Preparing for and Responding to Bioterrorism
Information for the Public Health Workforce

Emergency Response Planning

Developed by
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*This manual and the accompanying MS Powerpoint® slides are current as of Dec 2002. Please refer to http://nwcphp.org/bttrain/ for updates to the material.
Acknowledgements

This manual and the accompanying MS PowerPoint® slides were prepared for the purpose of educating the public health workforce in relevant aspects of bioterrorism preparedness and response. Instructors are encouraged to freely use portions or all of the material for its intended purpose.

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Preparing for and Responding to Bioterrorism: Information for the Public Health Workforce is intended to provide public health employees with a basic understanding of bioterrorism preparedness and response and how their work fits into the overall response. The course was designed by the Northwest Center for Public Health Practice in Seattle, Washington, and Public Health – Seattle & King County’s Communicable Disease, Epidemiology & Immunization section. The target audience for the course includes public health leaders and medical examiners, clinical, communicable disease, environmental health, public information, technical and support staff, and other public health professional staff. Health officers may also want to review the more detailed modules on diseases of bioterrorism in Preparing for and Responding to Bioterrorism: Information for Primary Care Clinicians: Northwest Center for Public Health Practice (available at http://nwcphp.org/btrain). Public health workers are a very heterogeneous group, and the level of detailed knowledge needed in the different aspects of bioterrorism preparedness and response will vary by job description and community. Therefore, the curriculum is divided into modules, described in Appendix A.
Preparing for and Responding to Bioterrorism

The course incorporates information from a variety of sources, including the Centers for Disease Control and Prevention, the United States Army Medical Research Institute in Infectious Disease (USAMRIID), the Working Group on Civilian Biodefense, the Federal Emergency Management Agency, Public Health – Seattle & King County, and the Washington State Department of Health, among others (a complete list of references is given at the end of the manual). The curriculum reflects the core competencies and capacities outlined in the following documents:


Center for Health Policy, Columbia University School of Nursing. Core public health worker competencies for emergency preparedness and response, April 2001: http://cpmcnet.columbia.edu/dept/nursing/institute-centers/chphsr/


The course is not copyrighted and may be used freely for the education of public health employees and other biological emergency response partners.

Course materials will be updated on an as-needed basis with new information (e.g., guidelines and consensus statements, research study results) as it becomes available. For the most current version of the curriculum, please refer to: http://nwcphp.org/bttrain.
How to Use This Manual

This manual provides the instructor with additional useful information related to the accompanying MS PowerPoint® slides. The manual and slides are divided into six topic areas: Introduction to Bioterrorism, Emergency Response Planning, Diseases of Bioterrorist Potential, Health Surveillance and Epidemiologic Investigation, Consequence Management, and Communications. Links to Web sites of interest are included in the lower right-hand corner of some slides and can be accessed by clicking the link while in the “Slide Show” view. Blocks of material in the manual are periodically summarized in the “Key Point” sections, to assist the instructor in deciding what material to include in a particular presentation. A Summary of Key Points is indicated in bold, at the beginning of each module.

The level of detailed knowledge required may vary for some topics by job duties. Therefore, less detailed custom shows are included in the Emergency Response Planning and Diseases of Bioterrorist Potential: Overview modules for those workers without planning oversight or health care responsibilities, respectively. In addition, there are three Consequence Management modules: for public health leaders, for public health professionals, and for other public health staff (see Appendix A).
Summary of Key Points (Slides 30-31)

1. BT preparedness and response requires coordination between public health, clinicians, emergency management, first responders, and law enforcement officials.

2. The Incident Command System is a hierarchical and unified system of managing an emergency response involving single or multiple agencies.

