Public Health Preparedness Capabilities:

National Standards for State and Local Planning

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Centers for Disease Control and Prevention
Office of Public Health Preparedness and Response

Table of Contents

Public Health Preparedness Capabilities:

National Standards for State and Local Planning

Page

Executive Summary 2

Using this Document for Strategic Planning 6

At-A-Glance: Capability Definitions, Functions, and Associated Performance Measures 10

Capabilities *(in alphabetical order)*

1. Community Preparedness 16
2. Community Recovery 22
3. Emergency Operations Coordination 27
4. Emergency Public Information and Warning 36
5. Fatality Management 45
6. Information Sharing 55
7. Mass Care 62
8. Medical Countermeasure Dispensing 71
9. Medical Materiel Management and Distribution 81
10. Medical Surge 92
11. Non-Pharmaceutical Interventions 102
12. Public Health Laboratory Testing 109
13. Public Health Surveillance and Epidemiological Investigation 119
14. Responder Safety and Health 127
15. Volunteer Management 133

Endnotes 140

EXECUTIVE SUMMARY

Public health threats are always present. Whether caused by natural, accidental, or intentional means, these threats can lead to the onset of public health incidents. Being prepared to prevent, respond to, and rapidly recover from public health threats is critical for protecting and securing our nation's public health.

The 2009 H1N1 influenza pandemic underscored the importance of communities being prepared for potential threats. Because of its unique abilities to respond to infectious, occupational, or environmental incidents, the Centers for Disease Control and Prevention (CDC) plays a pivotal role in ensuring that state and local public health systems are prepared for these and other public health incidents. CDC provides funding and technical assistance for state, local, and territorial public health departments through the Public Health Emergency Preparedness (PHEP) cooperative agreement. PHEP cooperative agreement funding provides approximately $700 million annually to 50 states, four localities, and eight U.S. territories and freely associated states for building and strengthening their abilities to respond to public health incidents.

Evolving Threats and Strengthening the Public Health System

Public health departments have made progress since 2001, as demonstrated in CDC's state preparedness reports (http://www.cdc.gov/phpr/reportingonreadiness.htm). However, state and local public health departments continue to face multiple challenges, including an ever-evolving list of public health threats. Regardless of the threat, an effective public health response begins with an effective public health system with robust systems in place to conduct routine public health activities. In other words, strong state and local public health systems are the cornerstone of an effective public health response.

Today, public health systems and their respective preparedness programs face many challenges. Federal funds for preparedness have been declining, causing state and local planners to express concerns over their ability to sustain the real and measurable advances made in public health preparedness since September 11, 2001, when Congress appropriated funding to CDC to expand its support nationwide of state and local public health preparedness. State and local planners likely will need to make difficult choices about how to prioritize and ensure that federal dollars are directed to priority areas within their jurisdictions.

Defining National Standards for State and Local Planning

In response to these challenges and in preparation for a new five-year PHEP cooperative agreement that takes effect in August 2011, CDC implemented a systematic process for defining a set of public health preparedness capabilities to assist state and local health departments with their strategic planning. The resulting body of work, *Public Health Preparedness Capabilities: National Standards for State and Local Planning*, hereafter referred to as public health preparedness capabilities, creates national standards for public health preparedness capability-based planning and will assist state and local planners in identifying gaps in preparedness, determining the specific jurisdictional priorities, and developing plans for building and sustaining capabilities. These standards are designed to accelerate state and local preparedness planning, provide guidance and recommendations for preparedness planning, and, ultimately, assure safer, more resilient, and better prepared communities.

Public health preparedness capabilities. CDC identified the following 15 public health preparedness capabilities (shown in their corresponding domains) as the basis for state and local public health preparedness:

Biosurveillance
- Public Health Laboratory Testing
- Public Health Surveillance and Epidemiological Investigation

Community Resilience
- Community Preparedness
- Community Recovery

Countermeasures and Mitigation
- Medical Countermeasure Dispensing
- Medical Materiel Management and Distribution
- Non-Pharmaceutical Interventions
- Responder Safety and Health

Incident Management
- Emergency Operations Coordination

Information Management
- Emergency Public Information and Warning
- Information Sharing

Surge Management
- Fatality Management
- Mass Care
- Medical Surge
- Volunteer Management

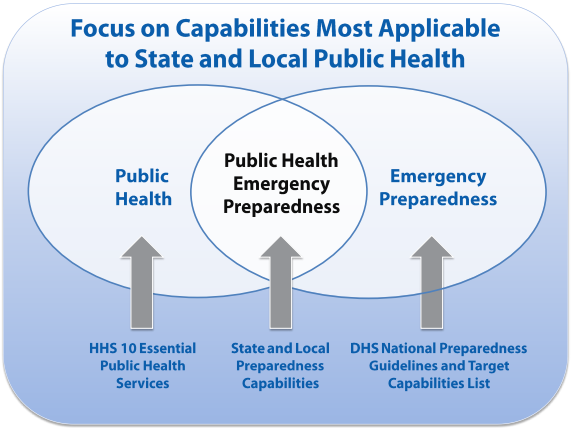
These domains highlight significant dependencies between certain capabilities. A jurisdiction should choose the order of the capabilities it decides to pursue based upon their jurisdictional risk assessment *(see Capability 1: Community Preparedness for additional or supporting detail on the requirements for this risk assessment)* but are strongly advised to ensure that they first are able to demonstrate capabilities within the following domains:

- Biosurveillance
- Community resilience
- Countermeasures and mitigation
- Incident management
- Information sharing

To identify the public health aspects for each capability, CDC used the names and definitions from the U.S. Department of Homeland Security (DHS) Target Capabilities List, content from the Pandemic and All-Hazards Preparedness Act (PAHPA), and capabilities from the National Health Security Strategy (NHSS) as a baseline. As part of this process, the biosurveillance aspects of animal disease and emergency support, food and agriculture safety and defense, and environmental health were incorporated into the public health surveillance and epidemiological investigation capability. In addition, the detection of chemical, biological, radiological, nuclear, and explosive agents were incorporated into the laboratory testing capability. Important cross-cutting preparedness topics such as legal preparedness, vulnerable or at-risk populations, and radiological/nuclear preparedness are addressed in several of the 15 capabilities.

Aligning across national programs. The Pandemic and All-Hazards Preparedness Act (PAHPA) specifies the need to maintain consistency with certain other national programs, specifically the NHSS preparedness goals. PAHPA also directs that the NHSS be consistent with the DHS National Preparedness Guidelines, a major component of which is the Target Capabilities List. The National Preparedness Guidelines represent a standard for preparedness based on establishing national priorities through a capabilities-based planning process.

In addition to aligning with the National Preparedness Guidelines, CDC determined that the public health preparedness capabilities should be aligned with the 10 Essential Public Health Services model developed by the U.S. Department of Health and Human Services (HHS). CDC conducted a mapping process which determined that several of the public health preparedness capabilities aligned with multiple essential public health services. Thus, the state and local preparedness capabilities align with both the DHS target capabilities and the HHS 10 Essential Public Health Services, with a focus on public health capabilities critical to preparedness (see figure at right). The public health preparedness capabilities defined by CDC also directly align with 21 of the NHSS capabilities.



Everyday use. The public health preparedness capabilities now represent a national public health standard for state and local preparedness that better prepares state and local health departments for responding to public health emergencies and incidents and supports the accomplishment of the10 Essential Public Health Services. Each of the public health preparedness capabilities identifies priority resource elements that are relevant to both routine public health activities and essential public health services. While demonstrations of capabilities can be achieved through different means (e.g., exercises, planned events, and real incidents), jurisdictions are encouraged to use routine public health activities to demonstrate and evaluate their public health preparedness capabilities.

A systematic approach. The content of each public health preparedness capability is based on evidence-informed documents, applicable preparedness literature, and subject matter expertise gathered from across the federal government and the state and local practice community.

In developing this document, CDC reviewed key legislative and executive directives to identify state and local public health preparedness priorities. These include the following:

- Pandemic and All-Hazards Preparedness Act (PAHPA), which authorizes state and local preparedness funding
- U.S. Department of Homeland Security (DHS) Homeland Security Presidential Directives 5, 8, and 21
- National Health Security Strategy (NHSS)

CDC also reviewed relevant preparedness documents from national partners such as the Association of State and Territorial Health Officials (ASTHO) and the National Association of County and City Health Officials (NACCHO), and third-party organizations including Trust for America's Health and RAND Corporation.

The methodology for selecting the capabilities was peer reviewed by the Board of Scientific Counselors for CDC's Office of Public Health Preparedness and Response. The Board deemed that the methodological approach and the capabilities as presented were within the scope of state and local preparedness.

Engaging stakeholders. Numerous stakeholders were involved in developing the 15 public health preparedness capabilities. Stakeholders included approximately 200 subject matter experts from CDC and other federal agencies and professional organizations. Federal agencies actively involved in the process included the HHS Office of the Assistant Secretary for Preparedness and Response, DHS Federal Emergency Management Agency and Office of Health Affairs, and the U.S. Department of Transportation's National Highway Traffic Safety Administration. CDC also worked with national associations including the American Hospital Association, the Association of Public Health Laboratories, the Council of State and Territorial Epidemiologists, the National Emergency Management Association, and the National Public Health Information Coalition. In addition, CDC collaborated with national partners such as the ASTHO and NACCHO to engage the state and local practice community.

This collaborative process began in January 2010 when CDC representatives and other subject matter experts began working together to develop the public health preparedness capabilities. Over the next year, CDC held weekly subject matter expert capability working groups to develop recommendations for the scope of the selected capabilities, capability functions, and resource elements for each capability. Their work was extensively vetted with many key stakeholders throughout the process.

Moving Forward

State and local public health departments are first responders for public health incidents, and CDC remains committed to strengthening their preparedness. CDC's *Public Health Preparedness Capabilities: National Standards for State and Local Planning* will assist public health departments in developing annual and long-term preparedness plans to guide their preparedness strategies and investments. These standards will be refined over time as emerging evidence becomes available to advance our preparedness knowledge.

About this Document: How the Public Health Preparedness Capabilities Are Organized

The public health preparedness capabilities are numbered and presented alphabetically in this document.

1. Community Preparedness
2. Community Recovery
3. Emergency Operations Coordination
4. Emergency Public Information and Warning
5. Fatality Management
6. Information Sharing
7. Mass Care
8. Medical Countermeasure Dispensing
9. Medical Materiel Management and Distribution
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14. Responder Safety and Health
15. Volunteer Management

A Guide for Strategic Planning

The 15 capability sections in this document are intended to serve as national standards that state and local public health departments can use to advance their preparedness planning.

Each capability includes a definition of the capability and list of the associated functions, performance measures, tasks, and resource considerations.

- The **Capability Definition** defines the capability as it applies to state, local, tribal, and territorial public health.
- The **Function** describes the critical elements that need to occur to achieve the capability.
- The **Performance Measure(s)** lists the CDC-defined performance measures (if any) associated with a function.
- The **Tasks** describes the steps that need to occur to complete the functions.
- The **Resource Elements** section lists the resources a jurisdiction needs to have or have access to (via an arrangement with a partner organization, memoranda of understanding, etc.) to successfully perform a function and the associated tasks. CDC categorizes the Resources into three categories: 1. Planning, 2. Skills and Training, and 3. Equipment and Technology. CDC further defines some Resources Elements as "Priority." Priority elements are considered to be the most critical of the Resource Elements and as "minimum standards" for state and local preparedness. The remaining Resource Elements are recommended or suggested activities for consideration by jurisdictions.

  Resource Elements:

  Planning: Elements that should be included in existing operational plans, standard operating procedures and/or emergency operations plans. This may include language on suggested legal authorities and at-risk populations.
  Skills and Training: The baseline competencies and skills necessary for personnel and teams to possess to competently deliver a capability.
  Equipment and Technology: The equipment that a jurisdiction should have in their possession (or have access to), and the equipment should be in sufficient quantities to adequately achieve the capability within the jurisdiction.

Note: As a first step, jurisdictions are encouraged to self-assess their ability to address the prioritized planning resource elements of each capability followed by an assessment of their ability to demonstrate the functions and tasks within each capability. CDC has defined successful accomplishment of prioritized resource elements as the following: a public health agency has either the ability to have (within their own existing plans or other written documents) or has access to (partner agency has the jurisdictional responsibility for this element in their plans and evidence exists that there is a formal agreement between the public health agency and this partner regarding roles and responsibilities for this item) the resource element.

Jurisdictions are not required to submit plans to CDC but should have plans available for review upon request.

USING THIS DOCUMENT FOR STRATEGIC PLANNING

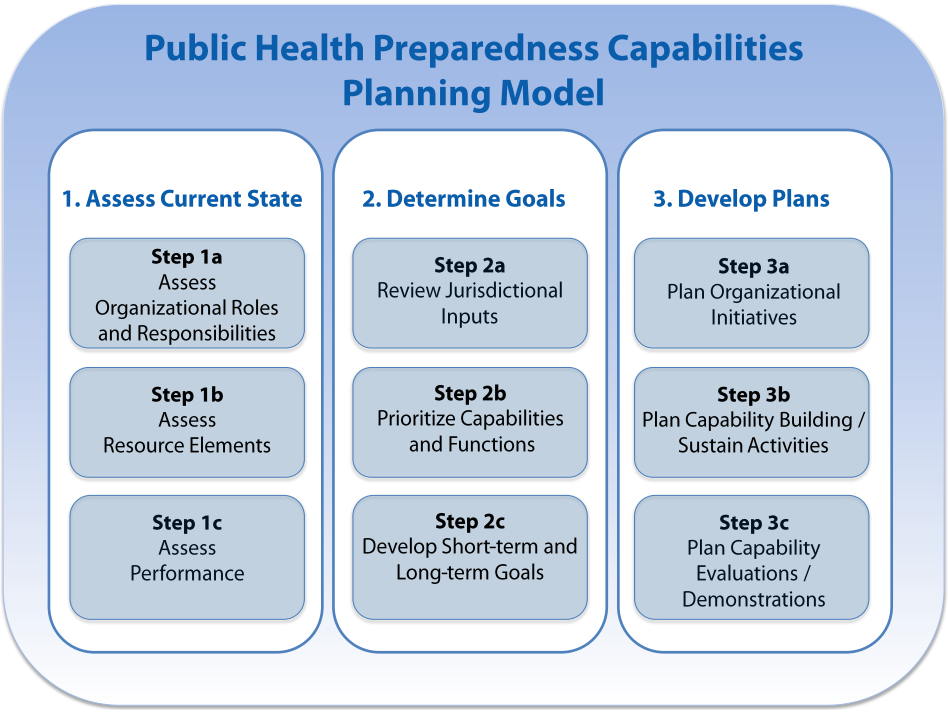
CDC's National Standards for State and Local Planning provides a description of the capabilities needed for achieving state and local public health preparedness. The content is intended to serve as a planning resource that state and local public health preparedness staff can use to assess their jurisdictional preparedness.

CDC is making these national standards for public health preparedness available to the nation's public health system to support their planning efforts. Jurisdictions also are encouraged to use other tools and local-level input in their planning processes, such as existing jurisdictional strategic plans, data from current hazard and vulnerability assessments, and results from After Action Reports/Improvement Plans.

Public Health Preparedness Capabilities Planning Model

To assist jurisdictions in using the capabilities for planning, CDC has developed a Public Health Preparedness Capabilities Planning Model. The model describes a high-level planning process that state and local public health departments may wish to follow to help determine their preparedness priorities and plan their preparedness activities. This planning model fits into the planning phase of the U.S. Department of Homeland Security Preparedness Cycle.

The Public Health Preparedness Capabilities Planning Model is not intended to be a prescriptive methodology, but rather it is intended to describe a series of suggested activities for preparedness planning. The diagram below depicts the model's three main phases and associated steps.



The following are descriptions for the suggested steps to complete each of the three phases.

Phase 1: Assess Current State

Step 1a: Assess Organizational Roles and Responsibilities

The first step in the assessment phase is to determine which organizational entities within the jurisdiction are responsible for each capability and function. These entities may include state agencies, partner organizations, local and tribal health departments, and others. For instance, in some jurisdictions the coroner/medical examiner traditionally takes a lead role in fatality management activities; public health should, therefore, seek this partner when identifying what role public health contributes to this capability.

Step 1b: Assess Resource Elements

Each function within the capabilities includes a list of priority and recommended resource elements, divided into three categories: Planning, Skills and Training, and Equipment and Technology. These are the resources that CDC and subject matter experts have determined are the most critical for being able to build and maintain the associated capabilities. To assess public health's current capability, it is necessary to review the resource elements (particularly the priority resource elements) to determine the extent that these elements exist in the jurisdiction. Not all public health agencies are expected to own each resource element; jurisdictions are encouraged to partner with both internal and external jurisdictional partners to assure access to resources as needed. Jurisdictions are encouraged to first self-assess their ability to address the prioritized resource elements of each capability followed by their ability to demonstrate the functions and tasks within each capability. Successfully addressing prioritized resource elements is defined as a public health agency either has the ability to demonstrate that they have (within their own existing plans or other written documents) or have access to (partner agency has the jurisdictional responsibility for this element in their plans and evidence exists that there is a formal agreement between the public health agency and this partner regarding roles and responsibilities for this item) the resource element.

For each resource element, if not fully present as described in the capability definitions, any challenges or barriers to the full attainment of that resource element should be noted.

In addition, CDC has crosswalked the resource element content with the Project Public Health Ready (PPHR) 2011 criteria and the Public Health Accreditation Board (PHAB) measures (July 2009 beta test version) – these appear in the Endnotes section where applicable. Jurisdictions which have or are pursuing PPHR or PHAB certification may be able to use this information to further facilitate their assessments.

The resource elements described for each function are not intended to be an exhaustive list of all possible types of resources required; nor do they give any indication of quantity of resources required (e.g., number of staff). Therefore, it is critical that in addition to assessing the defined resource elements, each jurisdiction notes the presence or absence of any other critical resources needed to meet its needs and any challenges or barriers.

Step 1c: Assess Performance

After completing the resource element assessment, the next suggested step is to assess the performance of each capability and function, and whether or not it meets the jurisdiction's needs. Performance demonstration and evaluation may be collected via activities to address CDC-defined performance measures or documented exercises or real incident activities.

Phase 2: Determine Goals

Step 2a: Review Jurisdictional Inputs

After assessing the jurisdiction's current level resource elements and performance, the next step is to identify needs and gaps. In addition to the resource element assessment from the previous phase, there are a number of additional inputs which can be used, including (but not limited to) the following:

- Existing data from jurisdictional hazards and vulnerability analyses
- Emergency management plans
- Funding considerations (e.g., guidance or funding requirements from related federal preparedness programs)
- Previous strategic plans or planning efforts
- Previous state and local accreditation efforts
- CDC's Strategic National Stockpile Technical Assistance Review results
- After Action Reports/Improvement Plans
- Previous performance measure results

See Capability 1: Community Preparedness priority resource element requirements for additional detail on this topic.

Step 2b: Prioritize Capabilities and Functions

The capability definitions are broad; no jurisdiction is expected to be able to address all issues, gaps, and needs across all capabilities in the immediate short term. Therefore, jurisdictions should choose the order of the capabilities they decide to pursue based upon their jurisdictional risk assessments *(see Capability 1: Community Preparedness for additional or supporting detail on the requirements for this risk assessment)*, but are strongly advised to ensure that they first are able to demonstrate capabilities within the following domains:

- Biosurveillance
- Community resilience
- Countermeasures and mitigation
- Incident management
- Information sharing

Other prioritization criteria may include the following:

- Missing/incomplete priority resource elements
- Performance/ability is substantially lower than needed
- Risks and threats to the public health, medical, and mental/behavioral health system
- Ability to close gaps and develop capability is greatest
- Evidence-based practice

Step 2c: Develop Short-term and Long-term Goals

This planning model defines short-term goals: one year, and long-term goals: two years to five years. Jurisdictions should review the various inputs described in step 2a, analyze their priorities based on the prioritization criteria described in step 2b, and determine a set of short-term (one year) and long-term (two years to five years) goals.

For the purposes of this model, all goals should refer to the capabilities, functions, and resource elements. For example, a short-term goal may be to fully build a particular function within a capability, including ensuring the presence of all priority resource elements. Long-term goals would be to build (individually or via partnerships), demonstrate performance, and, ultimately, sustain all capabilities and functions.

Phase 3: Develop Plans

Step 3a: Plan Organizational Initiatives

After determining the short-term and long-term goals, the next step is to engage in concrete initiatives and activity planning, particularly for the short-term goals. While in practice jurisdictions may group together related activities to address multiple functions or capabilities within the scope of one project or initiative, for the purposes of this planning model all activities are viewed as related to individual capabilities, functions, and resource elements.

Step 3b: Plan Capacity Building/Sustain Activities

For each capability and function, jurisdictions generally will be either building, sustaining, or, perhaps, scaling back the capability and/or function, depending on the needs, gaps, priorities, and goals that have been identified. For build and sustain scenarios, jurisdictions are encouraged to pursue partnerships and memoranda of understanding with other agencies, partners, and jurisdictions. For scale-back scenarios, jurisdictions should identify the challenges and barriers causing them to scale back their efforts.

States should consider what types of support are required by their local and tribal health departments and plan assistance or contracts accordingly. Support provided to local health departments should ideally describe which capabilities and functions are intended to be addressed.

Jurisdictions should also determine any technical assistance needs they might have, whether from CDC or other sources. Technical assistance may be needed to address challenges, barriers, or other needs.

For the purposes of this planning model, activities and technical assistance needs will, in general, relate to specific functions and resource elements (i.e., developing or modifying plans or processes, training staff, or building/buying equipment and technology).

Step 3c: Plan Capability Evaluations/Demonstrations

The final step in the planning process is to develop plans for demonstrating and evaluating the capabilities and functions, especially those that have been newly developed. Demonstrations of capabilities can be through many different means such as exercises, planned events, and real incidents. Jurisdictions are strongly encouraged to use routine public health activities to demonstrate and evaluate their capabilities. Documentation of the exercise, event, or incident, and the use of quality improvement-focused After Action Reports/Improvement Plans is a vital part of this process. For those capabilities and functions where CDC-defined performance measures have been developed, jurisdictions are encouraged to collect data for those measures.

Capability 1: Community Preparedness

Definition: Community preparedness is the ability of communities to prepare for, withstand, and recover — in both the short and long terms — from public health incidents. By engaging and coordinating with emergency management, healthcare organizations (private and community-based), mental/behavioral health providers, community and faith-based partners, state, local, and territorial, public health's role in community preparedness is to do the following:

- Support the development of public health, medical, and mental/behavioral health systems that support recovery
- Participate in awareness training with community and faith-based partners on how to prevent, respond to, and recover from public health incidents
- Promote awareness of and access to medical and mental/behavioral health resources that help protect the community's health and address the functional needs (i.e., communication, medical care, independence, supervision, transportation) of at-risk individuals
- Engage public and private organizations in preparedness activities that represent the functional needs of at-risk individuals as well as the cultural and socio-economic, demographic components of the community
- Identify those populations that may be at higher risk for adverse health outcomes
- Receive and/or integrate the health needs of populations who have been displaced due to incidents that have occurred in their own or distant communities (e.g., improvised nuclear device or hurricane)

Functions and Associated Performance Measures: This capability consists of the ability to perform the functions listed below. At present there are no CDC-defined performance measures for these functions.

Function 1: Determine risks to the health of the jurisdiction
Function 2: Build community partnerships to support health preparedness
Function 3: Engage with community organizations to foster public health, medical, and mental/behavioral health social networks
Function 4: Coordinate training or guidance to ensure community engagement in preparedness efforts

Capability 2: Community Recovery

Definition: Community recovery is the ability to collaborate with community partners, (e.g., healthcare organizations, business, education, and emergency management) to plan and advocate for the rebuilding of public health, medical, and mental/behavioral health systems to at least a level of functioning comparable to pre-incident levels, and improved levels where possible.

This capability supports National Health Security Strategy Objective 8: Incorporate Post-Incident Health Recovery into Planning and Response. Post-incident recovery of the public health, medical, and mental/behavioral health services and systems within a jurisdiction is critical for health security and requires collaboration and advocacy by the public health agency for the restoration of services, providers, facilities, and infrastructure within the public health, medical, and human services sectors. Monitoring the public health, medical and mental/behavioral health infrastructure is an essential public health service.

Functions and Associated Performance Measures: This capability consists of the ability to perform the functions listed below. At present there are no CDC-defined performance measures for these functions.

Function 1: Identify and monitor public health, medical, and mental/behavioral health system recovery needs
Function 2: Coordinate community public health, medical, and mental/behavioral health system recovery operations
Function 3: Implement corrective actions to mitigate damages from future incidents

Capability 3: Emergency Operations Coordination

Definition: Emergency operations coordination is the ability to direct and support an event or incident with public health or medical implications by establishing a standardized, scalable system of oversight, organization, and supervision consistent with jurisdictional standards and practices and with the National Incident Management System.

Functions and Associated Performance Measures: This capability consists of the ability to perform the functions listed below. Associated CDC-defined performance measures are also listed below.

Function 1: Conduct preliminary assessment to determine need for public activation
Function 2: Activate public health emergency operations
Measure 1: Time for pre-identified staff covering activated public health agency incident management lead roles (or equivalent lead roles) to report for immediate duty. Performance Target: 60 minutes or less

Function 3: Develop incident response strategy
Measure 1: Production of the approved Incident Action Plan before the start of the second operational period

Function 4: Manage and sustain the public health response
Function 5: Demobilize and evaluate public health emergency operations
Measure 1: Time to complete a draft of an After Action Report and Improvement Plan

Capability 4: Emergency Public Information and Warning

Definition: Emergency public information and warning is the ability to develop, coordinate, and disseminate information, alerts, warnings, and notifications to the public and incident management responders.

Functions and Associated Performance Measures: This capability consists of the ability to perform the functions listed below. Associated CDC-defined performance measures are also listed below.

Function 1: Activate the emergency public information system
Function 2: Determine the need for a joint public information system
Function 3: Establish and participate in information system operations
Function 4: Establish avenues for public interaction and information exchange
Function 5: Issue public information, alerts, warnings, and notifications
Measure 1: Time to issue a risk communication message for dissemination to the public

Capability 5: Fatality Management

Definition: Fatality management is the ability to coordinate with other organizations (e.g., law enforcement, healthcare, emergency management, and medical examiner/coroner) to ensure the proper recovery, handling, identification, transportation, tracking, storage, and disposal of human remains and personal effects; certify cause of death; and facilitate access to mental/behavioral health services to the family members, responders, and survivors of an incident.

Functions and Associated Performance Measures: This capability consists of the ability to perform the functions listed below. At present there are no CDC-defined performance measures for these functions.

Function 1: Determine role for public health in fatality management
Function 2: Activate public health fatality management operations
Function 3: Assist in the collection and dissemination of antemortem data
Function 4: Participate in survivor mental/behavioral health services
Function 5: Participate in fatality processing and storage operations

Capability 6: Information Sharing

Definition: Information sharing is the ability to conduct multijurisdictional, multidisciplinary exchange of health-related information and situational awareness data among federal, state, local, territorial, and tribal levels of government, and the private sector. This capability includes the routine sharing of information as well as issuing of public health alerts to federal, state, local, territorial, and tribal levels of government and the private sector in preparation for, and in response to, events or incidents of public health significance.

Functions and Associated Performance Measures: This capability consists of the ability to perform the functions listed below. At present there are no CDC-defined performance measures for these functions.

Function 1: Identify stakeholders to be incorporated into information flow
Function 2: Identify and develop rules and data elements for sharing
Function 3: Exchange information to determine a common operating picture

Capability 7: Mass Care

Definition: Mass care is the ability to coordinate with partner agencies to address the public health, medical, and mental/behavioral health needs of those impacted by an incident at a congregate location. This capability includes the coordination of ongoing surveillance and assessment to ensure that health needs continue to be met as the incident evolves.

Functions and Associated Performance Measures: This capability consists of the ability to perform the functions listed below. At present there are no CDC-defined performance measures for these functions.

Function 1: Determine public health role in mass care operations
Function 2: Determine mass care needs of the impacted population
Function 3: Coordinate public health, medical, and mental/behavioral health services
Function 4: Monitor mass care population health

Capability 8: Medical Countermeasure Dispensing

Definition: Medical countermeasure dispensing is the ability to provide medical countermeasures (including vaccines, antiviral drugs, antibiotics, antitoxin, etc.) in support of treatment or prophylaxis (oral or vaccination) to the identified population in accordance with public health guidelines and/or recommendations.

Functions and Associated Performance Measures: This capability consists of the ability to perform the functions listed below. Associated CDC-defined performance measures are also listed below.

Function 1: Identify and initiate medical countermeasure dispensing strategies
Function 2: Receive medical countermeasures
Function 3: Activate dispensing modalities
  Measure 1: Composite performance indicator from the Division of Strategic National Stockpile in CDC's Office of Public Health Preparedness and Response

Function 4: Dispense medical countermeasures to identified population
  Measure 1: Composite performance indicator from the Division of Strategic National Stockpile in CDC's Office of Public Health Preparedness and Response

Function 5: Report adverse events

Capability 9: Medical Materiel Management and Distribution

Definition: Medical materiel management and distribution is the ability to acquire, maintain (e.g., cold chain storage or other storage protocol), transport, distribute, and track medical materiel (e.g., pharmaceuticals, gloves, masks, and ventilators) during an incident and to recover and account for unused medical materiel, as necessary, after an incident.

Functions and Associated Performance Measures: This capability consists of the ability to perform the functions listed below. Associated CDC-defined performance measures are also listed below.

Function 1: Direct and activate medical materiel management and distribution
- Measure 1: Composite performance indicator from the Division of Strategic National Stockpile in CDC's Office of Public Health Preparedness and Response

Function 2: Acquire medical materiel
- Measure 1: Composite performance indicator from the Division of Strategic National Stockpile in CDC's Office of Public Health Preparedness and Response

Function 3: Maintain updated inventory management and reporting system
- Measure 1: Composite performance indicator from the Division of Strategic National Stockpile in CDC's Office of Public Health Preparedness and Response

Function 4: Establish and maintain security
- Measure 1: Composite performance indicator from the Division of Strategic National Stockpile in CDC's Office of Public Health Preparedness and Response

Function 5: Distribute medical materiel
- Measure 1: Composite performance indicator from the Division of Strategic National Stockpile in CDC's Office of Public Health Preparedness and Response

Function 6: Recover medical materiel and demobilize distribution operations
- Measure 1: Composite performance indicator from the Division of Strategic National Stockpile in CDC's Office of Public Health Preparedness and Response

Capability 10: Medical Surge

Definition: Medical surge is the ability to provide adequate medical evaluation and care during events that exceed the limits of the normal medical infrastructure of an affected community. It encompasses the ability of the healthcare system to survive a hazard impact and maintain or rapidly recover operations that were compromised.

Functions and Associated Performance Measures: This capability consists of the ability to perform the functions listed below. At present there are no CDC-defined performance measures for these functions.

Function 1: Assess the nature and scope of the incident
Function 2: Support activation of medical surge
Function 3: Support jurisdictional medical surge operations
Function 4: Support demobilization of medical surge operations

Capability 11: Non-Pharmaceutical Interventions

Definition: Non-pharmaceutical interventions are the ability to recommend to the applicable lead agency (if not public health) and implement, if applicable, strategies for disease, injury, and exposure control. Strategies include the following:

- Isolation and quarantine
- Restrictions on movement and travel advisory/warnings
- Social distancing
- External decontamination
- Hygiene
- Precautionary protective behaviors

Functions and Associated Performance Measures: This capability consists of the ability to perform the functions listed below. At present there are no CDC-defined performance measures for these functions.

Function 1: Engage partners and identify factors that impact non-pharmaceutical interventions
Function 2: Determine non-pharmaceutical interventions
Function 3: Implement non-pharmaceutical interventions
Function 4: Monitor non-pharmaceutical interventions

Capability 12: Public Health Laboratory Testing

Definition: Public health laboratory testing is the ability to conduct rapid and conventional detection, characterization, confirmatory testing, data reporting, investigative support, and laboratory networking to address actual or potential exposure to all-hazards. Hazards include chemical, radiological, and biological agents in multiple matrices that may include clinical samples, food, and environmental samples (e.g., water, air, and soil). This capability supports routine surveillance, including pre-event or pre-incident and post-exposure activities.

Functions and Associated Performance Measures: This capability consists of the ability to perform the functions listed below. Associated CDC-defined performance measures are also listed below.

Function 1: Manage laboratory activities
- Measure 1: Time for sentinel clinical laboratories to acknowledge receipt of an urgent message from the CDC Public Health Emergency Preparedness (PHEP)-funded Laboratory Response Network biological (LRN-B) laboratory
- Measure 2: Time for initial laboratorian to report for duty at the CDC PHEP-funded laboratory

Function 2: Perform sample management
- Measure 1: Percentage of Laboratory Response Network (LRN) clinical specimens without any adverse quality assurance events received at the CDC PHEP-funded LRN-B laboratory for confirmation or rule-out testing from sentinel clinical laboratories
- Measure 2: Percentage of LRN non-clinical samples without any adverse quality assurance events received at the CDC PHEP-funded LRN-B laboratory for confirmation or rule-out testing from first responders
- Measure 3: Ability of the CDC PHEP-funded Laboratory Response Network chemical (LRN-C) laboratories to collect relevant samples for clinical chemical analysis, package, and ship those samples

Function 3: Conduct testing and analysis for routine and surge capacity
- Measure 1: Proportion of LRN-C proficiency tests (core methods) successfully passed by CDC PHEP-funded laboratories
- Measure 2: Proportion of LRN-C proficiency tests (additional methods) successfully passed by CDC PHEP-funded laboratories
- Measure 3: Proportion of LRN-B proficiency tests successfully passed by CDC PHEP-funded laboratories

Function 4: Support public health investigations
- Measure 1: Time to complete notification between CDC, on-call laboratorian, and on-call epidemiologist
- Measure 2: Time to complete notification between CDC, on-call epidemiologist, and on-call laboratorian

Function 5: Report results
- Measure 1: Percentage of pulsed field gel electrophoresis (PFGE) subtyping data results for *E. coli* O157:H7 submitted to the PulseNet national database within four working days of receiving isolate at the PFGE laboratory
- Measure 2: Percentage of PFGE subtyping data results for *Listeria monocytogenes* submitted to the PulseNet national database within four working days of receiving isolate at the PFGE laboratory
- Measure 3: Time to submit PFGE subtyping data results for *Salmonella* to the PulseNet national database upon receipt of isolate at the PFGE laboratory
- Measure 4: Time for CDC PHEP-funded laboratory to notify public health partners of significant laboratory results

Capability 13: Public Health Surveillance and Epidemiological Investigation

Definition: Public health surveillance and epidemiological investigation is the ability to create, maintain, support, and strengthen routine surveillance and detection systems and epidemiological investigation processes, as well as to expand these systems and processes in response to incidents of public health significance.

