

III. Using Environmental Public Health Indicators for Surveillance

The environmental public health indicators (EPHI) framework was designed to be need-based to assist the states in meeting Healthy People 2010 objectives and provides a foundation for developing environmental public health surveillance (EPHS) (i.e., environmental public health tracking). The indicators are general to allow states flexibility to choose specific measures on the basis of individual needs and priorities. Measures for any given indicator can change over time as technologies improve and epidemiologic studies enhance understanding of the relation between environmental factors and human health. Indicator-based surveillance, especially if conducted across many states, will help guide this epidemiologic research by providing adequate information for hypothesis generation.

The application of the EPHI framework can guide development of surveillance activities in a way that connects indicators to one another and to those used by other states. This framework of indicators drives data collection, but data collection also can drive the selection and use of indicators by a particular state. The indicators may be used for decision-making, policy-making, or program development. Using the EPHI framework may help connect state health departments across the nation so that EPHS programs do not continue to develop around a particular hazard or disease, but rather in a more comprehensive manner.

Using the EPHI framework

- 1) Select indicator topic(s) relevant to your state.
- 2) Within the selected topic(s), choose relevant indicators.
- 3) For each indicator selected, identify the measure(s) of interest.
- 4) For core indicators and measures, use the standard definitions and measurement criteria identified in the technical supplement. If your state uses different standards or criteria, or none are identified in the technical supplement, identify the standards and criteria used or proposed by your state.
- 5) Identify data sources from which data are used.
 - a) Evaluate the usefulness of the identified data sources.
 - b) Identify required data elements.
 - c) When connecting data for hazards, exposures, health outcomes, and interventions, identify areas in which standards and specifications for automating differ from those provided by the National Electronic Data Surveillance System (NEDSS). If yours is a new system, develop standards and specifications that are consistent with NEDSS.
 - d) Identify data or surveillance systems that need to be stored or made available electronically.
 - e) Identify data sources that are useful to public health but restricted from use.
- 6) Identify additional data collection needs for bridging data gaps for the selected indicators. If the suggested measures are not useful, recommend alternative measures.
- 7) Summarize data collected for the selected measures to describe the state of environmental public health in your state.
 - a) Identify and rank the hazards, exposures, and health effects by level of concern.
 - b) Determine whether the data answer questions about the usefulness of public health programs and interventions.
 - c) If multiple years of data are available, evaluate trends among selected measures.