



Utah Environmental Public Health Tracking Network

Spring 2007

Issue 11

Network Content

The Utah Environmental Public Health Tracking Network (EPHTN) collects and houses a large quantity of health and environmental data. National standards require the EPHTN to house and share data on certain core content areas that are used to measure the health of a population. In this newsletter, we will explore eight core content areas that have been established by the National EPHTN. Although other content areas will be developed, the eight listed below will be the initial areas for the tracking network.

Core Content Areas

- Myocardial Infarction
- Child Blood Lead Levels
- Birth Defects
- Cancers
- Asthma
- Air Quality
- Drinking Water Quality
- Vital Records (birth weight)



Vocabulary

When discussing network content, it is important to use a consistent vocabulary, and some terms require a brief definition.

Measure - Used to describe the content area. Measures can be items such as numbers of preterm births, or rates of hospital asthma admissions.

Geographic Scale - Geographic scale refers to the size of the geographic area to which the data are limited. Geographic areas can vary, including census tracts, zip codes, counties and others.

Time Scale - Time scale refers to the time intervals in which data are made available. Some data may be provided as daily measures, while other data are provided as annual measures.



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Network Content (continued)

Myocardial Infarction

Myocardial infarction (MI) data are housed by the EPHTN. The measure for the data is the standardized MI rate per 10,000 residents, determined by hospital admissions records. The data will be available annually down to the zip code level.

Child Blood Lead Levels

Child blood lead levels will be measured using the percent of children under 36 months with at least one blood lead test. Time scale will be annual and the geographic scale will be available down to the zip code level.

Birth Defects

The EPHTN is collecting data on all birth defects, however, data will be made available for only the following birth defects:

- Anencephaly
- Spina bifida
- Hypoplastic left heart syndrome
- Tetralogy of Fallot
- Transposition of the great arteries (vessels)
- Cleft lip with or without cleft palate
- Cleft palate
- Hypospadias
- Gastroschisis
- Upper limb deficiencies
- Lower limb deficiencies

Birth defects will be measured by the prevalence of birth defects per 10,000 live births. The geographic scale will vary depending on the prevalence of each condition and confidentiality guidelines. The data will be made available on an annual time scale.



Air Quality

The EPHTN will house air quality data on PM 2.5 and ozone. PM 2.5 data will be measured using ambient concentrations of particulate matter under 2.5 microns in diameter.

The measurements will be done as an annual average of 24-hour averages mapped by county.

Ozone data will be measured using an average of daily eight-hour ozone maximums. The data will be collected by county as eight-hour maximum averages over the six month ozone season.

Asthma

Asthma will be measured using hospital admissions. The EPHTN will house data on the number of asthma hospital admissions every year by zip code. The network will also house the rate of hospital asthma admissions per 10,000 residents. The geographic scale will be limited to the state as a whole.

Network Content (continued)

Drinking Water Quality

The Water Quality Content Work Group has yet to establish drinking water standards. However, lead and arsenic will be tracked.

Vital Records

Data from vital records will have a variety of measures.

Preterm singleton births - Preterm singleton births are measured by the percent of live singleton infants born before 37 weeks of gestation among all live singleton infant births. The data will be available annually by county, zip code, and census tract levels.

Very preterm singleton births - Very premature singleton births are measured as a percent of births before 32 weeks of gestation among all live singleton births. The data will also be available annually by county, zip code, and census tract levels.



Childhood health issues such as preterm births and perinatal mortality will be tracked on the EPHTN.

Perinatal Mortality Rate - Perinatal mortality rate is defined as deaths that occur late in pregnancy, after 28 weeks of gestation and up to seven days

after delivery. This will be measured by deaths per 1,000 live births plus fetal death after 28 weeks gestation. The geographic scale is by county and time scale is annual.

Cancer

The EPHTN is tracking leukemia occurrence and benzene exposure. Leukemia risk and benzene exposure will be measured by exposure gradients. An example of an exposure gradient for arsenic and cancer can be seen on page 5.

The EPHTN is also working to establish ways to track the following cancers in the future:

General Population

Liver

Lung and bronchus

Bone and joint

Soft tissue

Female breast

Bladder

Kidney

Brain and other nervous system

Thyroid

Non-Hodgkin lymphoma

Leukemia

Mesothelioma

Childhood Cancers

Brain and central nervous system

Neuroblastoma

The EPHTN collects a large amount of health and environmental data. As the network grows, the amount of data content areas and measures will increase to include a larger picture of the environmental health of Utah and the Nation.

Indicator Based Information System for Public Health

The Indicator Based Information System for Public Health (IBIS-PH) is a Web-based portal for disseminating public health data in Utah. IBIS-PH contains meaningful data on a variety of environmental health topics. It allows users to query health statistics and view them by area and population as well as search publications and indicator profile reports. To obtain more detailed information, a user may perform a custom query using program prompts. IBIS-PH is currently available online at <http://ibis.health.utah.gov>.