Functions and Associated Performance Measures: This capability consists of the ability to perform the functions listed below. Associated CDC-defined performance measures are also listed below.

Function 1: Conduct public health surveillance and detection
- Measure 1: Proportion of reports of selected reportable diseases received by a public health agency within the jurisdiction-required time frame

Function 2: Conduct public health and epidemiological investigations
- Measure 1: Percentage of infectious disease outbreak investigations that generate reports
- Measure 2: Percentage of infectious disease outbreak investigation reports that contain all minimal elements
- Measure 3: Percentage of acute environmental exposure investigations that generate reports
- Measure 4: Percentage of acute environmental exposure reports that contain all minimal elements

Function 3: Recommend, monitor, and analyze mitigation actions
- Measure 1: Proportion of reports of selected reportable diseases for which initial public health control measure(s) were initiated within the appropriate time frame

Function 4: Improve public health surveillance and epidemiological investigation systems

Capability 14: Responder Safety and Health

Definition: The responder safety and health capability describes the ability to protect public health agency staff responding to an incident and the ability to support the health and safety needs of hospital and medical facility personnel, if requested.

Functions and Associated Performance Measures: This capability consists of the ability to perform the functions listed below. At present there are no CDC-defined performance measures for these functions.

Function 1: Identify responder safety and health risks
Function 2: Identify safety and personal protective needs
Function 3: Coordinate with partners to facilitate risk-specific safety and health training
Function 4: Monitor responder safety and health actions

Capability 15: Volunteer Management

Definition: Volunteer management is the ability to coordinate the identification, recruitment, registration, credential verification, training, and engagement of volunteers to support the jurisdictional public health agency's response to incidents of public health significance.

Functions and Associated Performance Measures: This capability consists of the ability to perform the functions listed below. At present there are no CDC-defined performance measures for these functions.

Function 1: Coordinate volunteers
Function 2: Notify volunteers
Function 3: Organize, assemble, and dispatch volunteers
Function 4: Demobilize volunteers

CAPABILITY 1: Community Preparedness

Community preparedness is the ability of communities to prepare for, withstand, and recover — in both the short and long terms — from public health incidents.[1] By engaging and coordinating with emergency management, healthcare organizations (private and community-based), mental/behavioral health providers, community and faith-based partners, state, local, and territorial, public health's role in community preparedness is to do the following:

- **Support the development of public health, medical, and mental/behavioral health systems that support recovery**
- **Participate in awareness training with community and faith-based partners on how to prevent, respond to, and recover from public health incidents**
- **Promote awareness of and access to medical and mental/behavioral health [2] resources that help protect the community's health and address the functional needs (i.e., communication, medical care, independence, supervision, transportation) of at-risk individuals**
- **Engage public and private organizations in preparedness activities that represent the functional needs of at-risk individuals as well as the cultural and socio-economic, demographic components of the community**
- **Identify those populations that may be at higher risk for adverse health outcomes**
- **Receive and/or integrate the health needs of populations who have been displaced due to incidents that have occurred in their own or distant communities (e.g., improvised nuclear device or hurricane)**

This capability consists of the ability to perform the following functions:

Function 1: Determine risks to the health of the jurisdiction
Function 2: Build community partnerships to support health preparedness
Function 3: Engage with community organizations to foster public health, medical, and mental/behavioral health social networks
Function 4: Coordinate training or guidance to ensure community engagement in preparedness efforts

Function 1: Determine risks to the health of the jurisdiction

Identify the potential hazards, vulnerabilities, and risks in the community that relate to the jurisdiction's public health, medical, and mental/behavioral health systems, the relationship of those risks to human impact,[3] interruption of public health, medical, and mental/behavioral health services, and the impact of those risks on the jurisdiction's public health, medical, and mental/behavioral health infrastructure.

Tasks

This function consists of the ability to perform the following tasks:

Task 1: Utilize jurisdictional risk assessment to identify, with emergency management and community and faith-based partners, the public health, medical, and mental/behavioral health services for which the jurisdiction needs to have access to mitigate identified disaster health risks.

Task 2: Utilize jurisdictional risk assessment to identify, with emergency management and community and faith-based partners, the public health, medical, and mental/behavioral health services within the jurisdiction that currently support the mitigation of identified disaster health risks.

Performance Measure(s)

At present there are no CDC-defined performance measures for this function.

Function 1: Determine risks to the health of the jurisdiction

Resource Elements

*Note: Jurisdictions must have or have access to the resource elements designated as **Priority**.*

PLANNING (P)

P1: ***(Priority)*** Written plans should include policies and procedures to identify populations with the following:

- Health vulnerabilities such as poor health status
- Limited access to neighborhood health resources (e.g., disabled, elderly, pregnant women and infants, individuals with other acute medical conditions, individuals with chronic diseases, underinsured persons, persons without health insurance)
- Reduced ability to hear, speak, understand, or remember
- Reduced ability to move or walk independently or respond quickly to directions during an emergency
- Populations with health vulnerabilities that may be caused or exacerbated by chemical, biological, or radiological exposure

These procedures and plans should include the identification of these groups through the following elements:

- Review/access to existing health department data sets
- Existing chronic disease programs/maternal child health programs, community profiles
- Utilizing the efforts of the jurisdiction strategic advisory council
- Community coalitions to assist in determining the community's risks[4, 5]

P2: ***(Priority)*** Written plans should include a jurisdictional risk assessment, utilizing an all-hazards approach with the input and assistance of the following elements:

- Public health and non–public health subject matter experts (e.g., emergency management, state radiation control programs/radiological subject matter experts (http://www.crcpd.org/Map/RCPmap.htm))
- Existing inputs from emergency management risk assessment data, health department programs, community engagements, and other applicable sources, that identify and prioritize jurisdictional hazards and health vulnerabilities

This jurisdictional risk assessment should identify the following elements:

- Potential hazards, vulnerabilities, and risks in the community related to the public health, medical, and mental/behavioral health systems
- The relationship of these risks to human impact, interruption of public health, medical, and mental/behavioral health services
- The impact of those risks on public health, medical, and mental/behavioral health infrastructure[6]

Jurisdictional risk assessment must include at a minimum the following elements:

- A definition of risk
- Use of Geospatial Informational System or other mechanism to map locations of at-risk populations
- Evidence of community involvement in determining areas for risk assessment or hazard mitigation
- Assessment of potential loss or disruption of essential services such as clean water, sanitation, or the interruption of healthcare services, public health agency infrastructure

Suggested resource

- Hazard Risk Assessment Instrument, University of California, Los Angeles, Center for Public Health and Disaster: http://www.cphd.ucla.edu/hrai.html

P3: Written plans, as a stand-alone plan, annex, or via other documentation, developed with input from jurisdictional partners[7, 8] should indicate how the health department will assist with the following elements:

- Assurance of community public health, medical, mental/behavioral health services in an incident, with particular attention to assure access to health services to populations and areas of low economic resources and displaced populations[9,10]
- Addressing the concerns and needs of populations not directly impacted by a particular incident but concerned about the possibility of adverse health effects

Function 1: Determine risks to the health of the jurisdiction

Resource Elements *(continued)*

PLANNING (P)

- Family reunification assistance and patient tracking for family members impacted by the incident
- Providing for the functional needs of at-risk individuals for adverse health outcomes with social services or other lead agencies (e.g., disabled persons, low-income populations needing medication assistance, medical transportation, or assistance in accessing sub-specialty medical technology and medical care)
- Child care
- Pet services and pet care
- Psychological first aid and other relevant mental/behavioral health services[11]

Suggested resources

- CDC Radiation Emergencies website: http://emergency.cdc.gov/radiation/
- Planning Guidance for Responding to a Nuclear Detonation, Second Edition, June 2010: http://hps.org/hsc/documents/Planning_Guidance_for_Response_to_a_Nuclear_Detonation-2nd_Edition_FINAL.pdf
- Listening Session on At-Risk Individuals in Pandemic Influenza and Other Scenarios: After Action Report, U.S. Health and Human Services, Assistant Secretary for Preparedness and Response Office for At-Risk Individuals, Behavioral Health, and Human Services Coordination: http://www.phe.gov/Preparedness/planning/abc/Documents/abc_listening_session.pdf
- Preparedness Tools and Resources for Disabled Populations: http://www.disability.gov/emergency_preparedness

P4: Written plans should include memoranda of understanding or other letters of agreement with community health centers, non-profit community agencies, hospitals, and private providers within the jurisdiction or with neighboring jurisdictions, if applicable, who are willing to or who can provide access to medical and mental/behavioral health services during and after an incident.[12,13]

SKILLS AND TRAINING (S)

S1: Have or have access to services of persons with expertise in Geospatial Informational Systems to assist in locating/mapping locations of at-risk populations. These Geospatial Informational System services may be found within other governmental agencies (e.g., emergency management) or within academic settings (e.g., schools of public health).

Function 2: Build community partnerships to support health preparedness

Identify and engage with public and private community partners who can do the following:

- Assist with the mitigation of identified health risks
- Be integrated into the jurisdiction's all-hazards emergency plans with defined community roles and responsibilities related to the provision of public health, medical, and mental/behavioral health as directed under the Emergency Support Function #8 definition at the state or local level

Tasks

This function consists of the ability to perform the following tasks:

Task 1: Identify community sector groups to be engaged for partnership based upon the jurisdictional risk assessment.

Function 2: Build community partnerships to support health preparedness

Tasks *(continued)*

Task 2: Create and implement strategies for ongoing engagement with community partners who may be able to provide services to mitigate identified public health threats or incidents (concept of "strategic advisory council" or joint collaborative).

Task 3: Utilize community and faith-based partnerships as well as collaborations with any agencies primarily responsible for providing direct health-related services to help assure the community's ability to deliver public health, medical, and mental/behavioral health services in both short and long term settings during and after an incident.

Task 4: Utilize a continuous quality improvement process to incorporate feedback from community and faith-based partners into jurisdictional emergency operations plans.

Task 5: Identify community leaders that can act as trusted spokespersons to deliver public health messages.

Performance Measure(s)

At present there are no CDC-defined performance measures for this function.

Resource Elements

*Note: Jurisdictions must have or have access to the resource elements designated as **Priority**.*

PLANNING (P)

P1: ***(Priority)*** Written plans should include a policy and process to participate in existing (e.g., led by emergency management) or new partnerships representing at least the following 11 community sectors:[14] business; community leadership; cultural and faith-based groups and organizations; emergency management; healthcare; social services; housing and sheltering; media; mental/behavioral health; state office of aging or its equivalent; education and childcare settings.[15,16]

P2: ***(Priority)*** Written plans should include a protocol to encourage or promote medical personnel (e.g., physicians, nurses, allied health professionals) from community and faith-based organizations and professional organizations to register and participate with community Medical Reserve Corps or state Emergency Systems for Advance Registration of Volunteer Health Professionals programs to support health services during and after an incident.[17,18,19] *(For additional or supporting detail, see Capability 15: Volunteer Management)*

P3: Written plans should include documentation of community and faith-based partners' roles and responsibilities for each phase of the health threat.

P4: Written plans should include a process to provide mechanisms (e.g., town hall meetings, websites) to discuss public health hazard policies and plans of action with community partners.[20]

P5: Written plans should include strategies to support the provision of community health services during multiple types of hazard scenarios (also known as robustness) in order to support the identified risks in the jurisdiction.[21]

P6: Written plans should include a process to provide guidance to community and faith-based partners to support development of these groups' emergency operations plans/response operations.

SKILLS AND TRAINING (S)

S1: Mid-level public health staff participating in community preparedness activities should be able to demonstrate the "Plan For and Improve Practice" domain within the core competencies in Public Health Preparedness and Response Core Competency Model.

Suggested resource

- Association of Schools of Public Health Preparedness Competencies:
  http://www.asph.org/userfiles/PreparednessCompetencyModelWorkforce-Version1.0.pdf
  For further information on competency content and locations offering this training, see:
  http://emergency.cdc.gov/cdcpreparedness/training/

Function 3: Engage with community organizations to foster public health, medical, and mental/behavioral health social networks

Engage with community organizations to foster social connections[22] that assure public health, medical and mental/behavioral health services in a community before, during, and after an incident.

Tasks

This function consists of the ability to perform the following tasks:

Task 1: Ensure that community constituency groups understand how to connect to public health to participate in public health and community partner preparedness efforts.

Task 2: Ensure that public health, medical, and mental/behavioral health service agencies that provide essential health services to the community are connected to jurisdictional public health preparedness plans and efforts.[23]

Task 3: Create jurisdictional networks (e.g., local businesses, community and faith-based organizations, ethnic radio/media, and, if used by the jurisdiction, social networking sites) for public health, medical, and mental/behavioral health information dissemination before, during, and after the incident. *(For additional or supporting detail, see Capability 4: Emergency Public Information and Warning)*

Note: Tasks 1 through 3 apply to all jurisdictions; states are expected to ensure attainment by their local communities.

Performance Measure(s)

At present there are no CDC-defined performance measures for this function.

Resource Elements

PLANNING (P)

P1: Written plans should include a process for community engagement in problem solving strategy sessions to identify how the short-term or permanent relocation of health-related supplies and other services can support the direct restoration of a sense of community and social connectedness in terms of public health, medical, and mental/behavioral health services.[24]

P2: Written plans should include a protocol to identify health services needed to support identified disaster risks and ensure these services are culturally and socially competent.[25]

Function 4: Coordinate training or guidance to ensure community engagement in preparedness efforts

Coordinate with emergency management, community organizations, businesses, and other partners to provide public health preparedness and response training or guidance to community partners for the specific risks identified in the jurisdictional risk assessment.

Tasks

This function consists of the ability to perform the following tasks:

Task 1: Integrate information on resilience, specifically the need for community-derived approaches to support the provision of public health, medical, and mental/behavioral health services during and after an incident, into existing training and educational programs related to crisis and disaster preparedness and response.

Task 2: Promote training to community partners that may have a supporting role to public health, medical, and mental/behavioral health sectors (e.g., education, child care, juvenile justice, child welfare, and congregate childcare settings).

Function 4: Coordinate training or guidance to ensure community engagement in preparedness efforts

Tasks *(continued)*

Task 3: Provide guidance to community partners, particularly groups representing the functional needs of at-risk populations, to assist them in educating their own constituency groups regarding plans for addressing preparedness for and recovery from the jurisdiction's identified risks and for access to health services that may apply to the incident.

Note: Tasks 1 through 3 apply to all jurisdictions; states are expected to ensure attainment by their local communities.

Performance Measure(s)

At present there are no CDC-defined performance measures for this function.

Resource Elements

*Note: Jurisdictions must have or have access to the resource elements designated as **Priority**.*

PLANNING (P)

P1: ***(Priority)*** Written plans should include documentation that public health has participated in jurisdictional approaches to address how children's medical and mental/behavioral healthcare will be addressed in all-hazard situations, including but not limited to the following elements:

- Approaches to support family reunification
- Care for children whose caregivers may be killed, ill, injured, missing, quarantined, or otherwise incapacitated for lengthy periods of time
- Increasing parents' and caregivers' coping skills
- Supporting positive mental/behavioral health outcomes in children affected by the incident
- Providing the opportunity to understand the incident[26]

Suggested resources

- Kids Dealing with Disasters: http://www.oumedicine.com/body.cfm?id=3745
- National Commission on Children and Disasters: 2010 Report to the President and Congress: http://www.ahrq.gov/prep/nccdreport/nccdreport.pdf
- Post-Katrina Emergency Management Reform Act of 2006: http://frwebgate.access.gpo.gov/cgi-bin/getdoc.cgi?dbname=109_cong_bills&docid=f:s3721is.txt.pdf

P2: ***(Priority)*** Written plans should include a process and procedures to build and sustain volunteer opportunities for residents to participate with local emergency responders and community safety efforts year round (e.g., Medical Reserve Corps). *(For additional or supporting detail, see Capability 15: Volunteer Management)*

SKILLS AND TRAINING (S)

S1: Identify, recommend, or develop standardized and competency-based disaster education and training programs (such as the National Disaster Life Support Program, the American Academy of Pediatrics disaster medicine curriculum, National and State Voluntary Organizations Active in Disaster planning documents) for emergency responders, citizen volunteers, and other community residents.

S2: Have or have access to at least one Medical Reserve Corps and coordinate with existing Community Emergency Response Teams/Citizen Corps. *(For additional or supporting detail, see Capability 15: Volunteer Management)*

CAPABILITY 2: Community Recovery

Community recovery is the ability to collaborate with community partners, (e.g., healthcare organizations, business, education, and emergency management) to plan and advocate for the rebuilding of public health, medical, and mental/behavioral health systems to at least a level of functioning comparable to pre-incident levels, and improved levels where possible.

This capability supports National Health Security Strategy Objective 8: Incorporate Post-Incident Health Recovery into Planning and Response. Post-incident recovery of the public health, medical, and mental/behavioral health services and systems within a jurisdiction is critical for health security and requires collaboration and advocacy by the public health agency for the restoration of services, providers, facilities, and infrastructure within the public health, medical, and human services sectors. Monitoring the public health, medical and mental/behavioral health infrastructure is an essential public health service.[27,28,29,30]

This capability consists of the ability to perform the following functions:

Function 1: Identify and monitor public health, medical, and mental/behavioral health system recovery needs
Function 2: Coordinate community public health, medical, and mental/behavioral health system recovery operations
Function 3: Implement corrective actions to mitigate damages from future incidents

Function 1: Identify and monitor public health, medical, and mental/behavioral health system recovery needs

Assess the impact of an incident on the public health system[31] in collaboration with the jurisdictional government and community and faith-based partners, in order to determine and prioritize the public health, medical, or mental/behavioral health system recovery needs.

This function addresses the intent of National Health Security Strategy Outcome 8 that there should be a collaborative effort within a jurisdiction that results in the identification of public health, medical, and mental/behavioral assets, facilities, and other resources which either need to be rebuilt after an incident or which can be used to guide post-incident reconstitution activities.

Tasks

This function consists of the ability to perform the following tasks:

Task 1: In collaboration with jurisdictional partners, document short-term and long-term health service delivery priorities and goals.

Task 2: Identify the services that can be provided by the public health agency and by community and faith-based partners that were identified prior to the incident as well as by new community partners that may arise during the incident response. *(For additional or supporting detail, see Capability 1: Community Preparedness, Capability 7: Mass Care, and Capability 10: Medical Surge)*

Task 3: Activate plans previously created with neighboring jurisdictions to provide identified services that the jurisdiction does not have the ability to provide during and after an incident.

Task 4: In conjunction with healthcare organizations (e.g., healthcare facilities and public and private community providers) and based upon recovery operations, determine the community's health service priorities and goals that are the responsibility of public health. *(For additional or supporting detail, see Capability 10: Medical Surge)*

Performance Measure(s)

At present there are no CDC-defined performance measures for this function.

Function 1: Identify and monitor public health, medical, and mental/behavioral health system recovery needs

Resource Elements

*Note: Jurisdictions must have or have access to the resource elements designated as **Priority**.*

PLANNING (P)

P1: ***(Priority)*** Written plans should include processes for collaborating with community organizations, emergency management, and healthcare organizations to identify the public health, medical, and mental/behavioral health system recovery needs for the jurisdiction's identified hazards.

Suggested resource

- National Disaster Recovery Framework (draft February 2010): http://disasterrecoveryworkinggroup.gov/ndrf.pdf

P2: ***(Priority)*** Written plans should include how the health agency and other partners will conduct a community assessment and follow-up monitoring of public health, medical, and mental/behavioral health system needs after an incident.

Suggested resource for environmental incidents

- Community Assessment for Public Health Emergency Response Toolkit http://www.emergency.cdc.gov/disasters/surveillance/pdf/CASPER_toolkit_508%20COMPLIANT.pdf

Suggested resource for radiation incidents

- State Radiation Control Programs: http://www.crcpd.org/Map/RCPmap.htm

(For additional or supporting detail, see Capability 1: Community Preparedness)

P3: ***(Priority)*** Written plans should include the following elements (either as a stand-alone Public Health Continuity of Operations Plan or as a component of another plan):

- Definitions and identification of essential services needed to sustain agency mission and operations
- Plans to sustain essential services regardless of the nature of the incident (e.g., all-hazards planning)
- Scalable work force reduction
- Limited access to facilities (social distancing, staffing or security concerns)
- Broad-based implementation of social distancing policies if indicated
- Positions, skills and personnel needed to continue essential services and functions (Human Capital Management)
- Identification of agency vital records (legal documents, payroll, staff assignments) that support essential functions and/or that must be preserved in an incident
- Alternate worksites
- Devolution of uninterruptible services for scaled down operations
- Reconstitution of uninterruptible services[32,33,34]

P4: Written plans should include pre-defined statements, or message templates, that address likely questions and concerns in an emergency. Message maps should be used by public health spokespersons to use with community media and community organizations. *(For additional or supporting detail, see Capability 1: Community Preparedness and Capability 4: Emergency Public Information and Warning)*

P5: Written plans should include recovery strategies for the timely repair or rebuilding of public health services (e.g., wastewater treatment and potable water supply).

P6: Written plans should include procedures that guide the provision of public health, medical, and mental/behavioral healthcare beyond initial life-sustaining care. This includes processes to assure that short- and long-term programs and services are available (pre- and post-incident) to meet the needs of responders and the general public in terms of assuaging stress, grief, fear, panic, and anxiety, as well as to address other medical and mental/behavioral health issues. *(For additional or supporting detail, see Capability 1: Community Preparedness and Capability 14: Responder Safety and Health)*

Function 1: Identify and monitor public health, medical, and mental/behavioral health system recovery needs

Resource Elements *(continued)*

PLANNING (P)

P7: Written plans should include protocols to identify jurisdictional legal authorities to permit non-jurisdictional clinicians to be credentialed to work in emergency situations.

- Suggested template: "Menu of Suggested Provisions for Public Health Mutual Aid Agreements" and especially the section "Licenses and Permits" accessible at http://www2a.cdc.gov/phlp/mutualaid/mutualpermits.asp

P8: Written plans should include documentation that addresses the identification of the sectors (e.g., business, non-governmental organizations, community and faith-based organizations, education, social services) that can provide support to the recovery effort.

- For examples of potential sectors, see: Building Community Resilience for Children and Families, Terrorism and Disaster Center at the University of Oklahoma Health Sciences Center[35]

Plan or annex should also include the process to facilitate or assist these organizations with developing their own continuity of operations plans that detail how they will perform these functions in all-hazards recovery situations. Recommended components include the following elements:

- What community stakeholder operations are necessary to sustain public health operations/functions
- What health support operations do/can they provide (e.g., shelter, day care, spiritual guidance, food, medication support, and transportation)

Planning process should document the inclusion of regularly scheduled meetings prior to an incident at which representatives from the different community sectors can meet to do the following:

- Establish and maintain interpersonal relationships
- Share promising practices/approaches to recovery from similar incidents
- Learn about relevant response and recovery processes and policies within the jurisdiction
- Ask questions and exchange information

(For additional or supporting detail, see Capability 1: Community Preparedness)

Function 2: Coordinate community public health, medical, and mental/behavioral health system recovery operations

Facilitate interaction among community and faith-based organizations (e.g., businesses and non-governmental organizations) to build a network of support services which will minimize any negative public health effects of the incident.

This function addresses the National Health Security Strategy Objective 8 outcome recommendation that jurisdictions should have an integrated plan as to how post-incident public health, medical, and mental/behavioral services can be coordinated with organizations responsible for community restoration.

Tasks

This function consists of the ability to perform the following tasks:

Task 1: Participate with the recovery lead jurisdictional agencies (e.g., emergency management and social service) to ensure that the jurisdiction can provide health services needed to recover from a physical or mental/behavioral injury, illness, or exposure sustained as a result of the incident, with particular attention to the functional needs of at-risk persons (e.g., those displaced from their usual residence). *(For additional or supporting detail, see Capability 3: Emergency Operations Coordination)*

Function 2: Coordinate community public health, medical, and mental/behavioral health system recovery operations

Tasks *(continued)*

Task 2: In conjunction with jurisdictional government and community partners, inform the community of the availability of mental/behavioral, psychological first aid, and medical services within the community, with particular attention to how these services affect the functional needs of at-risk persons[36] (including but not limited to children, elderly, their care givers, the disabled, or individuals with limited economic resources) *(For additional or supporting detail, see Capability 4: Emergency Public Information and Warning)*

Task 3: Notify the community via community partners of the health agency's plans for restoration of impacted public health, medical, and mental/behavioral health services. *(For additional or supporting detail, see Capability 4: Emergency Public Information and Warning)*

Task 4: Solicit community input via community partners regarding health service recovery needs during and after the acute phase of the incident. *(For additional or supporting detail, see Capability 4: Emergency Public Information and Warning and Capability 8: Medical Countermeasure Dispensing)*

Task 5: Partner with public health, medical, and mental/behavioral health professionals and other social networks (e.g., faith-based, volunteer organizations, support groups, and professional organizations) from within and outside the jurisdiction, as applicable to the incident, to educate their constituents regarding applicable health interventions being recommended by public health. *(For additional or supporting detail, see Capability 4: Emergency Public Information and Warning, Capability 6: Information Sharing, and Capability 11: Non-Pharmaceutical Interventions)*

Task 6: In conjunction with jurisdictional government and community partners, inform the community of the availability of any disaster or community case management services being offered that provide assistance for community members impacted by the incident. *(For additional or supporting detail, see Capability 4: Emergency Public Information and Warning)*

Performance Measure(s)

At present there are no CDC-defined performance measures for this function.

Resource Elements

SKILLS AND TRAINING (S)

S1: Incorporate mental/behavioral health training into Medical Reserve Corps, volunteer (e.g., Emergency Systems for Advance Registration of Volunteer Health Professionals) training programs (e.g., grief counseling services). *(For additional or supporting detail, see Capability 15: Volunteer Management)*

Function 3: Implement corrective actions to mitigate damages from future incidents

Incorporate observations from the current incident to describe actions needed to return to a level of public health, medical, and mental/behavioral health system function at least comparable to pre-incident levels or improved levels where appropriate. Document these items in a written after action report and improvement plan, and implement those corrective actions that are within the purview of public health.

This function addresses the intent of the National Health Security Strategy Outcome 8 recommendation that jurisdictions should have a monitoring and evaluation plan for recovery efforts.

Function 3: Implement corrective actions to mitigate damages from future incidents

Tasks

This function consists of the ability to perform the following tasks:

Task 1: In conjunction with jurisdictional government and community partners, conduct post-incident assessment and planning as part of the after action report process that affects short and long-term recovery for those corrective actions that are within the control and purview of jurisdictional public health, including the mitigation of damages from future incidents.

Task 2: Collaborate with sector leaders[37] to facilitate collection of community feedback to determine corrective actions.

Task 3: Implement corrective actions for items that are within the scope or control of public health to affect short and long-term recovery, including the mitigation of damages from future incidents.

Task 4: Facilitate and advocate for collaborations among government agencies and community partners so that these agencies can fulfill their respective roles in completing the corrective actions to protect the health of the public.

Performance Measure(s)

At present there are no CDC-defined performance measures for this function.

Resource Elements

PLANNING (P)

P1: Written plans should include a process to engage with jurisdictional business, educational, and social service sectors to support the restoration of access to public health, medical and mental/behavioral health services.

P2: Written plans should include a process for how the public health agency will solicit feedback and recommendations from the following sectors, at a minimum, for improved community access to health services:

- Education, medical, public health, mental/behavioral health, and environmental health

CAPABILITY 3: Emergency Operations Coordination

Emergency operations coordination is the ability to direct and support an event[38] or incident[39] with public health or medical implications by establishing a standardized, scalable system of oversight, organization, and supervision consistent with jurisdictional standards and practices and with the National Incident Management System.[40]

This capability consists of the ability to perform the following functions:

Function 1: Conduct preliminary assessment to determine need for public activation
Function 2: Activate public health emergency operations
Function 3: Develop incident response strategy
Function 4: Manage and sustain the public health response
Function 5: Demobilize[41] and evaluate public health emergency operations

Function 1: Conduct preliminary assessment to determine need for public activation

Define the public health impact of an event or incident and gather subject matter experts to make recommendations on the need for, and scale of, incident command operations.

Tasks

This function consists of the ability to perform the following tasks:

Task 1: At the time of an incident and as applicable during an incident, work with jurisdictional officials (e.g., other agency representatives; elected or appointed leadership officials; epidemiology, laboratory, surveillance, medical, and chemical, biological, and radiological subject matter experts; and emergency operations leadership) to analyze data, assess emergency conditions and determine the activation levels based on the complexity of the event or incident. Activation levels should be consistent with jurisdictional standards and practices (e.g., jurisdictional Emergency Operations Plans and applicable annexes). *(For additional or supporting detail, see Capability 13: Public Health Surveillance and Epidemiological Investigation)*

Task 2: At the time of an incident and as applicable during an incident, determine whether public health has the lead role, a supporting role, or no role. These roles are defined as follows:

- Lead role: public health has primary responsibility to establish event or incident objectives and response strategies and to task other supporting agencies (e.g., outbreaks of meningitis, measles, seasonal influenza)
- Supporting role: public health may be tasked by lead agency (e.g., oil spills, earthquakes, wild fires, hurricanes)
- No role: there is no public health implication

Task 3: Define incident command and emergency management structure for the public health event or incident according to one of the Federal Emergency Management Agency (FEMA) types.[42] FEMA incident type may have an impact on training and accreditation requirements and may help determine what level of resources are needed and how to request more resources using standardized language for emergency response.[43,44]

Performance Measure(s)

At present there are no CDC-defined performance measures for this function.

Function 1: Conduct preliminary assessment to determine need for public activation

Resource Elements

*Note: Jurisdictions must have or have access to the resource elements designated as **Priority**.*

PLANNING (P)

P1: Written plans should include a matrix indicating public health involvement in potential incidents based on items identified in the jurisdictional risk assessment. Development of these plans should also include subject matter experts (e.g., epidemiology, laboratory, surveillance, medical, and chemical, biological, and radiological subject matter experts and emergency operations leadership) to help determine public health involvement in an incident that differs from those identified in the jurisdictional risk assessment.[45,46] *(For additional or supporting detail, see Capability 1: Community Preparedness)*

P2: Written plans should include processes and protocols for acting upon information that indicates there may be an incident with public health implications that requires an agency-level response.

SKILLS AND TRAINING (S)

S1: At least one representative (either the Incident Commander or someone who can help to coordinate the public health response to the incident) trained at a minimum to the CDC definition of Responder Training level Tier 4 which includes completion of the following National Incident Management System courses:

- Introduction to Incident Command System (IS-100.b)
- Incident Command System for Single Resources and Initial Action Incidents (IS-200.b)
- Intermediate Incident Command System (ICS-300)
- Advanced Incident Command System (ICS-400)
- National Incident Management System, An Introduction (IS-700a)
- National Response Framework, An Introduction (IS-800.b)

EQUIPMENT AND TECHNOLOGY (E)

E1: Have or have access to communications equipment that includes a primary and a backup system which may consist of (but not limited to) any of the following: telephones, fax, dedicated telephone line, cellular telephones with chargers, radios (walkie talkies), television, high frequency radios, internet, and satellite communication.

Function 2: Activate public health emergency operations

In preparation for an event, or in response to an incident of public health significance, engage resources (e.g., human, technical, physical space, and physical assets) to address the incident or event in accordance with the National Incident Management System and consistent with jurisdictional standards and practices.

Tasks

This function consists of the ability to perform the following tasks:

Task 1: Prior to an event or incident, identify incident command and emergency management functions for which public health is responsible.

Task 2: Prior to an event or incident, identify a pool of staff who have the skills necessary to fulfill required incident command and emergency management roles deemed necessary for a response. The pool should include public health subject matter experts, Incident Commander, Section Chiefs, Command Staff, and support positions (e.g., Informational Technology Specialist).

Function 2: Activate public health emergency operations

Tasks *(continued)*

Task 3: Prior to an event or incident, identify staff to serve in the required incident command and emergency management roles for multiple operational periods to ensure continuous staffing during activation.

Task 4: Prior to an event or incident, identify primary and alternate physical locations or a virtual structure[47] (owned by public health or have access to through a memorandum of understanding or other written agreements) that will serve as the public health emergency operations center.

Task 5: At the time of an event or incident, notify designated incident command staff of public health response.

Task 6: In preparation for or at the time of an event or incident, assemble designated staff at the appropriate emergency operations center(s) (i.e., public health emergency operations center or jurisdictional emergency operations center).

Performance Measure(s)

This function is associated with the following CDC-defined performance measure:

Measure 1: Time for pre-identified staff covering activated public health agency incident management lead roles (or equivalent lead roles) to report for immediate duty. Performance Target: 60 minutes or less

- Start time: Date and time that a designated official began notifying staff to report for immediate duty to cover activated incident management lead roles
- Stop time: Date and time that the last staff person notified to cover an activated incident management lead role reported for immediate duty

Resource Elements

*Note: Jurisdictions must have or have access to the resource elements designated as **Priority**.*

PLANNING (P)

P1: ***(Priority)*** Written plans should include standard operating procedures that provide guidance for the management, operation, and staffing of the public health emergency operations center or public health functions within another emergency operations center. The following should be considered for inclusion in the standard operating procedures:

- Activation procedures and levels, including who is authorized to activate the plan and under what circumstances
- Notification procedures; procedures recalling and/or assembling required incident command/management personnel and for ensuring facilities are available and operationally ready for assembled staff

Suggested resource

- Federal Emergency Management Agency Incident Command System Forms: http://training.fema.gov/EMIWeb/IS/ICSResource/ICSResCntr_Forms.htm

P2: Written plans should include job action sheets or equivalent documentation for incident command positions and others with roles in a public health emergency.

