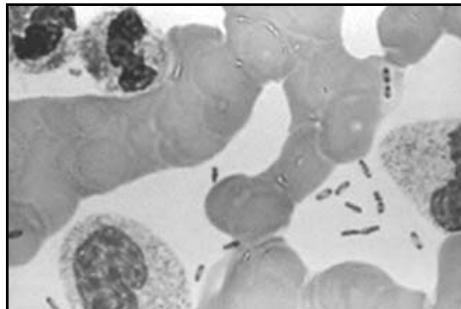




# Bioterrorism & Emergency Readiness



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**COMPETENCIES  
FOR ALL PUBLIC  
HEALTH WORKERS**

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# A Message from the Centers for Disease Control and Prevention

Dear Public Health Colleague,

A prepared workforce is an essential component in strengthening our national public health system. The Bioterrorism and Emergency Readiness: Competencies for All Public Health Workers outlined in this brochure provides a foundation from which to build locally relevant training, exercises and drills. The Centers for Disease Control and Prevention is pleased to share this important resource with you. Together we can achieve the vision of “every health department fully prepared; every community better protected.”

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## Table of Contents

### Introduction

Using These Competencies	3
Emergency Preparedness: Core Competencies for All Public Health Workers, April, 2001	4
Additional Competencies for Leaders, Professional, Technical and Support Staff	5

### Bioterrorism and Emergency Readiness Competencies

Public Health Leaders	6
Public Health Communicable Disease Staff	9
Public Health Clinical Staff	11
Environmental Health Staff	13
Public Health Laboratory Staff	15
Medical Examiner/Coroner	17
Public Health Information Staff	18
Other Public Health Professional Staff	20
Public Health Technical and Support Staff	21

### Definitions

Definitions of Public Health Staff Categories	22
US Office of Personnel Management Definitions	23

# Introduction

## USING THESE COMPETENCIES

The role of public health in any emergency, including a bioterrorism event, is an extension of the general mission of public health:

to promote physical and mental health and prevent disease, injury, and disability  
(*Public Health in America*).

The type of emergency and the emergency response plan for each jurisdiction will determine whether a public health agency is in the lead position, in a collaborative role, or in a secondary/supportive role. In order for the agency to fulfill its role, all staff must be competent<sup>1</sup> to carry out their responsibilities.

Competencies cannot replace the specific description of any job, nor the specific emergency plan for any public health organization. They can, if mastered, assure that the individual public health worker will be able to perform in emergency circumstances.

This document includes basic competencies in emergency preparedness AND bioterrorism (BT) readiness for all public health workers. Emergency response works best within a consistent system. Many of these BT competencies, with slight editing, also apply to other categories of emergency, including those related to chemical, nuclear or explosive devices. The application of any competency is always within the context of both agency and jurisdictional plans.

Emergency and bioterrorism competencies can be used for:

1. Updating/revising job descriptions:  
*Does each job description include reference to emergency functions?*
2. Outlining new employee orientation and employee training:  
*The size of the jurisdiction and the agency plan will dictate how general or specific an individual's job may be.*
3. Self-assessment by public health employees:  
*Am I able to ...*

Initial orientation to these competencies can be done in a general way. Full training and measurement requires tailoring them to the structure and function of the agency, and the individual functional roles of workers during an emergency.

These competencies can be interpreted with varying levels of complexity.

Their use in training requires:

- assessment of the existing level of competency in the anticipated audience.
- determining the full set of knowledge, skills, and attitudes needed to fulfill each competency.

For example, an audience of public health professionals proficient in Core Competencies for Public Health Professionals<sup>2</sup> will require much less detail than an audience of newly-hired professionals inexperienced in public health. Likewise, training for technical and support staff will depend on the trainees' planned functional roles in a response—whether similar to their day-to-day jobs, or requiring additional skills.

<sup>1</sup> A competency is a complex combination of knowledge, skills and abilities demonstrated by organization members that are critical to the effective and efficient function of the organization (Nelson, Essien, Latoff, & Wiesner, 1997.)

<sup>2</sup> Council on Linkages Between Academia and Public Health Practice. (May, 2001). Core competencies for public health professionals. Available: <http://www.trainingfinder.org/competencies>

## EMERGENCY PREPAREDNESS: CORE COMPETENCIES FOR ALL PUBLIC HEALTH WORKERS

(Originally adopted April, 2001)

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**CORE COMPETENCY 1. Describe** the public health role in emergency response in a range of emergencies that might arise. (e.g., "This department provides surveillance, investigation and public information in disease outbreaks and collaborates with other agencies in biological, environmental, and weather emergencies.")

**CORE COMPETENCY 2. Describe** the chain of command in emergency response.

**CORE COMPETENCY 3. Identify and locate** the agency emergency response plan (or the pertinent portion of the plan).

**CORE COMPETENCY 4. Describe** his/her functional role(s) in emergency response and **demonstrate** his/her role(s) in regular drills.

**CORE COMPETENCY 5. Demonstrate** correct use of all communication equipment used for emergency communication (phone, fax, radio, etc.)

**CORE COMPETENCY 6. Describe** communication role(s) in emergency response:

- within the agency using established communication systems
- with the media
- with the general public
- personal (with family, neighbors)

**CORE COMPETENCY 7. Identify** limits to own knowledge/skill/authority and **identify** key system resources for referring matters that exceed these limits.

**CORE COMPETENCY 8. Recognize** unusual events that might indicate an emergency and **describe** appropriate action (e.g., communicate clearly within the chain of command.)

**CORE COMPETENCY 9. Apply** creative problem solving and flexible thinking to unusual challenges within his/her functional responsibilities and **evaluate** effectiveness of all actions taken.