3. All agencies should include a bioterrorism component in their overall emergency response plan.

4. Emergency response planning in public health includes:
   - Development and evaluation of detection systems
   - Development and evaluation of policies and response procedures
   - Awareness of relevant laws
   - Evaluation and coordination of resources
   - Education and training

Slide 1: Curriculum Title
Slide 2: Acknowledgements
Slide 3: Module Title
The learning objectives of this module are:

1. Identify the different agencies involved in response to a bioterrorism event
2. Describe the Incident Command System and how this system may be integrated into an agency’s bioterrorism response plan
3. Identify factors to consider and include in the development of a local emergency response plan
4. Describe national and local efforts in the area of bioterrorism preparedness and response
5. Describe the roles of public health in BT preparedness and response
Key Points (Slides 6-12)

1. States have the primary responsibility to respond to the consequences of bioterrorism.
2. DHHS, in coordination with FEMA, will provide assistance to states following a biological attack.
3. Community preparedness for bioterrorism requires the development of relationships and coordination of efforts with multiple agencies.
4. The Incident Command System is a structured format for coordinating efforts in an emergency response.

Federal Response to Terrorism (Slide 6)

Presidential Decision Directive 39 (PDD-39; United States Policy on Counterterrorism) describes the overall response to an act of terrorism in terms of two steps:

- **Crisis management** is the law enforcement response. It focuses on the criminal aspects of the incident. The Federal Bureau of Investigation is the lead federal agency in crisis management.
- **Consequence management** is the response to the disaster. It focuses on alleviating damage, loss, hardship, or suffering. States have primary responsibility to respond to the consequences of terrorism, with federal assistance as needed. The Federal Emergency Management Agency (FEMA) is the lead federal agency in consequence management.

Involvement of other agencies depends on the nature of the terrorist incident. In the case of biological terrorism, the Department of Health and Human Services will activate their Health and Medical Services Support Plan for the Federal Response to Acts of Chemical/Biological Terrorism (through Emergency Support Function #8), in coordination with FEMA.
Community Preparedness (Slide 7)

At the heart of preparedness for a bioterrorism incident or other public health emergency are the development of partnerships with other response agencies and the clarification of roles. The onset of an emergency is not the time to become familiar with other response agencies and workers in the community, nor is it the time to decide where responsibilities and authorities lie. Partnerships and plans for the coordinated use of resources must be developed prior to an emergency if an effective response is desired.

Local Emergency Response Committees (LEPCs) (Slide 8)

The Emergency Planning and Community Right-to-Know Act (EPCRA) establishes requirements for federal, state, and local governments, Indian tribes, and industry regarding emergency planning and "Community Right-to-Know" reporting on hazardous and toxic chemicals. The emergency planning section of the law is designed to help communities prepare for and respond to emergencies involving hazardous substances. Every community in the United States must be part of a comprehensive plan.
Although the initial task of the LEPC is to plan for chemical emergencies, it is also an appropriate forum for other community emergency planning, including bioterrorism. Alternatively, communities may have a separate emergency response planning committee that addresses biological issues. Regardless of the name of the group performing the function, it is important that planning for a bioterrorism event or other public health emergency involve representation from a wide variety of stakeholders in the community. The Environmental Protection Agency’s LEPC Database (www.epa.gov/swercepp/lepclist.htm) provides contact information for more than 3,000 LEPCs across the country.

The governor of each state has designated a State Emergency Response Commission (SERC). Each SERC is responsible for implementing EPCRA provisions within its state. The SERCs in turn have designated about 3,500 local emergency planning districts and appointed Local Emergency Planning Committees (LEPC) for each district. The SERC supervises and coordinates the activities of the LEPCs, establishes procedures for receiving and processing public requests for information collected under EPCRA, and reviews local emergency response plans. The corollary to a SERC on tribal lands is a Tribal Emergency Response Commission (TERC). Indian leaders can form an independent TERC and either appoint a separate LEPC or act as a TERC/LEPC and perform the same functions as a SERC and LEPC respectively.

The LEPC membership must include, at a minimum, local officials including police, fire, civil defense, public health, transportation, and environmental professionals, as well as representatives of facilities subject to the emergency planning requirements, community groups, and the media. The LEPCs must develop an emergency response plan, review it at least annually, and provide information about chemicals in the community to citizens.
Slides 9 and 10 list key individuals and agencies involved in crisis and consequence management following a terrorist event.