- For guidance on developing job action sheets, refer to the tool provided by the National Association of County and City Health Officials: http://www.naccho.org/toolbox/tool.cfm?id=5

P3: Written plans should include a list of staff that has been selected in advance of an incident that could fill the incident management roles adequate to a given response, including public health responses and cross-agency responses. Health departments must be prepared to staff multiple emergency operations centers at the agency, local, and state levels as necessary.

P4: Written plans should include a list that ensures personnel and equipment arriving at the incident can check in and check out at various incident locations.

- The use of Incident Command System Form 211 – "Check-In List" or equivalent documentation is recommended.

Function 2: Activate public health emergency operations

Resource Elements *(continued)*

PLANNING (P)

P5: Written plans should include mutual aid or other written agreements between public health agencies and response partners at the state, tribe, territorial and local levels to support Emergency Support Function #8 related activities across jurisdictions. These agreements facilitate the sharing of resources, facilities, services, and other potential support required during an incident:

- Procedures for coordinating investigation and response operations across agencies
- Procedures for requesting and providing assistance
- Procedures, authorities, and rules for payment, reimbursement, and allocation of cost
- Notification procedures for activation of memoranda of understanding and/or memoranda of agreements
- Mutual aid agreements with surrounding jurisdictions
- Workers compensation
- Treatment of liability and immunity
- Recognition of qualifications and certifications
- Sharing agreements as required

SKILLS AND TRAINING (S)

S1: ***(Priority)*** Staff involved in incident response should have competency in the incident command and emergency management responsibilities they may be called upon to fulfill in an emergency. A precursor to having competency is for staff to attain the applicable National Incident Management System (NIMS) Certification based on discipline, level and/or jurisdictional requirements. Additional information on NIMS is located at http://www.fema.gov/emergency/nims/.

A suggested approach to establish your NIMS training needs based on CDC guidelines is outlined below.

Tier One: Personnel who, in the event of a public health emergency, will not be working within the emergency operations center/multiagency coordination system or will not be sent out to the field as responders. Applicable training courses are

- National Incident Management System, An Introduction (IS-700a)
- National Response Framework, An Introduction (IS-800.b)

Tier Two: Personnel who, in a public health emergency, will be assigned to fill one of the functional seats in the emergency operations center during the response operation. Applicable training courses are listed below:

- Introduction to Incident Command System (IS-100.b)
- Incident Command System for Single Resources and Initial Action Incidents (IS-200.b)
- National Incident Management System: An Introduction (IS-700a)
- National Response Framework: An Introduction (IS-800.b)

Tier Three: Personnel who, in a public health emergency, have the potential to be deployed to the field to participate in the response, including personnel who are already assigned to a field location. Applicable training courses are listed below:

- Introduction to Incident Command System (IS-100.b)
- Incident Command System for Single Resources and Initial Action Incidents (IS-200.b)
- Intermediate Incident Command System (ICS-300)
- National Incident Management System, An Introduction (IS-700a)
- National Response Framework, An Introduction (IS-800.b)

Tier Four: Personnel who, in a public health emergency, are activated to Incident Management System leadership and liaison roles and are deployed to the field in leadership positions. Applicable training courses are listed below

- Introduction to Incident Command System (IS-100.b)
- Incident Command System for Single Resources and Initial Action Incidents (IS-200.b)
- Intermediate Incident Command System (ICS-300)
- Advanced Incident Command System (ICS-400)
- National Incident Management System, An Introduction (IS-700a)
- National Response Framework, An Introduction (IS-800.b)

Function 2: Activate public health emergency operations

Resource Elements *(continued)*

EQUIPMENT AND TECHNOLOGY (E)

E1: Have or have access to back up equipment (e.g., generators) in the event of system failure or power loss in the public health emergency operations center.

E2: Have or have access to communications equipment that allows information to be transmitted inside and outside the emergency operations center (e.g., telephones, fax, dedicated telephone line, cellular telephones with chargers, radios (walkie talkies), television, high frequency radios, internet, and satellite communication). *(For additional or supporting detail, see Capability 6: Information Sharing)*

E3: Have or have access to information technology equipment in quantities sufficient to meet event/incident objectives (e.g., projectors, computers, audio/video teleconferencing, WebEOC, or other resource tracking systems).

Function 3: Develop incident response strategy

Produce or provide input to an Incident Commander or Unified Command approved, written Incident Action Plan, as dictated by the incident, containing objectives reflecting the response strategy for managing Type 1, Type 2, and Type 3 events or incidents, as described in the National Incident Management System,[48] during one or more operational periods.

Tasks

This function consists of the ability to perform the following tasks:

Task 1: Produce or contribute to[49] an Incident Commander or Unified Command approved Incident Action Plan prior to the start of the second operational period.

Task 2: Disseminate the Incident Action Plan to public health response staff. *(For additional or supporting detail, see Capability 6: Information Sharing)*

Task 3: Revise and brief staff on the Incident Action Plan at least at the start of each new operational period. Incident Action Plans must include the following:

- What was accomplished in the previous operational period
- What is to happen in the next operational period

Performance Measure(s)

This function is associated with the following CDC-defined performance measure:

Measure 1: Production of the approved Incident Action Plan before the start of the second operational period

Resource Elements

*Note: Jurisdictions must have or have access to the resource elements designated as **Priority**.*

PLANNING (P)

P1: ***(Priority)*** Written plans should include a template for producing Incident Action Plans. The following should be considered for inclusion in Incident Action Plans as indicated by the scale of the incident:

- Incident goals
- Operational period objectives (major areas that must be addressed in the specified operational period to achieve the goals or control objectives)
- Response strategies (priorities and the general approach to accomplish the objectives)
- Response tactics (methods developed by Operations to achieve the objectives)
- Organization list with Incident Command System chart showing primary roles and relationships
- Assignment list with specific tasks

Function 3: Develop incident response strategy

Resource Elements *(continued)*

PLANNING (P)

- Critical situation updates and assessments
- Composite resource status updates
- Health and safety plan (to prevent responder injury or illness)
- Logistics plan (e.g., procedures to support Operations with equipment and supplies)
- Responder medical plan (providing direction for care to responders)
- Map of the incident or of ill/injured persons (e.g., map of incident scene)
- Additional component plans, as indicated by the incident

The use of the following Incident Command System forms or equivalent documentation is recommended: Form 202 – "Incident Objectives," Form 203 – "Organization Assignment List," and Form 204 – "Division/Group Assignment List."

SKILLS AND TRAINING (S)

S1: Staff participating in the incident action plan should participate in National Incident Management System training:

- Introduction to Incident Command System (IS-100.b)
- Incident Command System for Single Resources and Initial Action Incidents (IS-200.b)
- Intermediate Incident Command System (ICS-300)
- National Incident Management System, An Introduction (IS-700a)
- National Response Framework, An Introduction (IS-800.b)

Function 4: Manage and sustain the public health response

Direct ongoing public health emergency operations to sustain the public health and medical response for the duration of the response, including multiple operational periods and multiple concurrent responses.

Tasks

This function consists of the ability to perform the following tasks:

Task 1: Coordinate public health and medical emergency management operations for the public health response (e.g., phone calls, meetings, and conference calls).

Task 2: Track and account for all public health resources during the public health response.

Task 3: Maintain situational awareness using information gathered from medical, public health, and other health stakeholders (e.g., fusion centers). *(For additional or supporting detail, see Capability 6: Information Sharing)*

Task 4: Conduct shift change briefings between outgoing and incoming public health staff to communicate priorities, status of tasks, and safety guidance.

Performance Measure(s)

At present there are no CDC-defined performance measures for this function.

Resource Elements

*Note: Jurisdictions must have or have access to the resource elements designated as **Priority**.*

PLANNING (P)

P1: ***(Priority)*** Written plans should include processes and protocols to ensure the continued performance of pre-identified essential functions during a public health incident and during an incident that renders the primary location where the functions are performed inoperable. This can be a stand-alone plan or annex but at a minimum the plan must include these elements:

- Definitions and identification of essential services needed to sustain agency mission and operations

Function 4: Manage and sustain the public health response

Resource Elements *(continued)*

PLANNING (P)

- Plans to sustain essential services regardless of the nature of the incident (e.g., all-hazards planning)
- Scalable workforce reduction
- Limited access to facilities (e.g., social distancing and staffing or security concerns)
- Broad-based implementation of social distancing policies if indicated
- Positions, skills, and personnel needed to continue essential services and functions (Human Capital Management)
- Identification of agency vital records (e.g., legal documents, payroll, and staff assignments) that support essential functions and/or that must be preserved in an incident
- Alternate worksites
- Devolution of uninterruptible services for scaled-down operations
- Reconstitution of uninterruptible services

For guidance on developing a Continuity of Operations Plan, refer to the resources provided by the Federal Emergency Management Agency: http://www.fema.gov/government/coop/index.shtm

P2: Written plans should include standard operating procedures for managing a response. The following should be considered for inclusion:

- Processes for accounting for staff time, equipment, and other items used during the public health response
- Procedures/templates for situation reports
- Procedures/templates for shift change briefings
- Staff rhythms to support the collection of information to support critical information requirements

P3: Written plans should include a protocol describing how to respond to an incident regardless of the nature of the incident (e.g., all-hazards planning). The following should be considered for inclusion in the plan:

- Public health roles in a response
- When these roles must be fulfilled (e.g., before, during, and immediately after a public health incident)
- Resources (e.g., equipment, necessary to fulfill public health roles)

SKILLS AND TRAINING (S)

S1: Public health staff participating in public health emergency operations should be trained on any jurisdictionally identified emergency operations center incident supporting software (e.g., WebEOC) prior to an incident.

S2: Staff likely to participate in a response should be trained on health department plans and procedures (e.g., Standard Operating Procedures, Continuity of Operation Plan, and Emergency Operations Plan) and understand their role(s), if any, during a public health response. Staff should be trained on any jurisdictionally defined training on continuity of operations and emergency operations. Recommended additional courses include the following:

- Continuity of Operations Awareness (IS-546)
- Introduction to Continuity of Operations (IS-547.a)

S3: Public health staff participating in public health emergency operations should be trained on National Incident Management System training including the following:

- Introduction to Incident Command System (IS-100.b)
- Incident Command System for Single Resources and Initial Action Incidents (IS-200.b)
- National Incident Management System, An Introduction (IS-700a)
- National Response Framework, An Introduction (IS-800.b)

Function 5: Demobilize and evaluate public health emergency operations

Release and return resources that are no longer required by the event or incident to their pre-ready state and conduct an assessment of the efforts, resources, actions, leadership, coordination, and communication utilized during the incident for the purpose of identifying and implementing continuous improvement activities.

Function 5: Demobilize and evaluate public health emergency operations

Tasks

This function consists of the ability to perform the following tasks:

Task 1: Return resources to a condition of "normal state of operation" as appropriate. This may include archiving records and restoring systems, supplies, and staffing to a pre-incident ready state.

Task 2: Conduct final incident closeout of public health operations including the turnover of documentation, an incident debriefing, and a "final closeout" with the responsible agency or jurisdiction executive/officials.

Task 3: Produce After Action Report for public health operations to identify improvement areas and promising practices.

Task 4: Implement Improvement Plan items (e.g., project work plans and evidence of improvement actions) that have been assigned to public health.

Task 5: Track the implementation progress of Improvement Plan items assigned to public health through a corrective action system.

Performance Measure(s)

This function is associated with the following CDC-defined performance measure:

Measure 1: Time to complete a draft of an After Action Report and Improvement Plan

- Start time: Date exercise or public health emergency operation completed
- Stop time: Date the draft After Action Report and Improvement Plan were submitted for clearance within the public health agency

Resource Elements

*Note: Jurisdictions must have or have access to the resource elements designated as **Priority**.*

PLANNING (P)

P1: ***(Priority)*** Written plans should include demobilization procedures for public health operations. The following should be considered for inclusion:

- General information about the demobilization process
- Responsibilities/agreements for reconditioning of equipment/resources
- Responsibilities for implementation of the Demobilization Plan
- General release priorities (i.e., resource type such as staff or equipment to be released) and detailed steps and processes for releasing those resources
- Directories (e.g., maps and telephone listings)

The use of Incident Command System Form 221 - "Demobilization Checkout" or equivalent documentation is recommended.

P2: Written plans should include an After Action Report/Improvement Plan template, which must include, at a minimum, the following elements:

- Executive Summary
- Event Overview
- Event Summary
- Analysis of Capabilities
- Conclusion
- Improvement Plan, which includes (at a minimum)
  - Capability Name
  - Observation
  - Title
  - Recommendation
  - Corrective Action Description

Function 5: Demobilize and evaluate public health emergency operations

Resource Elements *(continued)*

PLANNING (P)

- ☐ Capability Element
- ☐ Primary Responsible Agency
- ☐ Agency Point of Contact
- ☐ Start Date
- ☐ Completion Date

For guidance on developing an After Action Report, refer to the Homeland Security Exercise and Evaluation Program (https://hseep.dhs.gov/pages/1001_HSEEP7.aspx).

P3: Written plans should include an incident close out briefing template to include the following elements:

- Incident summary
- Major events that have lasting implications
- Documentation, including components that are not finalized
- Opportunity for discussion to bring up any concerns from agency officials
- Final evaluation of incident management by agency officials
- Team performance evaluation

SKILLS AND TRAINING (S)

S1: Public health staff that will participate in or lead exercises (at least one staff member) should have an understanding of Homeland Security Exercise and Evaluation Program policies, procedures, and terminology as well as experience in design, development, conduct, evaluation, and improvement planning for exercises. Recommended courses include the following:

- An Introduction to Exercises (IS.120.a)
- Exercise Evaluation and Improvement Planning (IS-130)
- Exercise Design (IS-139)

National Incident Management System training includes the following:

- Introduction to Incident Command System (IS-100.b)
- Incident Command System for Single Resources and Initial Action Incidents (IS-200.b)
- Intermediate Incident Command System (ICS-300)
- National Incident Management System, An Introduction (IS-700a)
- National Response Framework, An Introduction (IS-800.b)

CAPABILITY 4: Emergency Public Information and Warning

Emergency public information and warning is the ability to develop, coordinate, and disseminate information, alerts, warnings, and notifications to the public and incident management responders.

This capability consists of the ability to perform the following functions:

Function 1: Activate the emergency public information system
Function 2: Determine the need for a joint public information system
Function 3: Establish and participate in information system operations
Function 4: Establish avenues for public interaction and information exchange
Function 5: Issue public information, alerts, warnings, and notifications

Function 1: Activate the emergency public information system

Notify and assemble key public information personnel and potential spokespersons, which were identified prior to an incident,[50] to provide information to the public during an incident.

Tasks

This function consists of the ability to perform the following tasks:

Task 1: Prior to an incident, identify Public Information Officer, support staff (depending on jurisdictional vulnerabilities and subject matter expertise), and potential spokesperson(s) to convey information to the public.

Task 2: Prior to an incident, identify a primary and alternate physical and/or virtual structure that will be used to support alerting and public information operations. *(For additional or supporting detail, see Capability 3: Emergency Operations Coordination)*

Task 3: Prior to the incident, ensure identified personnel are trained in the functions they may be asked to fulfill.

Task 4: At the time of an incident, notify Public Information Officer, support staff, spokesperson(s), and subject matter experts, if applicable to the incident, of the need to either be on-call or to report for duty as necessary within a time frame appropriate to the incident.

Task 5: At the time of an incident, assemble public information staff at the physical or virtual location, debrief on incident, and assign response duties. *(For additional or supporting detail, see Capability 3: Emergency Operations Coordination)*

Task 6: Assist local public health systems in implementing emergency communication abilities.

Performance Measure(s)

At present there are no CDC-defined performance measures for this function.

Resource Elements

*Note: Jurisdictions must have or have access to the resource elements designated as **Priority**.*

PLANNING (P)

P1: ***(Priority)*** Written plans should include description of the roles and responsibilities for the Public Information Officer, support staff (depending on incident and subject matter expertise), and potential spokesperson(s) to convey information to the public.[51]

P2: ***(Priority)*** Written plans should include message templates that address jurisdictional vulnerabilities, should be maintained on a jurisdictionally defined regular basis, and include the following elements:

- Stakeholder identification
- Potential stakeholder questions and concerns
- Common sets of underlying concerns
- Key messages in response to the generated list of underlying stakeholder questions and concerns

Function 1: Activate the emergency public information system

Resource Elements *(continued)*

PLANNING (P)

Suggested resources

- Message Template for the First Minute for all Emergencies: http://www.emergency.cdc.gov/firsthours/resources/messagetemplate.asp
- Communicating in the First Hours / First Hours Resources: http://www.emergency.cdc.gov/firsthours/resources/index.asp
- Communicating in the First Hours / Terrorism Emergencies: http://www.bt.cdc.gov/firsthours/terrorist.asp

P3: Written plans should include a protocol for identification of a primary and alternate physical and/or virtual structure that will be used to support alerting and public information operations. Staff assembly can occur at a physical location (e.g., an emergency operations center, virtual location (e.g., web-based interface such as WebEOC or conference call), or combination of both. *(For additional or supporting detail, see Capability 3: Emergency Operations Coordination)*

P4: Written plans should include a roster/call down list with pre-identified staff to participate in communications. Plans should also include a minimum of one back-up per role to serve if necessary.

P5: Written plans should include job action sheets for staff and volunteers detailing specific tasks of each identified role.[52] *(For additional or supporting detail, see Capability 15: Volunteer Management)*

P6: Written plans should include a protocol for staff notification and reporting for duty which may include the following elements:[53]

- Method in which staff will be notified
- Where staff must report
- How quickly staff will be notified of an incident
- How long staff will have to report to designated location

P7: Written plans should include a process to activate Research, Media Operations, and Logistics roles as applicable to the incident. These roles may be conducted by one or more individuals and include, at a minimum, the following: *(For additional or supporting detail, see Capability 3: Emergency Operations Coordination)*

- Fact gathering
- Rumor control
- Media monitoring
- Speaker support

P8: Written plans should include a process to provide support and assistance to local public health systems in implementing emergency communication abilities. *(State jurisdictions) (For additional or supporting detail, see Capability 6: Information Sharing)*

SKILLS AND TRAINING (S)

S1: ***(Priority)*** Public Information staff should complete the following National Incident Management System training:

- Introduction to Incident Command System (IS-100.b)
- Incident Command System for Single Resources and Initial Action Incidents (IS-200.b)
- Emergency Support Function 15 External Affairs: A New Approach to Emergency Communication and Information Distribution (IS-250)
- National Incident Management System, An Introduction (IS-700.a)
- National Incident Management System Public Information Systems (IS-702.a)
- National Response Framework, An Introduction (IS-800.b)

S2: ***(Priority)*** Deliver key messages using principles of crisis and emergency risk communication. To ensure this, the following training must be taken within six months of hire date and at least once every five years thereafter by public information staff within the jurisdiction:

- CDC Crisis and Emergency Risk Communication Basic
- CDC Crisis and Emergency Risk Communication for Pandemic Influenza

Function 1: Activate the emergency public information system

Resource Elements *(continued)*

SKILLS AND TRAINING (S)

These courses may be taken in any of the following ways:

- Self-paced online training, which is available at all times
- Any CDC webinar course, which is offered four times per year
- In-person training at CDC, which is offered four times per year
- Access to Crisis and Emergency Risk Communication courses at the Preparedness and Emergency Response Learning Centers

If for any reason staff is not able to attend these courses, completing training given by staff that has been CDC trained is acceptable (train the trainer model).

S3: Public Information Officer responsibilities/competencies include the following:

- Representing and advising the Incident Commander on all public information matters relating to the management of the incident, and monitoring and handling media and public inquiries
- Managing day-to-day operations of the Joint Information Center
- Coordinating with Public Information Officers from all participating government departments and organizations to manage resources and avoid duplication of efforts

EQUIPMENT AND TECHNOLOGY (E)

E1: Have essential services designation from telecom industry and utilities, including emergency service designation for the designated inquiry line

E2: Have or have access to a dedicated phone line for inquiries from the media, stakeholders, and general public

E3: Have or have access to 24/7 alerting capacity (phone or alternate method). This includes maintenance, including but not limited to licensing

E4: Have or have access to a redundant power supply to support 24/7 alerting and public messaging capacity

E5: Have or have access to walkie talkies (due to electromagnetic pulse risk from nuclear incidents), ham radios, or other wireless devices

Function 2: Determine the need for a joint public information system

Determine the need for, and scale of, a joint public information system, including if appropriate, activation of a Joint Information Center within the public health agency. Participate with other jurisdictional Joint Information Centers in order to combine information sharing abilities and coordinate messages.

Tasks

This function consists of the ability to perform the following tasks:

Task 1: As applicable to the incident, establish a Virtual Joint Information Center, if establishment of a full-fledged Joint Information Center is not optimal. *(For additional or supporting detail, see Capability 3: Emergency Operations Coordination)*

Task 2: Identify a health department representative to participate in the jurisdiction's emergency operations center to ensure public health messaging capacity is represented if a Joint Information Center (JIC) or Virtual Joint Information Center is not applicable to the incident. *(For additional or supporting detail, see Capability 3: Emergency Operations Coordination)*

Task 3: Assign tasks to support staff (with staff redundancy to support extended operational periods) to support message coordination and public information through three principal functions: Research, Media Operations, and Administration,[54] as applicable to the incident.

Function 2: Determine the need for a joint public information system

Performance Measure(s)

At present there are no CDC-defined performance measures for this function.

Resource Elements

*Note: Jurisdictions must have or have access to the resource elements designated as **Priority**.*

PLANNING (P)

P1: Written plans should include a decision matrix for scalable joint information system operations; considerations include the following:

- Determine if the information needs of the incident will exceed the resources of the health department
- If multiple organizations are responding to the incident, identify procedures as to how the health department will participate in the jurisdiction's Joint Information Center

P2: Written plans should include a process to establish a Virtual Joint Information Center, which consists of the connection of public information agencies or personnel through telephone, internet, or other technical means of coordination without working from a physical emergency operations center. *(For additional or supporting detail, see Capability 3: Emergency Operations Coordination)*

P3: Written plans should include a standard operating procedure for requesting additional alerting resources (e.g., personnel and equipment) through the jurisdictional incident management system.

SKILLS AND TRAINING (S)

S1: Public health agency staff or volunteers from partner agencies, who will support the media, research, or administrative support functions during an incident should have awareness-level training specific to media operations during an incident (e.g., IS-702.a).

EQUIPMENT AND TECHNOLOGY (E)

E1: ***(Priority)*** Minimum components of a Virtual Joint Information Center:

- Equipment to exchange information electronically within the jurisdiction and CDC, in real-time, if possible
- Shared site or mechanism or system to store electronic files of joint information center products, e-mail group lists, incident information, and scheduling

Minimum components of a Virtual Joint Information Center for territory jurisdictions entail the following:

- Electronic access to both the CDC public website and the World Health Organization shared information site

E2: Recommended support materials for jurisdictions to send and receive information include internet access, contact information for state and local officials and media, computers and printers, fax machines, phones and multiple phone lines, clocks, cell phones, radio, television, video, and recording devices for both radio and television.

Recommended support materials for territory jurisdictions in order to send and receive information include internet access, phones, and radio.

Function 3: Establish and participate in information system operations

Monitor jurisdictional media, conduct press briefings, and provide rumor control for media outlets, utilizing a National Incident Management System compliant framework for coordinating incident-related communications.

Tasks

This function consists of the ability to perform the following tasks:

Task 1: Develop, recommend, and execute approved[55] public information plans and strategies on behalf of the Incident Command or Unified Command structure. *(For additional or supporting detail, see Capability 3: Emergency Operations Coordination)*

Task 2: Based on jurisdictional structure, provide a single release point of information for health and healthcare issues through a pre-identified spokesperson in coordination with the JIC. *(For additional or supporting detail , see Capability 6: Information Sharing)*

Task 3: Facilitate rumor control for media outlets for the jurisdiction such as television, internet, radio, and newspapers.

Performance Measure(s)

At present there are no CDC-defined performance measures for this function.

Resource Elements

*Note: Jurisdictions must have or have access to the resource elements designated as **Priority**.*

PLANNING (P)

P1: Written plans should include a media contact list, accompanied by a procedure to keep the list up to date and accurate.[56]

P2: Written plans should include procedures to accomplish the following:

- Track media contacts and public inquiries, listing contact, date, time, query, and outcome
- Monitor media coverage to ensure information is accurately relayed
- Correct misinformation before next news cycle
- Coordinate interests and concerns from health-related media interests in the jurisdiction

SKILLS AND TRAINING (S)

S1: Public information staff should be trained in the following:

- National Incident Management System (IS-701.a)
- Emergency Management Institute G291- Joint Information System/Joint Information Center Planning for Tribal, State and Local Public Information Officers

EQUIPMENT AND TECHNOLOGY (E)

E1: Public Information Officers/spokespersons should have access to equipment to receive messaging from the jurisdictions' public health alert system.

Function 4: Establish avenues for public interaction and information exchange

Provide methods for the public to contact the health department with questions and concerns through call centers, help desks, hotlines, social media, web chat or other communication platforms.

Tasks

This function consists of the ability to perform the following tasks:

Task 1: Establish mechanisms (e.g., call center, poison control center, and non-emergency line such as 211 or 311) for public and media inquiries that can be scalable to meet the needs of the incident.

Task 2: If health department websites exist, post incident-related information on health department website as a means of informing and connecting with the public.

Task 3: Utilize social media (e.g., Twitter and Facebook) when and if possible for public health messaging.

Performance Measure(s)

At present there are no CDC-defined performance measures for this function.

Resource Elements

*Note: Jurisdictions must have or have access to the resource elements designated as **Priority**.*

PLANNING (P)

P1: Written plans should include a procedure to activate designated inquiry line(s) if applicable to the jurisdiction.[57] Possible considerations include the following items:

- Diversion of unnecessary calls away from the community 911 system
- Diversion of non-critically ill patients away from the healthcare system
- Updated public information regarding health department actions

P2: Written plans should include procedures to identify community partners (e.g., public health, emergency management, 911 authority, Emergency Medical Services, healthcare agencies, community and faith-based partners, and poison control centers) to create a Call Center "Concept of Operations." Minimum components to be included in the "Concept of Operations" are the following:

- What set of circumstances causes the call center system to be activated
- Who activates the call center system
- Designation of call center leader
- Process for call center system activation
- Process for call center increased hours/staffing/de-escalation
- Process for how the call center will interface with the jurisdiction's incident management system/Joint Information Center (JIC)
- Call center scripts/staffing needs

P3: Written plans should include procedure to utilize CDC–INFO as a potential resource to increase response capacity for public and healthcare provider inquiries in emergency and natural disaster incidents, if applicable to the jurisdiction. *(For additional or supporting detail, see Capability 6: Information Sharing)*

P4: Written plans should include a protocol addressing the following items, if using social networking tools:

- Linked websites
- Promotion of participation in Twitter/Facebook
- Evaluation of Twitter/Facebook participation
- Collection of metrics or usage data
- Responsibility for creating and clearing posts
- Time frame or schedule for adding new tweets or posts

Function 4: Establish avenues for public interaction and information exchange

Resource Elements *(continued)*

PLANNING (P)

Suggested resource

- CDC's guidance on using social media: http://www.cdc.gov/SocialMedia/Tools/guidelines/pdf/microblogging.pdf

P5: Written plans should include guidelines for message development when utilizing social media:

- Consideration of target audience
- Ability of messages to stand alone
- Action-oriented messages

P6: Written plans should include scripts or message maps for call center staff.

SKILLS AND TRAINING (S)

S1: Public information staff should trained in use of social media and health communications.

S2: Public information staff should complete the following training: National Incident Management System Communications and Information Management (IS-704)

EQUIPMENT AND TECHNOLOGY (E)

E1: Have or have access to information technology or telephonic equipment to support the scalability of the inquiry line as indicated by the incident. (A transferred call ties up a phone channel until the call is completed.)

Function 5: Issue public information, alerts, warnings, and notifications

Utilizing crisis and emergency risk communication principles, disseminate critical health and safety information to alert the media, public, and other stakeholders to potential health risks and reduce the risk of exposure to ongoing and potential hazards.

Tasks

This function consists of the ability to perform the following tasks:

Task 1: Prior to the incident, comply with established jurisdictional legal guidelines to avoid communication of information that is protected for national security or law enforcement reasons or that may infringe on individual and entity rights.

Task 2: Disseminate information to the public using pre-established message maps in languages and formats that take into account jurisdiction demographics, at-risk populations, economic disadvantages, limited language proficiency, and cultural or geographical isolation.

Function 5: Issue public information, alerts, warnings, and notifications

Tasks *(continued)*

Task 3: Transmit health-related messaging information to responder organizations through secure[58] messaging platforms. *(For additional or supporting detail, see Capability 6: Information Sharing)*

Performance Measure(s)

This function is associated with the following CDC-defined performance measure:

Measure 1: Time to issue a risk communication message for dissemination to the public

- Start time: Date and time that a designated official requested that the first risk communication message be developed
- Stop time: Date and time that a designated official approved the first risk communication message for dissemination

Resource Elements

*Note: Jurisdictions must have or have access to the resource elements designated as **Priority**.*

PLANNING (P)

P1: Written plans should include a clearance/approval process designating points of contact to address Information verification and approval of documents.[59]

P2: Written plans should include a process and protocol to translate materials/resources for populations with limited language proficiency.[60]

Suggested resources

- National Resource Center on Advancing Emergency Preparedness for Culturally Diverse Communities / Translated Material: http://www.diversitypreparedness.org/Resources/23/resourceTypeId__7782/
- National Resource Center on Advancing Emergency Preparedness for Culturally Diverse Communities / National Standard: http://www.diversitypreparedness.org/Resources/Subtype/47/resourceTypeId__14784/subtypeId__16079/
- National Resource Center on Advancing Emergency Preparedness for Culturally Diverse Communities / National Consensus Statement and Guiding Principles on Emergency Preparedness and Cultural Diversity: http://www.diversitypreparedness.org/Topic/Subtopic/Record-Detail/18/resourceTypeId__14784/subtypeId__16946/resourceId__16947/
- Cultural Competency Curriculum for Disaster Preparedness and Crisis Response: http://www.thinkculturalhealth.hhs.gov
- CDC/Association of State and Territorial Health Officials At-Risk Populations and Pandemic Influenza: Planning Guidance for State, Territorial, Tribal, and Local Health Departments: http://www.astho.org/Display/AssetDisplay.aspx?id=401
- Preparedness Tools and Resources: http://www.disability.gov/emergency_preparedness/preparedness_tools_%26_resources

P3: Written plans should include a process and protocol to create low literacy/easy to read printed materials.[61]

Suggested resources

- Centers for Disease Control and Prevention/Simply Put: A Guide for Creating Easy-To-Understand Materials: http://www.cdc.gov/healthmarketing/pdf/Simply_Put_082010.pdf
- National Cancer Institute/Clear and Simple: Developing Effective Print Materials for Low-Literate Readers: http://www.cancer.gov/cancerinformation/clearandsimple

P4: Written plans should include a process and protocol to create materials for the visually or hearing impaired.

Function 5: Issue public information, alerts, warnings, and notifications

Resource Elements *(continued)*

PLANNING (P)

Suggested resource

- Public Health Workbook to Define, Locate and Reach Special, Vulnerable, and At-Risk Populations in an Emergency: http://emergency.cdc.gov/workbook

P5: Written plans should include a process and protocol to reach rural/ isolated populations.

Suggested resource

- Public Health Workbook to Define, Locate and Reach Special, Vulnerable, and At-Risk Populations in an Emergency: http://emergency.cdc.gov/workbook

P6: Written plans should include a process to provide information to help at-risk individuals understand personal preparedness, be knowledgeable about available services, and understand where they can obtain services.[62] (Considerations should include the use of multiple media, multilingual and alternative formats, and age-appropriateness of information.)

P7: Written plans should include the identification of jurisdictional legal authorities to avoid communication of information that is protected for national security or law enforcement reasons or that may infringe on individual and entity rights.

SKILLS AND TRAINING (S)

S1: Information technology skill set to support health alert system. *(For additional or supporting detail, see Capability 6: Information Sharing)*

S2: Training health communication staff in health communication and cultural sensitivity

Suggested resource

- Public Health Workbook to Define, Locate and Reach Special, Vulnerable, and At-Risk Populations in an Emergency: http://emergency.cdc.gov/workbook

CAPABILITY 5: Fatality Management

Fatality management is the ability to coordinate with other organizations (e.g., law enforcement, healthcare, emergency management, and medical examiner/coroner) to ensure the proper recovery, handling, identification, transportation, tracking, storage, and disposal of human remains and personal effects; certify cause of death; and facilitate access to mental/behavioral health services to the family members, responders, and survivors of an incident.

This capability consists of the ability to perform the following functions:

Function 1: Determine role for public health in fatality management
Function 2: Activate public health fatality management operations
Function 3: Assist in the collection and dissemination of antemortem data
Function 4: Participate in survivor mental/behavioral health services
Function 5: Participate in fatality processing and storage operations

Function 1: Determine role for public health in fatality management

Coordinate with the lead jurisdictional authority (e.g., coroner, medical examiner, sheriff, or other agent) to identify the roles and responsibilities of jurisdictional public health entities in fatality management activities.

Tasks

This function consists of the ability to perform the following tasks:

Task 1: Prior to an incident, characterize potential fatalities based on jurisdictional risk assessment and the impact of these potential fatalities on jurisdictional resource needs.

Task 2: Prior to an incident, coordinate with subject matter experts (e.g., those with expertise in epidemiology, laboratory, surveillance; community cultural/religious beliefs or burial practices; chemical, biological, radiological and emergency operations leads; and partners from hospital, mortuary, emergency medical services) to determine public health's role in an incident that may result in fatalities. *(For additional or supporting detail , see Capability 10: Medical Surge)*

Task 3: Prior to an incident, coordinate with jurisdictional, private and federal Emergency Support Function #6 and Emergency Support Function #8 resources as necessary to determine their roles and requirements for the response. *(For additional or supporting detail, see Capability 10: Medical Surge)*

Performance Measure(s)

At present there are no CDC-defined performance measures for this function.