## . . . ADDITIONAL EMERGENCY PREPAREDNESS COMPETENCIES FOR LEADERS, PROFESSIONAL, TECHNICAL AND SUPPORT STAFF

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**Public Health Leaders/Administrators** must also be competent to:

- **DESCRIBE** the chain of command and management system (“incident command system” or similar protocol) for emergency response in the jurisdiction.
- **COMMUNICATE** the public health information, roles, capacities, and legal authority to all emergency response partners — such as other public health agencies, other health agencies, other government agencies — during planning, drills and actual emergencies. (This includes contributing to effective community-wide response through leadership, team building, negotiation and conflict resolution.)
- **MAINTAIN** regular communication with emergency response partners. (This includes maintaining a current directory of partners and identifying appropriate methods for contacting them in emergencies.)
- **ASSURE** that the agency (or agency unit) has a written, regularly updated plan for major categories of emergencies that respects the culture of the community and provides for continuity of agency operations.
- **ASSURE** that the agency (or agency unit) regularly practices all parts of emergency response.
- **EVALUATE** every emergency response drill (or actual response) to identify needed internal and external improvements.
- **ASSURE** that knowledge and skill gaps identified through emergency response planning, drills, and evaluation are addressed.

**Public Health Professionals** must also be competent to:

- **DEMONSTRATE** readiness to apply professional skills to a range of emergency situations during regular drills. (e.g., Access, use and interpret surveillance data; access and use lab resources; access and use science-based investigation and risk assessment protocols; identify and use appropriate personal protective equipment.)
- **MAINTAIN** regular communication with partner professionals in other agencies involved in emergency response. (This includes contributing to effective community-wide response through leadership, team building, negotiation and conflict resolution.)
- **PARTICIPATE** in continuing education to maintain up-to-date knowledge in areas relevant to emergency response. (e.g., emerging infectious diseases, hazardous materials, and diagnostic tests.)

**Public Health Technical and Support Staff** must also be competent to:

- **DEMONSTRATE** the use of equipment (including personal protective equipment) and skills associated with his/her functional role in emergency response during regular drills.
- **DESCRIBE** at least one resource for backup support in key areas of responsibility.

# Bioterrorism & Emergency Readiness Competencies

## **PUBLIC HEALTH LEADERS**

**PUBLIC HEALTH OFFICIALS:** Occupations in which employees set broad policies, exercise overall responsibility for execution of these policies, of direct individual departments or special phases of the agency's operations, or provide specialized consultation on a regional, district or area basis. Includes department heads, bureau chiefs, division chiefs, directors, and deputy directors.

### **I. Preparedness and Planning**

**CORE COMPETENCY 1. Describe** the public health role in emergency response in a range of emergencies that might arise. (e.g., "This department provides surveillance, investigation and public information in disease outbreaks and collaborates with other agencies in biological, environmental, and weather emergencies.")

**COMMUNICATE** public health information, roles, capacities and legal authority accurately to all emergency response partners (other public health agencies, other health agencies, and other government agencies) during planning, drills and actual emergencies. (This includes contributing to effective community-wide response through leadership, team building, negotiation and conflict resolution.)

**EVALUATE/REVIEW** the public health laws of the jurisdiction on a regular schedule to assess that they are current and up-to-date in regards to bioterrorism (BT) events.

**CORE COMPETENCY 2. Describe** the chain of command in emergency response.

**DESCRIBE** the chain of command and management system (incident command system) for emergency response in the jurisdiction.

**MAINTAIN** regular communication with emergency response partners. (Includes maintaining a current directory of partners and identifying appropriate methods of contact in emergencies.)

**MAINTAIN** agreements with partners from within the jurisdiction and from other jurisdictions to allow the public health agency to secure assistance and other resources.

**CORE COMPETENCY 3. Identify and locate** the agency emergency response plan (or the pertinent portion of the plan).

**ENSURE** that the agency (or agency unit) has a written, updated plan for major categories of emergencies that respects the culture of the community and provides for continuity of agency operations.

**IDENTIFY** the needed components of a public health BT response plan that is integrated with overall emergency response plan for the agency.

**ENSURE** that all BT plan components are developed by appropriate and knowledgeable staff *by applying the following competencies:*

**INTEGRATE** the agency's BT response plan into the Incident Command or Unified Command System used by other responders (such as Fire, Police and EMS) in the jurisdiction.

**DEFINE** modifications to the agency's internal command notification and coordination structure required for BT response.

**DESIGN** BT-specific protocols for enhanced surveillance, including activating additional personnel (e.g., infection control practitioners, public health nurses, epidemiologists, and data entry clerks from other institutions, jurisdictions and/or agencies.)

**ESTABLISH** emergency communications roles and responsibilities for BT response.

**ESTABLISH** protocols for handling and distribution of the National Pharmaceutical Stockpile.

**ESTABLISH** protocols to address public health surge capacity, including use of volunteers.

**IDENTIFY** pharmaceutical, veterinary, or other resources required for consultation by the agency or jurisdiction during BT response.

**USE** risk assessment of potential biological, chemical or radiological hazards in the community to determine the roles and responsibilities of those involved in public health BT response.

**GENERATE** regulations that provide the authority to conduct risk assessments in BT events.

**GENERATE** plans to conduct risk assessments in public health emergencies.

**SPECIFY** safety measures to be taken by public health responders in a BT event, including use of personal protective equipment.

**DISSEMINATE** notifiable disease information, reporting requirements and procedures to healthcare providers on a periodic basis.

**ENSURE** that laboratories within the jurisdiction or agency have BT response plans:

**IDENTIFY** Level A laboratories serving the jurisdiction or agency.

**ENSURE** Level A laboratories can conduct "rule-out" testing, specimen packaging and handling, and referral of suspected biological threat agents to a higher level laboratory.

**MAINTAIN** contact and location information for Level B/C laboratories in the BT lab response network serving the jurisdiction.

**MAINTAIN** written plans for 24/7 availability of specific staff and specialists required during a BT event.

**IDENTIFY** specific resources needed for response to critical biologic agents. (Category A, B, C.)

**CORE COMPETENCY 4. Describe** his/her functional role(s) in emergency response and **demonstrate** his/her role(s) in regular drills.

**IDENTIFY** your functional role in the agency's BT response plan.

**CORE COMPETENCY 5. Demonstrate** correct use of all communication equipment used for emergency communication (phone, fax, radio, etc.).

**CORE COMPETENCY 6. Describe** communication role(s) in emergency response within the agency, using established communication systems:

**ESTABLISH** a public health communication infrastructure that receives and transmits data and information for decision support during a BT event.