Slide 11 illustrates the architecture of the emergency response system. Public health serves as one link in the system, working closely with health care providers and emergency management officials. Unusual disease or syndrome clusters are detected by surveillance systems or health care providers and reported to local public health.

If the situation requires emergency management evaluation or services, local public health will contact the local emergency management office. Emergency management will, in turn, notify the appropriate emergency services for the situation (i.e., law enforcement, fire, Hazmat, EMS). Note that local citizens participate in this response system when they call 911 or notify the local health jurisdiction about a health concern.
Incident Command System (Slides 12-14)

The next three slides give a very brief overview of the Incident Command System (ICS). ICS is a system for organizing the response to an emergency. The system is always used in a HAZMAT incident response, typically used by fire departments, and sometimes used by other traditional first-responders in emergency situations. Public health workers should be familiar with the structure of the ICS, as they will need to function in this system when coordinating bioterrorism response activities with law enforcement and emergency management agencies and officials.

The Incident Command System is composed of five major functions, listed in slide 12. The smallest incidents consist of only the “Command” function, with the Incident Commander directing response activities. The Incident Commander is typically the first responder on the scene, initially; the role may be transferred later on the basis of authority. The Incident Commander is responsible for overall management of the incident, conservation of property, and ensuring life safety. In more complex incidents, the Incident Commander may transfer some of these responsibilities to a Public Information Officer, a Safety Officer (both under the “command” function), and the other four components listed in slide 12.

- Planning – Collects, evaluates, disseminates, and uses information about the development of the incident and status of resources, and may create Incident Action Plans (the incident-specific response plan for the next 24 hours or less)
- Operations – Implements the Incident Action Plan
- Logistics – Provides facilities, services, and materials to support operations
- Finance/Administration – Tracks incident costs and reimbursement accounting
Slides 13 and 14 list a few of the basic operating principles of the Incident Command System. These principles help to facilitate communication, minimize confusion, and ensure an efficient, time-sensitive response. Routine public health activities typically involve a more collegial and collaborative approach than is embodied by the Incident Command System. The establishment of objectives and strategies is collaborative, but implementation of the response is hierarchical (i.e., each person reports to one supervisor; the incident commander oversees and directs all response activities). Roles and responsibilities, therefore, should be well-defined.

The Incident Command System is complex, and proficiency requires intensive training, available through most state emergency management departments. Additional information on ICS can also be found at www.fema.gov or www.911dispatch.com.
Public Health and Law Enforcement Investigations
(Slide 15)

If the public health emergency involves a criminal act (e.g., a bioterrorist attack), public health workers will also need to coordinate response efforts with law enforcement. Successful collaboration between public health and law enforcement requires an understanding of the approach, requirements, and goals of each party’s investigation. As described in the introductory module of this course, a bioterrorism event can be either covert (unannounced; first responders are public health and the medical community) or overt (announced; first responders are emergency medical personnel, HAZMAT, and law enforcement).

The nature of a bioterrorism event, therefore, influences the nature of the initial investigation, but both criminal and public health investigations will ultimately need to be accomplished. The goals of each investigation differ somewhat, and are subject to different criteria and scrutiny. Public health seeks to obtain information, adhering to scientific and epidemiologic principles, that will enable the implementation of effective infection control measures. Law enforcement seeks to obtain information that will meet constitutional standards and withstand legal challenges in order to obtain a conviction. It is important for law enforcement that information obtained in the case be consistent (e.g., no conflicting reports obtained by public health and law enforcement) and the chain of custody of laboratory specimens be maintained. It has been suggested that public health and law enforcement conduct joint interviews, when possible, and the opportunity be provided afterwards for confidential communication of specific health-related information by interviewees to public health officials (Butler, et al., 2002).
Emergency Operations/Emergency Response Plans
(Slides 16-22)

Key Points
1. Emergency response plans delineate the responsibilities of individuals and agencies for action in an emergency.
2. Emergency response plans should be regularly reviewed and exercised.

An emergency operations plan (EOP) is “a document that assigns responsibility to organizations and individuals for carrying out specific actions at projected times and places in an emergency that exceeds the capability or routine responsibility of any one agency (FEMA/USFA-NFA, 1999).”