Resource Elements

*Note: Jurisdictions must have or have access to the resource elements designated as **Priority**.*

PLANNING (P)

P1: ***(Priority)*** Written plans should include memoranda of agreement, memoranda of understanding, mutual aid agreements, contracts, and/or letters of agreement with other agencies to support coordinated activities and with other jurisdictions to share resources, facilities, services, and other potential support required during the management of fatalities. Requests should be determined by the local authority and follow the jurisdictional escalation process (i.e., local to state to federal).

- State and federal resources (to include Disaster Mortuary Operational Response Teams) are requested when anticipated resource needs exceed the local capacity. County/jurisdictional plans should address mass fatality planning and thresholds for requesting additional resources.
- Federal resources should be engaged/notified through the U.S. Department of Health and Human Services (HHS) Regional Emergency Coordinators
- Resources available through mutual aid (e.g., Emergency Management Assistance Compact (EMAC), memoranda of understanding, and/or memoranda of agreement) should be engaged/notified through appropriate channels (EMAC Coordinator, emergency management)

Function 1: Determine role for public health in fatality management

Resource Elements *(continued)*

PLANNING (P)

Suggested resources
- National Response Framework: http://www.fema.gov/emergency/nrf/
- National Oil and Hazardous Substances Pollution Contingency Plan: http://www.epa.gov/oem/content/lawsregs/ncpover.htm

P2: Written plans should include documentation that identifies how the jurisdictional public health agency has participated in planning activities with the jurisdictional fatality management lead authority to identify agencies' roles and responsibilities relating to the following topics during an incident with fatalities:[63]

- Magnitude: the estimated number of decedents and body portions
- Type of incident: natural, criminal, terrorist, or accidental
- Manifest: closed population with an existing manifest available, closed population with no manifest available, or open population
- Condition of human remains: visually identifiable, whole bodies, fragmented bodies, comingled, decomposed, charred, or mutilated
- Rate of recovery: rapid, moderate, slow
- Recovery complexity: highly complex requiring anthropological consult, shifting, extensive gridding, known or unknown recovery area boundaries
- Presence of contamination or transmissible infection: decedents contaminated with chemical, biological, or radiological agents or materials
- Disaster site location characteristics: fixed or distributive location; presence of building materials, water/tides, fire/smoldering; need to conduct excavation or debris removal
- Environmental conditions: weather conditions (e.g., heat, cold, humidity, or rain)
- Institution of public health/law enforcement community constraints: limitations placed on public gatherings or establishment of curfews
- Inherent limitation of assets or technology: present or not
- Requirement to establish formal Health and Safety Plans: required for all fixed and/or ad hoc facilities, and/or tasks involving hazardous work (e.g., recovery operations)
- Level of asset integration: requirement for a simple functional or highly matrixed response command structure
- Event occurrence: single event at one location, single event at multiple locations, reoccurring event at multiple locations
- Medical Examiner/Coroner and local jurisdiction infrastructure: operational, partially operational, or non-operational
- Decedent identification complexity: antemortem data collection complications, postmortem data collection complications, requirement to issue death certificates via judicial decree, difficulty communicating with next of kin
- Family management considerations: single or multiple family assistance centers required; establishment of virtual FACs; need for establishing a long-term family management response[64]

Additional consideration should also be given to the following:

- Whether people should call 911 to report a death or whether the jurisdiction wishes to establish a separate call center to coordinate this activity
- Providing for mental/behavioral health services
- Coordination with hospitals and healthcare facilities

(For additional or supporting detail; see Capability 12: Public Health Laboratory Testing and Capability 13: Public Health Surveillance and Epidemiological Investigation)

P3: Written plans should include processes and protocols specifying how the public health agency will coordinate with medical/legal authority and subject matter experts (e.g., those with expertise in epidemiology, laboratory, surveillance; community cultural/religious beliefs or burial practices; chemical, biological, radiological and emergency operations leads; and partners from hospital, mortuary, emergency medical services[65]) to make a determination on the roles and responsibilities of public health entities in the response.[66]

Function 1: Determine role for public health in fatality management

Resource Elements *(continued)*

PLANNING (P)

P4: Written plans should include processes and protocols for jurisdictional all-hazards fatality management including addressing public health roles in fatality management.[67,68,69] The plan should address the following items:

- Coordination of facilities (e.g., morgue locations, portable and temporary morgues, decontamination, decedent storage, hospitals, and healthcare facilities)
- Coordination of family relations (e.g., notification, grief services, antemortem information, and call centers)
- Procedures to acquire death certificates or permits (including sending human remains to international destinations)
- Regulations for crematoriums and other support groups
- Antemortem data management (e.g., establish record repository, identify repository physical location, enter interview data into library, and balance victim needs with those who have lost family members)
- Personnel needs (e.g., medical and mental/behavioral, including psychological first aid)
- Frequency that critical documentation is reviewed and updated (e.g., comprehensive fatality management mission critical list, and contingency plans with local, state, and private entities regarding final disposition of human remains)

Suggested resources

- Jurisdiction's current fatality management plan
- NACCHO: Managing Mass Fatalities: A Toolkit for Planning: http://www.naccho.org/toolbox/tool.cfm?id=1595%20
- National Mass Fatalities Institute: Mass Fatalities Institute Planners Course
- Mass fatalities courses offered by the state and local agencies
- Radiation Emergency Medical Management: Management of the Deceased: http://www.remm.nlm.gov/deceased.htm
- Pan American Health Organization: Management of Dead Bodies in Disaster Situations: http://www.paho.org/English/DD/PED/ManejoCadaveres.htm
- Pan American Health Organization: Management of Dead Bodies After Disasters – A Field Manual for First Responders: http://www.paho.org/English/DD/PED/DeadBodiesFieldManual.htm
- Department of Justice: Mass Fatality Incidents: A Guide for Human Forensic Identification: http://www.ojp.usdoj.gov/nij/pubs-sum/199758.htm
- Morgan OW, Sribanditmongkol P, Perera C,, Sulasmi Y, Van Alphen D, et al. (2006) Mass Fatality Management Following the South Asian Tsunami Disaster: Case studies in Thailand, Indonesia, and Sri Lanka. PLoS Med 3(6): e195. DOI: 10.1371/journal.pmed.0030195: http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1472696/pdf/pmed.0030195.pdf
- U.S. Army Soldier and Biological Chemical Command (SBCCOM): Guidelines for Mass Fatality Management During Terrorist Incidents Involving Chemical Agents: http://www.ecbc.army.mil/downloads/cwirp/ECBC_guidelines_mass_fatality_mgmt.pdf
- Disaster Mortuary Operational Response Team: http://www.dmort.org/FilesforDownload/MassFatalityResources2007.pdf

SKILLS AND TRAINING (S)

S1: Public Health staff participating in fatality management activities should be trained on the jurisdiction's fatality management plans and procedures and understand their role(s), if any, during a public health response that includes fatalities.

Recommended trainings include the following:

- Federal Emergency Management Agency (FEMA) Mass Fatalities Incident Response (G-386) – Emergency Management Institute – current version available but under review
- FEMA Emergency Support Function #8 – Public Health and Medical Services (IS-808)
- Mass fatalities courses offered by the jurisdiction
- National Mass Fatalities Institute:
  - Family Assistance and Behavioral Health Course, Responding to Active Shooter Incidents-Fatality Management (MFI 100,200,300 and 400)

Function 1: Determine role for public health in fatality management

Resource Elements *(continued)*

SKILLS AND TRAINING (S)

- Suggested training primarily for medical examiners, coroners and morticians:
  - Radiological Terrorism: A Tool Kit for Public Health Officials: http://emergency.cdc.gov/radiation/publichealthtoolkit.asp
    - Guidelines for Handling Decedents Contaminated with Radioactive Materials (document and video): http://emergency.cdc.gov/radiation/pdf/radiation-decedent-guidelines.pdf
    - Satellite Broadcast: Preparing for Radiological Population Monitoring & Decontamination: http://www.phppo.cdc.gov/PHTN/Radiological2006/default.asp
  - The Medical Examiner and Coroner's Guide for Contaminated Deceased Body Management: http://thename.org/index.php?option=com_docman&task=doc_download&gid=13&Itemid=26

EQUIPMENT AND TECHNOLOGY (E)

E1: Have or have access to personal protective equipment to support designated public health roles (e.g., blood-borne pathogen protection, laboratory safety equipment). Suggested personal protective equipment can include the following items:

- Protective clothing (e.g., suit, coveralls, hoods, gloves, and boots)
- Respiratory equipment
- Air purifying respirators (e.g., N95)
- Cooling system (e.g., ice vest, air circulation, and water circulation)
- Head protection
- Eye protection
- Ear protection
- Inner garment
- Outer protection (e.g., over gloves, over boots, and flash cover)

(For additional or supporting detail, see Capability 14: Responder Safety and Health)

Function 2: Activate public health fatality management operations

Facilitate access to resources (e.g., human, record keeping, and physical space) to address the fatalities from an incident in accordance with public health jurisdictional standards and practices and as requested by lead jurisdictional authority.

Tasks

This function consists of the ability to perform the following tasks:

Task 1: Assess data from the incident to inform and guide the public health resources needed for the response.

Task 2: Identify and coordinate with jurisdictional, regional, private, and federal Emergency Support Function #8 resources with expertise in the potential cause(s) of fatalities to make recommendations regarding all phases of human remains disposition: recovery, processing (e.g., decontamination, infection control, and other mitigation measures), storing, and disposing.

Task 3: Coordinate with partners to initiate pre-determined (e.g., local, regional, state, federal, and private sector) processes for all phases of human remains disposition.

Task 4: Coordinate incident details among members of the public health and medical health systems by sharing information between programs and linking information databases, based on the scope of the incident. *(For additional or supporting detail, see Capability 6: Information Sharing)*

Performance Measure(s)

At present there are no CDC-defined performance measures for this function.

Function 2: Activate public health fatality management operations

Resource Elements

*Note: Jurisdictions must have or have access to the resource elements designated as **Priority**.*

PLANNING (P)

P1: Written plans should include a list of potential fatality management advisory roles that public health may need to fill to support a response per the jurisdiction's plan.[70] Consideration should be given to the inclusion of these elements:

- Search and recovery of human remains
- Removal, transfer/transportation, storage, and temporary burial of human remains
- Identification and re-burial of human remains where grave sites have been disrupted by the incident
- Assessment of morgue/examination center capacities
- Morgue/examination site staff
- Disposal of human remains
- Mental/behavioral health services
- Public affairs/communications

(For additional or supporting detail, see Capability 4: Emergency Public Information and Warning and Capability 15: Volunteer Management)

SKILLS AND TRAINING (S)

S1: Public health staff participating in fatality management operations should be trained on plans and procedures (i.e., standard operating procedures) and the jurisdictional fatality management plan and understand their role(s), if any, during a public health response with fatalities.

EQUIPMENT AND TECHNOLOGY (E)

E1: Have or have access to material required to manage fatality operations as required by the incident:

- Protective clothing (e.g., gloves, boots, coats, hard hats, rain suits, respirators)
- Body bags (appropriate number and type)
- Refrigerated storage
- Tents
- Storage for equipment/supplies and bodies
- Paint for numbering
- Flags for marking locations
- Plastic toe tags
- Biohazard bags and boxes
- Photography equipment
- Gridding, laser survey, and global positioning systems
- Communication devices: radio and cell phones
- Equipment for scene documentation
- Decontamination unit
- Radiation survey equipment

E2: Have or have access to systems to record and track fatalities under the leadership of the coroner/medical examiner.

- Database for the centralization of information. Consideration should be given to the inclusion of these elements:
  - A centralized information clearinghouse for reporting deaths
  - A centralized information clearinghouse for collating data. Either a software program or a series of pre-printed forms should be designed to accurately track refrigerated storage, funeral home capacity, and the whereabouts and status of the deceased
- Death reporting system that can demonstrate cross-agency collaboration and information sharing of mortality data (e.g., transmit death certificate data including cause of death data to appropriate federal agencies)

Function 2: Activate public health fatality management operations

Resource Elements *(continued)*

EQUIPMENT AND TECHNOLOGY (E)

- Tracking system for recovery activities. Consideration for the data gathering system should be given to the inclusion of these elements:
  - □ Where human remains are found
  - □ How fragmented portions are tracked
  - □ How case numbers are correlated
  - □ How antemortem data (obtained from family members) can be cross-referenced with other case numbers assigned to recovered human remains
  - □ How to distinguish disaster cases from other caseloads
- System should enable the cross-leveling of data between several operational areas, such as the morgue, the family assistance centers, and the incident site, or any location where case data is entered
- System should have redundant backup capabilities to ensure that information is not lost due to unexpected system failure or other type of event/incident

Function 3: Assist in the collection and dissemination of antemortem data

Assist, if requested, the lead jurisdictional authority and jurisdictional and regional partners to gather and disseminate antemortem data[71] through a Family Assistance Center Model[72] or other mechanism.

Tasks

This function consists of the ability to perform the following tasks:

Task 1: Coordinate with partners for the establishment of a mechanism (e.g., Family Assistance Center) to collect antemortem data.

Task 2: Coordinate with partners to identify and assemble the resources required to collect and communicate antemortem data.

Task 3: Coordinate with partners and assist, if needed, in the collection and dissemination of antemortem data to families of the deceased and law enforcement officials. *(For additional or supporting detail, see Capability 6: Information Sharing)*

Task 4: Coordinate with partners to support electronic recording and reporting of antemortem data through electronic systems and/or other information sharing platforms. *(For additional or supporting detail , see Capability 6: Information Sharing)*

Performance Measure(s)

At present there are no CDC-defined performance measures for this function.

Resource Elements

*Note: Jurisdictions must have or have access to the resource elements designated as **Priority**.*

PLANNING (P)

P1: ***(Priority)*** Written plans should include a procedure for the collection of antemortem data. Consideration should be given to the inclusion of these elements:

- Data collection/dissemination methods
  - □ Call Center or 1-800 number
  - □ Family Reception Center
  - □ Family Assistance Center
- Staff who can perform the following functions:
  - □ Administrative activities
  - □ Interviews of families in order to acquire antemortem data
  - □ System data entry of antemortem data

Function 3: Assist in the collection and dissemination of antemortem data

Resource Elements *(continued)*

PLANNING (P)

P2: Written plans should include family notification procedures and protocols in the event that public health has a lead role in the incident. Consideration should be given to the inclusion of the following elements:

- Where the notification occurs
- Which family members are notified and how they are contacted
- Assurance that the spokesperson is releasing accurate information that was officially issued by the coroner's/ medical examiner's office
- Informing families about identification methods being used for the incident including what they involve and their reliability (e.g., fingerprints and DNA)
- Handling and release of decedent's personal effects

SKILLS AND TRAINING (S)

S1: Public health staff participating in fatality management activities should be trained on plans and procedures and jurisdictional fatality management plans and understand their role(s), if any, during a public health response with fatalities.

Recommended trainings include the following:

- Providing Relief to Families after a Mass Fatality: Roles of the Medical Examiner's Office and the Family Assistance Center, Department of Justice's Office of Justice Programs, the Office for Victims of Crime: http://www.ojp.usdoj.gov/ovc
- Creating and Operating A Family Assistance Center: A Toolkit for Public Health: http://www.apctoolkits.com/family-assistance-center/
- National Transportation Safety Board Training Center: http://www.ntsb.gov/tc/sched_courses.htm
  - Family Assistance (TDA301)
  - Advanced Skills in Disaster Family Assistance (TDA405)
  - Mass Fatality Incidents for Medicolegal Professionals (TDA403)

EQUIPMENT AND TECHNOLOGY (E)

E1: Have or have access to a central repository/database for the collection, recording, and storage of antemortem and postmortem data.

Function 4: Participate in survivor mental/behavioral health services

Coordinate with the lead jurisdictional authority and jurisdictional and regional partners to support the provision of non-intrusive, culturally sensitive mental/behavioral health support services to family members of the deceased, incident survivors, and responders, if requested.

Function 4: Participate in survivor mental/behavioral health services

Tasks

This function consists of the ability to perform the following tasks:

Task 1: Coordinate with partners to assemble the required staff and resources to provide non-intrusive mental/behavioral health services to responders.

Task 2: Coordinate with partners to facilitate availability of culturally appropriate assistance (e.g., addressing language barriers and religious or cultural practices).

Task 3: Coordinate with Emergency Support Function 8 partners to support the provision of mental/behavioral health services to family members of the deceased and incident survivors as needed.

Performance Measure(s)

At present there are no CDC-defined performance measures for this function.

Resource Elements

*Note: Jurisdictions must have or have access to the resource elements designated as **Priority**.*

PLANNING (P)

P1: ***(Priority)*** Written plans should include processes and protocols developed in conjunction with jurisdictional mental/behavioral health partners to identify services to provide to survivors after an incident involving fatalities. Written plans should include a contact list of pre-identified resources that could provide mental/behavioral health support to responders and families according to the incident.[73,74] Consideration should be given to the inclusion of the following elements:

- Mental/behavioral health professionals
- Spiritual care providers
- Hospices
- Translators
- Embassy and Consulate representatives when international victims are involved

P2: ***(Priority)*** Written plans should include list of staff selected in advance of an incident that could potentially fill the fatality management roles adequate to a given response.[75]

P3: Written plans should include processes and protocols to identify services to provide to responders and family members of the deceased after an incident involving fatalities. Consideration should be given to the inclusion of the following elements:

- Determining who and what agencies/businesses (among the local county/jurisdiction) may be available to assist with the organization and operation of services following an incident resulting in fatalities
  - Providing medical and mental/behavioral assistance to responders
  - Providing medical and mental/behavioral assistance to families
- Determining what cultural, religious and family practices are prominent (among the local jurisdiction) and may require additional consideration/accommodation when managing fatalities

SKILLS AND TRAINING (S)

S1: Public health staff participating in fatality management should be trained on jurisdictional fatality management plans and procedures, and understand their role(s), if any, during a public health response that includes fatalities.

Recommended trainings include the following:

- Trauma, Death, and Death Notification: A Seminar for Professional Counselors and Victim Advocates (1996): http://www.ojp.usdoj.gov/ovc/publications/infores/death.htm
- Providing Relief to Families After a Mass Fatality: Roles of the Medical Examiner's Office and the Family Assistance Center, Department of Justice's Office of Justice Programs, the Office for Victims of Crime: http://www.ojp.usdoj.gov/ovc
- Light Our Way: A Guide for Spiritual Care in Times of Disaster for Disaster Response Volunteers, First Responders and Disaster Planners, Emotional and Spiritual Care Committee and the Light Our Way Task Force of National Voluntary Organizations Active in Disaster: http://www.ldr.org/care/Light_Our_Way.pdf

Function 5: Participate in fatality processing and storage operations

Assist the lead jurisdictional authority and partners in ensuring that human remains and associated personal effects are safely recovered, processed, transported, tracked, stored, and disposed of or released to authorized person(s), if requested.

Tasks

This function consists of the ability to perform the following tasks:

Task 1: Make recommendations to incident management/jurisdictional lead agency on procedures for the safe recovery, receipt, identification, decontamination, transportation, storage, and disposal of human remains. Recommendations can also include an assessment of the need for temporary burial, procurement of public property for temporary burial, and security/privacy requirements of the processing facility.

Task 2: Assist, if needed or requested, in multi-specialty forensic analysis to identify human remains and determine the cause and manner of death. *(For additional or supporting detail, see Capability 12: Public Health Laboratory Testing, and Capability 13: Public Health Surveillance and Epidemiological Investigation)*

Task 3: Coordinate with partners to support electronic death reporting. *(For additional or supporting detail, see Capability 6: Information Sharing)*

Task 4: Coordinate with partners to facilitate the collection and reporting of mortality information (e.g., vital records). *(For additional or supporting detail, see Capability 6: Information Sharing)*

Performance Measure(s)

At present there are no CDC-defined performance measures for this function.

Resource Elements

*Note: Jurisdictions must have or have access to the resource elements designated as **Priority**.*

PLANNING (P)

P1: ***(Priority)*** Written plans should include protocols that ensure that the health department, through healthcare coalitions or other mechanisms, supports the coordination of healthcare organization fatality management plans with the jurisdictional fatality management plan.

Suggested resources

- FY10 Hospital Preparedness Funding Opportunity Announcement, Section 1.5.6 Fatality Management: http://www.phe.gov/Preparedness/planning/hpp/Documents/fy10_hpp_guidance.pdf
- Joint Commission Emergency Management Standard EM.02.02.11.7

P2: Written plans should include a protocol for identifying required data elements for electronic death reporting according to requirements of state death certificates and coroner/medical examiner. Consideration should be given to the following elements:

- Incident details (e.g., date, time, location, and situation)
- Victim identification (e.g., name, date of birth, gender, ethnicity, height, weight, address, and medical history)
- Social security number verification
- Other people involved (e.g., names of family members and friends)
- Location/types of injuries
- Cause of death (e.g., presumed/actual or underlying)
- Death details (e.g., date, time, location, and manner)
- Human remains processing details
- Human remains storage location
- Health provider/responder details
- Survivor interview details
- Human remains disposal procedures

(For additional or supporting detail, see Capability 6: Information Sharing)

Function 5: Participate in fatality processing and storage operations

Resource Elements *(continued)*

SKILLS AND TRAINING (S)

S1: Public health staff participating in fatality management should be trained on fatality management plans and procedures (e.g., Standard Operating Procedures), and understand their role(s), if any, during a public health response that includes fatalities.

Recommended trainings (primarily for medical examiners and morticians) include the following:

- Radiological Terrorism: A Tool Kit for Public Health Officials: http://emergency.cdc.gov/radiation/publichealthtoolkit.asp
  - Guidelines for Handling Decedents Contaminated with Radioactive Materials (document and video)
  - Satellite Broadcast: Preparing for Radiological Population Monitoring and Decontamination
- The Medical Examiner and Coroner's Guide for Contaminated Deceased Body Management: http://thename.org/index.php?option=com_docman&task=doc_download&gid=13&Itemid=26

EQUIPMENT AND TECHNOLOGY (E)

E1: Have or have access to material and equipment required to process, store, and/or dispose of human remains. Consideration should be given to the following equipment:

- Portable x-ray unit
- Morgue equipment
- Medical instruments for autopsies
- Radiation survey equipment
- Portable autoclave
- Gloves, gowns, personal protective equipment
- Digital cameras
- Specimen containers and preservatives
- Refrigerated storage
- Computers/printers
- Death certificates

CAPABILITY 6: Information Sharing

Information sharing is the ability to conduct multijurisdictional, multidisciplinary exchange of health-related information and situational awareness data among federal, state, local, territorial, and tribal levels of government, and the private sector. This capability includes the routine sharing of information as well as issuing of public health alerts[76] to federal, state, local, territorial, and tribal levels of government and the private sector in preparation for, and in response to, events[77] or incidents[78] of public health significance.[79]

This capability consists of the ability to perform the following functions:

Function 1: Identify stakeholders to be incorporated into information flow
Function 2: Identify and develop rules and data elements for sharing
Function 3: Exchange information to determine a common operating picture

Function 1: Identify stakeholders to be incorporated into information flow

Identify stakeholders within the jurisdiction across public health, medical, law enforcement, and other disciplines that should be included in information exchange, and identify inter-jurisdictional public health stakeholders that should be included in information exchange. Determine the levels of security clearance needed for information access across and between these stakeholders.

Tasks

This function consists of the ability to perform the following tasks:

Task 1: Prior to and as necessary during an incident, identify intra-jurisdictional stakeholders across public health, public safety, private sector, law enforcement, and other disciplines to determine information-sharing needs.

Task 2: Prior to and as necessary during an incident, identify inter-jurisdictional public health stakeholders to determine information sharing needs.

Task 3: Prior to and as necessary during an incident, work with elected officials, identified stakeholders (both inter- and intra-jurisdictional) and private sector leadership to promote and ensure continual connection (e.g., ongoing standing meetings, webinars, and teleconferences) and use continuous quality improvement process to define and redefine information-sharing needs.

Performance Measure(s)

At present there are no CDC-defined performance measures for this function.

Resource Elements

*Note: Jurisdictions must have or have access to the resource elements designated as **Priority**.*

PLANNING (P)

P1: ***(Priority)*** Written plans should include processes to engage stakeholders that may include the following: [80,81]

- Law enforcement
- Fire
- Emergency Medical Services
- Private healthcare organizations (e.g., hospitals, clinics, large corporate medical provider organizations and urgent care centers)
- Fusion centers
- For states: local health departments, tribes and territories
- Individuals who have or may need a security clearance, based on functional role

Suggested resources

- FBI-CDC Criminal and Epidemiological Investigation Handbook: http://www2a.cdc.gov/phlp/docs/crimepihandbook2006.pdf

Function 1: Identify stakeholders to be incorporated into information flow

Resource Elements *(continued)*

PLANNING (P)

- Joint Public Health Law Enforcement Investigations: Model Memorandum of Understanding, created by Public Health and Law Enforcement Emergency Preparedness Workgroup, CDC and Bureau of Justice Assistance: http://www.nasemso.org/Projects/DomesticPreparedness/documents/JIMOUFinal.pdf

P2: ***(Priority)*** Written plans should include a role-based public health directory that will be used for public health alert messaging. The directory profile of each user includes the following elements:[82]

- Assigned roles
- Multiple device contact information
- Organizational affiliation

Suggested resource

- CDC's Public Health Information Network: www.cdc.gov/phin

P3: Written plans should include processes for stakeholder communication, including frequency of standing meetings and method for requesting additional meetings.

EQUIPMENT AND TECHNOLOGY (E)

E1: Have or have access to a database of public health department contact information updated quarterly.[83] The database may be paper-based or electronic.

E2: Have or have access to equipment that may be needed to access information when clearances are required.

Function 2: Identify and develop rules and data elements for sharing

Define minimum requirements for information sharing for the purpose of developing and maintaining situational awareness. Minimum requirements include the following elements:

- When data should be shared
- Who is authorized to receive data
- Who is authorized to share data
- What types of data can be shared
- Data use and re-release parameters
- What data protections are sufficient
- Legal, statutory, privacy, and intellectual property considerations

Function 2: Identify and develop rules and data elements for sharing

Tasks

This function consists of the ability to perform the following tasks:

Task 1: Prior to and as necessary during an incident, identify, through public health agency legal counsel (and counsel to other agencies and jurisdictions as appropriate), current jurisdictional and federal regulatory, statutory, privacy-related and other provisions, laws, and policies that authorize and limit sharing of information relevant to emergency situational awareness. Such laws and policies may include Health Insurance Portability and Accountability Act (HIPAA), Office of the National Coordinator Health IT Information Technology Policy, HHS Information Management Policy, and specific requirements of current memoranda of understanding and memoranda of agreements; these laws may address privacy, civil liberties, intellectual property, and other substantive issues.

Task 2: Prior to and as necessary during an incident, identify routine or incident-specific data requirements for each stakeholder.

Task 3: Prior to and as necessary during an incident, identify public health events and incidents that, when observed, will necessitate information exchange. *(For additional or supporting detail, see Capability 3: Emergency Operations Coordination)*

Task 4: Prior to, during, and after an incident, utilize continuous quality improvement or have a processes and a corrective action system to identify and correct unintended legal and policy barriers to sharing of situational awareness information that are within the jurisdictional public health agency's control (e.g., legal and policy barriers, opportunities to shorten the amount of time to share data).

Performance Measure(s)

At present there are no CDC-defined performance measures for this function.

Resource Elements

*Note: Jurisdictions must have or have access to the resource elements designated as **Priority**.*

PLANNING (P)

P1: ***(Priority)*** Written plans should include a listing of data-exchange requirements for each stakeholder (including the use of common terminology, definitions, and lexicon by all stakeholders) that adhere to available national standards for data elements to be sent and data elements to be received.

P2: ***(Priority)*** Written plans should include health information exchange protocols for each stakeholder that identify determinants for exchange and which may include the following elements:

- Unusual cluster(s) or illness that threaten closure of institutional settings (e.g., illness among healthcare workers or prisoners)
- High burden of illness or a cluster of illness confined to a specific population (e.g., racial or ethnic group, or vulnerable populations)
- Illness burden that is expected to overwhelm local medical or public health resources
- A public health laboratory finding of interest (e.g., a novel virus identified by lab) that is not picked up clinically or through other surveillance
- Large numbers of patients with similar and unusual symptoms
- Large number of unexplained deaths
- Higher than expected morbidity and mortality associated with common symptoms and/or failure of patients to respond to traditional therapy
- Simultaneous clusters of similar illness in noncontiguous areas
- Received threats or intelligence
- Incidents in other jurisdictions that raise possible risk in home jurisdiction (e.g., elevation of pandemic influenza alert level)

P3: Written plans should include communications processes and protocols to communicate with identified stakeholders (e.g., intra-jurisdictional public health, inter-jurisdictional public health, medical, mental/behavioral health, and law enforcement).

Function 2: Identify and develop rules and data elements for sharing

Resource Elements *(continued)*

PLANNING (P)

P4: Written plans should include memoranda of understanding or letters of agreement with agencies and stakeholders for participation and information sharing.

P5: Written plans should include processes to ensure that the jurisdiction adheres to applicable state and federal constitutional and statutory privacy and civil liberties provisions (e.g., Information Control or Collection Plan).

P6: Written plans should include processes and procedures for exchanging information when security clearances apply (e.g., when sharing information with the Federal Bureau of Investigation or state bureau of investigation).

P7: Written plans should include documentation where and if state laws and regulations prohibit sharing of information to the federal level and inter-jurisdictionally.

P8: Written plans should include processes and frequency for data exchange in both routine and incident-specific settings, including requirements for data exchange with CDC at a frequency as determined by the type of incident and phase of the incident, as well as jurisdictional standards.

SKILLS AND TRAINING (S)

S1: All public health personnel should receive awareness-level training in the pertinent laws and policies regarding information sharing and in procedures to assure adherence to them (e.g., transport of data and use of personal identifiable information).

EQUIPMENT AND TECHNOLOGY (E)

E1: Information systems should follow industry or national system-independent data standards as identified by CDC

E2: Written conversions to convert non-standard formats or terminologies into federally accepted standards for communication

Suggested resource

– CDC's Public Health Information Network: www.cdc.gov/phin

Function 3: Exchange information to determine a common operating picture

Share information (both send and receive) within the public health agency, with other identified intra-jurisdictional stakeholders, and with identified inter-jurisdictional stakeholders, following available national standards[84] for data vocabulary, storage, transport, security, and accessibility.

Function 3: Exchange information to determine a common operating picture

Tasks

This function consists of the ability to perform the following tasks:

Task 1: Prior to and during an incident, collaborate with and participate in jurisdictional health information exchange (e.g., fusion centers, health alert system, or equivalent). *(For additional or supporting detail, see Capability 3: Emergency Operations Coordination)*

Task 2: Prior to and during an incident, maintain data repositories that are able to support data exchange with other regional and federal public health entities. Store data according to jurisdictional and/or federal standards for formatting, vocabulary, and encryption. *(State and local jurisdictions)*

Task 3: Prior to and during an incident, request, send, and receive data and information using encryption that meets jurisdictional and/or federal standards. *(State and local jurisdictions)*

Task 4: Verify authenticity with message sender or information requestor.

Task 5: Prior to and during an incident, if necessitated by the situation, acknowledge receipt of information or public health alert.

Performance Measure(s)

At present there are no CDC-defined performance measures for this function.

Resource Elements

*Note: Jurisdictions must have or have access to the resource elements designated as **Priority**.*

PLANNING (P)

P1: ***(Priority)*** Written plans should include a protocol for the development of public health alert messages that include the following elements: [85]

- Time sensitivity of the information
- Relevance to public health
- Target audience
- Security level or sensitivity
- The need for action may include
  - Awareness
  - Request a response back
  - Request that specific actions be taken

P2: Written plans should include a process for information system development and maintenance[86] that take into account the following elements:

- Controls and safeguards for data access levels
- Data structure definitions and specification of databases (structured/unstructured data). Structured healthcare data should utilize the latest applicable federal standards.
- Ownership of the data
- Data quality and data reliability
- Security and privacy of patient health information as applicable
  - Consent, security, and privacy procedures
  - Access permissions, including data release and reuse agreements
  - Additional protections against data theft such as encryption, data loss, and back-up storage
- Authentication service to authenticate requestors and data submissions from various locations

P3: Written plans for jurisdictions considering participation in an information exchange process such as a fusion center should address the following elements:

- Clearly defined intelligence requirements that prioritize and guide planning, collection, analysis, and dissemination efforts
- Clear delineation of roles, responsibilities, and requirements of each level and sector of government involved in the fusion process

Function 3: Exchange information to determine a common operating picture

Resource Elements *(continued)*

PLANNING (P)

Suggested resources

- Health Security Intelligence Enterprise Strategy: https://cs.hsin.gov/HPH/default.aspx
- Public Health and Medical Integration for Fusion Centers: An Appendix to the Baseline Capabilities for State and Major Urban Area Fusion Centers: http://it.ojp.gov/documents/baselinecapabilitiesa.pdf
- Integrating Health Security Capabilities into Fusion Centers: https://cs.hsin.gov/HPH/default.aspx

P4: Written plans should include processes that indicate how healthcare providers in the jurisdiction shall be able to exchange information with electronic public health case-reporting systems, syndromic surveillance systems, or immunization registries according to the Centers for Medicare and Medicaid Services (CMS) Electronic Health Record Incentive Program rules and any additional applicable federal standards.[87] This electronic sharing includes but is not limited to the following elements:

- Electronic sharing of laboratory test results
- Immunization registries
- Syndromic surveillance data

Suggested resources

- The Office of the National Coordinator for Health Information Technology: http://healthit.hhs.gov/portal/server.pt?open=512&mode=2&objID=3006&PageID=20401
- CDC's Public Health Information Network: www.cdc.gov/phin

P5: Written plans should include a process for verifying that received messages are from a trusted source.