**ESTABLISH** secure communication pathways for use in a BT event, including computer security policies and safeguards against data loss.

**ESTABLISH** redundant communication mechanisms for immediate and reliable voice and secure data communication during a public health emergency.

**TEST** protocols for BT-specific communication and agency interaction at regular intervals with BT response partner agencies.

**CORE COMPETENCY 6A. Describe** communication role(s) in emergency response with the media and with the general public.

**ENSURE** development and delivery of accurate event-specific, science-based risk communication messages to the public, to health care providers, to the media, and to the response community during a BT event.

**CORE COMPETENCY 6B. Describe** personal communication role(s) in emergency response with family or neighbors.

**ENSURE** that the agency (or agency unit) regularly practices all parts of emergency response.

**CONDUCT** workforce BT preparedness programs.

**EVALUATE** every emergency response drill to identify needed internal/external improvements.

**ENSURE** that knowledge/skill gaps identified through emergency response planning, drills and evaluation are filled.

**CORE COMPETENCY 7. Identify** limits to own knowledge, skill, and authority, and **identify** key system resources for referring matters that exceed these limits.

**CORE COMPETENCY 8. Recognize** unusual events that might indicate an emergency and **describe** appropriate action (e.g., communicate clearly within the chain of command.)

## II. Response and Mitigation

**IMPLEMENT** the public health emergency response plan.

**IMPLEMENT** your individual BT response functional role.

**CORE COMPETENCY 9. Apply** creative problem solving and flexible thinking to unusual challenges within his/her functional responsibilities and **evaluate** effectiveness of all actions taken.

**USE** the agency BT Incident Command management structure.

**ACTIVATE** emergency public health and infection control measures specific to the BT event.

**ACTIVATE** enhanced active surveillance protocols to track the scope of the exposure or outbreak.

**IDENTIFY** persons potentially exposed to a specific BT agent in need of public health and/or medical intervention.

**ACTIVATE** the laboratory BT response plan.

**ENSURE** functioning of a system for rapid rule-out testing, referral, identification, confirmation, and characterization of biological threat agents, including rapid reporting of results, during a BT event.

**PROVIDE** public health support as needed for victims and responders within the jurisdiction's response.

**ACTIVATE** a call-down roster using 24-hour contact information to reach BT response staff and consultants.

**COMMUNICATE** the need for assistance during a BT event to appropriate resources.

**USE** the agency's BT-specific public information plans, protocols and materials in a BT event.

**USE** established communication systems for coordination among the response community during a BT event.

**ACTIVATE** redundant communication mechanisms for immediate and reliable voice and secure data communication during a public health emergency including two-way emergency communications.

**USE** event-specific information and scientific principles of risk communication to inform the public, the media, health care providers and the response community during a BT event.

**DESIGNATE** a media spokesperson during a BT event.

**PERFORM** your individual communication responsibilities during a BT event.

## III. Recovery and Evaluation

**APPLY** appropriate science-based public health measures to ensure continued population protection appropriate to the biological threat involved.

**EVALUATE** every emergency response to identify needed internal/external improvements.

**ENSURE** that knowledge/skill gaps identified through emergency response evaluation are filled.

## **PUBLIC HEALTH COMMUNICABLE DISEASE STAFF**

**PUBLIC HEALTH COMMUNICABLE DISEASE STAFF:** Occupations in which employees collect, investigate, describe and analyze the distribution and determinants of disease, disability, and other health outcomes, and develop the means for their prevention and control; investigates, describes and analyzes the efficacy of programs and interventions, advising local health departments and the health care community on outbreak investigations, immunization data, disease identification, reporting, and prevention. Includes individuals specifically trained as epidemiologists, and those trained in other disciplines (e.g., medicine, nursing, environmental health, veterinary medicine) working as epidemiologists under job titles such as nurse epidemiologist.

### **I. Preparedness and Planning**

**CORE COMPETENCY 1. Describe** the public health role in emergency response in a range of emergencies that might arise. (e.g., "This department provides surveillance, investigation and public information in disease outbreaks and collaborates with other agencies in biological, environmental, and weather emergencies.")

**CORE COMPETENCY 2. Describe** the chain of command in emergency response.

**MAINTAIN** regular communication with emergency response partners. (Includes maintaining a current directory of partners and identifying appropriate methods for contact in emergencies.)

**CORE COMPETENCY 3. Identify and locate** the agency emergency response plan (or the pertinent portion of the plan).

**GENERATE** a public health bioterrorism (BT) response plan for epidemiology and surveillance that is integrated with the emergency response plan for the agency by applying the following competencies:

**DEFINE** modifications to the agency's internal command notification and coordination structure that are required for BT response.

**ESTABLISH** protocols for handling and distribution of the National Pharmaceutical Stockpile.

**MAINTAIN** written plans for 24/7 availability of specific staff and specialists required during a BT event.

**DESIGN** BT-specific protocols for enhanced surveillance, including activating additional personnel (e.g., infection control practitioners, public health nurses, epidemiologists, and data entry clerks from other institutions, jurisdictions and/or agencies.)

**GENERATE** plans to conduct risk assessments in public health emergencies.

**ESTABLISH** written policies and procedures for rapid specimen identification and electronic reporting of results.

**ESTABLISH** emergency communications roles and responsibilities for BT response.

**ESTABLISH** data collection protocols that systematically monitor community health indicators (e.g., aberrations in utilization trends or syndromic surveillance.)

**ENSURE** a system is established and functioning that provides rapid rule-out testing, referral, identification, confirmation, and characterization of biological threat agents including rapid reporting of results, during a BT event.

**CONDUCT** workforce BT preparedness programs in epidemiology and surveillance.

**IDENTIFY** specific resources needed for BT response to crucial biologic agents (Category A, B, C.)

**USE** risk assessment of potential biological, chemical, or radiological hazards in the community to determine roles and responsibilities of those involved in public health BT response.

**CORE COMPETENCY 4.** Describe his/her functional role(s) in emergency response and demonstrate his/her role(s) in regular drills.

