

MARYLAND

Keeping Track, Promoting Health

Building a Network

Without question environmental contaminants are affecting people's health. Environmental hazards are among parents' top health concerns for their children, according to the American Academy of Pediatrics. Understanding how these contaminants and other environmental factors are linked to chronic disease is essential to disease prevention—and to protecting the health of our communities.

The Centers for Disease Control and Prevention (CDC) is leading the initiative to build the National Environmental Public Health Tracking Network. The Tracking Network is being developed in response to calls for better understanding of how the environment can affect people's health. This Web-based system will integrate health and environmental data and provide information to address public health concerns, educating the public about ways to protect themselves from possible contamination and disease.

States and communities can act upon data generated through tracking. Today, because of tracking, public health officials in Washington State can do more than determine mercury levels in fish. They can also compile information from many sources and use the data to educate citizens about healthy fish choices with greater speed and accuracy. In Maine, tracking has allowed researchers to examine high arsenic levels in well water and its effects on reproduction. Consequently, state public health officials can now warn well users about the hazards of exposure to arsenic during pregnancy.

The Tracking Network will enable and encourage communities, health care providers, state and local health departments and others to take control of their health.

The building blocks of this network are grants to state and local health departments and universities around the country to build capacity and demonstrate just what tracking can do.

Building the Foundation: Maryland (2002—2006)

In 2002, the Maryland Department of Health and Mental Hygiene (DHMH) received CDC funding to plan for a statewide Environmental Public Health Tracking Network that will be part of the national tracking network. Maryland used the funding to build capacity and enhance infrastructure. The results range from starting or improving surveillance to enabling faster responses to environmental public health questions and faster action to prevent disease.

Why Tracking Matters to Maryland

Before Maryland's Tracking Program began, the Maryland Center for Cancer Surveillance could not provide to local health departments spatially displayed information on colorectal screening and treatment rates. To meet the Cancer Program's needs, the Maryland Tracking Program developed a mapping tool known as the Interactive Health Application. This led to the creation of the Cancer Prevention, Education, Screening and Treatment (CPEST) Mapper. Local health departments now use the CPEST Mapper to improve cancer screening and prevention.

In addition, the Maryland Tracking Program has helped the Center for Cancer Surveillance and the Department of the Environment better coordinate on issues of environmental public health. The two agencies are now more efficiently sharing and using data, which will help them respond to environmental public health needs across the state.



“So much has changed since the Pew Commission report,” says Shelley Hearne, Dr.P.H., founding executive director of Trust for America’s Health. “It’s phenomenal to see the rapid evolution from concept to implementation, from gap to engagement.”

Tracking in Action

Responding to Community Environmental Health Needs

What is the problem?

Many communities in Maryland have local, environmental public health concerns. To build a useful network, the Maryland Tracking Program needs to understand its users' data and information needs.

What did tracking do?

The Maryland Tracking Program developed and conducted two surveys for potential environmental health data users and key stakeholders. The surveys provided valuable information about how individuals, groups, policy makers, health care providers, public health professionals, and others needed and used environmental health data. In addition, the surveys identified critical issues such as legal and regulatory barriers. The Maryland Tracking Program also held a 2-day workshop for local and national environmental health advocates and professionals, looking specifically at how the state can best meet the needs of those communities with environmental health concerns.

Improved public health

From these and similar activities, the Maryland Tracking Program can focus on providing useful information and data to communities concerned about environmental public health issues.

Measuring Pesticide and Heavy Metal Exposure

Exposure to pesticides and heavy metals, often found in agricultural areas, may be associated with a variety of acute and chronic health problems. In Maryland, many of these health effects are considered high priority public health concerns. Yet little is known about where in the state human pesticide exposure actually occurs, or the extent of such exposure.

To improve the state's ability to measure pesticide exposure, the Maryland Tracking Program worked with the state's Environmental Chemistry Laboratory to develop the infrastructure to analyze pesticide and heavy metal levels in urine.

The Environmental Chemistry Laboratory can now analyze urine samples for a broad range of pesticides, organophosphates, pyrethroids and heavy metals. This provides Maryland with the ability to assess pesticide exposure in the population -- either in response to acute exposures, or, potentially, to broader population-based surveys.

Tracking Air Pollution and Asthma

Statewide, an estimated 511,000 Maryland adults and 150,000 Maryland children have a history of asthma. In an average year, more than 32,000 Maryland residents are treated in emergency departments for asthma, and approximately 8,000 are hospitalized. Ground-level ozone -- a main ingredient in smog -- is a gas that can contribute significantly to asthma.

The Maryland Tracking Program used asthma-related emergency room visit data, hospital discharge data and air data from both the DHMH and the Department of the Environment to conduct a pilot project. The project examined the relationship between asthma rates and ozone and particulate levels.

The project showed that asthma rates were associated with ozone and particulate levels in air. The project also helped the DHMH and the Department of the Environment forge a closer working relationship regarding the analysis and interpretation of linked environmental and health data



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For more information about the National Environmental Public Health Tracking Program please visit: www.cdc.gov/nceh/tracking