P6: Written plans should include a process to acknowledge receipt of information and to be able to accept acknowledgement from stakeholders.

P7: Written plans should include a procedure in place that ensures that public health alert messages are received by multiple people, at least one of whom has responsibility to process the message 24/7/365.

P8: Written plans should include a public health alerting message template that includes the following elements:[88]

- Subject or title
- Description
- Background
- Request or recommendations (action requested)
- Who to contact
- Where to go for more information
- Who it went to (e.g., specific roles)
- Different templates for every level of alert with different criteria for each
- Distribution method

P9: Written plans should include a template for Information Sharing Access Agreements via a memorandum of understanding, memorandum of agreement, or other letter of agreement with data-sharing partners, which should consider the following:

- Breach notification procedures, particularly if data is not stored in an encrypted state
- Maintenance of Health Insurance Portability and Accountability (HIPAA) Security Rule compliance, when potential Personally Identifiable Information must be shared

P10: Written plans should include a process for standardized electronic data exchange with partners according to information exchange standards established by Public Health Information Network.

Suggested resource

- CDC's Public Health Information Network: www.cdc.gov/phin

Function 3: Exchange information to determine a common operating picture

Resource Elements *(continued)*

SKILLS AND TRAINING (S)

S1: Identify staff that meets jurisdictionally defined competencies for a Public Health Informatician as defined in Competencies for Public Health Informaticians -2009[89] (or updated versions of this document) to participate in health information exchange.[90]

EQUIPMENT AND TECHNOLOGY (E)

E1: Have or have access to electronic systems capable of handling routine day-to-day information data transmission as well as emergency notification and situational awareness. When conveying personal health information or syndromic surveillance information the system should meet the following standards:[91]

- Federal standards and specifications, (e.g., messaging guides) when applicable[92]
  (For additional or supporting detail, see Capability 13: Public Health Surveillance and Epidemiological Investigation)
- Applicable patient privacy-related laws and standards, including state or territorial laws, and Health Insurance Portability and Accountability, Health Information Technology for Economic and Clinical Health, National Institute of Standards and Technology, and the Office of the National Coordinator standards such as:
  - □ Data must be encrypted during transit according to jurisdictional and, if available, national standards[93,94]
  - □ Data protections based on the types of data shared such as:
    - o All data exchanges should abide by the National Institute of Standards and Technology/Federal Information Security Management Act requirements for the integrity, confidentially and availability appropriate for the data sensitivity level (e.g., low, medium, and high).
    - o All communication containing health data (personally identifiable information and non-personally identifiable information) should take place over transport layer security/secure socket layers using authentication appropriate for the data sensitivity level (e.g., userid/password, and secureID)
    - o For more sensitive data, public key infrastructure should be used to authenticate all parties and to encrypt the data (e.g., mutual authentication SSL, XMLEncryption, NIST FIPS 140-1-compliant encryption scheme)
  - □ Software storing data must have the ability to encrypt and, based on data exchange packages, some exchanges may require data to be encrypted while at rest[95,96]
  - □ Data storage and retrieval must be compliant with the Nationwide Privacy and Security Framework for Electronic Exchange of Individually Identifiable Health Information[97]
  - □ Should be able to generate an audit log for a user-specified time period
- Recipient systems be patched and maintained with recent security controls (e.g., strong system administrator password policies and anti-malware patches)

(State and local jurisdictions)

E2: Have or have access to secondary systems for information sharing and public health alerting in the event that the primary system is unavailable *(State and local jurisdictions)*

E3: Have or have access to a communication and alerting system that can handle both public health alert messaging and non-urgent messaging *(State and local jurisdictions)*

CAPABILITY 7: Mass Care

Mass care is the ability to coordinate with partner agencies to address the public health, medical, and mental/behavioral health needs of those impacted by an incident at a congregate location.[98] This capability includes the coordination of ongoing surveillance and assessment to ensure that health needs continue to be met as the incident evolves.

This capability consists of the ability to perform the following functions:

Function 1: Determine public health role in mass care operations
Function 2: Determine mass care needs of the impacted population
Function 3: Coordinate public health, medical, and mental/behavioral health services
Function 4: Monitor mass care population health

Function 1: Determine public health role in mass care operations

In conjunction with Emergency Support Function #6, #8, and #11 partners, emergency management, and other partner agencies, determine the jurisdictional public health roles and responsibilities in providing medical care, health services, and shelter services during a mass care incident.

Tasks

This function consists of the ability to perform the following task:

Task 1: At the time of an incident, activate pre-determined public health roles (e.g., population monitoring, environmental health and safety assessment, accessibility for populations with special needs, and need for decontamination) needed in the mass care response in coordination with Emergency Support Function #6 and #8 partners.

Performance Measure(s)

At present there are no CDC-defined performance measures for this function.

Resource Elements

*Note: Jurisdictions must have or have access to the resource elements designated as **Priority**.*

PLANNING (P)

P1: Written plans should include a process to work in conjunction with Emergency Support Function #6 , #8, and #11 partners, emergency management, and other partner agencies (e.g., jurisdictional Safety Officer, HazMat, radiation control authority, emergency medical services, healthcare organizations, fire service, American Red Cross, Federal Emergency Management Agency, and animal control) to establish written jurisdictional strategies for mass care addressing the fulfillment of minimum roles and responsibilities at both general and functional needs shelters. Strategies may include memoranda of understanding, memoranda of agreement, or letters of agreement with partner agencies if needed. Minimum roles and responsibilities include the following elements:

- Provision of medical services
- Provision of mental/behavioral health services
- Provision of radiological, nuclear, and chemical screening and decontamination services
- Conduction of and reporting on human health surveillance
- Assessment of facility accessibility for populations with special needs
- Operation oversight, set-up, and closure of congregate location(s)
- Registration of congregate location users
- Removal of sanitation and waste
- Provision of service animal and pet shelter and care
- Provision of environmental health and safety inspections

Suggested resource

- State Radiation Control Programs: http://www.crcpd.org/Map/RCPmap.htm

(For additional or supporting detail, see Capability 8: Medical Countermeasure Dispensing, Capability 11: Non-Pharmaceutical Interventions, and Capability 13: Public Health Surveillance and Epidemiological Investigation)

Function 1: Determine public health role in mass care operations

Resource Elements *(continued)*

PLANNING (P)

P2: Written plans should include processes to address the functional needs of at-risk[99] individuals, which may include memoranda of understanding or agreement or letters of agreement with partner agencies if needed. At -risk accommodations may include but are not limited to the following elements:

- Functional and medical caregivers
- Social services
- Utilization of universal design principles in signage and accessibility
- Language and sign language interpreters

P3: Written plans should include processes to disseminate situational awareness information to emergency management and to alert partner organizations in a mass care response. Processes and information include the following elements: [100]

- Contact information of at least one representative from each organization
- Who will notify organizations
- How organizations will be notified
- How receipt of notification will be confirmed
- How organizations will confirm their participation in the mass care response.
- What procedures are in place to assure that communication will work properly during an emergency (e.g., regular updating of contact lists, regular drills)

(For additional or supporting detail, see Capability 3: Emergency Operations Coordination and Capability 6: Information Sharing)

Function 2: Determine mass care needs of the impacted population

In conjunction with Emergency Support Function #6, #8, and #11 partners, emergency management and other partner agencies, determine the public health, medical, mental/behavioral health needs of those impacted by the incident.

Tasks

This function consists of the ability to perform the following tasks:

Task 1: At the time of an incident, coordinate with response partners to utilize pre-existing jurisdictional risk assessment, environmental data, and health demographic data to identify population health needs in the area impacted by the incident. *(For additional or supporting detail, see Capability 1: Community Preparedness)*

Task 2: At the time of an incident, coordinate with response partners to complete a facility-specific environmental health and safety assessment of the selected or potential congregate locations.

Task 3: During the incident, coordinate with partner agencies to assure food and water safety inspections at congregate locations. *(For additional or supporting detail, see Capability 13: Public Health Surveillance and Epidemiological Investigation)*

Task 4: During the incident, coordinate with partners to assure health screening of the population registering at congregate locations. *(For additional or supporting detail, see Capability 10: Medical Surge)*

Performance Measure(s)

At present there are no CDC-defined performance measures for this function.

Function 2: Determine mass care needs of the impacted population

Resource Elements

*Note: Jurisdictions must have or have access to the resource elements designated as **Priority**.*

PLANNING (P)

P1: ***(Priority)*** Written plans should include an assessment form to be used in shelter environmental health inspections, including at a minimum the following elements:

- Identification of barriers for disabled individuals
- Structural integrity
- Facility contamination (e.g., radiological, nuclear, or chemical)
- Adequate sanitation (e.g., toilets, showers, and hand washing stations) and waste removal
- Potable water supply
- Adequate ventilation
- Clean and appropriate location for food preparation and storage

Suggested resources

- CDC Environmental Health Assessment Form for Shelters: http://www.bt.cdc.gov/shelterassessment/
- Federal Emergency Management Agency Shelter Operations Management Toolkit, "Opening a Shelter" section, p.3-4: http://www.fema.gov/pdf/emergency/disasterhousing/dspg-MC-ShelteringHandbook.pdf
- CDC Disaster Surveillance Tools: http://www.emergency.cdc.gov/disasters/surveillance

P2: ***(Priority)*** Written plans should include a list of pre-identified site(s) that have undergone an initial assessment to determine their adequacy to serve as congregate locations (based on the size, scope, and nature of potential incidents and jurisdictional risk assessment).[101]

P3: Written plans should include a process and protocol to conduct facility assessments, including but not limited to the following elements:

- Process for contacting lead shelter operation organization
- Access to equipment (e.g., radiation detection devices) needed for assessment
- When the assessment will occur during set-up
- Time frame in which necessary corrective actions will be taken
- Repeat assessment after incident occurs (assessment should occur within 48 hours after a site opens)

Suggested resource

- CDC Shelter Assessment Tool: http://www.emergency.cdc.gov/shelterassessment/pdf/shelter-tool-form.pdf

P4: Written plans should include processes or written agreements, which may include memoranda of understanding or letters of agreement to adopt or amend jurisdictional restaurant/food service requirements for food and water assessments at shelters, or written processes for coordinating assessments of food and food sources. Plans should include the following processes:

- Assure food safety
- Assure safety of potable water
- Assure wastewater is properly managed
- Ensure proper management of solid waste
- Assure air quality is controlled
- Identify and assess general safety issues
- Monitor housekeeping, cleaning, and sanitation
- Identify and assist with vector/pest control issues
- Monitor safety and sanitation of childcare
- Ensure that personal hygiene amenities (e.g., soap, hot water, and hand sanitizer) are provided
- Assure hygiene education is provided to response partners and volunteers handling food

Function 2: Determine mass care needs of the impacted population

Resource Elements *(continued)*

PLANNING (P)

Suggested resources

- U.S. Food and Drug Administration Food Code for regulating restaurants and food services (e.g., at nursing homes): http://www.fda.gov/Food/FoodSafety/RetailFoodProtection/FoodCode/FoodCode2009/default.htm
- Food service standard operating procedures (National Food Service Management Institute NFSMI/U.S. Department of Agriculture): http://sop.nfsmi.org/sop_list.php
- Accidental Radioactive Contamination of Human Food and Animal Feeds: Recommendations for State and Local Agencies, U.S. Food and Drug Administration: http://www.fda.gov/downloads/MedicalDevices/DeviceRegulationandGuidance/GuidanceDocuments/UCM094513.pdf
- Red Cross Basic Food Safety Course: http://redcrossla.org/training/disaster-services-classes
- Basic Food Safety®, ServSafe: http://www.servsafe.com/foodsafety/

P5: Written plans should include procedures for how the public health agency will coordinate with the lead service agency (e.g., emergency management or social services) for the provision of specialty food items to address the nutritional needs/requirements of young children, the elderly, and other at-risk populations.

P6: Written plans should include procedures for referral of individuals to health services at the congregate location, medical facilities, specialized shelters, or other sites. *(For additional or supporting detail, see Capability 6: Information Sharing and Capability 10: Medical Surge)*

SKILLS AND TRAINING (S)

S1: Have or have access to personnel who are skilled in the use of Geographical Information Systems or other mapping systems.

S2: Personnel conducting shelter safety assessments should receive training for conducting an environmental health and safety assessment.

Suggested resources

- Federal Emergency Management Agency Environmental Health Training in Emergency Response: http://cdp.dhs.gov/resident/ehter.html.
- CDC Shelter Assessment Tool Training: http://www.emergency.cdc.gov/shelterassessment/training.asp

S3: Training for registration staff to recognize the need to make referrals to health services, specialized shelters, or medical facilities, as appropriate.

S4: Facility Assessment Training: http://www.emergency.cdc.gov/shelterassessment/training.asp

EQUIPMENT AND TECHNOLOGY (E)

E1: ***(Priority)*** Have or have access to a tool for health screening of individuals during shelter registration. The following are suggested elements for inclusion:

- Immediate medical needs
- Assistive device needs
- Mental health needs
- Sensory impairment or other disability
- Medication use
- Need for assistance with activities of daily living
- Substance abuse

Suggested resources

- Initial Intake and Assessment Tool (HHS/American Red Cross): http://www.acf.hhs.gov/ohsepr/snp/docs/disaster_shelter_initial_intake_tool.pdf
- CDC Field Triage Decision Scheme: http://www.cdc.gov/fieldtriage/pdf/triage%20scheme-a.pdf
- http://www.aap.org/disasters/pdf/Standards-Disaster-Shelter-Care.pdf

Function 2: Determine mass care needs of the impacted population

Resource Elements *(continued)*

EQUIPMENT AND TECHNOLOGY (E)

E2: Have or have access to Geographical Information System or other system (e.g., zip code sorting) to identify the location of at-risk populations (e.g., nursing homes, non-English speaking communities, populations with chronic conditions) within the jurisdiction, and to compare their locations to pre-identified shelter locations and incident impact areas.

Function 3: Coordinate public health, medical, and mental health mass care services

Coordinate with partner agencies to provide access to health services, medication and consumable medical supplies (e.g., hearing aid batteries and incontinence supplies), and durable medical equipment for the impacted population.

Tasks

This function consists of the ability to perform the following tasks:

Task 1: At the time of the incident, coordinate with healthcare partners to assure medical and mental/behavioral health services are accessible at or through congregate locations. *(For additional or supporting detail, see Capability 1: Community Preparedness and Capability 10: Medical Surge)*

Task 2: At the time of the incident, coordinate with providers to facilitate access to medication and assistive devices for individuals impacted by the incident. *(For additional or supporting detail, see Capability 8: Medical Countermeasure Dispensing, Capability 9: Medical Materiel Management and Distribution, and Capability 10: Medical Surge)*

Task 3: At the time of the incident, if applicable, coordinate with jurisdictional HazMat resources or other lead agency to assure provision of population monitoring and decontamination services, including the establishment of tracking systems of contaminated or possibly contaminated (e.g., radiological, nuclear, or chemical) individuals who may enter congregate locations. *(For additional or supporting detail, see Capability 3: Emergency Operations Coordination)*

Task 4: During an incident, disseminate and promote accessible information regarding available mass care health services to the public. *(For additional or supporting detail, see Capability 4: Emergency Public Information and Warning)*

Task 5: During an incident, coordinate with agencies to accommodate and provide care (e.g., medical care, essential needs, and decontamination) for service animals within general shelter populations.[102]

Task 6: At the time of the incident, work with partner agencies in coordinating the location of human sheltering efforts with household pet sheltering efforts.

Task 7: During and after an incident, coordinate with emergency medical services, local, state, tribal, and federal health agencies, emergency management agencies, state hospital associations, social services, and participating non-governmental organizations to return individuals displaced by the incident to their pre-incident medical environment (e.g., prior medical care provider, skilled nursing facility, or place of residence) or other applicable medical setting. *(For additional or supporting detail, see Capability 10: Medical Surge)*

Function 3: Coordinate public health, medical, and mental health mass care services

Performance Measure(s)

At present there are no CDC-defined performance measures for this function.

Resource Elements

*Note: Jurisdictions must have or have access to the resource elements designated as **Priority**.*

PLANNING (P)

P1: ***(Priority)*** Written plans should include memoranda of understanding, memoranda of agreement, or letters of agreement with medication providers, including but not limited to the following elements:

- Requesting medication from providers
- Bringing medication to congregate locations
- Storing and distributing medication at congregate locations
- Referring and transporting individuals to pharmacies and other providers for medication

(For additional or supporting detail, see Capability 8: Medical Countermeasure Dispensing, Capability 9: Medical Materiel Management and Distribution, and Capability 10: Medical Surge)

P2: ***(Priority)*** Written plans should include a scalable congregate location staffing model based on number of individuals, resources available, competing priorities, and time frame in which intervention should occur that is incident-driven and, at a minimum, includes the ability to provide the following elements:

- Medical care services
- Management of mental/behavioral disorders
- Environmental health assessments (e.g., food, water, and sanitation)
- Data collection, monitoring, and analysis
- Infection control practices and procedures

Suggested resources

- Memoranda of understanding, memoranda of agreement, or letters of agreement with mental/behavioral health specialists to provide mental/behavioral health services to individuals registering at congregate locations (either at congregate locations or through referral)

(For additional or supporting detail, see Capability 10: Medical Surge and Capability 15: Volunteer Management)

P3: ***(Priority)*** Written plans should include procedures to coordinate with partner agencies to transfer individuals from general shelters to specialized shelters or medical facilities if needed, including the following procedural elements:

- Patient information transfer (e.g., current condition and medical equipment needs)
- Physical transfer of patient

(For additional or supporting detail, see Capability 10: Medical Surge)

P4: ***(Priority)*** Written plans should include a process to coordinate with partner agencies to monitor populations[103] at congregate locations, including but not limited to the following processes:[104]

- Establishing registries for exposed or potentially exposed individuals for long-term health monitoring
- Separate shelter facilities for monitoring individuals at congregate locations
- Identifying, stabilizing and referring individuals who need immediate medical care or decontamination
- Prioritization of at-risk populations at congregate locations that have specific needs after a radiation incident (e.g., children, elderly, and pregnant women)

Suggested resources

- Population Monitoring in Radiation Emergencies: http://emergency.cdc.gov/radiation/pdf/population-monitoring-guide.pdf
- Radiation Emergency Medical Management: http://www.remm.nlm.gov/
- Conference of Radiation Control Program Directors State Radiation Control Programs: http://www.crcpd.org/Map/RCPmap.htm

Function 3: Coordinate public health, medical, and mental health mass care services

Resource Elements *(continued)*

PLANNING (P)

P5: ***(Priority)*** Written plans should include a scalable congregate location staffing matrix identifying at least one back-up for each population monitoring and decontamination response role. Skill sets at a minimum should include the following elements:

- The ability to manage population monitoring operation
- The ability to monitor arrivals for external contamination and assess exposure
- The ability to assist with decontamination services
- The ability to assess exposure and internal contamination

Suggested resources

- Report on Workshop on Operating Public Shelters During a Radiation Emergency : http://www.naccho.org/topics/environmental/radiation/index.cfm
- Virtual Community Reception Center: http://www.emergency.cdc.gov/radiation/crc/vcrc.asp
- Population Monitoring in Radiation Emergencies: A Guide for State and Local Public Health Partners: http://www.emergency.cdc.gov/radiation/pdf/population-monitoring-guide.pdf
- Map of State Radiation Control Programs: http://www.crcpd.org/Map/RCPmap.htm
- Radiation Emergency Assistance Center Training: http://orise.orau.gov/reacts/

P6: Written plans should include memoranda of understanding, memoranda of agreement, or letters of agreement with medical supply/equipment providers, including but not limited to the following elements:

- Processes to bring supplies and equipment to the congregate locations
- Accountability for equipment during the mass care response
- Processes to return equipment to providers when no longer needed

P7: Written plans should include a process to coordinate, if requested, with response partners (e.g., HazMat, Radiation Control Authority, and Emergency Medical Services) responsible for decontamination of individuals at congregate locations. Processes should include but are not limited to the following elements:

- Coordination with organizations trained in decontamination
- Establishment of decontamination stations, including handicap-accessible stations, at congregate locations
- Delivery of decontamination supplies (e.g., shower supplies, plastic bags to collect possibly contaminated materials, medication, and medical supplies) to congregate locations
- Removal or storage of contaminated materials away from congregate location populations

(For additional or supporting detail, see Capability 11: Non-Pharmaceutical Interventions)

P8: Written plans should include agreements with response partners for animal care (e.g., service animal trainers, Board of Animal Health, and National Veterinarian Response Teams) to assist with specialized care for service animals at congregate locations.

P9: Written plans should include a process to coordinate with response partners (e.g., service animal trainers, Board of Animal Health and National Veterinarian Response Teams) for animal sheltering and care at congregate locations. Plans should include but are not limited to the following elements:

- Pre-identified locations that can serve as temporary shelters for small and large pets
- Pre-arranged contracts for food, water, bedding supply, and other equipment needed for designated animal shelter locations
- Protocols for coordination of animal medical evaluations (e.g., for injuries, HazMat exposures, and diseases)
- Plan for the quarantine of animals
- Pre-arranged jurisdictional veterinary support (e.g., from veterinary teaching hospitals, jurisdictional Animal Response Teams, and animal day care centers) via contracts or other mechanisms

Function 3: Coordinate public health, medical, and mental health mass care services

Resource Elements *(continued)*

PLANNING(P)

Suggested resource

- American Veterinary Medical Association, Emergency Preparedness and Response, http://www.avma.org/disaster/emerg_prep_resp_guide.pdf

P10: Written plans should include processes for service animal decontamination at congregate locations, including provision of washing stations for owners to conduct pet decontamination.

SKILLS AND TRAINING (S)

S1: Radiation training for mass care responders

Suggested resource

- CDC's Radiation Emergency Training and Education: http://emergency.cdc.gov/radiation/training.asp

S2: Personnel that will be involved with animal care services should have access to the following training:

- Federal Emergency Management Agency Animals in Disaster—Module A: Awareness and Preparedness (IS10) http://www.training.fema.gov/emiweb/Is/is10.asp and Animals in Disaster—Module B: Community Planning (IS11) http://training.fema.gov/EMIWEB/IS/IS11.asp
- Humane Society of the United States, 2009 Disaster Training Program: http://www.hsus.org/hsus_field/hsus_disaster_center/disaster_training_dates_2007.html

Function 4: Monitor mass care population health

Monitor ongoing health-related mass care support, and ensure health needs continue to be met as the incident response evolves.

Tasks

This function consists of the ability to perform the following tasks:

Task 1: During an incident, in coordination with partner agencies, monitor facility-specific environmental health and safety, including screening for contamination (e.g., radiological, nuclear, biological, or chemical), and assure any identified deficiencies are corrected.

Task 2: During an incident, conduct surveillance at congregate locations to identify cases of illness, injury, and exposure within mass care populations. *(For additional or supporting detail, see Capability 13: Public Health Surveillance and Epidemiological Investigation)*

Task 3: During an incident, identify updated health needs as part of the agency's/jurisdictional situational awareness update, and refer those updates through the public health incident management system for additional local, state, regional, or federal assistance as necessary. *(For additional or supporting detail, see Capability 3: Emergency Operations Coordination)*

Task 4: After an incident, in conjunction with partner agencies, de-escalate health response as appropriate to the mass care situation, including creating and executing a health resource demobilization plan. *(For additional or supporting detail, see Capability 3: Emergency Operations Coordination and Capability 10: Medical Surge)*

Performance Measure(s)

At present there are no CDC-defined performance measures for this function.

Function 4: Monitor mass care population health

Resource Elements

*Note: Jurisdictions must have or have access to the resource elements designated as **Priority**.*

PLANNING (P)

P1: ***(Priority)*** Written plans should include a process to conduct ongoing shelter population health surveillance, including the following elements:

- Identification or development of mass care surveillance forms and processes
- Determination of thresholds for when to start surveillance
- Coordination of health surveillance plan with partner agencies' (e.g., Red Cross) activities

(For additional or supporting detail, see Capability 14: Public Health Surveillance and Epidemiological Investigation)

P2: ***(Priority)*** Written plans should include templates for disaster-surveillance forms, including Active Surveillance and Facility 24-hour Report forms.

Suggested resources

- CDC Public Health Assessment and Surveillance After a Disaster: http://www.emergency.cdc.gov/disasters/surveillance/pdf/CASPER_toolkit_508%20COMPLIANT.pdf
- Active Surveillance form, Natural Disaster Morbidity Surveillance Individual Form: http://www.emergency.cdc.gov/disasters/surveillance/pdf/NaturalDisasterMorbiditySurveillanceIndividualForm.pdf
- Facility 24-hour Report Forms, Natural Disaster Morbidity Surveillance Tally Sheet: http://www.emergency.cdc.gov/disasters/surveillance/pdf/NaturalDisasterMorbiditySurveillanceTallySheet.pdf
- Facility 24-hour Report Forms, Natural Disaster Morbidity Surveillance Summary Report Form: http://www.emergency.cdc.gov/disasters/surveillance/pdf/NaturalDisasterMorbiditySurveillanceSummaryReportForm.pdf

P3: Written plans should include demobilization procedures, including but not limited to[105] the following elements:

- Processes to inform responding agencies of demobilization
- Responsibilities/agreements for reconditioning and return of equipment when no longer needed
- Time frame for ending mass care health services upon shelter closure notice

(For additional or supporting detail, see Capability 3: Emergency Operations Coordination)

EQUIPMENT AND TECHNOLOGY (E)

E1: Have of have access to electronic database or other data storage system to document, at a minimum, the number and type of health needs addressed, and disposition (e.g., hospitalized or sent home) of individuals using mass care health services.

CAPABILITY 8: Medical Countermeasure Dispensing

Medical countermeasure dispensing is the ability to provide medical countermeasures (including vaccines, antiviral drugs, antibiotics, antitoxin, etc.) in support of treatment or prophylaxis (oral or vaccination) to the identified population in accordance with public health guidelines and/or recommendations.

This capability consists of the ability to perform the following functions:

Function 1: Identify and initiate medical countermeasure dispensing strategies
Function 2: Receive medical countermeasures
Function 3: Activate dispensing modalities
Function 4: Dispense medical countermeasures to identified population
Function 5: Report adverse events

Function 1: Identify and initiate medical countermeasure dispensing strategies

Notify and coordinate with partners to identify roles and responsibilities consistent with the identified agent or exposure and within a time frame appropriate to the incident.

Tasks

This function consists of the ability to perform the following tasks:

Task 1: Prior to an incident, and if applicable during an incident, engage subject matter experts (e.g., epidemiology, laboratory, radiological, chemical, and biological) including federal partners, to determine what medical countermeasures are best suited and available for the incidents most likely to occur based on jurisdictional risk assessment. *(For additional or supporting detail, see Capability 12: Public Health Laboratory Testing and Capability 13: Public Health Surveillance and Epidemiological Investigation)*

Task 2: Prior to an incident, and if applicable during an incident, engage private sector, local, state, regional, and federal partners, as appropriate to the incident, to identify and fill required response roles *(For additional or supporting detail, see Capability 3: Emergency Operations Coordination and Capability 15: Volunteer Management)*

Performance Measure(s)

At present there are no CDC-defined performance measures for this function.

Resource Elements

*Note: Jurisdictions must have or have access to the resource elements designated as **Priority**.*

PLANNING (P)

P1: ***(Priority)*** Written plans should include standard operating procedures that provide guidance to identify the medical countermeasures required for the incident or potential incident. Consideration should be given to the following elements:

- Number and location of people affected by the incident, including a process to collect and analyze medical and social demographic information of the jurisdiction's population to plan for the types of medications, durable medical equipment, or consumable medical supplies that may need to be provided during an incident, including supplies needed for the functional needs of at-risk individuals.[106]
- Agent or cause of the incident
  (For additional or supporting detail, see Capability 12: Public Health Laboratory Testing)
- Severity of the incident
- Potential medical countermeasures
  (For additional or supporting detail, see Capability 13: Public Health Surveillance and Epidemiological Investigation)
- Time line for establishing medical countermeasure dispensing operations
- Personnel and staffing mix

Suggested resources

- CDC Emergency Preparedness and Response: http://emergency.cdc.gov

Function 1: Identify and initiate medical countermeasure dispensing strategies

Resource Elements *(continued)*

PLANNING (P)

- Federal Emergency Management Agency National Response Framework Incident Annexes: http://www.fema.gov/emergency/nrf/incidentannexes.htm
- Radiation Emergency Medical Management website: http://www.remm.nlm.gov
- CDC Radiation Emergency website (medical countermeasures): http://emergency.cdc.gov/radiation/countermeasures.asp
- Management of Persons Contaminated with Radionuclides Handbook: http://www.ncrponline.org/Publications/161press.html
- Medical Management of Radiological Casualties Handbook, Second Edition: http://www.afrri.usuhs.mil/www/outreach/pdf/2edmmrchandbook.pdf
- Conference of Radiation Control Program Directors: www.crcpd.org

P2: Written plans should be developed by jurisdictional level, multidisciplinary planning groups who meet on a regular basis and contain representatives who would respond during a public health or emergency incident.[107,108] Planning group members could include the following constituencies:

- Public health departments
- Jurisdictional Emergency Management/Office of Homeland Security
- Law enforcement
- Private businesses (including pharmacies)
- Emergency medical services (both public and private)
- Hospitals and clinics
- Medical professional organizations
- Military installations
- Metropolitan Medical Response System participants
- Volunteer groups (e.g., Red Cross and Salvation Army)
- Radiation-specific group, (e.g., Radiation Control Programs, U.S. Environmental Protection Agency, or State Environmental Agency). (The Conference of Radiation Control Program Directors provides a list of state radiation control programs at http://www.crcpd.org/Map/RCPmap.html)
- Private organizations such as retailers with supply chains and package delivery services (e.g., U.S. Postal Service, UPS, FedEx, and DHL)
- U.S. Department of Health and Human Services Regional Emergency Coordinators

Group will meet on a regular basis to review the medical countermeasures plans and ensure participants understand their roles and responsibilities. Evidence of the meetings include the following elements:

- Defined roles and responsibilities
- Sign off agreement of the protocols

(For additional or supporting detail, see Capability 1: Community Preparedness and Capability 3: Emergency Operations Coordination)

SKILLS AND TRAINING (S)

S1: Staff participating in dispensing operations should understand jurisdictional medical countermeasure dispensing requirements, plans, and procedures.

- CDC Emergency Use Authorization Online Course: http://emergency.cdc.gov/training/eua/index.html
- Receiving, Distributing, and Dispensing Strategic National Stockpile Assets, A Guide for Preparedness, version 10.02, Chapter 12: Dispensing Oral Medications: https://www.orau.gov/snsnet/guidance.htm

S2: Staff participating in dispensing operations should understand/be knowledgeable of responder groups' roles and procedures during an incident requiring medical countermeasure dispensing. Suggested trainings include the following:

- Division of Strategic National Stockpile (DSNS) in CDC's Office of Public Health Preparedness and Response
  (For additional or supporting detail, see Capability 9: Medical Materiel Management and Distribution)
  - DSNS extranet: http://emergency.cdc.gov/stockpile/extranet *(password protected site)*
  - Key Differences for State and Local Planners (DSNS Emergency Use Authorization Guidance): https://www.orau.gov/snsnet/guidance.htm

Function 1: Identify and initiate medical countermeasure dispensing strategies

Resource Elements *(continued)*

SKILLS AND TRAINING (S)

- □ Partnering with Federal Agencies: Closed Point Of Dispensing Option (DSNS): https://www.orau.gov/snsnet/closedpod.htm
- □ Taking Care of Business: An Introduction to Becoming a Closed Point of Dispensing (DSNS): https://www.orau.gov/snsnet/resources/videos/TCB_Video.htm
- □ Hospitals, Treatment Centers, and Public Health: Partners in Emergency Planning and Response (DSNS): https://www.orau.gov/snsnet/av/HTC_PHP.htm

– Military

- □ Public Health Emergency Management Within the Department of Defense: http://www.dtic.mil/whs/directives/corres/pdf/620003p.pdf

EQUIPMENT AND TECHNOLOGY (E)

E1: Have or have access to a reporting system. Considerations for the system include the following elements:

- Ability to receive orders for delivery of medical materiel from receiving, staging and storing warehouse to points of dispensing (dispensing locations) or treatment sites
- Ability to provide status reports to the emergency operations center on distribution and dispensing activities, such as shipments received, stock levels, additional assets needed, number of regimens provided, and any irresolvable problems
- How, where, and by what system (e.g., e-mail, phone call, fax, or radio message) to request additional resources

(For additional or supporting detail, see Capability 6: Information Sharing)

Function 2: Receive medical countermeasures

Identify dispensing sites and/or intermediary distribution sites[109] and prepare these modalities to receive medical countermeasures in a time frame applicable to the agent or exposure.

Tasks

This function consists of the ability to perform the following tasks:

Task 1: Assess the extent to which current jurisdictional medical countermeasure inventories can meet incident needs. *(Targeted at state and local jurisdictions) (For additional or supporting detail, see Capability 9: Medical Materiel Management and Distribution)*

Task 2: Request additional medical countermeasures from private, jurisdictional, and/or federal partners using established procedures, according to incident needs. *(For additional or supporting detail, see Capability 9: Medical Materiel Management and Distribution)*

Task 3: Identify and notify any intermediary distribution sites based on the needs of the incident, if applicable. *(For additional or supporting detail, see Capability 9: Medical Materiel Management and Distribution)*

Performance Measure(s)

At present there are no CDC-defined performance measures for this function.