**IDENTIFY** your functional role in the agency's BT response plan.

**DEMONSTRATE** readiness to apply professional skills to a range of emergency situations during regular drills. (e.g., Access, use and interpret surveillance data; access and use lab resources; access and use science-based investigation and risk assessment protocols; identify and use appropriate personal protective equipment.)

**CORE COMPETENCY 5.** Demonstrate correct use of all communication equipment used for emergency communication. (phone, fax, radio, etc.)

**CORE COMPETENCY 6.** Describe communication role(s) in emergency response:

- within the agency, using established communication systems
- with the media
- with the general public
- personal (with family, neighbors)

**DISSEMINATE** notifiable disease information and reporting requirements and procedures to healthcare providers on a periodic basis.

**CORE COMPETENCY 7.** Identify limits to own knowledge, skill, and authority, and identify key system resources for referring matters that exceed these limits.

**CORE COMPETENCY 8.** Recognize unusual events that might indicate an emergency and describe appropriate action. (e.g., communicate clearly within the chain of command.)

**PARTICIPATE** in continuing education to maintain up-to-date knowledge in areas relevant to emergency response. (e.g., emerging infectious diseases, hazardous materials, diagnostic tests, etc.)

## II. Response and Mitigation

**IMPLEMENT** your individual BT response functional role.

**CORE COMPETENCY 9.** Apply creative problem solving and flexible thinking to unusual challenges within his/her functional responsibilities and evaluate effectiveness of all actions taken.

**APPLY** algorithms that trigger further epidemiological investigation.

**IDENTIFY** the indicators, signs and symptoms for exposure to critical biologic agents (Category A, B, C) or to nuclear or chemical agents.

**ACTIVATE** enhanced active surveillance protocols to track the scope of the exposure or outbreak.

**REQUEST** implementation of the public health emergency response plan.

**COLLECT** timely patient-based and health care utilization data on critical biological agents (Category A, B, C.)

**IDENTIFY** persons potentially exposed to a specific BT agent in need of public health and/or medical intervention.

**DEMONSTRATE** proper safety and personal protection equipment procedures.

**USE** established communication systems for coordination among the response community during a BT event, including those for privileged information.

**CONTRIBUTE** to the development of accurate event-specific science-based risk communication to the public, the media, health care providers and response community in a BT event.

## III. Recovery and Evaluation

**DEFINE** algorithms that trigger further epidemiological investigation.

**APPLY** appropriate science-based public health measures to ensure continued population protection appropriate to the biological threat involved, including follow up of those exposed, vaccinated, or quarantined.

## **PUBLIC HEALTH CLINICAL STAFF**

**CLINICAL STAFF:** Public Health staff with clinical education such as nurse, dentist, physician, employed to give direct clinical care in a PH program or whose functional role in an emergency includes such duties.

### **I. Preparedness and Planning**

**CORE COMPETENCY 1. Describe** the public health role in emergency response in a range of emergencies that might arise. (e.g., “This department provides surveillance, investigation and public information in disease outbreaks and collaborates with other agencies in biological, environmental, and weather emergencies.”)

**MAINTAIN** regular communication with partner professionals in other agencies involved in emergency response. (Includes contributing to effective community-wide response through leadership, team building, negotiation and conflict resolution.)

**CORE COMPETENCY 2. Describe** the chain of command in emergency response.

**CORE COMPETENCY 3. Identify and locate** the agency emergency response plan (or the pertinent portion of the plan).

**ESTABLISH** protocols to address public health surge capacity.

**SPECIFY** safety measures to be taken by public health responders in a BT event, including use of personal protective equipment.

**CONDUCT** workforce BT preparedness programs.

**CORE COMPETENCY 4. Describe** his/her functional role(s) in emergency response and **demonstrate** his/her role(s) in regular drills.

**IDENTIFY** your functional role in the agency’s BT response plan. (including, as appropriate, protocols for administration of medication, equipment and supplies.)

**DEMONSTRATE** readiness to apply professional skills to a range of emergency situations during regular drills. (e.g., Access, use and interpret surveillance data; access and use lab resources; access and use science-based investigation and risk assessment protocols; identify and use appropriate personal protective equipment.)

**CORE COMPETENCY 5. Demonstrate** correct use of all communication equipment used for emergency communication. (phone, fax, radio, etc.)

**CORE COMPETENCY 6. Describe** communication role(s) in emergency response:

- within the agency, using established communication systems
- with the media
- with the general public
- personal (with family, neighbors)

**CORE COMPETENCY 7. Identify** limits to own knowledge, skill, and authority, and **identify** key system resources for referring matters that exceed these limits.

**CORE COMPETENCY 8. Recognize** unusual events that might indicate an emergency and **describe** appropriate action (e.g., communicate clearly within the chain of command.)

**PARTICIPATE** in continuing education to maintain up-to-date knowledge in areas relevant to emergency response (e.g., emerging infectious diseases, hazardous materials, diagnostic tests, etc.)

## II. Response and Mitigation

**IMPLEMENT** your individual BT response functional role.

**CORE COMPETENCY 9.** **Apply** creative problem solving and flexible thinking to unusual challenges within his/her functional responsibilities and **evaluate** effectiveness of all actions taken.

*As appropriate to the specific emergency situation:*

**IDENTIFY** persons potentially exposed to a specific BT agent in need of public health and/or medical intervention.

**IDENTIFY** the indicators, signs and symptoms for exposure to critical biological agent (Category A, B, C.)

**COLLECT** timely patient-based and health care utilization data on critical biological agent (Category A, B, C.)

**ESTABLISH** and/or **SUPERVISE** and/or **PERFORM** effective assessment, stabilization, diagnosis, and treatment or referral of victims of specific types of BT incidents involving a variety of agents, as appropriate to your functional role.

**ESTABLISH** a system of triage for victims of BT events using incident-specific triage guidelines. *and/or*

**SUPERVISE** the triage of victims of BT events using incident-specific triage guidelines. *and/or*

**TRIAGE** victims of BT events using incident-specific triage guideline.

**ISOLATE** and contain victims of a BT event as appropriate.

**PROVIDE** public health support as needed for victims and responders within the jurisdiction's response plan.

**USE** proper safety and personal protection procedures and equipment.

**APPLY** appropriate techniques for preserving possible evidence at an incident site or medical facility.

**USE** established communication systems for coordination among the response community during a BT event.

## III. Recovery and Evaluation

**RECOGNIZE** and **TREAT** the psychological impact of a BT event on victims and health care professionals, as appropriate to the event.