Emergency operations plans, or emergency response plans, exist at the federal, state, local, and incident (i.e., incident action plans) levels. Lead and supporting agencies in an emergency depend on the type of emergency, and are designated according to “Emergency Support Function,” according to federal and state disaster response plans. Health-related emergencies fall under ESF 8 (Health and Medical Services); the public health agency has the lead role in response activities.
Each state or local jurisdiction has an emergency operations plan, and the public health terrorism plan is either an integrated part of or annex to this overall plan. Typically, the state emergency management division is responsible for leading the development of the overall EOP. A state’s EOP is a good guide for the development of a local or agency-specific EOP. In general, local government is expected to lead the initial response to emergencies within its jurisdiction.

Links to the National Association of City and County Health Officials Bioterrorism and Emergency Response Plan Clearinghouse (http://bt.naccho.org/) and Washington State’s Comprehensive Emergency Management Plan (http://www.wa.gov/wsem/3-map/a-p/cemp/cemp-idx.htm) are located in the lower right-hand corner of slides 16 and 18, respectively. The former site provides a brief description of plans from local health jurisdictions across the country.
Slide 19 lists the basic steps in developing an emergency operations plan. The planning team should be composed of representatives from the various groups that have a role or stake in the emergency response. Hazard analysis, the next step after establishing a planning team, is the process of identifying and characterizing what emergencies have occurred or could occur in your community. Resources required to respond to these emergencies should be compared to the community’s current resource base. Communities differ in demographic makeup, geography, and resource base. Population groups with special needs in the event of a public health emergency (e.g., the elderly, children, non-English speaking individuals, chronically ill, geographically isolated) should be identified ahead of time and provisions for addressing the special needs (e.g., interpreters, social services, transportation) included in your organization’s bioterrorism/public health emergency response plan.

The Department of Health and Human Services suggests that cities plan to respond to a terrorist attack that potentially affects 10% of their population.
A review of local and state legislation pertaining to emergency response activities should be included in the development process of the emergency operations plan. A more thorough discussion on the development of an EOP can be found in “Emergency Management Guide for Business and Industry (FEMA)” available at http://www.fema.gov/library/bizindex.shtm.

Once the EOP is developed, it should be periodically exercised to ensure that roles and procedures are understood and could be implemented appropriately in an emergency. Policies and procedures should be periodically reviewed and updated as needed, and contact lists should be updated at least monthly. A review of local and state legislation pertaining to emergency response activities should be included in the development process of the emergency operations plan. Legal issues to consider in planning are listed in slides 20 and 21.
Workplace Emergency Response Plans (Slide 22)

A workplace emergency response plan outlines a particular agency’s plan for responding to an emergency, whether that emergency occurs in the agency itself or outside the agency but affects or involves the agency. Workplace emergency response plans should be consistent with plans developed at the jurisdictional and state levels.

Once the EOP is developed, it should be periodically exercised to ensure that roles and procedures are understood and could be implemented appropriately in an emergency. Policies and procedures should be periodically reviewed and updated as needed, and contact lists should be updated at least monthly.
National Bioterrorism Preparedness (Slides 23-26)

Key Points
1. The CDC is the lead federal agency in BT preparedness efforts.
2. CDC BT focus areas include preparedness and prevention, detection and surveillance, laboratory diagnosis and characterization, and response.

Slides 23-26 highlight bioterrorism preparedness efforts occurring on the national level. Preparing the nation to respond to a potential BT event, has been an area of focus and activity for CDC since the DHHS National Bioterrorism Preparedness and Response Initiative was launched in 1999. Many activities have taken place and are currently under way. Preparedness and prevention efforts include the “CDC Responds” satellite down-link series that addressed clinical management of anthrax and smallpox, among other topics, development of fact sheets on BT agents and the development of a clinical protocol for evaluating suspected smallpox cases. Detection and surveillance activities include the funding of several local public health departments in the development of systems to detect unusual clusters of syndromes and illnesses, and the development of the Health Alert Network (HAN).
CDC is also funding research to improve the diagnosis and treatment of biological and chemical agents, and has developed a Laboratory Response Network (LRN), categorizing laboratories according to their capacity for identification of potential BT agents. Response activities include the development of a smallpox response plan and the establishment of the National Pharmaceutical Stockpile (NPS). In addition, the DHHS Office of Emergency Preparedness is expanding efforts to develop medical response capacity at the local and national levels. Many of the efforts (e.g., increased medical response capacity, improved disease detection methods and communication systems) will also prepare the nation and its local communities to respond to other, non-bioterrorism related health emergencies and disease outbreaks.
The Role of Public Health (Slides 27-30)