Function 2: Receive medical countermeasures

Resource Elements

*Note: Jurisdictions must have or have access to the resource elements designated as **Priority**.*

PLANNING (P)

P1: ***(Priority)*** Written plans should include protocols to request additional medical countermeasures, including memoranda of understanding or other letters of agreement with state/local partners. Consideration should be given to the following elements:

- Assessment of local inventory/medical countermeasure caches
- Identification of local pharmaceutical and medical-supply wholesalers
- Identification of a decision matrix guiding the process of requesting additional medical countermeasures if local supplies are exhausted. Matrix should take into account the Stafford Act and U.S. Department of Health and Human Services Regional Emergency Coordinators.
- If jurisdictions decide to purchase their own medical countermeasures, they are required to meet regulatory standards (abide by U.S. Food and Drug Administration standards including current good manufacturing practices, have appropriate Drug Enforcement Administration registrations, and be responsible to fund and track medical countermeasures rotation)

Suggested resource

- U.S. Food and Drug Administration Current Good Manufacturing Practices/Compliance: http://www.fda.gov/Drugs/GuidanceComplianceRegulatoryInformation/Guidances/ucm064971.htm

P2: Written plans should include processes and protocols for medical countermeasure storage. Consideration should be given to the following:

- CDC Technical Assistance Review of Strategic National Stockpile Plans recommendations for receiving medical countermeasures
- Storage maintenance of cleanliness and packaging of controlled substances
- Storage considerations for cold chain management and redundancy systems
- Sites receiving vaccines must meet the requirements of the jurisdiction's vaccine provider agreement

EQUIPMENT AND TECHNOLOGY (E)

E1: Have or have access to a system (hardware and software) to receive and manage inventory; system can be manual or automated.[110]

- System should be able to track, at a minimum, the name of the drug, National Drug Code, lot number, dispensing site or treatment location, and inventory balance.
- System must also have a backup which can be inventory management software, electronic spreadsheets, or paper.

E2: Have or have access to material required to receive medical countermeasures.

- Material-handling equipment (e.g., pallet jacks, handcarts/dollies, and forklifts)
- Primary and backup cold chain management equipment (e.g., refrigerators and thermometers)
- Ancillary medical supplies
- Administrative supplies

Function 3: Activate dispensing modalities

Ensure resources (e.g., human, technical, and space) are activated to initiate dispensing modalities[111] that support a response requiring the use of medical countermeasures for prophylaxis and/or treatment.

Function 3: Activate dispensing modalities

Tasks

This function consists of the ability to perform the following tasks:

Task 1: Activate dispensing strategies, dispensing sites, dispensing modalities and other approaches, as necessary, to achieve dispensing goals commensurate with the targeted population.

Task 2: Activate staff that will support the dispensing modality in numbers necessary to achieve dispensing goals commensurate with the targeted population. *(For additional or supporting detail, see Capability 15: Volunteer Management)*

Task 3: If indicated by the incident, implement mechanisms for providing medical countermeasures for public health responders, critical infrastructure personnel,[112] and their families, if applicable. *(For additional or supporting detail, see Capability 14: Responder Safety and Health)*

Task 4: Initiate site-specific security measures for dispensing locations, if applicable. *(For additional or supporting detail, see Capability 9: Medical Materiel Management and Distribution)*

Task 5: Inform public of dispensing operations including locations, time period of availability, and method of delivery. *(For additional or supporting detail, see Capability 4: Emergency Public Information and Warning)*

Note: State jurisdictions are expected to ensure attainment of Tasks 1 through 5 by their local communities.

Performance Measure(s)

This function is associated with the following CDC-defined performance measure:

Measure 1: Composite performance indicator from the Division of Strategic National Stockpile (DSNS) in CDC's Office of Public Health Preparedness and Response.

This indicator can be found on the DSNS extranet: http://emergency.cdc.gov/stockpile/extranet (*password protected site*).

Resource Elements

*Note: Jurisdictions must have or have access to the resource elements designated as **Priority**.*

PLANNING (P)

P1: ***(Priority)*** Written plans should include written agreements (e.g., memoranda of agreement, memoranda of understanding, mutual aid agreements or other letters of agreement) to share resources, facilities, services, and other potential support required during the medical countermeasure dispensing activities.[113]

P2: ***(Priority)*** Written plans should include processes and protocols to govern the activation of dispensing modalities.[114,115]

- Identify multiple dispensing modalities that would be activated depending on the incident characteristics (e.g., identified population and type of agent/exposure). Consideration should be given to the following elements:
  - □ Traditional public health operated (e.g., open points of dispensing)
  - □ Private organizations (e.g., closed points of dispensing)
  - □ Pharmacies
  - □ Provider offices and clinics
  - □ Military/tribal
  - □ Incarcerated population
  - □ Other jurisdictionally approved dispensing modalities
- Initiate notification protocols with the dispensing locations. The following information should be determined for the sites:
  - □ Dispensing site name/identifier
  - □ Demand estimate (number of people planning to visit the site)
  - □ Required throughput
  - □ Staff required to operate one shift
  - □ Number of shifts of distinct staff

Function 3: Activate dispensing modalities

Resource Elements *(continued)*

PLANNING (P)

- □ Staff availability
- □ Total number of staff required to operate the dispensing location through the whole incident

– Plan for functional needs of at-risk individuals (e.g., wheelchair access for handicapped)
– Identify, assess, prioritize, and communicate legal and liability dispensing barriers to those with the authority to address issues. Consideration should be given to the following elements:
  - □ Clinical standards of care
  - □ Licensing
  - □ Civil liability for volunteers
  - □ Liability for private sector participants
  - □ Property needed for dispensing medication

Suggested resource

– Receiving, Distributing, and Dispensing Strategic National Stockpile Assets: A Guide for Preparedness, Version 10.02, Chapter 12: Dispensing Oral Medications: https://www.orau.gov/snsnet/resources/SNSPlanningGuideV10.02.pdf

P3: Written plans should include security measures, processes, and protocols for dispensing sites.[116,117] Consideration should be given to the following elements:

– Activating and badging security personnel[118,119]
– Safeguarding dispensing site property
– Protecting dispensing site personnel
– Controlling traffic at and around dispensing sites
– Conducting crowd control at and around dispensing sites
– Collaborating with law enforcement and emergency management

Suggested resource

– CDC Strategic National Stockpile Technical Assistance Review, Section 6: https://www.orau.gov/snsnet/guidance.htm

P4: Written plans should include a list of pre-identified private partners for private sector dispensing, if applicable, and written standard operating procedures that provide guidance for when and how public health must communicate with/notify private sector dispensing locations according to the incident scenario and how private sector dispensing locations can request medical countermeasures.[120,121]

P5: Written plans should include pre-defined communication messages including a set of messages to be used in the case of a novel agent. Messages should be coordinated from federal to state to local according to jurisdictional protocol.[122,123,124,125,126] *(For additional or supporting detail, see Capability 4: Emergency Public Information and Warning)*

Suggested resources

– Strategic National Stockpile Public Information and Communication Resources: https://www.orau.gov/snsnet/functions/PIC.htm
– Receiving, Distributing, and Dispensing Strategic National Stockpile Assets: A Guide for Preparedness, Version 10.02, Chapter 6: Public Information and Communications: https://www.orau.gov/snsnet/resources/SNSPlanningGuideV10.02.pdf
– CDC Strategic National Stockpile Technical Assistance Review, Section 5: https://www.orau.gov/snsnet/guidance.htm

Function 3: Activate dispensing modalities

Resource Elements *(continued)*

EQUIPMENT AND TECHNOLOGY (E)

E1: Have or have access to material required to dispense medical countermeasures, including the following:

- Dispensing sites materiel-handling equipment (e.g., pallet jacks, handcarts/dollies, and forklifts)
- Cold chain management equipment
- Personal protective equipment
- Ancillary medical supplies
- Administrative supplies
- Specialized items (e.g., scales for weighing children, mixing equipment for pediatric portions, and Broselow tapes), if necessary

E2: Have or have access to systems to support the development of staffing models. The following models are suggested prototypes for consideration:

- RealOpt: http://www2.isye.gatech.edu/medicalor/research.htm#realopt
- Bioterrorism and Epidemic Outbreak Response Model: http://www.ahrq.gov/research/biomodel.htm

(For additional or supporting detail, see Capability 15: Volunteer Management Capability)

Function 4: Dispense medical countermeasures to identified population

Provide medical countermeasures to individuals in the target population, in accordance with public health guidelines and/or recommendations for the suspected or identified agent or exposure.

Tasks

This function consists of the ability to perform the following tasks:

Task 1: Maintain dispensing site inventory management system to track quantity and type of medical countermeasures present at the dispensing site.

Task 2: Screen and triage individuals to determine which medical countermeasure is appropriate to dispense to individuals if more than one type or subset of medical countermeasure is being provided at the site. *(For additional or supporting detail, see Capability 10: Medical Surge)*

Task 3: Distribute pre-printed drug/vaccine information sheets that include instructions on how to report adverse events.

Task 4: Monitor dispensing site throughput and adjust staffing and supplies as needed in order to achieve dispensing goals commensurate with the targeted population.

Task 5: Document doses of medical countermeasures dispensed, including but not limited to: product name and lot number, date of dispensing, and location of dispensing (e.g., address and zip code).

Task 6: Report aggregate inventory and dispensing information to jurisdictional authorities at least weekly during an incident, but potentially more frequently based on incident needs.

Task 7: Determine the disposition of unused medical countermeasures within the jurisdictional health system according to jurisdictional policies.

Note: State jurisdictions are expected to ensure attainment of Tasks 1 through 7 by their local communities.

Function 4: Dispense medical countermeasures to identified population

Performance Measure(s)

This function is associated with the following CDC-defined performance measure:

Measure 1: Composite performance indicator from the Division of Strategic National Stockpile (DSNS) in CDC's Office of Public Health Preparedness and Response.

This indicator can be found on the DSNS extranet: http://emergency.cdc.gov/stockpile/extranet (*password protected site).*

Resource Elements

*Note: Jurisdictions must have or have access to the resource elements designated as **Priority**.*

PLANNING (P)

P1: ***(Priority)*** Written plans should include processes and protocols to govern the dispensing of medical countermeasures to the target population.[127]

- Protocol for screening and triaging patients, taking into consideration an assessment of patient characteristics (e.g., age, weight, clinical manifestations, available medical history, and drug or food allergies, assessment of radiation exposure duration and time since exposure, presence of radioactive contamination on the body or clothing, intake of radioactive materials into the body, identification of the radioactive isotope, removal of external or internal contamination) to determine the medical countermeasure to dispense
- Ensure that the permanent medical record (or log/file) of the recipient indicates the following information as deemed necessary:
  - The date the medical countermeasure was dispensed
  - Information on the medical countermeasure including, but not limited to, product name, national drug control number, and lot number
  - The name and address of the person dispensing the medical countermeasure. Federal dispensing law requires: name/address of dispenser, prescription number, date of prescription, name of prescriber, name of patient (if stated on prescription), directions for use, and cautionary statements.
  - The edition date of the information statement (e.g., pre-printed drug information sheets) distributed
- Ensure medical countermeasure recipient receives the information sheet matching the medical countermeasure dispensed
- Data recording protocols to report the data at an aggregate level to state/federal entities. Considerations should be given to population demographics (e.g., sex, age group, and if an at-risk individual) and dispensing information (e.g., medical countermeasure name, location, and date)

P2: Written plans should include protocols for the storage, distribution, disposal, or return of unused medical countermeasures, including plans for maintaining integrity of medical countermeasures during storage and/or distribution within the jurisdictional health system.

P3: Written plans should include protocols to request additional staffing and supplies if necessary to the incident. *(For additional or supporting detail, see Capability15: Volunteer Management)*

P4: Written plans should include dispensing modality security measures, processes and protocols.[128,129] Consideration should be given to the following elements:

- Activating and badging security personnel[130,131]
- Safeguarding dispensing site property
- Protecting dispensing site personnel
- Controlling traffic at and around dispensing sites
- Conducting crowd control at and around dispensing sites
- Collaborating with law enforcement and emergency management

Suggested resource

- CDC Strategic National Stockpile Technical Assistance Review, Section 6: https://www.orau.gov/snsnet/guidance.htm

Function 4: Dispense medical countermeasures to identified population

Resource Elements *(continued)*

SKILLS AND TRAINING (S)

S1: Public Health staff should be trained on jurisdictional medical countermeasure dispensing systems (e.g., registry or database) and inventory management protocols.[132,133]

- Medical countermeasures dispensing training offered by the state/local jurisdictions
- Extranet for the Division of Strategic National Stockpile in CDC's Office of Public Health Preparedness and Response: http://emergency.cdc.gov/stockpile/extranet *(password protected site)*
- National Association of County and City Health Officials, Advanced Practice Centers Toolkits: http://www.naccho.org/toolbox/

EQUIPMENT AND TECHNOLOGY (E)

E1: Information sheets (e.g., drug or vaccine information sheets) for the medical countermeasure dispensed. Consideration should be given to size of the identified population and languages identified within the identified population.

E2: Data forms and information sheets required by an Emergency Use Authorization for the medical countermeasure dispensed to provide to recipients.

E3: Have or have access to system to track dispensing and manage inventory; system can be manual or automated.[134,135] System must also have a backup which can be inventory management software, electronic spreadsheets, or paper.

Function 5: Report adverse events

Report adverse event notifications (e.g., negative medical countermeasure side effects) received from an individual, healthcare provider, or other source.

Tasks

This function consists of the ability to perform the following tasks:

Task 1: Activate mechanism(s) for individuals and healthcare providers to notify health departments about adverse events. *(For additional or supporting detail, see Capability 6: Information Sharing)*

Task 2: Report adverse event data to jurisdictional and federal entities according to jurisdictional protocols. *(For additional or supporting detail, see Capability 6: Information Sharing)*

Note: Tasks 1 and 2 apply to all jurisdictions; states are expected to ensure attainment of Tasks 1 and 2 by their local communities.

Performance Measure(s)

At present there are no CDC-defined performance measures for this function.

Function 5: Report adverse events

Resource Elements

*Note: Jurisdictions must have or have access to the resource elements designated as **Priority**.*

PLANNING (P)

P1: ***(Priority)*** Written plans should include processes and protocols to govern reporting of adverse events.[136] The following items should be considered in the plans:

- Guidance and communications messages/campaign that articulates the importance of adverse reporting regardless of suspected cause
- Process to ensure individuals receive the information sheet about potential adverse events of the medical countermeasure dispensed and how to report adverse events
- Triage protocols when receiving notifications of adverse events
- Protocols when receiving notifications of adverse events. Information required to document adverse events includes the following:
  - Patient, provider, and reporter demographics
  - Adverse event
  - Relevant diagnostic tests/laboratory data
  - Recovery status
  - Vaccine(s)/pharmaceutical(s) received, including receipt location, date, vaccine/pharmaceutical type, lot number, and dose number
- Utilize existing federal and jurisdictional adverse event reporting system, processes and protocols

P2: Written plans should include memoranda of agreement, memoranda of understanding, mutual aid agreements, letters of agreement and/or contracts with other entities (e.g., agencies and jurisdictions) to support activities and share resources, facilities, services, and other potential support required for responding to, reporting, and/or investigating adverse events. *(For additional or supporting detail, see Capability 1: Community Preparedness)*

SKILLS AND TRAINING (S)

S1: ***(Priority)*** Public Health staff should be trained on federal as well as their jurisdiction's adverse event reporting system, processes and protocols.

Suggested systems for training include the following:

- MedWatch: https://www.accessdata.fda.gov/scripts/medwatch/medwatch-online.htm
- Vaccine Adverse Events Reporting System: https://vaers.hhs.gov
- Adverse Event Reporting System, U.S. Food and Drug Administration: http://www.fda.gov/Drugs/GuidanceComplianceRegulatoryInformation/Surveillance/AdverseDrugEffects/default.htm
- Drug Abuse Warning Network: https://dawninfo.samhsa.gov/default.asp

EQUIPMENT AND TECHNOLOGY (E)

E1: Have access to national systems to report adverse events. Current national systems include the following:

- Vaccine Adverse Event Reporting System: https://vaers.hhs.gov
- Adverse Event Reporting System, U.S. Food and Drug Administration: http://www.fda.gov/Drugs/GuidanceComplianceRegulatoryInformation/Surveillance/AdverseDrugEffects/default.htm
- Drug Abuse Warning Network: https://dawninfo.samhsa.gov/default.asp

CAPABILITY 9: Medical Materiel Management and Distribution

Medical materiel management and distribution is the ability to acquire, maintain (e.g., cold chain storage or other storage protocol), transport, distribute, and track medical materiel (e.g., pharmaceuticals, gloves, masks, and ventilators) during an incident and to recover and account for unused medical materiel, as necessary, after an incident.[137]

This capability consists of the ability to perform the following functions:

Function 1: Direct and activate medical materiel management and distribution
Function 2: Acquire medical materiel
Function 3: Maintain updated inventory management and reporting system
Function 4: Establish and maintain security
Function 5: Distribute medical materiel
Function 6: Recover medical materiel and demobilize distribution operations

Function 1: Direct and activate medical materiel management and distribution

Coordinate logistical operations and medical materiel requests when an incident exceeds the capacity of the jurisdiction's normal supply chain, including the support and activation of staging operations to receive and/or transport additional medical materiel. This should be accomplished at the request of the incident commander and in coordination with jurisdictional emergency management.

Tasks

This function consists of the ability to perform the following tasks:

Task 1: Prior to an incident, identify receiving sites for responses of varying sizes and durations.

Task 2: Prior to an incident, identify transportation assets from commercial and/or government sources and create a transportation asset list.

Task 3: Prior to and when applicable during an incident, Identify and coordinate with medical materiel suppliers and distributors within the jurisdiction to assess resource availability and potential distribution challenges (e.g., transport of materiel through restricted areas).

Task 4: Prior to and when applicable during an incident, identify staffing needs for receiving sites (e.g., numbers and skills of personnel). *(For additional or supporting detail, see Capability 15: Volunteer Management)*

Task 5: During an incident, monitor medical materiel levels at supporting medical and health-related agencies and organizations by collecting data on materiel availability at least once per week, but potentially more frequently as determined by incident needs. (*For additional or supporting detail, see Capability 10: Medical Surge)*

Task 6: During an incident at the request of the incident commander, activate receiving sites dependent on incident needs.[138] (*For additional or supporting detail, see Capability 3: Emergency Operations Coordination)*

Task 7: During an incident at the request of the incident commander, select transportation assets from pre-identified asset list, dependent on incident needs.

Performance Measure(s)

This function is associated with the following CDC-defined performance measure:

Measure 1: Composite performance indicator from the Division of Strategic National Stockpile (DSNS) in CDC's Office of Public Health Preparedness and Response.

This indicator can be found on the DSNS extranet: http://emergency.cdc.gov/stockpile/extranet (*password protected site).*

Function 1: Direct and activate medical materiel management and distribution

Resource Elements

*Note: Jurisdictions must have or have access to the resource elements designated as **Priority**.*

PLANNING (P)

P1: ***(Priority)*** Written plans should include documentation of primary and backup receiving sites that take into consideration federal Strategic National Stockpile recommendations.[139,140] Written plans should include the following elements:

- Type of site (commercial vs. government)
- Physical location of site
- 24-hour contact number
- Hours of operation
- Inventory of material-handling equipment on-site and list of minimum materials that need to be procured and/or delivered at the time of the incident[141,142]
- Inventory of office equipment on-site and list of minimum materials that need to be procured and/or delivered at the time of the incident[143,144]
- Inventory of storage equipment (e.g., refrigerators and freezers) on-site and list of minimum materials/supplies that need to be procured and/or delivered at the time of the incident

P2: ***(Priority)*** Written plans should include transportation strategy.[145,146] If public health will be transporting material using their own vehicles, plan should include processes for cold chain management, if necessary to the incident. If public health will be using outside vendors for transportation, there should be a written process for initiating transportation agreements (e.g., contracts, memoranda of understanding, formal written agreements, and/or other letters of agreement). Transportation agreements should include, at a minimum, the following elements:

- Type of vendor (commercial vs. government)
- Number and type of vehicles, including vehicle load capacity and configuration
- Number and type of drivers, including certification of drivers
- Number and type of support personnel
- Vendor's response time
- Vendor's ability to maintain cold chain, if necessary to the incident

In addition to this process, public health should have written evidence of a relationship with outside transportation vendors.[147,148] This relationship may be demonstrated by a signed transportation agreement or documentation of transportation planning meeting with the designated vendor.

P3: ***(Priority)*** Written plans should include protocols for medical and health-related agencies and organizations to report medical materiel levels to public health at least weekly, but potentially more frequently. (*For additional or supporting detail, see Capability 6: Information Sharing)*

P4: Written plans should include a list of, and points of contact for, medical materiel suppliers and distributors within the jurisdiction.

P5: Written plans should include a process to collect and analyze medical and social demographic information of the jurisdiction's population to plan for the types of medications, durable medical equipment, or consumable medical supplies that may need to be provided during an incident, including supplies needed for the functional needs of at-risk individuals.[149] *(For additional or supporting detail, see Capability 1: Community Preparedness)*

P6: Written plans should include processes for activating personnel, taking the following into consideration:

- Process for personnel badging[150,151]
- Process for training personnel, including the provision of job-action sheets for just-in-time training[152]
- Process for requesting additional personnel from outside the jurisdiction, if needed[153]

(For additional or supporting detail, see Capability 15: Volunteer Management)

Function 1: Direct and activate medical materiel management and distribution

Resource Elements *(continued)*

PLANNING (P)

P7: Written plans should include a list of key stakeholders (including points of contact at dispensing sites, treatment locations, intermediary distribution sites, and/or closed sites) and protocols for communicating the activation of medical materiel management and distribution to these stakeholders. Written plans should also include protocols for stakeholders to request medical materiel from health departments.[154,155,156]

SKILLS AND TRAINING (S)

S1: Public health staff should understand their role in emergency response.

Suggested resources

- Federal Emergency Management Agency Emergency Support Function #8 – Public Health and Medical Services (IS-808): http://training.fema.gov/EMIWeb/IS/IS808.asp
- Public Health Worker Competencies for Emergency Response, by K. Gebbie and J. Merrill. 2002. *J Public Health Management Practice*. 8(3) 73-81.

S2: Public health staff participating in medical materiel efforts should understand the following roles, and job-action sheets[157] should be available: [158,159,160]

- Logistics[161]
- Security coordination
- Receiving site leader (if applicable)
- Distribution leader (if applicable)[162,163]

Suggested resources

- Receiving, Distributing, and Dispensing Strategic National Stockpile Assets: A Guide for Preparedness, version 10.02, August 2006: https://www.orau.gov/snsnet/resources/SNSPlanningGuideV10.02.pdf
- Strategic National Stockpile Conferences and Training: https://www.orau.gov/snsnet/conferences.htm

EQUIPMENT AND TECHNOLOGY (E)

E1: Have or have access to transportation assets for transporting and distributing medical materiel.

E2: Have or have access to interoperable systems for coordinating medical materiel distribution.

Function 2: Acquire medical materiel

Obtain medical materiel from jurisdictional caches and request materiel from jurisdictional, private, regional, or federal partners, as necessary.

Function 2: Acquire medical materiel

Tasks

This function consists of the ability to perform the following tasks:

Task 1: Request and accept medical materiel from jurisdictional, private, regional, or federal partners in alignment with National Incident Management System standards and incident needs.

Task 2: Maintain integrity of medical materiel in accordance with manufacturer specifications[164] during acquisition and storage.

Performance Measure(s)

This function is associated with the following CDC-defined performance measure:

Measure 1: Composite performance indicator from the Division of Strategic National Stockpile (DSNS) in CDC's Office of Public Health Preparedness and Response.

This indicator can be found on the DSNS extranet: http://emergency.cdc.gov/stockpile/extranet (*password protected site).*

Resource Elements

*Note: Jurisdictions must have or have access to the resource elements designated as **Priority**.*

PLANNING (P)

P1: ***(Priority)*** Written plans should include a process to request medical materiel (initial request and re-supply requests), including memoranda of understanding and mutual aid agreements with state/local partners if applicable.[165,166,167] These plans should consider the following elements:

- Assessment of local inventory/medical countermeasure caches[168]
- Identification of local pharmaceutical and medical-supply wholesalers
- Assessment of asset request trigger indicators, thresholds, and validation strategies to guide decision-making[169,170,171,172]
- A process for requesting medical countermeasures through the Emergency Management Assistance Compact
- A process for requesting medical countermeasures from the federal level, which takes into account
  - Stafford Act vs. non-Stafford Act declarations
  - National Emergencies Act
  - Coordination between federal and state resources, including memoranda of understanding between CDC and the state[173]
  - Role of U.S. Department of Health and Human Services Regional Emergency Coordinators, if necessary to the incident: http://www.phe.gov/Preparedness/responders/rec/Pages/contacts.aspx
- A process for justifying medical countermeasure requests[174]
- If sites decide to purchase their own medical countermeasures, they are required to meet regulatory standards (i.e., abide by U.S. Food and Drug Administration standards including current good manufacturing practices (cGMP), have appropriate Drug Enforcement Administration registrations, and be responsible to fund and track medical countermeasures rotation)

Suggested resources

- Requesting Strategic National Stockpile Assets: https://www.orau.gov/snsnet/functions/requesting.htm
- Sample Memorandum of Agreement. Receiving, Distributing, and Dispensing Strategic National Stockpile Assets: A Guide for Preparedness, Version 10.02, Appendix I: https://www.orau.gov/snsnet/resources/SNSPlanningGuideV10.02.pdf
- U.S. Food and Drug Administration Current Good Manufacturing Practices/Compliance: http://www.fda.gov/Drugs/GuidanceComplianceRegulatoryInformation/Guidances/ucm064971.htm

(For additional or supporting detail, see Capability 1: Community Preparedness)

Function 2: Acquire medical materiel

Resource Elements *(continued)*

PLANNING (P)

P2: Written plans should include a protocol for medical materiel storage taking into consideration, if applicable, the following elements:

- Maintenance of cleanliness and packaging
- Storage of controlled substances
- Maintenance of cold chain during storage
- Requirements of the jurisdiction's vaccine provider agreement

SKILLS AND TRAINING (S)

S1: Public health staff participating in medical materiel efforts should understand protocols for requesting, receiving, and distributing medical materiel.

Suggested resources

- Extranet for the Division of Strategic National Stockpile in CDC's Office of Public Health Preparedness and Response: http://emergency.cdc.gov/stockpile/extranet *(password protected site)*
  - Receiving, Distributing, and Dispensing Strategic National Stockpile Assets: A Guide for Preparedness, version 10.02, August 2006
  - Strategic National Stockpile Local Technical Assistance Review User Guide
  - Strategic National Stockpile State Technical Assistance Review User Guide
- Strategic National Stockpile Receiving, Staging, and Storing Course
- CDC Emergency Use Authorization Online Course
- Food and Drug Administration Emergency Use Authorization of Medical Products Guidance: http://www.fda.gov/RegulatoryInformation/Guidances/ucm125127.htm

S2: Public health staff participating in medical materiel efforts should be trained on cold chain management techniques, including the use of temperature monitoring equipment.

Suggested resources

- Jurisdictional cold chain management procedures
- CDC National Center for Immunization and Respiratory Diseases' Vaccine Storage and Handling Toolkit: http://www2a.cdc.gov/vaccines/ed/shtoolkit/pages/introduction.htm
- Pink Book's Storage and Handling Information: http://www.cdc.gov/vaccines/pubs/pinkbook/downloads/appendices/C/storage-handling.pdf
- Cold chain standards (International Safe Transit Association STD-7E and STD-20 for Thermal Lane Data packaging, International Air Transportation Association manual Chapter 17)
- U.S. Army Medical Department Cold Chain Management Processes and Procedures for all Medical Temperature Sensitive Products: http://www.usamma.army.mil/cold_chain_management.cfm

S3: Logistics personnel should understand how to apply supply chain tools if applicable to the incident.

Suggested resources

- Enhanced Logistics Intra-Theater Support Tool: http://www.dis.anl.gov/pubs/60467.pdf
- Logistics and Process Analysis Tool: http://www.dis.anl.gov/projects/lpat.html

S4: Designated personnel with pharmaceutical licenses should be identified if appropriate to the incident and, if necessary, to comply with jurisdictional laws and regulations to assist in medical materiel management throughout the life of the materiel. This includes acquisition, receipt, storage, transport, recovery, disposal of, and return or loss.

Function 2: Acquire medical materiel

Resource Elements *(continued)*

EQUIPMENT AND TECHNOLOGY (E)

E1: Have or have access to receiving site materiel-handling equipment for medical materiel acquisition.[175] Examples include pallet jacks, handcarts/dollies, and forklifts.

E2: Have or have access to equipment for maintaining and monitoring temperature, if indicated by the incident [e.g., refrigerator (used solely for storing materiel), Temp-Tell, Vaxi-Cool, or other equipment as suggested by cold chain management guidance].

Function 3: Maintain updated inventory management and reporting system

Maintain inventory system for the jurisdiction's medical materiel for the life of the materiel, including acquisition, receipt, storage, transport, recovery, disposal, and return or loss.

Tasks

This function consists of the ability to perform the following tasks:

Task 1: Conduct initial inventory and update inventory management system with incoming and outgoing medical materiel, and materiel that is recovered, returned, or disposed of.

Task 2: Provide inventory status reports to jurisdictional, state, regional, and federal authorities at least weekly during an incident, but potentially more frequently. *(For additional or supporting detail, see Capability 6: Information Sharing)*

Task 3: Track re-supply requests for medical materiel. *(For additional or supporting detail, see Capability 3: Emergency Operations Coordination)*

Performance Measure(s)

This function is associated with the following CDC-defined performance measure:

Measure 1: Composite performance indicator from the Division of Strategic National Stockpile (DSNS) in CDC's Office of Public Health Preparedness and Response.

This indicator can be found on the DSNS extranet: http://emergency.cdc.gov/stockpile/extranet (*password protected site)*.

Resource Elements

*Note: Jurisdictions must have or have access to the resource elements designated as **Priority**.*

PLANNING (P)

P1: ***(Priority)*** Written plans should include protocols for reporting to jurisdictional, state, regional, and federal authorities. At a minimum, report should include the following elements:

- Amount of materiel received (including receipt date/time and name of individual who accepted custody of materiel)
- Amount of materiel distributed
- Amount of materiel expired
- Current available balance of materiel

(For additional or supporting detail, see Capability 6: Information Sharing)

Function 3: Maintain updated inventory management and reporting system

Resource Elements *(continued)*

PLANNING (P)

P2: Written plans should include protocols for dispensing sites, treatment locations, intermediary distribution sites, and/or closed sites to request additional medical materiel in accordance with National Incident Management System protocol.[176,177] At a minimum, request should include the following elements:

- Date of request
- Date materiel is required
- Receiving site location
- Distribution strategy (e.g., distribution through established channels or direct-ship from vendor)

(For additional or supporting detail, see Capability 3: Emergency Operations Coordination)

SKILLS AND TRAINING (S)

S1: Inventory management personnel should be trained and able to use inventory management system.[178,179]

EQUIPMENT AND TECHNOLOGY (E)

E1: Have or have access to a system to manage inventory; system can be manual or automated, electronic, or paper-based.[180,181,182]

- At a minimum, system should be able to track the name of drug, quantity, National Drug Code, lot number, dispensing site or treatment location, expiration date, and unit configuration of issue (e.g., case, box, or bottles)
- System must also have a backup which can be inventory management software, electronic spreadsheets, or paper.

Suggested resources

- Receive, Stage and Store Inventory Tracking System: https://rits.cdc.gov/sitemap/index.htm
- Division of Strategic National Stockpile Inventory Management System in CDC's Office of Public Health Preparedness and Response

Function 4: Establish and maintain security

In coordination with emergency management and jurisdictional law enforcement, secure personnel and medical materiel during all phases of transport and ensure security for receiving site and distribution personnel.

Tasks

This function consists of the ability to perform the following tasks:

Task 1: Identify receiving sites from pre-identified locations and determine which sites may require increased security (such as controlled-substance storage areas).

Task 2: At the time of the incident, if necessary, identify additional receiving sites and determine which sites may require increased security (such as controlled-substance storage areas).

Task 3: Identify, acquire, and maintain security measures[183] at receiving sites and during transportation to points of dispensing, if applicable to the incident. *(For additional or supporting detail, see Capability 3: Emergency Operations Coordination)*

Function 4: Establish and maintain security

Performance Measure(s)

This function is associated with the following CDC-defined performance measure:

Measure 1: Composite performance indicator from the Division of Strategic National Stockpile (DSNS) in CDC's Office of Public Health Preparedness and Response.

This indicator can be found on the DSNS extranet: http://emergency.cdc.gov/stockpile/extranet (*password protected site*).

Resource Elements

*Note: Jurisdictions must have or have access to the resource elements designated as **Priority**.*

PLANNING (P)

P1: ***(Priority)*** Written plans should include processes and protocols that address the maintenance of physical security of medical countermeasures throughout acquisition, storage, and distribution,[184,185] and include, at a minimum, the following elements:

- Contact information for security coordinator
- Coordination with law enforcement and security agencies to secure personnel and facility
- Acquisition of physical security measures (e.g., cages, locks, and alarms) for materiel within the receiving site
- Maintenance of security of medical materiel in transit[186,187]

P2: Written plans should include an inventory of security measures at receiving sites and list of minimum security measures that need to be procured and/or delivered at the time of the incident. Lists should be updated at the time of the incident to reflect incident-specific needs.

SKILLS AND TRAINING (S)

S1: Designated personnel with current Drug Enforcement Administration license should be identified to sign for controlled substances throughout chain of custody of medical materiel.[188,189]

EQUIPMENT AND TECHNOLOGY (E)

E1: Have or have access to physical security measures (e.g., cages, locks, and alarms) for maintaining security of materiel within the receiving site.

Function 5: Distribute medical materiel

Distribute medical materiel to modalities (e.g., dispensing sites, treatment locations, intermediary distribution sites, and/or closed sites).

Tasks

This function consists of the ability to perform the following tasks:

Task 1: Determine allocation and distribution strategy, including delivery locations, routes, and delivery schedule/frequency, based on incident needs.

Task 2: Maintain integrity of medical materiel in accordance with established safety and manufacturer specifications[190] during all phases of transport and distribution.

Performance Measure(s)

This function is associated with the following CDC-defined performance measure:

Measure 1: Composite performance indicator from the Division of Strategic National Stockpile (DSNS) in CDC's Office of Public Health Preparedness and Response.

