CDC's National Environmental Public Health Tracking Network

Keeping Track, Promoting Health

Closing the Gap

For decades, the United States has faced a fundamental gap in knowing 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 Environmental Public Health Tracking Network (Tracking Network).

The Tracking Network is a dynamic Web-based tool that tracks and reports environmental hazards and the health problems that may be related to them. The Tracking Network is unique because, for the first time, we are able to see environmental data and public health data together in one place. This allows scientists, health professionals, policymakers, and members of the public to see where these hazards and health problems are occurring and how they are changing over time. Scientists will be better able to assess the connections between the environment and its effect on health. Public health professionals now can easily assess unusual trends and events to determine which communities may be at risk.

Parents can learn about conditions such as asthma or the presence of contaminants in the air in counties where they live and take action to protect their children. Elected officials can see their community's air quality trends to determine if actions taken to reduce pollution levels are working.

Using New and Existing Data

Understanding how the environment affects people's health requires many different types of data from many different sources. To lay the foundation for the national Tracking Network, CDC is funding health departments in 16 states and 1 city to build local tracking networks.

These partners send data from their local tracking systems to the national Tracking Network to help CDC and other researchers monitor and identify trends in environmental public health data. For example, the Tracking Network can show standardized asthma hospital admission rates in the 16 participating states, which is the first step in identifying local area trends that may differ from known national level trends in asthma hospitalizations. Each state is also able to use their local tracking network to monitor environmental public health issues that are important in their communities. In addition to these health departments, CDC is partnering with four other federal agencies to provide data and expertise for development of the Tracking Network; the Environmental Protection Agency, the U.S. Geological Survey, the National Cancer Institute, and the National Aeronautics and Space Administration.

Key Features

- Standardized environment and health data across contributing states
- Information by location
- Easy to read maps, charts, and tables

Health conditions on the Tracking Network:

- Asthma
- Birth defects (Coming soon)
- Cancer
- Carbon monoxide poisoning
- Childhood lead poisoning
- Heart attacks
- Reproductive and birth outcomes (Coming soon)

Environmental data on the Tracking Network:

- Air quality related to ozone and particulate matter ($PM_{2.5}$)
- Community water
- Well water

The Future of Tracking

The Tracking Network will continue to grow as CDC increases the types of data available and adds new functionality. Plans also include supporting more states, cities, and counties to contribute data to the Network. This expansion will allow more people from around the country to see vital public health and environment information about their communities.

Visit CDC's Tracking Network today: **www.cdc.gov/ephtracking**

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Tracking In Action

CDC and its partners have made great strides in building an information network to guide health protection decisions. Since 2005, environmental public health tracking has led to 73 public health actions to prevent or control potential health effects from environmental exposures. These actions are focused on local concerns such as pesticide poisoning and factory emissions, and national issues such as cancer. The stories below are just a few examples of the kinds of actions that are happening in all of our funded health departments.

Maine:

Carbon monoxide poisoning has been an ongoing public health concern since a major outbreak of poisonings happened after a 1998 ice storm that left half of Maine's population without power for days or weeks. The Maine Tracking program can now track data on the number of carbon monoxide poisonings each year, and the percent of Maine homes with a carbon monoxide alarm. These data have been used to influence state policy and as a result carbon monoxide poisoning is now a reportable condition in Maine. There is also a new law requiring carbon monoxide alarms in rental property, new homes, and existing homes when there is a transfer of ownership. In addition to policy change, the Maine Tracking program developed radio and television public service announcements that are used during major weather events in the state to help people prevent carbon monoxide poisoning.

New York City:

In 2008, the New York City Tracking Program took action to better understand and characterize short-term health effects and injuries associated with the use of total release foggers, more commonly known as bug bombs. Year after year, reports had appeared in the media about fires and explosions triggered by bug bombs, yet little information existed about how severe or widespread the health problems were, related to these devices. After reviewing available national and local data, the NYC tracking program partnered with the National Institute for Occupational Safety and Health, other state health departments, and the NYC Poison Control Center to publish findings on reported bug bomb incidents.

Findings included data for a range of injuries and illness, from severe irritation of the eyes and throat, to nausea and shortness of breath. In NYC, many events involved the deployment of bug bombs in large multi-unit apartment buildings, and injuries were often caused because neighboring tenants were not notified. The NYC Tracking Program had previously documented that bug bombs and pesticide sprays are more likely to be used in low-income neighborhoods, rather than safer alternatives such as bait stations, gels, and other integrated pest management strategies. This information led the health department, in partnership with the NY State Department of Environmental Conservation, to pursue the restriction of bug bomb use by the public, making the devices only available for purchase and use by licensed pest control professionals. NYC has also encouraged the EPA to restrict use of total release foggers nationwide.

Utah:

The Utah Department of Health received a call from a citizen concerned about cases of cancer in his neighborhood. In the past, a similar call would have prompted a study that would have taken up to a year to complete, with most of that time spent waiting for data. In less than a day, the Utah Tracking Program was able to let this resident know that the likelihood of cancer in his area was no greater than in the state as a whole. To make this conclusion, the Utah Tracking staff used an analytic tool developed with tracking funds to conduct two independent investigations, related to space and time, of the rates of cancer centered on the citizen's residential location. This is a substantial improvement in the time and cost required for cancer investigations in the past and in the services Utah's Tracking Program is able to provide to their citizens.

Wisconsin:

The Wisconsin Department of Health Services received questions about the level of trichloroethylene (TCE) emissions from a Wisconsin industrial facility. The Wisconsin Tracking Program produced data on exposure from that industrial facility. This prompted the facility's owner to voluntarily agree to changes to eliminate TCE emissions altogether. While the facility was in compliance with all applicable emission permit requirements, the Wisconsin Tracking program's data was compelling enough to encourage the owner to make improvements. This project reduced community TCE exposure. It now serves as a model for how air pollutant data can identify high-risk communities, and can translate into reduced exposure to air toxics.

Tracking Network state & city partners

California	Maine	Missouri	New Mexico	Oregon	Washington
Connecticut	Maryland	New Hampshire	New York State	Pennsylvania	Wisconsin
Florida	Massachusetts	New Jersey	New York City	Utah	