, and the establishment of policies that moved auto body shops out of residential neighborhoods.

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For example, after an NIEHS-supported project at the University of Washington (UW) found crankcase emissions as the source of most pollution on school buses, the Puget Sound Clean Air Agency incorporated the UW findings into its transportation policies and is now working with a trucking company to bring new technology into the school buses that can reduce harmful emissions. Other communities like those working with the University of Cincinnati are trying to limit school bus idling, in order to reduce exhaust near schools and, in California, communities are working to pass laws to prohibit the building of new schools near busy highways.

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Reducing Diesel Exhaust Exposure Near Schools

Diesel engines, including those in many school buses, have been found to contribute significantly to air pollution, especially in urban areas. The fine particles in diesel exhaust can pose serious health risks, particularly in children, including increasing the risk of asthma and other respiratory problems. Researchers and community members in several states, including Washington, Ohio, and California, are working to reduce children's exposures to diesel exhaust by impacting regulatory, transportation and urban development policies.

Impacting Manganese Emissions Policy from Rural Ohio

Journalists, community members and research scientists from the University of Cincinnati are now working together in an Ohio rural Appalachian community to help local residents understand the health effects of chronic exposure to air manganese (Mn), which comes from a nearby refinery. This partnership came about after a community-wide survey found that websites on the health effects of emission were difficult to navigate, so the community relied on the local media for air quality information, yet reporters were not trained in science or environmental journalism. An educational partnership was established to develop a network between scientists and journalists. The community was also engaged in the research process to determine the health effects of the Marietta-Parkersburg Metropolitan Area in Ohio and to impact regional and national policy for Mn emissions.

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For more information about the development of the NIEHS Partnerships for Environmental Health program, please visit, <http://www.niehs.nih.gov/funding/grants/announcements/peph/index.cfm>

For more information on the National Institute of Environmental Health Sciences, please go to our website at: <http://www.niehs.nih.gov/>