## **ENVIRONMENTAL HEALTH STAFF**

**ENVIRONMENTAL HEALTH STAFF:** Occupations in which employees apply biological, chemical, and public health principles to control, eliminate, ameliorate, and/or prevent environmental health hazards. Includes environmental researcher, environmental health specialist, food scientists, soil and plant scientist, air pollution specialist, hazardous materials specialist, toxicologist, water/waste water specialist, sanitarian, and entomologist.

### **I. Preparedness and Planning**

**CORE COMPETENCY 1. Describe** the public health role in emergency response in a range of emergencies that might arise. (e.g., "This department provides surveillance, investigation and public information in disease outbreaks and collaborates with other agencies in biological, environmental, and weather emergencies.")

**MAINTAIN** regular communication with partner professionals in other agencies involved in emergency response. (Includes contributing to effective community-wide response through leadership, team building, negotiation and conflict resolution.)

**CORE COMPETENCY 2. Describe** the chain of command in emergency response.

**CORE COMPETENCY 3. Identify and locate** the agency emergency response plan (or the pertinent portion of the plan).

**GENERATE** a public health bioterrorism (BT) response plan for environmental health staff that is integrated with the emergency response plan for the agency by applying the following competencies:

**DEVELOP** protocols for risk assessment of potential biological, chemical or radiological hazards in the community to determine roles and responsibilities of those involved in public health BT response.

**DELINEATE** protocols for patient decontamination and environmental remediation, including populations with special needs.

**MAINTAIN** written plans for 24/7 availability of specific staff and specialists required during a BT event.

**SPECIFY** safety measures to be taken by public health responders in a BT event, including use of personal protective equipment.

**CONDUCT** workforce BT preparedness programs in environmental health.

**IDENTIFY** specific resources needed for BT response to critical biologic agents (Category A, B, C.)

**CORE COMPETENCY 4. Describe** his/her functional role(s) in emergency response and **demonstrate** his/her role(s) in regular drills.

**IDENTIFY** your functional role in the agency's BT response plan.

**DEMONSTRATE** readiness to apply professional skills to a range of emergency situations during regular drills. (e.g., Access, use and interpret surveillance data; access and use lab resources; access and use science-based investigation and risk assessment protocols; identify and use appropriate personal protective equipment.)

**CORE COMPETENCY 5. Demonstrate** correct use of all communication equipment used for emergency communication (phone, fax, radio, etc.)

**CORE COMPETENCY 6. Describe** communication role(s) in emergency response:

- within the agency, using established communication systems
- with the media
- with the general public
- personal (with family, neighbors)

**CORE COMPETENCY 7. Identify** limits to own knowledge, skill, and authority, and **identify** key system resources for referring matters that exceed these limits .

**CORE COMPETENCY 8. Recognize** unusual events that might indicate an emergency and **describe** appropriate action (e.g., communicate clearly within the chain of command.)

**PARTICIPATE** in continuing education to maintain up-to-date knowledge in areas relevant to emergency response (e.g., emerging infectious diseases, hazardous materials, diagnostic tests, etc.)

## **II. Response and Mitigation**

**IMPLEMENT** your individual BT response functional role.

**CORE COMPETENCY 9. Apply** creative problem solving and flexible thinking to unusual challenges within his/her functional responsibilities and **evaluate** effectiveness of all actions taken.

**USE** the agency BT Incident Command management structure.

**USE** established communication systems for coordination among the response community during a BT event.

**CONTRIBUTE** to the development of accurate event-specific science-based risk communication to the public, media, health care providers and response community during a BT event.

## **III. Recovery and Evaluation**

**APPLY** appropriate science-based public health measures to ensure continued population protection appropriate to the biological threat involved.

## **PUBLIC HEALTH LABORATORY STAFF**

**LABORATORY PROFESSIONAL:** Occupations with responsibilities to plan, design and implement laboratory procedures to identify and quantify agents in the environment which may be hazardous to human health, biological agents believed to be involved in the etiology of diseases in animals or humans, such as bacteria, viruses and parasites, or other physical, chemical and biological hazards. May be involved in research and the development or production of anti-microbial agents. Includes microbiologist, chemist, toxicologist, physicist, virologist, entomologist and non-specified laboratory professionals. Laboratory staff with less than baccalaureate level education are not included.

### **I. Preparedness and Planning**

**CORE COMPETENCY 1. Describe** the public health role in emergency response in a range of emergencies that might arise. (e.g., “This department provides surveillance, investigation and public information in disease outbreaks and collaborates with other agencies in biological, environmental, and weather emergencies.”)

**CORE COMPETENCY 2. Describe** the chain of command in emergency response.

**MAINTAIN** regular communication with partner professionals in other agencies involved in emergency response. (Includes contributing to effective community-wide response through leadership, team building, negotiation and conflict resolution.)

**CORE COMPETENCY 3. Identify and locate** the agency emergency response plan (or the pertinent portion of the plan).

**GENERATE** a bioterrorism (BT) response plan for the public health lab that is integrated with the emergency response plan for the agency, by applying the following competencies:

**PREPARE** public health personnel responding to a BT event regarding procedures of crime scene preservation, proper handling, transportation and storage of criminal evidence.

**MAINTAIN** written plans for 24/7 availability of specific staff and specialists required during a BT event.

**SPECIFY** safety measures to be taken by public health responders in a BT event, including use of personal protective equipment.

**CONDUCT** workforce BT preparedness programs, including hospital and lab staff in the community.

**IDENTIFY** specific resources needed for BT response to crucial biologic agents (Category A, B, C.)

**ENSURE** that laboratories within the jurisdiction or agency have BT response plans.

**IDENTIFY** Level A, B and C laboratories serving the jurisdiction or agency.

**ENSURE** Level A laboratories can conduct “rule-out” testing, specimen packaging and handling, and referral of suspected biological threat agents to a higher level laboratory.

