ENVIRONMENTAL PUBLIC HEALTH TRACKING NETWORK (EPHTN)

Coordinator and Data Contact	Colleen Kaelin, MSPH, RS Kentucky Department for Public Health Division of Public Health Protection and Safety (502) 564-4537 ext. 4226 colleen.kaelin@ky.gov
State Web Site:	http://chfs.ky.gov/dph/info/phps/epht.htm
National Web Site:	http://ephtracking.cdc.gov/showHome.action trackingsupport@cdc.gov

Sources of Information for the Database

The Environmental Public Health Tracking Network (EPHTN) is a query able web-based system designed by the Centers for Disease Control and Prevention (CDC) to collect data on environmental hazards, health data, and human exposure to environmental hazards (also called biomonitoring).

Currently, the national Environmental Public Health Tracking Program is composed of 23 contributing programs in state health departments and one more in New York City. Each state program has its own query able web portal that is accessible to the public. In addition, the program members are required to have a secure access portal for use by academic or public health researchers. The network is funded by a federal grant administered by the CDC. The states funded by the tracking program are required to collect and send the data specified by the Nationally Consistent Data and Measures (NCDM) document to the national network.

Description of the Data Collected

The data submitted to the tracking network are organized into a set of content areas defined by the CDC in the Nationally Consistent Data and Measures (NCDMs) document, which is written and revised by the national EPHTN Content Workgroup. The required content areas include: Acute Myocardial Infarction, Air Quality, Asthma, Birth Defects, Cancer, Carbon Monoxide Poisoning, Childhood Lead Poisoning, Drinking Water, and Reproductive Health Outcomes. The content areas are broken down into indicators and measures that are published on the national website by the CDC. For example, one of the indicators in the Cancer content area is female breast cancer, a measure of which is the age-adjusted rate per 100,000 persons. New content areas have recently been added to the network, including climate change, community design, developmental disabilities, and health behaviors. Other content areas are being considered by the national EPHTN Content Workgroup.

Even though Kentucky is not yet a sponsored member of the EPHTN, data for our state is available for nearly all the content areas. The data for air quality, cancer, childhood lead poisoning, and reproductive health outcomes are nationally derived and available for every state. The only content areas for which no data is available for Kentucky are Acute Myocardial Infarction and Birth Defects. Limited data is available for Asthma and Carbon Monoxide Poisoning.

Strengths of the Data

Environmental public health tracking is the ongoing collection, integration, analysis, interpretation, and dissemination of data from environmental hazard monitoring, and from human exposure and health effects surveillance. The EPHTN integrates data from these three components into a network of standardized electronic data that will provide valid scientific information on environmental exposures and adverse health conditions as well as the possible spatial and temporal relations between them. The data collected by the network will allow members of the general public to access information on potentially hazardous environmental exposures and chronic diseases in their area, and will allow researchers to examine the link between environmental exposures and chronic non-infectious diseases such as cancer. The network allows data from counties within states to be compared, as well as data between states. Data from our state may be compared to other states and with the United States as a whole. The Environmental Public Health Tracking Network is the only surveillance system that organizes this kind of data into a single source. The data on the EPHTN can be viewed in map, graph, or chart form. Metadata describing the exact source and details about each content area is available on the EPHTN website.

Specific Uses of Information

- Monitor Healthy Kentuckians 2010/Healthy People 2010/Healthy People 2020 goals
- Compare the incidence of chronic health conditions in Kentucky to other states and between counties in Kentucky
- Identify trends in chronic health conditions and environmental hazards and quantify the magnitude of a public health problems
- Monitor the levels of environmental hazards over time and place
- Generate hypotheses about possible associations between exposure to environmental hazards and chronic health outcomes, such as air pollutants and asthma or housing age to childhood lead poisoning
- Develop and evaluate plans for avoiding exposure to environmental hazards and mitigating the impact of exposure

Data Limitations

The main limitation of this data is that since Kentucky is not yet a member of the national Environmental Public Health Tracking Network not all the indicators and measures required by the tracking program are available for review on the public access website. Other limitations include spatial and temporal aggregation of data due to small numbers and areas. Concerns about the release of sensitive information limit the data that can be displayed for single years and small areas, especially for rare conditions such as cancer and birth defects. States or counties where there are no health outcome cases or no measured occurrences of an environmental hazard are labeled as “no events”. Some counties and states do not have data or do not report data to CDC. For example, some counties do not have air monitors, and some community water systems do not sample or test for every hazard during every reporting period. Rates, proportions and percentages are checked for their stability. Any rate or measure with a relative standard error (RSE) greater than or equal to 30 percent is flagged as unstable, or in the case of cancer data, suppressed (not shown). When small cell counts exist, they are suppressed. Non-zero counts of less than 6 are suppressed for counties with a total population of less than 100,000 persons. For cancer data, all non-zero counts that are less than 16 are suppressed, also to account for stability. Statistical stability and confidentiality go hand in hand.

System Evaluation

The data collection is routinely monitored utilizing quality control standards developed by CDC. Evaluation of quality is determined through monthly and annual reports of these performance standards.

Data Set Availability

The data on the Environmental Public Health Tracking Network is available to the public through the query able internet web portal at http://ephtracking.cdc.gov/showHome.action. The location, content area, indicator and measure to be accessed are chosen by the user through a drop down list. Once the selection is made, the user may view the data in map, table or graph form. Depending on the content area, the user may choose to view the data at the county level, and may choose several advanced options to view data by race, gender, specific condition, etc. Each content area comes with a different set of use constraints and limitations. The smallest geographic level released depends on the content area chosen by the network user. All data available on the network is free of cost. Public web portal for individual state and local tracking programs can be access through the national EPHTN website.

Data Release Policy

The data on the National Environmental Public Health Tracking web portal is available to the general public without restrictions.

Data Publications

The Centers for Disease Control and Prevention is currently developing its first report about health the environment: A Picture of America: Our Health and Environment. The report will describe what public health professionals know now about the effects the environment has on a person's health, and where there are still gaps in our knowledge. The report will also present an overview of health outcomes and environmental trends and how they are measured. Finally, the report will discuss how individuals and communities can improve prevention activities that reduce environmental exposures and protect human health.

Suggested Data Citation

After running a query, the user should click on the "About These Data" tab and expand the "How should this data set be cited?" section for instructions on how each specific query should be cited, and for other details about the data set.

Contributing Author

Colleen Kaelin, MSPH, RS, Kentucky Department for Public Health