This indicator can be found on the DSNS extranet: http://emergency.cdc.gov/stockpile/extranet (*password protected site).*

Resource Elements

Note: Jurisdictions must have or have access to the resource elements designated as ***Priority****.*

PLANNING (P)

P1: ***(Priority)*** Written plans should include an allocation and distribution strategy including delivery locations, routes, and delivery schedule/frequency, and should take into consideration the transport of materials through restricted areas. The strategy should also consider whether recipients will be responsible for acquiring materiel from an intermediary distribution site or if the health department is responsible for delivering materiel.[191,192]

Suggested resources

- Receiving, Distributing, and Dispensing Strategic National Stockpile Assets: A Guide for Preparedness, version 10.02, Chapter 9: Controlling Strategic National Stockpile Inventory: https://www.orau.gov/snsnet/resources/Chapter9_ac.pdf
- Receiving, Distributing, and Dispensing Strategic National Stockpile Assets: A Guide for Preparedness, version 10.02, Chapter 11: Distributing Strategic National Stockpile Assets: https://www.orau.gov/snsnet/resources/Chapter11_ac.pdf

P2: Written plans should include a list of key stakeholders (including points of contact at dispensing sites, treatment locations, intermediary distribution sites, and/or closed sites) and protocols for communicating the distribution strategy to these stakeholders.

P3: Written plans should include agreements with dispensing sites, treatment locations, intermediary distribution sites, and/or closed sites to ensure they record readings of temperature-controlled items in accordance with cold-chain management standards.

SKILLS AND TRAINING (S)

S1: Public health staff involved in medical materiel distribution should understand protocols for handling materiel and understand the allocation and distribution strategy.

Function 6: Recover medical materiel and demobilize distribution operations

Recover remaining medical materiel in accordance with jurisdictional policies and federal regulations and demobilize distribution operations as required by incident needs.

Tasks

This function consists of the ability to perform the following tasks:

Task 1: Recover materiel and equipment according to jurisdictional policies and federal regulations.

Task 2: Determine the disposition of unused (unopened) medical materiel, unused pharmaceuticals, and durable items within the jurisdictional health system according to jurisdictional policies.

Task 3: Dispose of biomedical waste materials generated by medical materiel management operations according to jurisdictional policies.

Task 4: Scale down distribution operations by deactivating receiving sites and releasing personnel as appropriate to evolving incident needs and in accordance with National Incident Management System protocol. *(For additional or supporting detail, see Capability 10: Medical Surge and Capability 15: Volunteer Management)*

Task 5: Document incident findings as part of after action report process.

Performance Measure(s)

This function is associated with the following CDC-defined performance measure:

Measure 1: Composite performance indicator from the Division of Strategic National Stockpile (DSNS) in CDC's Office of Public Health Preparedness and Response.

This indicator can be found on the DSNS extranet: http://emergency.cdc.gov/stockpile/extranet (*password protected site).*

Resource Elements

*Note: Jurisdictions must have or have access to the resource elements designated as **Priority**.*

PLANNING (P)

P1: ***(Priority)*** Written plans should include protocols for the storage, distribution, disposal, or return of unused (unopened) medical materiel, unused pharmaceuticals, and durable items, including plans for maintaining integrity of medical materiel during storage and/or distribution within the jurisdictional health system.

P2: Written plans should include protocols for demobilizing operations, including release of personnel, closure of receiving sites, and recovery of biomedical waste in coordination with emergency management.

P3: Written plans should include protocols for completing an after-action report in compliance with National Incident Management System protocol and Homeland Security Exercise and Evaluation Program guidance. Report should include a timeline with critical time points to validate process operations.[193]

Suggested resources

- Homeland Security Exercise and Evaluation Program: https://hseep.dhs.gov/pages/1001_HSEEP7.aspx
- Public Health Emergency Preparedness Cooperative Agreement/Division of Strategic National Stockpile/ Technical Assistance Reviews, Drills & Exercises Guide (January 2011)
- Division of Strategic National Stockpile Drill, Exercise and After Action Report Reporting: https://www.orau.gov/snsnet/resources/guidance/Drill-Ex-Data-Collection-Qs-2011-01-03_ac.pdf

Function 6: Recover medical materiel and demobilize distribution operations

Resource Elements *(continued)*

SKILLS AND TRAINING (S)

S1: Public health staff participating in medical materiel efforts should understand established protocols for disposal of unused (unopened) medical materiel, unused pharmaceuticals, and durable items.

Suggested resources

- Jurisdictional protocols for disposing of biomedical waste materials
- Sample Memorandum of Agreement. Receiving, Distributing, and Dispensing Strategic National Stockpile Assets: A Guide for Preparedness, Version 10.02, Appendix I: https://www.orau.gov/snsnet/resources/SNSPlanningGuideV10.02.pdf
- Sharps disposal: http://www.safeneedledisposal.org/resslaws.html
- Transfer of title document
- Medical Waste Management System Training Program: http://www.inquisit.org/mwms

S2: Public health staff participating in medical materiel efforts should understand established protocols for after-action reporting.

Suggested resources

- A Federal Emergency Management Agency Introduction to Exercises (IS 120.a): http://training.fema.gov/EMIWeb/IS/IS120A.asp
- Federal Emergency Management Agency Exercise Evaluation and Improvement Planning (IS 130): http://training.fema.gov/EMIWeb/IS/IS130.asp
- Public Health Emergency Preparedness Cooperative Agreement/Division of Strategic National Stockpile/ Technical Assistance Reviews, Drills & Exercises Guide (January 2011)
- Division of Strategic National Stockpile Drill, Exercise and After Action Report Reporting: https://www.orau.gov/snsnet/resources/guidance/Drill-Ex-Data-Collection-Qs-2011-01-03_ac.pdf

CAPABILITY 10: Medical Surge

Medical surge is the ability to provide adequate medical evaluation and care during events that exceed the limits of the normal medical infrastructure of an affected community.[194] It encompasses the ability of the healthcare system to survive a hazard impact and maintain or rapidly recover operations that were compromised.[195]

This capability consists of the ability to perform the following functions:

Function 1: Assess the nature and scope of the incident
Function 2: Support activation of medical surge
Function 3: Support jurisdictional medical surge operations
Function 4: Support demobilization of medical surge operations

Function 1: Assess the nature and scope of the incident

In conjunction with jurisdictional partners, coordinate with the jurisdiction's healthcare response through the collection and analysis of health data (e.g., from emergency medical services, fire service, law enforcement, public health, medical, public works, utilization of incident command system, mutual aid agreements, and activation of Emergency Management Assistance Compact agreements) to define the needs of the incident and the available healthcare staffing and resources.

Tasks

This function consists of the ability to perform the following task:

Task 1: At the time of an incident, participate in a unified incident management structure. *(For additional or supporting detail, see Capability 3: Emergency Operations Coordination)*

Task 2: At the time of an incident, complete a preliminary assessment of the incident and document initial resource needs and availability (e.g., personnel, facilities, logistics, and other healthcare resources). *(For additional or supporting detail, see Capability 3: Emergency Operations Coordination, Capability 7: Mass Care, Capability 9: Medical Materiel Management and Distribution, Capability 13: Public Health Surveillance and Epidemiological Investigation, and Capability 15: Volunteer Management)*

Task 3: At the time of an incident, provide health-related data to healthcare organizations or healthcare coalitions that will assist the healthcare organizations or healthcare coalitions in activating their pre-existing plans to maximize scarce resources and prepare for any necessary shifts into and out of conventional, contingency, and crisis standards of care.

Performance Measure(s)

At present there are no CDC-defined performance measures for this function.

Resource Elements

*Note: Jurisdictions must have or have access to the resource elements designated as **Priority**.*

PLANNING (P)

P1: ***(Priority)*** Written plans should include documentation of staff assigned and trained in advance to fill public health incident management roles as applicable to a given response. Health departments must be prepared to staff emergency operations centers at agency, local, and state levels as necessary.[196,197,198] *(For additional or supporting detail, see Capability 3: Emergency Operations Coordination)*

P2: ***(Priority)*** Written plans should include documentation that all joint (e.g., healthcare organizations, public health, and emergency management) emergency incidents, exercises, and preplanned (i.e., recurring or special) events operate in accordance with Incident Command Structure organizational structures, doctrine, and procedures, as defined in the National Incident Management System.[199,200] *(For additional or supporting detail, see Capability 3: Emergency Operations Coordination)*

P3: ***(Priority)*** Written plans should include process to ensure access into the jurisdiction's bed-tracking system to maintain visibility of bed availability across the jurisdiction.

Suggested resources

- Hospital Preparedness Program, Office of the Assistant Secretary of Preparedness and Response:

Function 1: Assess the nature and scope of the incident

Resource Elements *(continued)*

http://www.phe.gov/preparedness/planning/hpp
- Hospital Preparedness Program Guidance FY10: http://www.phe.gov/preparedness/planning/hpp/Documents/fy10_hpp_guidance.pdf

P4: ***(Priority)*** Written plans should include processes to engage in healthcare coalitions and understand the role that each coalition partner will play to obtain and provide situational awareness.[201,202,203] Coalitions are not expected to replace or relieve healthcare systems of their institutional responsibilities during an emergency, or to subvert the authority and responsibility of the state or local jurisdiction. The purpose of jurisdictional healthcare coalitions is as follows:

- Integrate plan and activities of all participating healthcare systems into the jurisdictional response plan and the state response plan
- Increase medical response capabilities in the community, region and state
  - □ Prepare for the needs of at-risk individuals and the general population in their communities in the event of a public health emergency
  - □ Coordinate activities to minimize duplication of effort and ensure coordination among federal, state, local and tribal planning, preparedness, response, and de-escalation activities
  - □ Maintain continuity of operations in the community vertically with the local jurisdictional emergency management organizations
  - □ Unify the management capability of the healthcare system to a level that will be necessary if the normal day-to-day operations and standard operating procedures of the health system are overwhelmed, and disaster operations become necessary
  - □ Support sufficient jurisdiction-wide situational awareness to ensure that the maximum number of people requiring care receive safe and appropriate care, which may involve, but is not limited to, facilitating the triage and/or distribution of people requiring care to appropriate facilities throughout the jurisdiction and providing appropriate support to these facilities to support the provision of optimal and safe care to those individuals

Suggested resource

- Medical Surge Capacity and Capability: A Management System for Integrating Medical and Health Resources During Large-Scale Emergencies: http://www.phe.gov/preparedness/planning/mscc/handbook/pages/default.aspx

P5: ***(Priority)*** Written plans should include processes (e.g., MOUs or other written agreements) to work in conjunction with emergency management, healthcare organizations, coalitions, and other partners to develop written strategies that clearly define the processes and indicators as to when the jurisdiction's healthcare organizations and health care coalitions transition into and out of conventional, contingency, and crisis standards of care.[204] Jurisdiction should utilize the risk assessment to build jurisdiction-specific strategies and triggers.[205,206] *(For additional or supporting detail, see Capability 1: Community Preparedness)*

Suggested resources

- Guidance for Establishing Crisis Standards of Care for Use in Disaster Situations: A Letter Report, Institute of Medicine, 2009. Examples of triggers for action identified (by the Institute of Medicine in 2009) include:
  - □ Critical infrastructure disruption
  - □ Disruption of facility or community infrastructure and function (e.g., utility or system failure in healthcare organization, more than one hospital affected in the region, and more than five hospitals affected or critical-access hospital affected in the state)
  - □ Failure of 'contingency' surge capacity (i.e., resource-sparing strategies overwhelmed)
  - □ Human resource/staffing availability
  - □ Emergency medical services call volume twice the usual amount
  - □ Emergency department wait time more than 12 hours
  - □ Staff illness rate more than 10%
  - □ Material resource availability
  - □ Less than 5% ventilators available in healthcare organization

PLANNING (P)

Function 1: Assess the nature and scope of the incident

Resource Elements *(continued)*

PLANNING (P)

- ☐ Patient care space availability
- ☐ Overall hospital bed availability less than 5% available or no available beds or less than 12 beds in healthcare organization
- ☐ No intensive care unit bed availability in healthcare Organization
- ☐ Disaster declaration in more than one area hospital in the region or more than two major hospitals in the state

– Mass Medical Care with Scarce Resources: A Community Planning Guide http://www.ahrq.gov/research/mce/
– Abbreviated version, The Essentials http://www.ahrq.gov/prep/mmcessentials/

P6: Written plans should include documentation that public health has participated in/collaborated in the development of jurisdictional healthcare organizations emergency operations plans and standard operating procedures, incorporating National Incident Management System and National Response Framework components, principles, and policies in their planning, training, response, exercises, equipment, evaluation, and corrective actions.[207,208,209]

Suggested resources

– Medical Surge Capacity and Capability: A Management System for Integrating Medical and Health Resources During Large-Scale Emergencies: http://www.phe.gov/preparedness/planning/mscc/handbook/pages/default.aspx
– Medical Surge Capacity and Capability: The Healthcare Coalition in Emergency Response and Recovery: http://www.phe.gov/Preparedness/planning/mscc/healthcarecoalition/Pages/default.aspx
– National Health Security Strategy: http://www.phe.gov/Preparedness/planning/authority/nhss/strategy/Documents/nhss-final.pdf
– Homeland Security Presidential Directive 5: http://www.dhs.gov/xabout/laws/gc_1214592333605.shtm
– Hospital Preparedness Exercise Pocket Guide: http://www.ahrq.gov/prep/hosppcktgd/hosppcktgd.pdf

P7: Written plans should include lists and points of contact for potential surge operation partners, including, but not limited to the following elements:

– Emergency medical services
– Fire service
– Law enforcement
– Healthcare organizations

P8: Written plans should include a process for ongoing communications and data sharing with 911 and emergency medical services. This may include requesting and utilizing National Emergency Medical Services Information System interoperable emergency medical services response data such as the following:

– Incident street address
– Complaint reported by dispatch
– Provider's primary impression
– Mass casualty incident
– Destination/transferred to, name
– Type of destination
– Reason for choosing destination
– Hospital disposition

Suggested resources

– National Emergency Medical Services Information System Data Dictionary Version 3.0 (www.nemsis.org)
– Emergency Medical Services: www.ems.gov
– National 911 Program: www.911.gov

Function 1: Assess the nature and scope of the incident

Resource Elements *(continued)*

SKILLS AND TRAINING (S)

S1: Public health personnel who may participate in medical surge operations should be aware of how to use local and state National Emergency Medical Services Information System and 911 data.

S2: Public health staff who may participate in medical surge operations should be trained to use the jurisdictional bed-tracking system to obtain data for jurisdictional situational awareness activities.

S3: Staff should understand the role of the public health department in incident management as described in the following resources:[210,211]

- Emergency Support Function #8 – Public Health and Medical Services (IS-808)
- Introduction to Incident Command System (IS-100.b)
- Incident Command System for Single Resources and Initial Action Incidents (IS-200.b)
- National Incident Management System, An Introduction (IS-700.a)
- National Response Framework, An Introduction (IS-800.b)

EQUIPMENT AND TECHNOLOGY (E)

E1: Have or have access to a computer with primary and back-up internet connection to access local and state National Emergency Medical Services Information System, 911 data, or access bed-tracking data. *(Does not apply to territories)*

E2: Have or have access to the jurisdictional bed-tracking system that complies with current Hospital Preparedness Program standards.

E3: Bed-tracking data are to be reported in aggregate by the state, therefore the state must have a system that collects bed-tracking data from the participating healthcare systems, or states may use existing systems to automatically transfer required data to the HAvBED server using the HAvBED EDXL Communication Schema, found at https://havbed.hhs.gov/v2/

Suggested resources

- Further information on the HAvBED system can be found at www.ahrq.gov/prep/havbed/
- HAvBED Communications Schema: https://havbed.hhs.gov/v2/

Function 2: Support activation of medical surge

Support healthcare coalitions and response partners in the expansion of the jurisdiction's healthcare system (includes additional staff, beds and equipment) to provide access to additional healthcare services (e.g., call centers, alternate care systems, emergency medical services, emergency department services, and inpatient services) in response to the incident.

Tasks

This function consists of the ability to perform the following tasks:

Task 1: If indicated, support the mobilization of incident-specific medical treatment personnel, public health personnel, and non-medical support personnel to increase capacity (e.g., healthcare organizations and alternate care facilities). *(For additional or supporting detail, see Capability 7: Mass Care and Capability 15: Volunteer Management)*

Task 2: During an incident, assist healthcare organizations and healthcare coalitions in the activation of alternate care facilities if requested.

Task 3: During an incident, assist in the expansion of the healthcare system (inclusive of healthcare coalitions), which includes hospitals and non-hospital entities (e.g., call centers, 911/emergency medical services, home health, ambulatory care providers, long-term care, and poison control centers).

Task 4: At the time of an incident, support situational awareness by utilizing the ongoing real-time exchange of information among response partners and coalitions (e.g., emergency medical services, fire, law enforcement, public health, and public works). *(For additional or supporting detail, see Capability 6: Information Sharing)*

Function 2: Support activation of medical surge

Tasks *(continued)*

Task 5: During an incident, provide information to educate the public, paying special attention to the needs of at-risk individuals (e.g., information is linguistically appropriate, culturally sensitive, and sensitive to varied literacy levels) regarding changes to the availability of healthcare services. *(For additional or supporting detail, see Capability 1: Community Preparedness, Capability 2: Community Recovery, and Capability 4: Emergency Public Information and Warning)*

Performance Measure(s)

At present there are no CDC-defined performance measures for this function.

Resource Elements

*Note: Jurisdictions must have or have access to the resource elements designated as **Priority**.*

PLANNING (P)

P1: ***(Priority)*** Written plans should include the following elements:

- Documentation of process or protocol for how the health agency will access volunteer resources through the Emergency System for Advance Registration of Volunteer Health Professionals (ESAR-VHP) and the Medical Reserve Corps program of credentialed personnel available for assistance during an incident.[212]
- Documentation of processes for coordinating with health professional volunteer entities (e.g., MRC) and other personnel resources from various levels. (ESAR-VHP Compliance Requirements)[213, 214]

(For additional or supporting detail, see Capability 15: Volunteer Management)

P2: ***(Priority)*** Written plans should include documentation of the process for how the public health agency will engage in healthcare coalitions and other response partners regarding the activation of alternate care systems.[215] Documentation should also include the following elements:

- Written list of healthcare organizations with alternate care system plans
- Written list of home health networks and types of resources available that are able to assist in incident response
- List of pre-identified site(s) that have undergone an initial assessment to determine their adequacy to serve as an alternate care facility

(For additional or supporting detail, see Capability 7: Mass Care)

Suggested resource

- Disaster Alternate Care Facility Selection Tool: http://www.ahrq.gov/prep/acfselection/index.html

P3: ***(Priority)*** Written plans should include processes and protocols to identify essential situational awareness information for federal, state, local, and non-governmental agencies; private sector agencies; and other Emergency Support Function # 8 partners. Jurisdictional processes to identify essential situational awareness requirements should consider the following elements:

- Identifying essential information
- Defining required information
- Establishing requirements
- Determining common operational picture elements
- Identifying data owners
- Validating data with stakeholders

(For additional or supporting detail, see Capability 6: Information Sharing)

P4: ***(Priority)*** Written plans should include documentation of participation from jurisdictional and regional pediatric providers and leaders from a variety of settings (e.g., maternal and child health programs, clinic-based, hospital-based, home healthcare, and rehabilitation) in jurisdictional response planning.[216, 217, 218] Plans should include but are not limited to the following elements:

- Process to identify gaps in the provision of pediatric care
- Process to access pediatric providers or pediatric medical liaisons for consultation related to clinical care. In order to access the appropriate level of care or consultation, plans should include lists of healthcare organizations that can stabilize and/or manage pediatric traumatic and medical emergencies and that have written inter-facility transfer agreements that cover pediatric patients.

Function 2: Support activation of medical surge

Resource Elements *(continued)*

PLANNING (P)

Suggested resources

- Pediatric Hospital Surge Capacity in Public Health Emergencies: http://www.ahrq.gov/prep/pedhospital/
- Coordinating Pediatric Medical Care During an Influenza Pandemic: http://emergency.cdc.gov/healthcare/pdf/hospital_workbook.pdf
- Health Resources and Services Administration's Emergency Medical Services for Children website: http://bolivia.hrsa.gov/emsc/

P5: Written plans should include process to connect healthcare organizations and providers with additional volunteers or other personnel (through ESAR-VHP, the Medical Reserve Corps, or the National Disaster Medical System) resources if necessary.[219] *(For additional or supporting detail, see Capability 15: Volunteer Management)*

P6: Written plans should include a process to support the integration of Medical Reserve Corps units with local, regional, and statewide infrastructure.[220, 221] Considerations should include the following elements:

- Supporting Medical Reserve Corps personnel/coordinators for the primary purpose of integrating the Medical Reserve Corps structure with the state ESAR-VHP program
- Including Medical Reserve Corps volunteers in trainings that are integrated with that of other local, state, and regional assets, healthcare systems, or volunteers through the ESAR-VHP program and/or include Medical Reserve Corps volunteers in exercises that integrate the Medical Reserve Corps volunteers with other local, state, and regional assets such as healthcare system workers or volunteers that participate in the ESAR-VHP program

(For additional or supporting detail, see Capability 15: Volunteer Management)

P7: Written plans should include formal and informal partnerships with jurisdictional volunteer sources (may include memoranda of understanding, memoranda of agreement, or letters of agreement with partner agencies, if needed).[222, 223] *(For additional or supporting detail, see Capability 15: Volunteer Management)*

P8: Written plans should include process to coordinate with the applicable U.S. Department of Health and Human Services Regional Emergency Coordinator to assess these sites and environmental suitability and pre-identify potential federal medical station sites.

Suggested resource

- Federal Medical Station Site Selection Criteria: https://www.orau.gov/snsnet

P9: Written plans should include process to coordinate with the applicable U.S. Department of Health and Human Services Regional Emergency Coordinator to address the need for wrap around services (e.g., biomedical waste and medical waste disposal) or provide information regarding accessing other services (e.g., food service and waste disposal) at potential federal medical stations.

P10: Written plans should include processes to disseminate volunteer resources to healthcare organizations and healthcare coalitions for the establishment of call centers to respond to call volumes. *(For additional or supporting detail, see Capability 15: Volunteer Management)*

Suggested resources

- Adapting Community Call Centers for Crisis Support: Adapt existing community call centers to allow callers to retrieve critical information during a hurricane: http://www.ahrq.gov/prep/callcenters/
- CDC, Coordinating Call Centers for Responding to Pandemic Influenza and Other Public Health Emergencies: A Workbook for State and Local Planners: http://www.airs.org/files/public/Disaster_CallCenterPandemicWorkbook.pdf

P11: Written plan should include a process to communicate medical surge information to the public.[224,225] Plans should include a process for message clearance and approval.

Function 2: Support activation of medical surge

Resource Elements *(continued)*

PLANNING (P)

Plans should also take the following into consideration:

- Translation of materials/resources for populations with limited language proficiency
- Development of materials/resources for population with low literacy
- Development of materials/resources that are easy-to-read for population with impaired vision
- Development of materials/resources for the hearing-impaired

(For additional or supporting detail, see Capability 4: Emergency Public Information and Warning)

P12: Written plans should include a process for the local emergency medical services system to request additional resources (e.g., pediatric equipment and staffing) for the needs of pediatric cases as part of the jurisdictional Emergency Support Function #8 annex or other documentation. *(For additional or supporting detail, see Capability 15: Volunteer Management)*

SKILLS AND TRAINING (S)

S1: Training for staff involved in personnel management

Suggested resource

- Developing and Managing Volunteers (Federal Emergency Management Agency: IS-244): http://training.fema.gov/EMIWEB/is/is244.asp

S2: Competency identified in jurisdiction to recognize sick infants and children (either through telemedicine arrangements, neighboring partnerships, or other mechanism). Identify the appropriate personnel to complete training for pediatric care.

Suggested resources

- American Heart Association, Pediatric Advanced Life Support–(comprehensive course): http://www.heart.org/HEARTORG/CPRAndECC/HealthcareTraining/Pediatrics/Pediatric-Advanced-Life-Support-PALS_UCM_303705_Article.jsp
- American Heart Association, Pediatric Emergency Assessment, Recognition, and Stabilization (for those who do not routinely perform pediatric care): http://www.americanheart.org/presenter.jhtml?identifier=3052085
- National Association of Children's Hospitals and Related Institutions: www.nachri.org
- http://pediatrics.aappublications.org/cgi/content/abstract/peds.2009-1807v1

EQUIPMENT AND TECHNOLOGY (E)

E1: Promote and assure that equipment, communication, and data interoperability are incorporated into the healthcare organizations' acquisition programs. *(For additional or supporting detail, see Capability 6: Information Sharing)*

Function 3: Support jurisdictional medical surge operations

In conjunction with health care coalitions and response partners, coordinate healthcare resources in conjunction with response partners, including access to care and medical service, and the tracking of patients, medical staff, equipment and supplies (from intra or interstate and federal partners, if necessary) in quantities necessary to support medical response operations.

Function 3: Support jurisdictional medical surge operations

Tasks

This function consists of the ability to perform the following tasks:

Task 1: During an incident, coordinate and maintain communications throughout the incident per jurisdictional authority/ jurisdictional incident management structure with federal, state, local, and non-governmental agencies; private sector agencies; and other Emergency Support Function #8 partners to maintain situational awareness of the actions of all parties involved, determine needs, and maintain continuity of services during response operations. *(For additional or supporting detail, see Capability 3: Emergency Operations Coordination and Capability 6: Information Sharing)*

Task 2: During an incident, assess resource requirements during each operational period based on the evolving situation and coordinate with partners, including those able to provide mental/behavioral health services for the community, to obtain necessary resources (e.g., personnel, facilities, logistics, and other healthcare resources) to support the augmentation of services during surge operations. *(For additional or supporting detail, see Capability 9: Materiel Management and Distribution)*

Task 3: During an incident, coordinate with jurisdictional partners and healthcare coalitions to facilitate patient tracking during all phases of the incident. *(For additional or supporting detail, see Capability 6: Information Sharing)*

Performance Measure(s)

At present there are no CDC-defined performance measures for this function.

Resource Elements

*Note: Jurisdictions must have or have access to the resource elements designated as **Priority**.*

PLANNING (P)

P1: ***(Priority)*** Written plans should include processes and protocols to communicate situational awareness information to federal, state, local, and non-governmental agencies; private sector agencies; and other Emergency Support Function #8 partners at least weekly, but potentially more frequently (e.g., as often as once per operational period).[226,227,228] *(For additional or supporting detail, see Capability 6: Information Sharing)*

P2: ***(Priority)*** Written plans should include documentation that public health participates in the development and execution of healthcare coalition plans to address the functional needs of at- risk individuals.[229, 230, 231] Plans should include a written list of healthcare organizations and community providers that are able to address the functional needs for at-risk individuals and a process to communicate with healthcare organizations and community providers to maintain a current list of available services that support the functional needs of at-risk individuals. *(For additional or supporting detail, see Capability 1: Community Preparedness)*

P3: ***(Priority)*** Written plans should include processes to support or implement family reunification. Considerations should include the following elements:

- Capturing and transferring the following known identification information throughout the transport continuum:
  - □ Pickup location (e.g., cross streets, latitude & longitude, and/or facility/school)
  - □ Gender and name (if possible)
  - □ For nonverbal or critically ill children, collect descriptive identifying information about the physical characteristics or other identifiers of the child.
  - □ Keep the primary caregiver (e.g., parents, guardians, and foster parents) with the patient to the extent possible

P4: Written public health and healthcare coalition documentation should include processes to coordinate the inventory and requests for resources from jurisdictional, state, federal, and other Emergency Support Function #8 partners, based on the evolving situation. (For additional or supporting *detail, see Capability 9: Materiel Management and Capability 15: Volunteer Management)*

P5: Written plans should include protocols to participate in or coordinate with the jurisdiction's patient tracking system. *(For additional or supporting detail, see Capability 6: Information Sharing)*

Function 3: Support jurisdictional medical surge operations

Resource Elements *(continued)*

PLANNING (P)

P6: Written plans should include a process to coordinate their patient tracking efforts with local and state emergency medical services and 911 authorities. *(For additional or supporting detail, see Capability 6: Information Sharing)*

P7: Written plans should include process to establish a jurisdictional patient-tracking system in conjunction with state and local emergency management, emergency medical services, healthcare organizations, and other jurisdictional partners.

- Jurisdictional patient tracking system should be (1) closely coordinated with state government systems, (2) interoperable with relevant state and national patient-tracking systems, and (3) consistent with federal and state-approved privacy protection, regulations and standards for patient tracking systems.

(For additional or supporting detail, see Capability 6: Information Sharing)

EQUIPMENT AND TECHNOLOGY (E)

E1: Have or have access to electronic or other data storage systems that will be utilized to maintain situational awareness such as the Joint Patient Assessment and Tracking System. Electronic of other data storage systems must be consistent with national standards for communication. *(For additional or supporting detail, see Capability 6: Information Sharing)*

Suggested resource

- Recommendations for a National Mass Patient and Evacuee Movement, Regulating, and Tracking System: http://www.ahrq.gov/prep/natlsystem/natlsys.pdf

Function 4: Support demobilization of medical surge operations

In conjunction with other jurisdictional partners, return healthcare system to pre-incident operations by incrementally decreasing surge staffing, equipment needs, alternate care facilities, and other systems, and transition patients from acute care services into their pre-incident medical environment or other applicable medical setting.

Tasks

This function consists of the ability to perform the following tasks:

Task 1: During and after an incident, assist in the return movement of patients, to include the following:

- Assist or coordinate with medical facilities; emergency medical services; local, state, tribal, and federal health agencies; emergency management agencies; state hospital associations; social services; and participating non-governmental organizations to assure the return of patients to their pre-incident medical environment (e.g., prior medical care provider, skilled nursing facility, or place of residence) or other applicable medical setting.
- Facilitate the linkage of patients to healthcare services as requested.

Task 2: After an incident, coordinate with partners to demobilize all healthcare resources. *(For additional or supporting detail, see Capability 3: Emergency Operations Coordination, Capability 7: Mass Care, Capability 9: Medical Materiel Management, and Capability 15: Volunteer Management)*

Task 3: After an incident, coordinate with partners to demobilize alternate care facilities, resources obtained through mutual aid mechanisms, Emergency Management Assistance Compact, and/or federal assistance. *(For additional or supporting detail, see Capability 3: Emergency Operations, Capability 7: Mass Care, Capability 9: Medical Materiel Management, and Capability 15: Volunteer Management)*

Performance Measure(s)

At present there are no CDC-defined performance measures for this function.

Function 4: Support demobilization of medical surge operations

Resource Elements

*Note: Jurisdictions must have or have access to the resource elements designated as **Priority**.*

PLANNING (P)

P1: ***(Priority)*** Written plans should include a process for the jurisdiction to coordinate with state emergency medical services to demobilize transportation assets used in the incident.

P2: ***(Priority)*** Written plans should include a process to demobilize surge staff to include other state (e.g., MRC) and federal medical resources (e.g., NDMS). Process should include identification of triggers that would identify the need for demobilization. *(For additional or supporting detail, see Capability 15: Volunteer Management)*

P3: Written plans should include processes to assist the lead agency with the facilitation or coordination of medical transportation for patients requiring assistance.

P4: Written plans should include process to communicate with healthcare organizations and community providers to maintain a current list of healthcare services that are available to provide information to patients if requested.

P5: Written plans should include process to coordinate, if requested by healthcare organizations, case management or other support to assist the transition to pre-incident medical environment or other applicable medical setting.

P6: Written plan should include processes to communicate with U.S. Department of Health and Human Services Regional Health Administrators, Regional Emergency Managers, and Regional Emergency Coordinators to address the functional needs of patients.

P7: Written plans should include a process to coordinate with jurisdictional authorities and partner groups to support volunteer and other personnel post-deployment medical screening, stress, and well-being assessment and, when requested or indicated, referral to medical and mental/behavioral health services. *(For additional or supporting detail, see Capability 2: Community Recovery, Capability 14: Responder Safety and Health, and Capability 15: Volunteer Management)*

P8: Written plans should include a process for releasing volunteers and other personnel, to be used when the health department has the lead role in volunteer or other personnel coordination. Plans should include steps to achieve the following:

- Demobilize volunteers and other personnel in accordance with the incident action plan
- Assure all assigned activities are completed, and/or replacement volunteers are informed of the activities' status
- Determine whether additional assistance is needed from the volunteer or other personnel
- Assure all equipment is returned by volunteer or other personnel
- Confirm the volunteer and other personnel's follow-up contact information

(For additional or supporting detail, see Capability 3: Emergency Operations Coordination and Capability 15: Volunteer Management)

P9: Written plans should include a protocol for conducting exit screening during out-processing, to include collection of the following:

- Any injuries and illnesses acquired during the response
- Mental/behavioral health needs due to participation in the response
- When requested or indicated, referral of volunteer to medical and mental/behavioral health services.

(For additional or supporting detail, see Capability 14: Responder Safety and Health and Capability 15: Volunteer Management)

CAPABILITY 11: Non-Pharmaceutical Interventions

Non-pharmaceutical interventions are the ability to recommend to the applicable lead agency (if not public health) and implement, if applicable, strategies for disease, injury, and exposure control. Strategies include the following:

- **Isolation and quarantine**
- **Restrictions on movement and travel advisory/warnings**
- **Social distancing**
- **External decontamination**[232]
- **Hygiene**[233]
- **Precautionary protective behaviors**[234]

This capability consists of the ability to perform the following functions:

Function 1: Engage partners and identify factors that impact non-pharmaceutical interventions
Function 2: Determine non-pharmaceutical interventions
Function 3: Implement non-pharmaceutical interventions
Function 4: Monitor non-pharmaceutical interventions

Function 1: Engage partners and identify factors that impact non-pharmaceutical interventions

Identify and engage with health partners, government agencies, and community sectors (e.g., education, social services, faith-based, and business/industry) to identify the community factors that affect the ability to recommend and implement non-pharmaceutical interventions.

Tasks

This function consists of the ability to perform the following tasks:

Task 1: Prior to an incident, identify jurisdictional legal, policy, and regulatory authorities that enable or limit the ability to recommend and implement non-pharmaceutical interventions, in both routine and incident-specific situations.