**ENSURE** that Level B and Level C laboratories have the capacity and proficiency to identify and confirm biological threat agents and can refer specimens to higher level laboratories for further characterization.

**MAINTAIN** contact and location information for Level B and Level C laboratories in the BT Laboratory Response Network serving the agency or jurisdiction.

**MAINTAIN** ongoing training to ensure specimen security, including transportation of specimens, limiting access to reference cultures, isolates, etc.

**ESTABLISH** written Laboratory Response Network approved protocols.

**MAINTAIN** agent identification protocols to be used in the laboratory.

**ESTABLISH** written policies and procedures for rapid identification and electronic reporting of results.

**DEFINE** laboratory communication plans and protocols for disseminating information to emergency response partners during a public health emergency.

**CORE COMPETENCY 4. Describe** his/her functional role(s) in emergency response and **demonstrate** his/her role(s) in regular drills.

**IDENTIFY** your functional role in the agency's BT response plan.

**DEMONSTRATE** readiness to apply professional skills to a range of emergency situations during regular drills. (e.g., Access, use and interpret surveillance data; access and use lab resources; access and use science-based investigation and risk assessment protocols; identify and use appropriate personal protective equipment.)

**CORE COMPETENCY 5. Demonstrate** correct use of all communication equipment used for emergency communication (phone, fax, radio, etc.)

**CORE COMPETENCY 6. Describe** communication role(s) in emergency response:

- within the agency, using established communication systems
- with the media
- with the general public
- personal (with family, neighbors)

**CORE COMPETENCY 7. Identify** limits to own knowledge, skill, and authority, and **identify** key system resources for referring matters that exceed these limits.

**CORE COMPETENCY 8. Recognize** unusual events that might indicate an emergency and **describe** appropriate action (e.g., communicate clearly within the chain of command.)

**PARTICIPATE** in continuing education to maintain up-to-date knowledge in areas relevant to emergency response (e.g., emerging infectious diseases, hazardous materials, diagnostic tests, etc.)

## II. Response and Mitigation

**IMPLEMENT** your individual BT response functional role.

**CORE COMPETENCY 9. Apply** creative problem solving and flexible thinking to unusual challenges within his/her functional responsibilities and **evaluate** effectiveness of all actions taken.

**ENSURE** functioning of a system for rapid rule-out testing, referral, identification, confirmation, and characterization of biological threat agents including rapid reporting of results during a BT event.

**IMPLEMENT** Laboratory Response Network approved protocols.

**FOLLOW** written policies and plans in performing rule-out testing and referral in a BT event.

**USE** established communication systems for coordination among the response community during a BT event.

# **MEDICAL EXAMINER/CORONER**

**MEDICAL EXAMINER OR CORONER:** The staff responsible for investigating sudden or violent deaths and for providing accurate, legally defensible determinations of the causes of these deaths.

## **I. Preparedness and Planning**

**CORE COMPETENCY 1. Describe** the public health role in emergency response in a range of emergencies that might arise. (e.g., "This department provides surveillance, investigation and public information in disease outbreaks and collaborates with other agencies in biological, environmental, and weather emergencies.")

**MAINTAIN** regular communication with partner professionals in other agencies, including law enforcement, involved in emergency response. (Includes contributing to effective community-wide response through leadership, team building, negotiation and conflict resolution.)

**CORE COMPETENCY 2. Describe** the chain of command in emergency response.

**CORE COMPETENCY 3. Identify and locate** the agency emergency response plan (or the pertinent portion of the plan).

**GENERATE** a public health bioterrorism (BT) response plan for the medical examiner's office that is integrated with the emergency response plan for the jurisdiction and includes a surge capacity plan.

**PREPARE** public health personnel responding to a BT event regarding procedures of crime scene preservation, proper handling, transportation and storage of criminal evidence.

**CORE COMPETENCY 4. Describe** his/her functional role(s) in emergency response and **demonstrate** his/her role(s) in regular drills.

**DEMONSTRATE** readiness to apply professional skills to a range of emergency situations during regular drills. (e.g., Access, use and interpret surveillance data; access and use lab resources; access and use science-based investigation and risk assessment protocols; identify and use appropriate personal protective equipment.)

**CORE COMPETENCY 5. Demonstrate** correct use of all communication equipment used for emergency communication (phone, fax, radio, etc.)

**CORE COMPETENCY 6. Describe** communication role(s) in emergency response:

- within the agency, using established communication systems
- with the media
- with the general public
- personal (with family, neighbors)

**CORE COMPETENCY 7. Identify** limits to own knowledge, skill, and authority, and **identify** key system resources for referring matters that exceed these limits.

**CORE COMPETENCY 8. Recognize** unusual events that might indicate an emergency and **describe** appropriate action (e.g., communicate clearly within the chain of command.)

**PARTICIPATE** in continuing education to maintain up-to-date knowledge in areas relevant to emergency response (e.g., emerging infectious diseases, hazardous materials, diagnostic tests, etc.)

## **II. Response and Mitigation**

**IDENTIFY** nuclear, biological or chemical agents from signs, clinical history, autopsy and other evidence.

**IMPLEMENT** your individual BT response functional role.

**CORE COMPETENCY 9. Apply** creative problem solving and flexible thinking to unusual challenges within his/her functional responsibilities and **evaluate** effectiveness of all actions taken.

**HANDLE** human remains appropriately, addressing safety, psycho-social, and forensic needs.

**USE** event-specific information and scientific principles of risk communication to develop and deliver information to the public, the media, health care providers and the response community during a BT event.

## **III. Recovery and Evaluation**

**ENSURE** ongoing support for the psychological impact of a BT or weapons of mass destruction event on the families of victims.

## **PUBLIC HEALTH INFORMATION STAFF**

**PUBLIC INFORMATION STAFF:** Occupations which represent public health issues to the media and public, acts as a spokesperson for public health agencies, engages in promoting public health organizations by writing or selecting publicity material and releasing it through various communications media, prepares and arranges displays, makes speeches, and performs related publicity efforts. In addition to the job titles associated with media spokesperson, this category also includes titles associated with other aspects of public relations, media and information technology.