Key Point

The roles of public health in community emergency preparedness include education, surveillance, coordination, and response.

Slides 27-30 summarize the role of public health in community preparedness for a biological disaster. Detection and evaluation of a biological disaster requires the use of both traditional systems and new detection methods. Traditional systems include disease surveillance, based on the reporting of conditions by clinicians, hospitals, and laboratories, and disease investigation. New detection methods include improved laboratory methods for diagnosis, and surveillance systems that detect unusual clusters of syndromes and illnesses. Education of health care providers regarding the diagnosis and treatment of patients, prophylaxis of those exposed to a biological agent, and infection control precautions, facilitates medical management in a biological disaster.
Local public health also helps to facilitate the overall response to a biological disaster by addressing resource needs, and requesting and coordinating the use of state and federal resources when local resources are exhausted. Key resources that will likely be employed in a biological disaster are highlighted in slide 30. The link in the lower right-hand corner of slide 29 (www.phppo.cdc.gov/od/inventory) is to the CDC Public Health Program Office’s Public Health Preparedness and Response Capacity Inventory, designed to provide a rapid assessment of public health capacity in the six focus areas of the FY 2002 supplemental funding provided to states (Cooperative Agreement U90/CCUX000003-X Public Health Preparedness and Response for Bioterrorism www.bt.cdc.gov/Planning/CoopAgreementAward/index.asp).
**Summary of Key Points**  (Slides 31-32)

- BT preparedness and response requires coordination between public health, clinicians, emergency management, first responders, and law enforcement officials.
- The Incident Command System is a hierarchical and unified system of managing an emergency response involving single or multiple agencies.
- All agencies should include a bioterrorism component in their overall emergency response plan.

- Emergency response planning in public health includes:
  - Development and evaluation of detection systems
  - Development and evaluation of policies and response procedures
  - Awareness of relevant laws
  - Evaluation and coordination of resources
  - Education and training
Resources (Slides 33-36)

**National**
- Centers for Disease Control and Prevention
  - Bioterrorism Website: [http://www.bt.cdc.gov](http://www.bt.cdc.gov)
- Emergency Preparedness and Response Branch 24-hour notification telephone number: (770) 488-7100
- CDC Public Inquiry Hotlines:
  - English: (888) 246-2675
  - Español: (888) 246-2677
- National Domestic Preparedness Office:
  - 1-202-324-3026 M-F 8am-5pm EST

**Washington State**
- Washington State Department of Health
  - [http://www.doh.wa.gov](http://www.doh.wa.gov)
- Communicable Disease Epidemiology:
  - 1-877-539-4344 - 24-hour emergency number
  - (206)-361-2914
- Julie Wicklund, BT Surveillance Epidemiologist
  - (206) 361-2981
- Washington State Emergency Management
  - [http://www.wa.gov/sem/](http://www.wa.gov/sem/)

**Emergency Management**
- State Emergency Management duty officer
  - 1-800-258-5960
- Regional Emergency Coordinator, Region X, 206 619-2266
- FBI
  - Western WA and after hrs, Statewide:
    - (206) 622-0460
  - Eastern WA, (509) 747-5195
- Federal Emergency Management Agency (FEMA)
  - [http://www.fema.gov](http://www.fema.gov)
  - Incident Command System Self-study Course
    - [http://training.fema.gov/EMTWeb/cnlist.htm](http://training.fema.gov/EMTWeb/cnlist.htm)

