

# ATSDR

AGENCY FOR TOXIC SUBSTANCES  
AND DISEASE REGISTRY

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## HazMat Emergency Preparedness Training and Tools for Responders

Any community might be subject to a disaster, whether natural or of human origin. Community responses to these disasters tend to be more efficient and effective when prior planning takes place. Disaster planning is only as good as the assumptions and information on which it is based. Experience from hundreds of actual disasters shows that planning assumptions often are incorrect. Disaster planning based on incorrect assumptions can create an illusion of preparedness. Disaster plans, when developed, should be tested and revised as necessary.

This brochure discusses training programs and tools developed by the Agency for Toxic Substances and Disease Registry (ATSDR) to help communities develop sound, evidence-based assumptions in preparing for hazardous materials (HazMat) emergencies and disasters.

### Evidence-Based Disaster Lecture Series (Lessons Learned)

Introductory training in disaster planning helps communities define and sharpen their planning assumptions. This lecture series focuses on lessons learned from real-world experiences during actual disasters. For example, many planners assume that in a disaster well-trained professionals will be among the first to respond and care for victims. In reality, untrained bystanders (e.g., coworkers, family members, neighbors) are often the first at the scene offering assistance and transportation. Such lessons are emphasized so that planners learn to anticipate how their community is likely to react under real disaster conditions, and plan accordingly.



### Managing Hazardous Materials Incidents

This three-volume guide and companion videos for the management of chemically contaminated patients is available on CD-ROM and in print.

*Volume I— Emergency Medical Services* is a planning guide to assist first responders in managing contaminated patients in the pre-hospital setting.

*Volume II— Hospital Emergency Departments* is a planning guide to assist emergency department personnel in managing contaminated patients in the hospital setting.

*Volume III— Medical Management Guidelines* provides chemical-specific treatment information for acute exposure to 40 chemicals (or chemical classes) for first responders and hospitals.

*Community Challenge* is a two-part companion video that illustrates the guidance documents' procedures for the pre-hospital and in-hospital settings (Vols. I and II).

### Toxicological Profiles

This series of 150 peer-reviewed publications details the known adverse health effects of specific chemicals. Each profile describes health effects; chemical and physical properties; manufacture and use; environmental data; sampling methods; and regulatory requirements and guidelines. Information is summarized in easily accessible tables and graphs. *ATSDR ToxProfiles 2002* contains all the current profiles on CD-ROM.

### ToxFAQs

ToxFAQs are two-page summaries of the most commonly asked questions about a specific chemical. These FAQ Sheets, written in layman terms, can be used for risk communication with the general public.

## Community Mapping GIS Program

Geographic information systems (GIS) are powerful tools in examining the spatial distribution of chemical threats and resources in a community. Using computer-based GIS programs, public health and safety personnel can map locations of agency jurisdiction boundaries; facilities that produce and use chemicals; and, hospitals, schools, and other special use facilities. Links to data sources can identify the location of chemicals as well as list resource contacts and emergency numbers.



Mapping technology can also help predict the dispersion of chemicals in the event of an uncontrolled release. Computational models linked to a GIS can download real-time weather data to predict the most likely path chemical plumes may take. This information can help local officials make evacuation decisions and select locations to control access to dangerous areas. The number of affected persons can be readily estimated, and sensitive subpopulations (like children and the elderly) can be quickly identified and located. Communities can benefit from these powerful tools and up-to-date information on their local threats and resources.

## Case Studies in Environmental Medicine

Designed for health care professionals, *Case Studies in Environmental Medicine (CSEM)* is a series of 38 instructional modules on managing clinical exposures to chemicals. The *CSEMs* describe the clinical presentation of chemically exposed patients, and include generic topics such as the taking of an exposure history. Each self-instructional module is approved for continuing education credits for health care professionals.