### **I. Preparedness and Planning**

**CORE COMPETENCY 1. Describe** the public health role in emergency response in a range of emergencies that might arise. (e.g., "This department provides surveillance, investigation and public information in disease outbreaks and collaborates with other agencies in biological, environmental, and weather emergencies.")

**MAINTAIN** regular communication with partner professionals in other agencies involved in emergency response. (Includes contributing to effective community-wide response through leadership, team building, negotiation and conflict resolution.)

**CORE COMPETENCY 2. Describe** the chain of command in emergency response.

**CORE COMPETENCY 3. Identify and locate** the agency emergency response plan (or the pertinent portion of the plan).

**GENERATE** a bioterrorism (BT) response plan for the public health public information staff that is integrated with the emergency response plan for the agency by applying the following competencies:

**ESTABLISH** emergency communications roles and responsibilities for BT response.

**MAINTAIN** an up-to-date directory of materials and resources on bioterrorism.

**MAINTAIN** written plans for 24/7 availability of staff and specialists required during a BT event.

**CORE COMPETENCY 4. Describe** his/her functional role(s) in emergency response and **demonstrate** his/her role(s) in regular drills.

**IDENTIFY** your functional role in the agency's BT response plan.

**DEMONSTRATE** readiness to apply professional skills to a range of emergency situations during regular drills (e.g., Access, use and interpret data; access and use appropriate resources.)

**CORE COMPETENCY 5. Demonstrate** correct use of all communication equipment used for emergency communication (phone, fax, radio, etc.)

**CORE COMPETENCY 6. Describe** communication role(s) in emergency response:

- within the agency, using established communication systems
- with the media
- with the general public
- personal (with family, neighbors)

**CORE COMPETENCY 7. Identify** limits to own knowledge, skill, and authority, and **identify** key system resources for referring matters that exceed these limits.

**CORE COMPETENCY 8. Recognize** unusual events that might indicate an emergency and **describe** appropriate action (e.g., communicate clearly within the chain of command.)

**PARTICIPATE** in continuing education to maintain up-to-date knowledge in areas relevant to emergency response (e.g., emerging infectious diseases, hazardous materials, diagnostic tests, etc.)

## II. Response and Mitigation

**IMPLEMENT** your individual BT response functional role.

**CORE COMPETENCY 9.** **Apply** creative problem solving and flexible thinking to unusual challenges within his/her functional responsibilities and **evaluate** effectiveness of all actions taken.

**USE** the agency BT Incident Command management structure.

**COMMUNICATE** decontamination and triage information on a specific BT event to partners in the response, as directed by PH Official or PH Incident Commander.

**COMMUNICATE** the need for assistance during a BT event to appropriate resources as directed by PH Official or PH Incident Commander.

**DESIGNATE**, or serve as, a media spokesperson during a BT event, as directed by PH Official or PH Incident Commander.

**USE** established communication systems for coordination among the response community during a BT event, as directed by PH Official or PH Incident Commander.

**COORDINATE** the development and delivery of event-specific information based on scientific principles of risk communication to inform the public, the media, health care providers and members of the response community during a BT event.

**INITIATE** appropriate and coordinated communication with the public, the media, and health care providers and the response community during an incident.

## III. Recovery and Evaluation

**MAINTAIN** the delivery of appropriate and accurate information to the public, the media, health care providers and the response community as required by the specific event.

## **OTHER PUBLIC HEALTH PROFESSIONAL STAFF**

**OTHER PUBLIC HEALTH PROFESSIONAL STAFF:** Professional occupations not described above, such as health educators, legal professionals, financial officers, and others.

### **I. Preparedness and Planning**

**CORE COMPETENCY 1. Describe** the public health role in emergency response in a range of emergencies that might arise. (e.g., "This department provides surveillance, investigation and public information in disease outbreaks and collaborates with other agencies in biological, environmental, and weather emergencies.")

**MAINTAIN** regular communication with partner professionals in other agencies involved in emergency response. (Includes contributing to effective community-wide response through leadership, team building, negotiation and conflict resolution.)

**CORE COMPETENCY 2. Describe** the chain of command in emergency response.

**CORE COMPETENCY 3. Identify and locate** the agency emergency response plan (or the pertinent portion of the plan).

**CORE COMPETENCY 4. Describe** his/her functional role(s) in emergency response and **demonstrate** his/her role(s) in regular drills.

**IDENTIFY** your functional role in the agency's BT response plan.

**DEMONSTRATE** readiness to apply professional skills to a range of emergency situations during regular drills. (e.g., Access, use and interpret data; access and use appropriate resources.)

**CORE COMPETENCY 5. Demonstrate** correct use of all communication equipment used for emergency communication. (phone, fax, radio, etc.)

**CORE COMPETENCY 6. Describe** communication role(s) in emergency response:

- within the agency, using established communication systems
- with the media
- with the general public
- personal (with family, neighbors)

**CORE COMPETENCY 7. Identify** limits to own knowledge, skill, and authority, and **identify** key system resources for referring matters that exceed these limits.

**CORE COMPETENCY 8. Recognize** unusual events that might indicate an emergency and **describe** appropriate action (e.g., communicate clearly within the chain of command.)

**PARTICIPATE** in continuing education to maintain up-to-date knowledge in areas relevant to emergency response (e.g., emerging infectious diseases, hazardous materials, diagnostic tests, etc.)

### **II. Response and Mitigation**

**IMPLEMENT** your individual BT response functional role.

**CORE COMPETENCY 9. Apply** creative problem solving and flexible thinking to unusual challenges within his/her functional responsibilities and **evaluate** effectiveness of all actions taken.

## **PUBLIC HEALTH TECHNICAL AND SUPPORT STAFF**

**TECHNICAL AND SUPPORT STAFF:** Technical occupations involve non-routine work and typically are associated with a professional field such as in the laboratory or clinical area, and involve extensive on-the-job experience. Support occupations involve structured work performed according to established policies, including laboratory support, clerical staff and computer entry staff.

### **I. Preparedness and Planning**

**CORE COMPETENCY 1. Describe** the public health role in emergency response in a range of emergencies that might arise. (e.g., "This department provides surveillance, investigation and public information in disease outbreaks and collaborates with other agencies in biological, environmental, and weather emergencies.")

