



Environmental Health Threats

**Public Health Resources
During Emergency and
Time-Critical Operations**



Technical experts within DEH use the best available science and methods to:

Identify potential environmental health threats. We look at what is known, identify public health hazards, and determine next steps through identifying and collecting data.


Investigate to understand who is at-risk from the hazard and determine if any immediate public health actions are necessary. Staff conduct human health exposure assessments, health studies, or environmental assessments to determine the public health risks.

Intervene to reduce, eliminate, or prevent harm by providing information about the exposure to those affected or by connecting with local, state, and federal partners who can address the hazards.




The Michigan Department of Health and Human Services' Division of Environmental Health (DEH) offers emergency planning and time-critical response expertise and resources to assist federal, state and local partners during public health environmental events.

Division of Environmental Health Resources in Emergency and Time-Critical Responses include:




Evaluation of Site-Specific Chemical Contamination

- Works with state or federal regulatory agencies to identify chemicals present at the site.
- Reviews scientific literature, regulatory standards, and health-risk based screening levels for identified chemicals.
- Evaluates potential links between sampling data for identified chemicals and health outcomes.
- Recommends actions to reduce or stop exposure and protect the public's health.




Disaster Epidemiology

- Develops tools and strategies for health surveys and rapid needs assessments using the Center for Disease Control and Prevention (CDC) methods.
- Analyzes real-time emergency department and ambulance run data to identify health impacts.
- Designs research and evaluation studies to assess long-term impacts of the event.
- Makes recommendations to improve future prevention and mitigation strategies.




Support Within the National Incident Management System (NIMS) Framework

- Supports emergency response with staff that are:
 - Designated Professional Emergency Managers (PEMs) trained by Michigan State Police.
 - Trained and experienced in Incident Command Structure (ICS).
- Provides role-based staffing support in state and local Emergency Operations Centers (EOCs).



Environmental and Biological Sampling

- Designs appropriate sample collection and data analysis methods.
- Supports sample collection in impacted communities.
- Analyzes the data and provides results to residents and the community.




Environmental Health Navigator Program

- Shares information and resources to protect community members' health and reduce stress related to environmental contamination.
- Provides residents with public health information developed for the response.



Community Engagement and Outreach

- Creates public health education materials such as press releases, fact sheets, talking points, and flyers.
- Distributes health education materials to Michigan residents.
- Builds and maintains relationships with community partners to establish trust and communication between MDHHS and the community.



Examples of Emergencies Supported by DEH

- Enbridge oil spill (2012).
- PFAS in drinking water: Parchment municipal water supply (2018).
- Tittabawassee River dam failure flood (2020).
- Flat Rock gasoline leak (2021).
- Menominee warehouse fire (2022).



MDHHS Mission

MDHHS provides opportunities, services, and programs that promote a healthy, safe, and stable environment for residents to be self-sufficient.

MDHHS Vision

Develop and encourage measurable health, safety, and self-sufficiency outcomes that reduce and prevent risks, promote equity, foster healthy habits, and transform the health and human services system to improve the lives of Michigan families.

DEH Goal

To promote and protect the health of the people of Michigan by using the best available methods for epidemiology, toxicology, and health education to identify exposures, investigate related health effects, and intervene with public health actions.



Learn more:

Michigan.gov/EnviroHealth
800-648-6942