**Emergency Response Planning**
- Bioterrorism and Emergency Response Plan
  - [http://bti.naccho.org/](http://bti.naccho.org/)
- Washington State Comprehensive Emergency Management Plan
  - [http://www.wa.gov/sem/3-map/a-p/comp/comp-idx.htm](http://www.wa.gov/sem/3-map/a-p/comp/comp-idx.htm)
- Emergency Management Guide for Business and Industry (FEMA)
References

General Bioterrorism Information and Web Sites


Emergency Response Planning


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Health Surveillance and Epidemiologic Investigation

CDC. Case definitions under public health surveillance. MMWR; 1997:46(RR-10):1-55.


Diseases of Bioterrorist Potential

Advisory Committee on Immunization Practices (ACIP). Use of smallpox (vaccinia vaccine), June 2002: supplemental recommendation of the ACIP.

http://www.bt.cdc.gov/ncidod/hip/GUIDE/infectcont98.htm


Webcast: http://www.sph.unc.edu/about/webcasts/

Webcast: http://www.sph.unc.edu/about/webcasts/

CDC. Considerations for distinguishing influenza-like illness from inhalational anthrax. MMWR 2001;50(44):984-986.


Centers for Disease Control and Prevention. Smallpox vaccination and adverse events training module, 2002.
http://www.bt.cdc.gov/training/smallpoxvaccine/reactions/default.htm

Centers for Disease Control and Prevention, American Society for Microbiology & American Public Health Laboratories. Basic diagnostic testing protocols for level A laboratories.
http://www.asmusa.org/pcsrc/biodetection.htm#Level%20A%20Laboratory%20Protocols


**Working Group on Civilian Biodefense Consensus Recommendations:**


Environmental Sampling and Decontamination


CDC. Protecting investigators performing environmental sampling for *Bacillus anthracis*: personal protective equipment. http://www.bt.cdc.gov/DocumentsApp/Anthrax/Protective/Protective.asp


CDC. Use of onsite technologies for rapidly assessing environmental *Bacillus anthracis* contamination on surfaces in buildings. MMWR. 2001;50(48):1087.


Environmental Protection Agency. EPA’s role in responding to anthrax contamination. http://www.epa.gov/epahome/hiaanthrax.htm#FORRESPONDERS.


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Consequence Management


http://www.cdc.gov/ncidod/EID/eid.htm

CDC. Interim recommendations for the selection and use of protective clothing and respirators against biological agents
http://www.bt.cdc.gov/DocumentsApp/Anthrax/Protective/10242001Protect.asp


http://www.journals.uchicago.edu/CID/journal/issues/v34n2/011333/011333.html

Psychological Aftermath of Trauma


http://www.psych.org

Department of Health and Human Services, Substance Abuse and Mental Health Services Administration Center for Mental Health Services. Disaster manual for mental health and human services workers in major disasters.
http://www.mentalhealth.org/cmhs/EmergencyServices/fpubs.asp

Communication and Informatics

Agency for Toxic Substances and Disease Registry. A primer on health risk communication principles and practices.
http://www.atsdr.cdc.gov/HEC/primer.html


Covello T, Peters RG, Wojtecki JG, Hyde RC. Risk communication, the West Nile Virus epidemic, and bioterrorism: responding to the communication challenges posed by the intentional or unintentional release of a pathogen in an urban setting. J Urban Health: Bulletin of the NY Academy of Medicine 2001;78(2):382-391.

Appendix A: Modules (MS® Powerpoint files)

**Introduction to Bioterrorism**
One module (33 slides)

**Emergency Response Planning**
One module, with one custom show for personnel without planning oversight responsibilities
- Public health leaders (36 slides)
- Other public health staff (24 slides)

**Diseases of Bioterrorist Potential**
Six modules
- Overview (25 slides, with 20-slide custom show for staff without health care responsibilities)
- Anthrax (29 slides)
- Smallpox (44 slides)
- Plague and Botulism (33 slides)
- Tularemia and VHF (38 slides)
- Environmental Sampling and Decontamination (43 slides)

