CDC's National Environmental Public Health Tracking Network

MARYLAND

Keeping Track, Promoting Health

"CDC's National Environmental Public Health Tracking Network is the most important accomplishment of the past decade."

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For decades, the United States has faced a fundamental gap in understanding how environmental contaminants affect people's health. The Centers for Disease Control and Prevention (CDC) is working to close this gap by improving surveillance through the National Environmental Public Health Tracking Network (Tracking Network). The Tracking Network is a dynamic Web-based tool that, for the first time, provides health and environment data in one easy to find location.

Policy makers and public health officials can use the Tracking Network to make critical decisions about where to target environmental public health resources and interventions. Health practitioners and researchers can use the Tracking Network to learn more about health conditions related to the environment, and improve treatment plans. Anyone can use the Tracking Network to find out how the environment may be affecting them, their family's or community's health.

The building blocks of the national network are state and local health departments around the country that are funded to build local tracking systems. These systems supply data to the National Tracking Network and address local environmental public health concerns. The tracking programs use their networks every day to improve the health of their communities.

Why Tracking Matters in Maryland

Maryland has communities with a wide variety of environmental public health concerns. These include built-up hazardous wastes and brownfields, decades-old housing with high lead levels, air and water pollution, and asthma and heart disease rates that are higher than the national average. The Maryland Tracking Program is making new resources available that can help residents better understand the complex relationships between environmental hazards and health outcomes and use that information to improve public health and the environment.

Since the launch in 2009, the Maryland Environmental Public Health Tracking Network has helped local and state health officials respond to questions from the public, policy makers, and others regarding environmental and health concerns. In 2010, the secure portal was launched, giving public health officials more detailed access to environmental and health data.

Whether a parent is using the public site to learn more about the rates of asthma hospital stays and health disparities, a county health officer is using the secure site to closely review childhood blood lead data, or a state health official is using data to evaluate a cancer concern in a specific geographic area, the Maryland Tracking Network is a valuable resource that can benefit all Marylanders.

National Center for Environmental Health
Division of Environmental Hazards and Health Effects

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TRACKING IN ACTION

	The Problem	Tracking in Action	Improved Public Health
Answering community concerns about cancer	Community concerns about cancer and potential links to environmental hazards occur relatively frequently in Maryland. Before the Maryland Tracking Program began in 2002, most concerns about cancer and the environment were addressed only by the Maryland Cancer Registry and possibly local health departments. Maryland had no systematic way to respond to frequently asked questions from individuals, groups, and communities about cancer and the environment.	The tracking program, working with the Maryland Cancer Registry, geocoded all residential addresses in the Registry. Now the Maryland Cancer Registry can accurately show cancer data in maps and carry out geospatial analyses of cancer information. Also, for the first time, there is an established process for evaluation of cancer concerns in Maryland. The new process involves a coordinated response that includes the Maryland Cancer Registry, the Center for Environmental Health Coordination, the Maryland Department of the Environment (MDE), and local health departments and is now available on the tracking program's Web site.	The tracking program has worked with the Maryland Cancer Registry on two major cancer investigations, one in Poolesville and another in Frederick. The first looked at concerns about cancer and drinking water; the second involved concerns about cancer in a community. In both cases, the Maryland Tracking Program provided maps showing the geographic distribution of cancer and geo-statistical analyses of the cancer cases. The results of these two investigations were presented at community meetings. To date, there is no evidence of cancer clusters, but experts were able to answer questions from community residents.
Improving drinking water quality data in private water wells	About 16% of Marylanders depend on owner-drilled private water wells for drinking water. Private wells can become contaminated with both manmade and naturally occurring hazards. In many cases the private water wells are tested less frequently than public water sources, and the results from private wells are not added to easily accessible water quality data sources. Private well water data are reported to local health departments only when wells are first drilled, when the property is sold, or when home/property improvements are made. Private well water data are usually kept in local health departments and are not easily and quickly available to state environmental public health officials.	The Maryland Tracking Program collaborated with other environmental public health partners in the state to develop a new way for local health departments to upload water quality data on private water wells to a database located at the MDE. Tracking also developed computer software that now makes it possible to store private well water data in the MDE database and then transfer data electronically to the tracking program's secure portal.	Having private well water data in one location will help environmental public health officials better understand water quality in private wells used for drinking water. The data will be available through simple-to-use but sophisticated data selection, analysis and display tools such as building data queries or map displays. This could aid responses to drinking water-related inquiries and help inform future decision making. Another benefit is improved efficiency in response to questions or concerns about water sources. Environmental public health officials seeking private well data will be able to save time by both viewing and analyzing these data on the Maryland Tracking Network.
Tracking air pollution and asthma	Behavioral Risk Factor Surveillance System data show that in 2007, an estimated 550,000 (12.9%) Maryland adults and 190,000 (13.6%) children reported a lifetime history of asthma. In addition, about 43,000 Maryland residents were treated for asthma in emergency departments, and nearly 9,800 persons were hospitalized for asthma. Fine particulate matter, also known as $PM_{2.5}$, which comes from vehicles, power plants and wildfires as well as other sources, can go deep in the lungs of adults and children, and can contribute to asthma attacks, more asthma emergency department visits, and hospital stays.	The Maryland Tracking Program used asthma emergency room visit and hospital discharge data from the health department and air data from the MDE and the U.S. Environmental Protection Agency (EPA) to carry out an EPA- funded project, to examine the relationship between asthma rates and fine particulate levels in and around Baltimore.	This data linkage project, which used 2005-2006 data, found that asthma emergency department visits and inpatient hospital stays went up on days when on-the-ground air monitors recorded more $PM_{2.5}$ in the air. Local public health officials from Baltimore and nearby communities can use these results to determine if local policies that regulate $PM_{2.5}$ sources should be re-evaluated and perhaps modified.

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National Environmental Public Health Tracking Network
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Maryland Environmental Public Health Tracking Program
http://ideha.dhmh.maryland.gov/OEHFP/EH/tracking/SitePages/Home.aspx