IBIS-PH users can also directly contact IBIS administrators to access a secure query module for even more detailed information. All data can be viewed by demographic and geographic area using a variety of maps, graphs and charts.

IBIS-PH contains meaningful data on a variety of environ-

The following data sets are available in one, three and five-year intervals and include counties, local health districts, and 61 small areas. These small areas are an aggregation of zip code areas developed by the Utah Department of Health and used to achieve a population of 20,000 to 50,000 persons.

Birth Weight

The IBIS low birth weight data include percentages of normal and low birth weight in four categories: <2500 grams, <1500 grams, <1000 grams, and <500 grams.

Pre-term Births

Pre-term birth data are available as a percentage of pre-term birth of less than 37 weeks and are divided into three categories of very (<32 weeks), moderately (32-33 weeks), and late pre-term births (34-36 weeks). It also includes the average gestational age of infants.

Asthma

Asthma data are available through IBIS and come from hospital and emergency department discharge data.

Myocardial Infarction

Myocardial infarction data are also available through IBIS from both hospital discharge and emergency department data sources.

Cancer

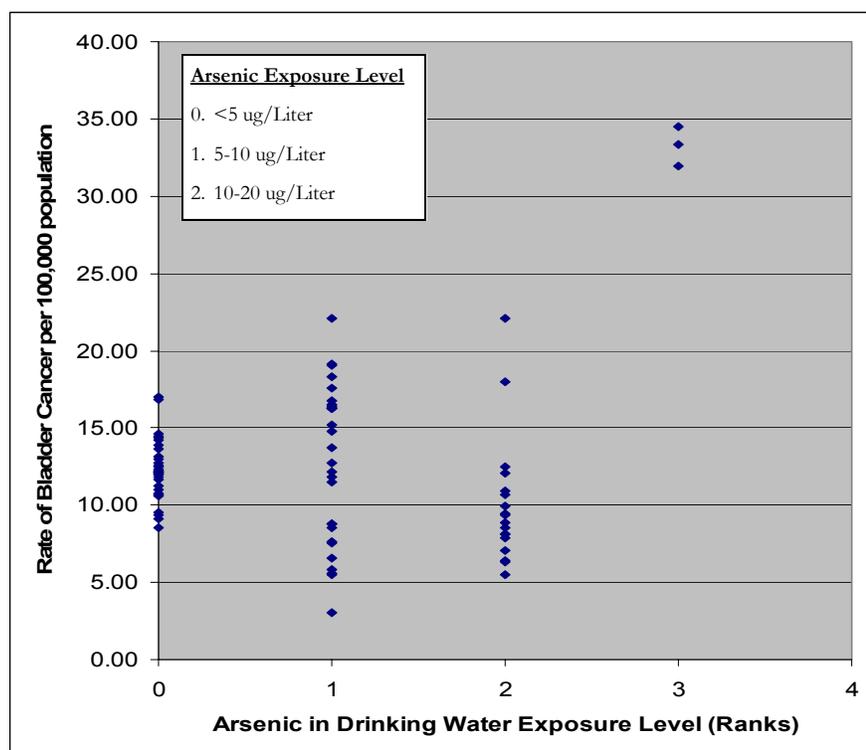
IBIS-PH contains cancer data for over 30 cancer sites. Time scale for the data includes one, three and five-year intervals. Space scale includes counties and local health districts

Birth Defects

Birth defect data on IBIS comes from the Utah Birth Defects Network and includes data on overall birth defects, orofacial clefts, neural tube defects, Down syndrome, congenital heart defects and infant mortality among infants born with birth defects. Time scale for the data includes one, three and five-year intervals. Birth defect data is only available through IBIS on a statewide scale.

IBIS is currently available to public health workers and the general public to access public health data.

Exposure Gradients



The above figure is an example of an exposure gradient for arsenic in drinking water and bladder cancer rates. This is a useful tool for comparing and linking environmental exposures to health outcomes. The data used in this example is not final data, and is being used only to illustrate an exposure gradient.

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Updates

- The EPHTP has completed the 2008 grant continuation application with CDC.
- The National Environmental Public Health Tracking Project has been scheduled to open a public website of tracking data in September, 2008.

Upcoming Events

- The Technical Advisory Group (TAG) will be discussing network security. Due to the complexity and dynamic nature of the subject, we are not planning on a formal meeting to cover it. Instead, EPHTP staff will be periodically contacting TAG members to ask for input.



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Utah Environmental Health Tracking Network

Mission: To develop a state-wide, standards-based, Web-enabled tracking network information system in Utah to enable information and knowledge dissemination and improve public health in the realm of chronic diseases related to environmental factors.

Contact Adam at aowens@utah.gov if you have an article or news you would like in the upcoming Utah EPHTN newsletter