**CORE COMPETENCY 2. Describe** the chain of command in emergency response.

**CORE COMPETENCY 3. Identify and locate** the agency emergency response plan (or the pertinent portion of plan).

**CORE COMPETENCY 4. Describe** his/her functional role(s) in emergency response and **demonstrate** his/her role(s) in regular drills.

**IDENTIFY** your individual functional role in the agency's BT response plan.

**DEMONSTRATE** the use of equipment (including personal protective equipment) and skills associated with his/her functional role in emergency response during regular drills.

**DESCRIBE** at least one resource for backup/support in key areas of responsibility.

**CORE COMPETENCY 5. Demonstrate** correct use of all communication equipment used for emergency communication (phone, fax, radio, etc.)

**CORE COMPETENCY 6. Describe** communication role(s) in emergency response:

- within the agency, using established communication systems
- with the media
- with the general public
- personal (with family, neighbors)

**CORE COMPETENCY 7. Identify** limits to own knowledge, skill, and authority, and **identify** key system resources for referring matters that exceed these limits.

**CORE COMPETENCY 8. Recognize** unusual events that might indicate an emergency and **describe** appropriate action (e.g., communicate clearly within the chain of command.)

### **II. Response and Mitigation**

**IMPLEMENT** your individual BT response functional role.

**CORE COMPETENCY 9. Apply** creative problem solving and flexible thinking to unusual challenges within his/her functional responsibilities and **evaluate** effectiveness of all actions taken.

## **DEFINITIONS OF PUBLIC HEALTH STAFF CATEGORIES**

1. **Public Health Officials:** Occupations in which employees set broad policies, exercise overall responsibility for execution of these policies, of direct individual departments or special phases of the agency's operations, or provide specialized consultation on a regional, district or area basis. Includes department heads, bureau chiefs, division chiefs, directors, and deputy directors.
2. **Clinical Staff:** Public Health staff with clinical education such as nurse, dentist, physician, employed to give direct clinical care in a PH program or whose functional role in an emergency includes such duties.
3. **Public Health Communicable Disease Staff:** Occupations in which employees collect, investigate, describe and analyze the distribution and determinants of disease, disability, and other health outcomes, and develop the means for their prevention and control; investigates, describes and analyzes the efficacy of programs and interventions, advising local health departments and the health care community on outbreak investigations, immunization data, disease identification, reporting, and prevention. Includes individuals specifically trained as epidemiologists, and those trained in other disciplines (e.g., medicine, nursing, environmental health) working as epidemiologists under job titles such as nurse epidemiologist.
4. **Environmental Health Staff:** Occupations in which employees apply biological, chemical, and public health principles to control, eliminate, ameliorate, and/or prevent environmental health hazards. Includes environmental researcher, environmental health specialist, food scientists, soil and plant scientist, air pollution specialist, hazardous materials specialist, toxicologist, water/waste water specialist, sanitarian, and entomologist.
5. **Laboratory Professional:** Occupations with responsibilities to plan, design and implement laboratory procedures to identify and quantify agents in the environment which may be hazardous to human health, biological agents believed to be involved in the etiology of diseases in animals or humans, such as bacteria, viruses and parasites, or other physical, chemical and biological hazards. May be involved in research and the development or production of anti-microbial agents. Includes microbiologist, chemist, toxicologist, physicist, virologist, entomologist and non-specified laboratory professionals. Laboratory staff with less than baccalaureate level education are not included.
6. **Medical Examiner:** The staff responsible for investigating sudden or violent deaths and for providing accurate, legally defensible determinations of the causes of these deaths.
7. **Public Information Staff:** Occupations which represent public health issues to the media and public, acts as a spokesperson for public health agencies, engages in promoting public health organizations by writing or selecting publicity material and releasing it through various communications media, prepares and arranges displays, makes speeches, and performs related publicity efforts. In addition to the job titles associated with media spokesperson, this category also includes titles associated with other aspects of public relations, media and information technology.
8. **Other Public Health Professional Staff:** Professional occupations not described above such as, health educators, legal professionals, financial officers, and others.
9. **Technical and Support Staff:** Technical occupations involve non-routine work and typically are associated with a professional field such as in the laboratory or clinical area, and involve extensive on-the-job experience. Support occupations involve structured work performed according to established policies, including laboratory support, clerical staff and computer entry staff.

## **US OFFICE OF PERSONNEL MANAGEMENT DEFINITIONS**

1. **Leader/Administrative occupations** involve the exercise of analytical ability, judgment, discretion, personal responsibility, and the application of a substantial body of knowledge of principles, concepts, and practices applicable to one or more fields of administration or management.  
NB: Public health leaders/administrators may also be public health professionals serving in a leadership/administrative capacity.
2. **Professional occupations** require knowledge in a field of science or learning characteristically acquired through education or training equivalent to a bachelors degree or higher with majority study in or pertinent to the specialized field. The work of a professional occupation requires the exercise of discretion, judgment, and personal responsibility for the application of an organized body of knowledge that is constantly studied to make new discoveries and interpretations, and to improve data, materials, and methods.
3. **Technical occupations** involve non-routine work and are typically associated with, and supportive of, a professional or administrative field. Such occupations involve extensive practical knowledge gained through on-the-job experience or training less than that represented by college graduation and involve substantial elements of the work of the professional or administrative field, but requires less than full competence in the field involved.
4. **Clerical/Support occupations** involve structured work in support of office, business, or fiscal operations; duties performed according to established policies or techniques and require training, experience, or working knowledge related to the tasks to be performed.

The Columbia University School of Nursing Center for Health Policy

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The text of *Bioterrorism and Emergency Readiness* may be downloaded from website.

## **Bioterrorism and Emergency Readiness Competencies**

	page
Public Health Leaders	6
Public Health Communicable Disease Staff	9
Public Health Clinical Staff	11
Environmental Health Staff	13
Public Health Laboratory Staff	15
Medical Examiner/Coroner	17
Public Health Information Staff	18
Other Public Health Professional Staff	20
Public Health Technical and Support Staff	21



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