**Health Surveillance & Epidemiologic Investigation**
One module (32 slides)

**Consequence Management**
Three modules
- Public health leaders (51 slides)
- Public health professional staff (51 slides)
- Other public health staff (30 slides)

**Communication & Informatics**
One module (42 slides)
Appendix B: Glossary

**Bulbar:** Referring to the cranial nerves

**Coagulopathy:** A disease affecting the coagulability (clotting) of the blood

**Confluent:** Joining, running together

**Conjunctivitis:** Inflammation of the conjunctiva; “red eye”

**Depigmentation:** Loss of pigmentation (color)

**Diplopia:** Double vision

**Dyspnea:** Shortness of breath

**Edema:** An accumulation of an excessive amount of watery fluid in cells or tissues

**Enanthem:** A mucous membrane eruption (rash)

**Epistaxis:** Nose bleed

**Erythema:** Redness

**Eschar:** A thick, coagulated crust or slough

**Exanthem:** A skin eruption (rash) occurring as a symptom of an acute viral or coccal disease

**HAZMAT:** Hazardous materials management; HAZMAT workers respond to discharges and/or releases of oil, chemical, biological, radiological, or other hazardous substances.

**Hematemesis:** Vomiting of blood

**Hemoptysis:** Coughing up blood

**Hemorrhagic mediastinitis:** Bloody inflammation in the chest cavity

**Hypotension:** Low blood pressure

**Indolent ulcer:** Chronic ulcer, showing no tendency to heal

**Leukocytosis:** Elevated white blood cell count

**Lymphadenitis:** Inflammation of a lymph node or lymph nodes
Lymphadenopathy: A disease process (e.g., swelling) affecting a lymph node or nodes

Macule: A small, discolored patch or spot on the skin, neither elevated above nor depressed below the skin's surface

Malaise: General ill feeling

Myalgia: Muscle aches

Papule: A small, circumscribed solid elevation on the skin

Percutaneous: Denoting the passage of substances through unbroken skin; passage through the skin by needle puncture

Petechiae: Pin-head sized hemorrhagic spots in the skin

Pharyngitis: Inflammation of the tissues of the pharynx; “Sore throat”

Pleuropulmonary: Relating to the pleura and the lungs

Preauricular: Anterior to the auricle of the ear

Prodrome: An early or premonitory symptom of a disease

Prophylaxis: Prevention of a disease, or of a process that can lead to disease

Prostration: A marked loss of strength, as in exhaustion

Pustule: A small circumscribed elevation of the skin, containing purulent material

Sepsis: The presence of various pus-forming and other pathogenic organisms, or their toxins, in the blood or tissues

Stomatitis: Inflammation of the mucous membrane of the mouth

Vesicle: A small, circumscribed elevation on the skin containing fluid (i.e., blister)

*Reference: Stedman’s Medical Dictionary, 26th Ed.*
In the wake of the 2001 anthrax attacks, thousands of people and organizations across the country have scrambled for information on how to protect themselves, their families, and their employees from anthrax and other potential agents of bioterrorism. Health officials have been flooded with requests to deliver presentations on bioterrorism preparedness and response at community forums, clinical conferences, business meetings, and other public venues. Potential instructors and trainers, however, have been handicapped by the lack of up-to-date, basic orientation resources on bioterrorism preparedness and response.

Preparing for and Responding to Bioterrorism: Information for the Public Health Workforce is a series of train-the-trainer resources that addresses the public health aspects of bioterrorism. It is scientifically accurate, up-to-date (as of the date of publication), and immediately relevant to the public health workforce. The series consists of thirteen PowerPoint™ slide sets, each accompanied by a detailed instructor’s manual. The slide sets cover emergency response planning, surveillance and epidemiologic response, diseases of bioterrorist potential, consequence management, and communication and informatics. They are flexible and can be customized for local community needs. Included in each slide set and instructor’s manual is a list of resources, references, and contacts for further information on bioterrorism preparedness and response—before, during, and after an incident.

We hope these resources will help the public health workforce to plan for and respond to public health emergencies, including a bioterrorist attack, and facilitate coordination between public health and other emergency responders.