## Technical Assistance for Plans, Drills, and Exercises

Community planners can obtain ATSDR technical assistance in designing, implementing, and evaluating realistic scenarios for testing some or all components of their disaster plans. ATSDR reviews response and contingency plans with community staff for hospital emergency departments, emergency medical technicians, public health officials, and hazardous materials teams. ATSDR has assisted local scenario design teams in developing victim cue cards describing realistic symptoms, behaviors, and clinical signs. ATSDR also can provide on-site evaluators to assist communities in achieving their objectives.

## Training To Manage Stress During Technological Disasters

These courses help prepare communities to deal with various manifestations of psychosocial stress induced by HazMat accidents or terrorist attacks. HazMat events present considerable challenges, even for experienced personnel, because threats come from hazards that are often invisible and unfamiliar. This training is based on evidence-based research findings from technological (non-natural) disasters as well as from ATSDR's first-hand experience with communities affected by HazMat sites and releases. Stress management training provides skills and strategies for how to identify stress and cope with the emotional issues and aftermath related to chemical threats. Training can be tailored specifically for first responders, medical personnel, and communities.



A First Responder Course, tailored to the needs of the participants, can include topics such as self care during an incident, physical and psychological stressors, normal responder reactions to a technological disaster, and strategies to help responders and community members deal with the stress of an invisible threat.

A Medical Personnel/Health Department Course, tailored to each department's needs, can include topics such as (a) self care while providing care to others during a technological disaster and (b) response and strategies to help the community cope with the stress of an invisible threat.

## Analysis of Surveillance Data From HazMat Incidents

ATSDR's Hazardous Substances Emergency Events Surveillance system captures incident and facility data as well as data on health outcomes from HazMat accidents and uncontrolled releases in 16 states. Analysis of these data can assist disaster planners by providing valuable insights into the kinds of chemical releases likely to occur in their communities as well as the types of releases most commonly associated with injuries and the types of persons most likely to be injured. ATSDR can provide community planners with results of analyses on specific chemicals, types of industry, or individual communities in the participating states.



## Risk Communication Training

This resource provides a framework for developing an effective risk communication plan in a public health crisis. The training addresses the role of risk communication in response operations, public perception of risks, and development of specific messages to accomplish identified goals.

## HazMat Health and Safety Training

Basic Hazardous Waste Operations and Emergency Response Standard (Hazwoper) Training is available to communities participating in the Federal Emergency

Management Agency's (FEMA's) Comprehensive Hazmat Emergency Response-Capability Assessment Program (CHER-CAP) through the partnering agencies: FEMA, Environmental Protection Agency (EPA), ATSDR, and the National Institute of Environmental Health Sciences (NIEHS).

## About ATSDR

A public health agency of the U.S. Department of Health and Human Services (HHS), ATSDR protects the public's health from toxic substances. Based in Atlanta, ATSDR has 10 regional offices that coordinate its services with regional, federal, tribal, state, and local agencies, and the public. ATSDR can provide on-site response assistance from its headquarters and its regional offices. ATSDR provides technical assistance to FEMA, other federal departments, tribal, and state agencies on public health issues related to emergency preparedness. ATSDR also is collaborating with FEMA, EPA, HHS, and other agencies to improve public health and medical preparedness in communities selected for the CHER-CAP program.

EPA, FEMA, and ATSDR are all members of the National Response Team (NRT). The NRT ([www.nrt.org](http://www.nrt.org)) includes 16 federal agencies whose representatives meet regularly to develop national environmental response guidance and policy in support of regional and local federal response teams. ATSDR

represents HHS on the NRT; other HHS agencies that can be involved include the Centers for Disease Control and Prevention (CDC), the Food and Drug Administration (FDA), the National Institutes of Health (NIH), and the HHS Office of Emergency Response (OER).

## How To Contact ATSDR

For chemical emergencies, call 404-498-0120, 24 hours a day, 7 days a week. Monday-Friday, call toll free at 1-888-422-8737 (fax: 404-498-0057); Website: <http://www.atsdr.cdc.gov>.