

What is a public health assessment?

A public health assessment reviews available information about hazardous substances at a site. It evaluates whether exposure to chemicals might harm people. A public health assessment considers all environmental issues related to actual or possible human exposure, and is not the same thing as a medical exam or a community health study. A public health assessment can be prepared by either the Tennessee Department of Health's Environmental Epidemiology Program or the federal Agency for Toxic Substances and Disease Registry (ATSDR).



A public health assessment uses three primary sources of information:

- **environmental data**, such as measurements of chemicals and the pathways that people could come into contact with them;
- **health data**, including available information on community-wide rates of illness, injury, disease, or death compared with national and state rates; and
- **community concerns**, such as information from the general public about how the site may have affected their health or quality of life.

A public health assessment considers:

- how much (the concentration) of a hazardous substance is present at a site;
- whether people have been or might become exposed to the hazardous substance;
- what *exposure pathways*, such as breathing, touching, eating, or drinking, are present at the site or in the community;
- what harm (the toxicity) a hazardous substance might cause to people;
- whether living or working near a hazardous waste site might affect people's health; and
- other dangers to people, such as unsafe buildings, dangerous objects, abandoned mine shafts, or other physical hazards.

A health assessment often includes:

- background
- statement of issues
- discussion
- child health considerations
- conclusions
- recommendations
- public health action plan
- references
- tables and figures
- maps and photos
- certification



The Environmental Epidemiology Program is funded through a cooperative agreement with the Agency for Toxic Substances and Disease Registry (ATSDR). ATSDR is the federal public health agency whose mission is to prevent exposure and adverse human health effects and diminished quality of life associated with exposure to hazardous substances from waste sites, unplanned releases, and other sources of pollution in the environment. ATSDR describes environmental public health topics on their Website (www.ATSDR.cdc.gov).

How is the community involved in a public health assessment?

The community plays a key role in a public health assessment and any activity that may follow. Two-way communication between the public and the Environmental Epidemiology Program is vital to every public health assessment. For this reason, we use many ways to give and receive information to keep the community involved in our activities. These are:

- **public availability sessions** where community members can meet one-on-one with our staff;
- **public meetings** at which common community questions can be answered in a larger forum;
- **stakeholder meetings** with concerned citizens, local community groups, political leaders, health professionals, and other government agencies;
- **site updates** in local newspapers, newsletters, or fact sheets, and stories on television or radio;
- **public comment period** during which the community is encouraged to review a draft report and share their knowledge or environmental health concerns; and
- **final public health assessment** report which includes all site information, responds to public comments, and completes the site investigation.

What happens after a public health assessment?

Every public health assessment includes recommendations to protect the public's health. For example, recommendations can include:

- site cleanup;
- limiting site access to keep people away from contamination or physical danger, for example by fencing a site; or
- community health education for residents and health care providers to inform them about site hazards, potential health effects, and ways to reduce or prevent exposure.

There are five types of conclusions used in a public health assessment:

1. **Urgent Public Health Hazard** - Evidence of short-term exposure or likely future exposure to a harmful amount of a hazardous substance that requires quick intervention to stop people from being exposed
2. **Public Health Hazard** - Evidence of certain physical hazards or long-term exposure or likely future exposure to an amount of a hazardous substance that might result in harmful health effects
3. **Indeterminate Public Health Hazard** - Professional judgment about the health hazard cannot be made because information critical to such a decision is missing or unavailable
4. **No Apparent Public Health Hazard** - Evidence that exposure to a hazardous substance may have occurred in the past or might still be occurring now, but the exposure is not expected to cause harmful health effects
5. **No Public Health Hazard** - No evidence of exposure to any site-related hazardous substance



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