Task 2: Prior to an incident, engage healthcare organizations, government agencies, and community sectors (e.g., education, social services, faith-based, business, and legal) in determining their roles and responsibilities in non-pharmaceutical interventions on an ongoing basis through multidisciplinary meetings. *(For additional or supporting detail, see Capability 1: Community Preparedness)*

Performance Measure(s)

At present there are no CDC-defined performance measures for this function.

Resource Elements

*Note: Jurisdictions must have or have access to the resource elements designated as **Priority**.*

PLANNING (P)

P1: ***(Priority)*** Written plans should include documentation of the applicable jurisdictional, legal, and regulatory authorities and policies for recommending and implementing non-pharmaceutical interventions in both routine and incident-specific situations. This includes but is not limited to authorities for restricting the following elements: [235,236,237,238]

- Individuals
- Groups
- Facilities
- Animals (e.g., animals with infectious diseases and animals with exposure to environmental, chemical, radiological hazards)
- Consumer food products
- Public works/utilities (e.g., water supply)
- Travel through ports of entry

Function 1: Engage partners and identify factors that impact non-pharmaceutical interventions

Resource Elements *(continued)*

PLANNING (P)

Public health departments are strongly encouraged to consult with jurisdictional legal counsel or academic centers for assistance. If applicable by jurisdictional authority, develop written memoranda of understanding or other letters of agreement with law enforcement for enforcing mandatory restrictions on movement.

Suggested resources

- CDC Public Health Law Program's Coordinated Implementation of Community Response Measures (Including Social Distancing) to Control the Spread of Pandemic Respiratory Disease: A Guide for Developing a MOU for Public Health, Law Enforcement, Corrections, and the Judiciary: http://www2a.cdc.gov/phlp/docs/crm%20mou%20Final.pdf
- CDC Public Health Law Program's Social Distancing Law Assessment Template, Appendix A: http://www2a.cdc.gov/phlp/SDLP/

P2: ***(Priority)*** Written plans should include documentation of the following elements: [239, 240, 241, 242]

- Contact information of at least two representatives from each partner agency/organization
  - Suggested community partners: schools, community organizations (e.g., churches and homeless shelters), businesses, hospitals, and travel/transportation industry planners
- Memoranda of understanding or other written acknowledgements/agreements with community partners outlining roles, responsibilities, and resources in non-pharmaceutical interventions
- Agreements with healthcare providers which must include at a minimum:
  - Procedures to communicate case definitions determined by epidemiological surveillance
  - Procedures for reporting identified cases of inclusion to the health department

  (For additional or supporting detail, see Capability 13: Public Health Surveillance and Epidemiological Investigation)
- Suggested partners: Conference of Radiation Control Program Directors: http://www.crcpd.org/Map/RCPmap.html, other radiation subject matter experts, health physicists, state environmental protection agency, U.S. Department of Energy, and U.S. Department of Agriculture

Suggested resources

- H1N1 Flu: A Guide for Community and Faith-Based Organizations, Sections F, H, I: http://www.flu.gov/professional/community/cfboguidance.pdf
- Pandemic Influenza Community Mitigation Interim Planning Guide for Businesses and Other Employers (Appendix 4): http://www.flu.gov/professional/community/commitigation.html
- Doing Business During an Influenza Pandemic: Human Resource Policies, Protocols, Templates, Tools, & Tips: http://www.cidrap.umn.edu/cidrap/files/33/cidrap-shrm-hr-pandemic-toolkit.pdf
- Coordinated Implementation of Community Response Measures (Including Social Distancing) to Control the Spread of Pandemic Respiratory Disease: A Guide for Developing a MOU for Public Health, Law Enforcement, Corrections, and the Judiciary: http://www2a.cdc.gov/phlp/emergencyprep.asp
- Flu Guidance, Checklists and Resources: http://www.flu.gov/professional/index.html
- Community Strategy for Pandemic Influenza Mitigation: http://pandemicflu.gov/professional/community/commitigation.html
- Business Pandemic Influenza Planning Checklist: http://pandemicflu.gov/professional/business/businesschecklist.html

Function 2: Determine non-pharmaceutical interventions

Work with subject matter experts (e.g., epidemiology, laboratory, surveillance, medical, chemical, biological, radiological, social service, emergency management, and legal) to recommend the non-pharmaceutical intervention(s) to be implemented.

Function 2: Determine non-pharmaceutical interventions

Tasks

This function consists of the ability to perform the following task:

Task 1: At the time of the incident, assemble subject matter experts to assess the severity of exposure and/or transmission at the jurisdictional level, and determine non-pharmaceutical intervention recommendations. *(For additional or supporting detail, see Capability 13: Public Health Surveillance and Epidemiological Investigation)*

Performance Measure(s)

At present there are no CDC-defined performance measures for this function.

Resource Elements

*Note: Jurisdictions must have or have access to the resource elements designated as **Priority**.*

PLANNING (P)

P1: ***(Priority)*** Written plans should include a jurisdictional non-pharmaceutical intervention "playbook" detailing plans for intervention recommendation and/or implementation, based on potential interventions identified from the jurisdictional risk assessment. Suggested categories of interventions include isolation, quarantine, school and child care closures, workplace and community organization/event closure, and restrictions on movement (e.g., port of entry screenings and public transportation). Each plan should address the following items, at a minimum:

- Staff and subject matter expert roles and responsibilities
- Legal and public health authorities for the intervention actions
- Intervention actions
- List of identified locations that have the specific equipment required for, or locations that are easily adaptable for the intervention
- Contact information/notification plan of community partners involved in intervention (e.g., those providing services or equipment)
- Identification of any issues that may be associated with the implementation of individual community-mitigation measures or the net effect of the implementation of measures (secondary effects)
- Intervention-specific methods for information dissemination to the public (e.g. information cards to be distributed at ports of entry during movement restrictions)
- Processes for de-escalation of intervention once it is no longer needed
- Documentation of the intervention during an incident

Suggested resources

- U.S. Department of Health and Human Services Assistant Secretary for Preparedness and Response, Playbooks for Hurricanes, Aerosolized Anthrax, and Radiological Dispersal Devices: http://www.phe.gov/Preparedness/planning/playbooks/Pages/default.aspx
- Manual of Protective Action Guides and Protective Actions for Nuclear Incidents, EPA 400-R-92-001: http://www.epa.gov/rpdweb00/docs/er/400-r-92-001.pdf
- Implementation of Protective Actions for Radiological Incidents at Other Than Nuclear Power Reactors: http://www.epa.gov/rpdweb00/docs/er/symposium_on_non-npp_incidents.pdf
- National Council on Radiation Protection and Measurements, Report No. 161: Management of Persons Contaminated with Radionuclides Handbook: http://www.ncrponline.org/Publications/161press.html
- Community Strategy for Pandemic Influenza Mitigation-Appendix 8: http://www.flu.gov/professional/community/commitigation.html#I
- Faith-Based and Community Organizations Pandemic Influenza Preparedness Checklist: http://pandemicflu.gov/professional/community/faithcomchecklist.html
- A Framework for Improving Cross-Sector Coordination for Emergency Preparedness and Response: Action Steps for Public Health, Law Enforcement, the Judiciary and Corrections: http://www2a.cdc.gov/phlp/docs/CDC_BJA_Framework.pdf

(For additional or supporting detail, see Capability 1: Community Preparedness and Capability 4: Emergency Public Information and Warning)

Function 2: Determine non-pharmaceutical interventions

Resource Elements *(continued)*

PLANNING (P)

P2: Written plans should include a decision matrix indicating questions for public health leadership and recommendation options, based on pre-existing community risk assessment and incident severity. Decision tree endpoints will link to sections of the "playbook." *(For additional or supporting detail, see Capability 1: Community Preparedness)*

SKILLS AND TRAINING (S)

S1: Public health staff that will participate in implementing or recommending non-pharmaceutical interventions should have awareness-level training in use of the jurisdiction's non-pharmaceutical decision matrix.

Suggested resource

- Association of Schools of Public Health, Competency for Decision Making under Emergency Conditions: http://www.asph.org/userfiles/PreparednessCompetencyModelWorkforce-Version1.0.pdf

S2: Training for public health staff should focus on their roles and responsibilities and resource identification.

Suggested resource

- Training pages on CDC's emergency website: http://emergency.cdc.gov/training/ (See: Quarantine and Isolation, Sanitation and Hygiene, Water-Related Hygiene, Radiation Emergencies)

Function 3: Implement non-pharmaceutical interventions

Coordinate with health partners, government agencies, community sectors (e.g., education, social services, faith-based, and business), and jurisdictional authorities (e.g., law enforcement, jurisdictional officials, and transportation) to make operational, and if necessary, enforce, the recommended non-pharmaceutical intervention(s).

Tasks

This function consists of the ability to perform the following tasks:

Task 1: At the time of an incident, activate non-pharmaceutical intervention locations (e.g., isolation or quarantine sites) through coordination with jurisdictional officials (e.g., law enforcement, medical, and school).

Task 2: At the time of an incident, assist community partners with coordinating support services (e.g., medical care and mental health) to individuals included in non-pharmaceutical intervention(s). *(For additional or supporting detail, see Capability 1: Community Preparedness, Capability 7: Mass Care, and Capability 10: Medical Surge)*

Task 3: At the time of an incident, provide recommendations for voluntary or mandatory closure of congregate locales and events[243] to jurisdictional officials (e.g., emergency management, law enforcement, school, and tribal entities) and stakeholders (e.g., mall/store owners, faith-based congregations, and convention centers/event coordinators), if needed.

Task 4: At the time of an incident, provide recommendations for voluntary or mandatory restrictions on movement in conjunction with jurisdictional officials (e.g., emergency management, law enforcement, and transportation), if needed.

Task 5: Upon request, activate jurisdictional processes for managing and detaining passengers at ports of entry[244] through coordination with CDC's Division of Global Migration and Quarantine, port authorities, and jurisdictional officials as applicable to the incident.

Task 6: At the time of an incident, assure ability to conduct external decontamination of potentially contaminated or contaminated individuals.

Task 7: At the time of an incident, educate and inform the public, response agencies and other partners regarding the recommended intervention(s). *(For additional or supporting detail, see Capability 4: Emergency Public Information and Warning)*

Function 3: Implement non-pharmaceutical interventions

Performance Measure(s)

At present there are no CDC-defined performance measures for this function.

Resource Elements

*Note: Jurisdictions must have or have access to the resource elements designated as **Priority**.*

PLANNING (P)

P1: ***(Priority)*** Written plans should include agreements with healthcare coalitions and other community partners to coordinate support services to individuals during isolation or quarantine scenarios. [245,246,247,248] *(For additional or supporting detail, see Capability 10: Medical Surge)*

P2: ***(Priority)*** Written plans should include procedures to support the separation of cohorts of potentially exposed travelers from the general population at ports of entry. Plans should include but are not limited to the following elements: [249]

- Identification of resources (e.g., staff, facilities, and equipment) at or near ports of entry to be used for separation of cohorts
- Scalable plans to accommodate cohorts of various sizes in identified facilities
- Local and state Communicable Disease Response Plan compatible with CDC's Division of Global Migration and Quarantine guidance [250]
- Applicable state/local legal authorities for detention, quarantine, and conditional release of potentially exposed persons and isolation of ill persons
- Processes for transportation of cohorts to, and security at, pre-identified sites

Suggested resource

- Pandemic Influenza Federal Guidance 2008, Appendix B.2: http://www.pandemicflu.gov/news/guidance031108.pdf

P3: Written plans should include a process for coordinating and/or implementing isolation or quarantine at designated locations. Plans should include but are not limited to the following elements: [251,252,253]

- Pre-identified sites for housing cohorts under non-pharmaceutical intervention
- Memoranda of understanding or letters of agreement with site owners for use of sites
- Written agreements for equipment needed at designated sites
- Processes for conversion of sites to environment needed for intervention (e.g., converting rooms to negative pressure rooms)
- Time frame for establishing operations at location
- Processes for returning the site to normal operation, including decontamination or sanitization, if needed
- Documenting expenses for potential reimbursement at either the jurisdictional or federal level

P4: Written plans should include memoranda of understanding or letters of agreement with mental /behavioral health specialists for provision of services to individuals affected by non-pharmaceutical interventions. Services should include but are not limited to the following elements:

- Support in identifying individuals in need of mental/behavioral health services (e.g., during isolation or quarantine)
- Agreements to provide services in person or via communication method (e.g., phone, internet, or teleconference)

P5: Written plans should include protocols to support coordination of population monitoring and external decontamination of individuals. Protocols should include but are not limited to the following elements:

- Screening based on incident-specific criteria levels determined by radiological/nuclear subject matter experts
- Registration of exposed and possibly exposed populations, including collection of name, address, contact information, and person's location at the time of the incident, and coordination with organizations trained in decontamination to establish external decontamination stations at designated sites and remove and/or store contaminated materials

Suggested resource

- Population Monitoring in Radiation Emergencies: http://emergency.cdc.gov/radiation/pdf/population-monitoring-guide.pdf

Function 3: Implement non-pharmaceutical interventions

Resource Elements *(continued)*

PLANNING (P)

P6: Written plans should include templates or actual intervention-specific public educational materials, either newly developed or adapted from existing materials that can be modified at the time of the incident. Materials should include, at a minimum, content describing the following elements:

- How the public can access information (e.g., hotlines)
- If applicable, when and where the public should, or should not, seek medical care
- How to prevent infection/exposure
- Hand washing and other protective behaviors as they apply to an incident

Suggested resources

- Clean Hands Save Lives, CDC: http://www.cdc.gov/cleanhands/
- H1N1 Prevention and Treatment: http://www.flu.gov/individualfamily/prevention/index.html
- Hygiene and Sanitation After a Disaster or Emergency, CDC: http://emergency.cdc.gov/disasters/floods/sanitation.asp
- Protect Yourself and Your Family from Debris Smoke, CDC: http://www.cdc.gov/nceh/airpollution/airquality/debris_smoke.htm

SKILLS AND TRAINING (S)

S1: Training for public health personnel participating in or supporting operations at a radiological emergency community reception center should cover the following activities: [254,255]

- Determining the location of community reception centers based on the amount of space needed, the anticipated magnitude of the radiation incident, and population needs of the community
  Suggested resource
  - Virtual Community Reception Center: http://www.emergency.cdc.gov/radiation/crc/vcrc.asp
- Establishing crowd management operations, including the development of process flow/ triage procedures and the distribution of patient information sheets during population monitoring
- Using on-site equipment to monitor external contamination
  Suggested resources
  - Virtual Community Reception Center: http://www.emergency.cdc.gov/radiation/crc/vcrc.asp
  - Population Monitoring in Radiation Emergencies: A Guide for State and Local Public Health Partners: http://www.emergency.cdc.gov/radiation/pdf/population-monitoring-guide.pdf
  - Radiation Emergency Assistance Center Training/Training Site: http://orise.orau.gov/reacts/
- Identifying and addressing functional needs of at-risk populations
- Facilitating referrals of individuals experiencing psychological trauma to mental/behavioral services
- Establishing and maintaining contacts with federal agencies for equipment, personnel, and expertise

Suggested resources

- Radiation Emergencies Virtual Reception Center Application, CDC: http://emergency.cdc.gov/radiation/crc/vcrc.asp
- Handbook for Responding To A Radiological Dispersal Device (Dirty Bomb) First Responder's Guide: http://www.crcpd.org/RDD_Handbook/RDD-Handbook-ForWeb.pdf
- Population Monitoring in Radiation Emergencies: http://emergency.cdc.gov/radiation/pdf/population-monitoring-guide.pdf

Function 4: Monitor non-pharmaceutical interventions

Monitor the implementation and effectiveness of interventions, adjust intervention methods and scope as the incident evolves, and determine the level or point at which interventions are no longer needed.

Function 4: Monitor non-pharmaceutical interventions

Tasks

This function consists of the ability to perform the following tasks:

Task 1: Assess the degree of transmission, contamination, infection and severity of exposure. *(For additional or supporting detail, see Capability 13: Public Health Surveillance and Epidemiological Investigation)*

Task 2: Disseminate situational awareness reports[256] on impact of the intervention to all agencies involved in the intervention(s). *(For additional or supporting detail, see Capability 3: Emergency Operations Coordination and Capability 6: Information Sharing)*

Task 3: Revise recommendation(s) for non-pharmaceutical interventions as indicated by the incident, including recommending intervention escalation or de-escalation. *(For additional or supporting detail, see Capability 13: Public Health Surveillance and Epidemiological Investigation)*

Task 4: Document non-pharmaceutical implementation actions taken by local jurisdictions and document feedback from community partners assisting in the intervention(s) as part of the incident After Action Report.

Performance Measure(s)

At present there are no CDC-defined performance measures for this function.

Resource Elements

*Note: Jurisdictions must have or have access to the resource elements designated as **Priority**.*

PLANNING (P)

P1: Written plan should describe how the health department will monitor known cases/exposed persons through community partner assistance, including but not limited to processes to accomplish the following tasks:[257]

- Share surveillance information between community partners and health departments
- Support short and long-term follow-up of known or suspected households under voluntary intervention in the community (2008 Pan Flu Ops Review, Population Monitoring in Radiation Emergencies: http://emergency.cdc.gov/radiation/pdf/population-monitoring-guide.pdf)
- Ensure secure storage and retrieval of sensitive information *(For additional or supporting detail, see Capability 6: Information Sharing)*

P2: Written plans should include documentation of feedback related to intervention actions taken by community partners as part of the incident After Action Report.[258,259]

Suggested resource

- Homeland Security Exercise and Evaluation Program, Participant Feedback Form: https://hseep.dhs.gov/hseep_vols/allDocs.aspx?a=P (first document in list)

EQUIPMENT AND TECHNOLOGY (E)

E1: Have or have access to equipment to support collection and compilation of incident data (e.g., electronic communication and data storage). *(For additional or supporting detail, see Capability 6: Information Sharing)*

CAPABILITY 12: Public Health Laboratory Testing

Public health laboratory testing is the ability to conduct rapid and conventional detection, characterization, confirmatory testing, data reporting, investigative support, and laboratory networking to address actual or potential exposure to all-hazards.[260] Hazards include chemical, radiological, and biological agents in multiple matrices that may include clinical samples,[261] food, and environmental samples (e.g., water, air, and soil). This capability supports routine surveillance, including pre-event[262] or pre-incident[263] and post-exposure activities.

This capability consists of the ability to perform the following functions:

Function 1: Manage laboratory activities
Function 2: Perform sample management
Function 3: Conduct testing and analysis for routine and surge capacity
Function 4: Support public health investigations
Function 5: Report results

Function 1: Manage laboratory activities

Manage and coordinate communications and resource sharing with the jurisdiction's network of human, food, veterinary, and environmental testing laboratory efforts in order to respond to chemical, biological, radiological, nuclear, explosive, and other public health threats.

Tasks

This function consists of the ability to perform the following task:

Task 1: Exchange information and data with laboratories and laboratory networks within the jurisdiction. *(For additional or supporting detail, see Capability 6: Information Sharing)*

Performance Measure(s)

This function is associated with the following CDC-defined performance measures:

Measure 1: Time for sentinel clinical laboratories to acknowledge receipt of an urgent message from the CDC Public Health Emergency Preparedness (PHEP)-funded Laboratory Response Network biological (LRN-B) laboratory

- Start time: Time CDC PHEP-funded laboratory sends urgent message to first sentinel clinical laboratory
- Intermediate stop time: Time at least 50% of sentinel clinical laboratories acknowledged receipt of urgent message
- Intermediate stop time: Time at least 90% of sentinel clinical laboratories acknowledged receipt of urgent message
- Stop time: Time last sentinel clinical laboratory acknowledged receipt of urgent message

Measure 2: Time for initial laboratorian to report for duty at the CDC PHEP-funded laboratory

- Start time: Date and time that a public health designated official began notifying on-call laboratorian(s) to report for duty at the CDC PHEP-funded laboratory
- Stop time: Date and time that the initial laboratorian reported for duty at the CDC PHEP-funded laboratory

Resource Elements

*Note: Jurisdictions must have or have access to the resource elements designated as **Priority**.*

PLANNING (P)

P1: ***(Priority)*** Written plans must include at a minimum the identification of laboratories and laboratory networks within the jurisdiction[264,265] as well as procedures for interaction with the following laboratories and groups:

- LRN-B reference laboratories within the jurisdiction
  - ☐ Support and ensure LRN-B reference laboratory communication with all LRN-B sentinel and all other LRN-B reference laboratories within the jurisdiction
- CDC's LRN chemical (LRN-C) laboratories within the jurisdiction
- CDC's LRN radiological (LRN-R) laboratories within the jurisdiction (if program funds become available)

Function 1: Manage laboratory activities

Resource Elements *(continued)*

PLANNING (P)

- Other state laboratories within the jurisdiction
  - e.g., non-LRN public health, environmental, agricultural, veterinary, and university laboratories
- Federal laboratory networks and member laboratories within the jurisdiction
  - e.g., the Food Emergency Response Network, National Animal Health Laboratory Network, and the Environmental Response Laboratory Network
- Poison control centers for chemical or radiological exposure incidents, such as food poisoning

P2: ***(Priority)*** Written plans must include the following elements:

- Documented procedures for contacting sentinel laboratories in the event of a public health incident [266]
- Coordination of jurisdiction-wide stakeholders involved in chemical, biological, radiological, nuclear, and explosive response and their standard response guidelines
  - e.g., American Society for Testing and Material, Operational Guidelines for Initial Response to a Suspected BioThreat Agent

P3: Written plans should include processes and protocols for continuity of operations (e.g., Continuity of Operations Plan or Annex) for chemical laboratory, radiological laboratory, biological laboratory and select agents consistent with federal guidelines, which are updated on an annual basis.[267] Continuity of Operations should include not only the ability to conduct testing on unknown and unusual agents but also routine testing such as the assurance of newborn screening.[268] Plans should address, but are not limited to the following elements:

- Laboratory maintenance of redundant utilities supplies for testing and support areas for short-term duration (i.e., 72 hours) in case of localized infrastructure failure
- Formal or informal agreements in place with other agencies to take over critical testing
- Staff illness
- Equipment failure

Suggested resource

- Association of Public Health Laboratories, Guidelines for the Public Health Laboratory Continuity of Operations Plan: http://www.aphl.org/aphlprograms/phpr/Documents/PHL_COOP_Guidelines.pdf

SKILLS AND TRAINING (S)

S1: Laboratory staff should be aware of current national policy and practice. Maintaining this understanding can be accomplished through sending one chemistry representative, one radiological representative, and one biological representative from the jurisdiction to the LRN national meeting. Also, it is recommended if possible, but not required, that each LRN Laboratory Director also attend LRN national meetings.

S2: At least one individual on staff should be capable of coordinating personnel safety and methods trainings, plans, and guidance, and outreach to sentinel and first responder communities throughout the jurisdiction. These staff should coordinate biological, chemical, and radiological activities. Depending on the jurisdiction, these positions may be filled by one or more individuals with the appropriate experience and training to perform the duties.

EQUIPMENT AND TECHNOLOGY (E)

E1: Have or have access to a database of current contact information for identified LRN-B advanced sentinel laboratories, LRN-B reference laboratories, LRN-R laboratories (if program funds become available), and LRN-C laboratories in the jurisdiction, as well as laboratories both inside and outside the jurisdiction that work with the jurisdictional public health agency.[269]

Function 2: Perform sample management

Implement LRN-established protocols and procedures where available and applicable [and other mandatory protocols such as those for the International Air Transport Association (IATA) and the U.S. Department of Transportation (DOT)] for sample collection, handling, packaging, processing, transport, receipt, storage, retrieval, and disposal.

Tasks

This function consists of the ability to perform the following tasks:

Task 1: Handle, package, and transport samples following established IATA/DOT and laboratory-specific protocols.

Task 2: Maintain forensic chain-of-custody throughout the sample-management process.

Performance Measure(s)

This function is associated with the following CDC-defined performance measures:

Measure 1: Percentage of LRN clinical specimens without any adverse quality assurance events received at the CDC PHEP-funded LRN-B laboratory for confirmation or rule-out testing from sentinel clinical laboratories

- Numerator: Number of LRN clinical specimens without any adverse quality assurance events received at CDC-PHEP-funded laboratory for confirmation or rule-out testing from sentinel clinical laboratories
- Denominator: Total number of LRN clinical specimens received at CDC PHEP-funded laboratory for confirmation or rule-out testing from sentinel clinical laboratories

Measure 2: Percentage of LRN non-clinical samples without any adverse quality assurance events received at the CDC PHEP-funded LRN-B laboratory for confirmation or rule-out testing from first responders

- Numerator: Number of LRN non-clinical samples without any adverse quality assurance events received at CDC PHEP-funded laboratory for confirmation or rule-out testing from first responders
- Denominator: Total number of LRN non-clinical samples received at CDC PHEP-funded laboratory for confirmation or rule-out testing from first responders

Measure 3: Ability of the CDC PHEP-funded LRN-C laboratories to collect relevant samples for clinical chemical analysis, packaging, and shipping those samples

- Sample Collection, Packing and Shipping Exercise Results (Pass/Did not pass)

Resource Elements

*Note: Jurisdictions must have or have access to the resource elements designated as **Priority**.*

PLANNING (P)

P1: Written plans should include procedures and protocols for sample collection, triage, packaging, shipping, transport, handling, storage and disposal. Sample collection procedure should address 24/7 contact information and submission criteria.

P2: Written plans should address transportation security and, at a minimum: [270]

- LRN-B: Select Agent and Toxin Regulations
- LRN-C: Chemical Hygiene Plan
- LRN-R: Radiation Safety and Security Plan, if program funds become available

P3: Written plans should include a protocol for chain of custody. Forensic chain of custody procedures must meet the minimum evidentiary control procedure requirements established by federal partners such as the Federal Bureau of Investigation (e.g., LRN, Integrated Consortium of Laboratory Network).[271]

P4: Written plans should include procedures in place to maintain sampling and/or shipping supplies stock, or demonstrate ability to procure or have access to supplies 24/7.[272]

Function 2: Perform sample management

Resource Elements *(continued)*

SKILLS AND TRAINING (S)

S1: ***(Priority)*** Laboratory staff responsible for sample management must maintain certification of laboratory personnel in a shipping and packaging program that meets national and state requirements (e.g., Sample Collection, Packing and Shipping; ShipPack).

S2: Document forensic chain of custody procedures training, with documentation updated a minimum of once per year, for laboratory and sample submission personnel. Documentation should include training date and manner of delivery (e.g., formal training or "train the trainer"). Formal training examples: CDC courses and CD or DVD-based courses, with completion verified by a formal demonstration.

S3: Ensure the ability to provide packaging and shipping training or information on the availability of packaging and shipping training in DOT/IATA regulations to LRN laboratorians utilizing commercial carriers.

Suggested resource

- Association of Public Health Laboratories 902-11 SS Preparing Category B Infectious Substances for Transport: https://www.aphlnet.org/eweb/DynamicPage.aspx?Site=aphl&WebKey=6d83bd79-2883-4c00-b426-0fffa422658b

S4: Document training on practices for personnel safety while managing samples, with documentation updated a minimum of once per year, for laboratory personnel. Documentation should include training date and manner of delivery (e.g., formal training or "train the trainer"). Formal training examples: CDC courses and CD or DVD-based courses, with completion verified by a formal demonstration.

S5: Maintain appropriate regulatory requirements, including the following elements:

- A valid Select Agent Registration Number (LRN-B labs only)
- A valid U.S. Department of Agriculture/Animal and Plant Health Inspection Service/Veterinary Services shipping permit (LRN-B labs only)
- Nuclear Regulatory Commission or state licensing requirements (LRN-R labs only, if program funds become available)

S6: State public health laboratory coordinator or designee should be able to advise on proper collection, packaging, labeling, shipping, and chain of custody procedures for samples.

EQUIPMENT AND TECHNOLOGY (E)

E1: Have or have access to sampling and/or shipping supplies stock, along with contingency agreements to procure supplies 24/7.

Function 3: Conduct testing and analysis for routine and surge capacity

Perform, or coordinate with the applicable lead agency, testing of chemical, biological, radiological, nuclear, and explosive samples, utilizing CDC-established protocols and procedures (e.g., LRN), where available and applicable, to provide detection, characterization and confirmatory testing to identify public health incidents. This testing may include clinical, food, and environmental samples.

Function 3: Conduct testing and analysis for routine and surge capacity

Tasks

This function consists of the ability to perform the following tasks:

Task 1: Provide LRN-B reference-level testing in clinical, food, and environmental samples for both rapid and conventional methods.

Task 2: Conduct chemical laboratory testing following LRN-C testing methods.

Task 3: Conduct radiological and nuclear laboratory testing following LRN-R (if program funds become available) testing methods.

Performance Measure(s)

This function is associated with the following CDC-defined performance measures:

Measure 1: Proportion of LRN-C proficiency tests (core methods) successfully passed by CDC PHEP-funded laboratories

- Numerator: Number of LRN-C core methods successfully proficiency tested by the CDC PHEP-funded laboratory
- Denominator: Total number of LRN-C core methods for which the CDC PHEP-funded laboratory is qualified to test

Measure 2: Proportion of LRN-C proficiency tests (additional methods) successfully passed by CDC PHEP-funded laboratories

- Numerator: Number of LRN-C additional methods successfully proficiency tested by the CDC PHEP-funded laboratory
- Denominator: Total number of LRN-C additional methods for which the CDC PHEP-funded laboratory is trained to test

Measure 3: Proportion of LRN-B proficiency tests successfully passed by CDC PHEP-funded laboratories

- Numerator: Number of LRN-B proficiency tests successfully passed by CDC PHEP-funded laboratory(s)
- Denominator: Total number of LRN-B proficiency tests participated in by CDC PHEP-funded laboratory(s)

Resource Elements

*Note: Jurisdictions must have or have access to the resource elements designated as **Priority**.*

PLANNING (P)

P1: ***(Priority)*** Written plans should include the following considerations for surge capacity:

- Options to optimize procedures based on regular and surge personnel, equipment, and facility resources for short-term (e.g., days) and long-term (e.g., weeks to months) response efforts. Options should also be based on best practices and models available on the LRN website or other sources.
- Triage policies that address how the laboratory will manage surge testing, that may include:
  - Referral of samples to other jurisdictional laboratories
  - Prioritization of testing based upon sample type
  - Prioritization of testing based upon risk or threat assessment
  - Contingencies to assure newborn screening in a surge situation. Newborn screening can be assured by memoranda of agreement or contracts with commercial vendors[273]
- Ensuring that laboratory testing and reporting can be performed for extended shifts based on need for Level 1 and Level 2 LRN-C laboratories. *(Not applicable for territories)*
- Ensuring that laboratory testing, quality assurance and control review, and reporting can be performed for extended shifts based on need for LRN-R laboratories, if program funds become available

P2: ***(Priority)*** Written plans should include preventative maintenance contracts and service agreements in place for equipment and instruments utilized in LRN protocols, procedures, and methods – at a minimum. Plans should also include protocols to ensure that equipment and instruments utilized in LRN protocols, procedures, and methods have been inspected and/or certified according to manufacturer's specifications.

Function 3: Conduct testing and analysis for routine and surge capacity

Resource Elements *(continued)*

PLANNING (P)

P3: Written plans should include a process that provides guidance for referring suspicious samples (e.g., from sentinel labs or first responders) to an LRN reference laboratory.

P4: Written plans should include considerations for supply accessibility, including identifying multiple vendors for critical commercially available reagents/supplies.

P5: Written plans should include processes and procedures to operate at expanded laboratory capacity for surge events and incidents.

SKILLS AND TRAINING (S)

S1: ***(Priority)*** Laboratories participating in radiological or nuclear testing must attain LRN-R (if program funds become available) Proficiency Testing Program Qualified status for all analysis methods transferred by LRN-R through the following:

- Attending LRN–R training, if program funds become available
- Completing the associated laboratory validation exercise, demonstrating performance and precision according to the minimum standards for each analytical method

S2: ***(Priority)*** LRN-B reference laboratories must attain competency for LRN-B testing methods by having the ability to test for all agents/sample types/tests listed in the high risk environmental sample testing algorithm posted on the secure LRN website.

S3: ***(Priority)*** All LRN Laboratories (excluding LRN-B sentinel laboratories) must maintain the competency to pass LRN proficiency tests.

S4: ***(Priority)*** Laboratories participating in chemical testing must attain LRN-C Proficiency Testing Program Qualified status, through the ability to perform the following:

- Core LRN-C methods testing, for all Level 1 (surge capacity laboratories only) and Level 2 analysis methods transferred by CDC. Core LRN-C methods are identified on the LRN website and updated at least annually.
- Validation and qualification of at least one new analysis method per year is required.

S5: Document LRN methods training, with documentation updated a minimum of once per year, for personnel that regularly perform LRN methods, as well as staff identified as surge-capacity personnel. Documentation should include training date and manner of delivery (e.g., formal training or "train the trainer"). Formal training: CDC courses and CD or DVD-based courses, with completion verified by a formal demonstration.

S6: If possible, (but not required) send one chemical, one radiological, and one biological laboratory representative to meetings focused on technical competencies.

S7: Send at least one chemistry representative from each LRN-C Level 1 surge laboratory to participate in the bi-annual LRN-C Level 1 surge capacity meeting.

S8: Document safety training, with documentation updated a minimum of once per year, for personnel that regularly perform LRN testing, as well as staff identified as surge-capacity personnel. Documentation should include training date and manner of delivery (e.g., formal training or "train the trainer"). Formal training: CDC courses and CD or DVD-based courses, with completion verified by a formal demonstration.

S9: Attain accreditation for LRN-C clinical testing, at a minimum, via an appropriate accreditation body [e.g., at a minimum, Clinical Laboratory Improvement Amendments (CLIA) or College of American pathologists (CAP)]

S10: Attain accreditation for LRN-B clinical testing, at a minimum, via an appropriate accreditation body (e.g., at a minimum, CLIA or CAP)

S11: Attain accreditation for LRN-R clinical testing, at a minimum, via an appropriate accreditation body, if program funds become available (e.g., at a minimum, CLIA or CAP)

Function 3: Conduct testing and analysis for routine and surge capacity

Resource Elements *(continued)*

EQUIPMENT AND TECHNOLOGY (E)

E1: Have or have access to a biosafety level 3 laboratory through a memorandum of understanding or other formalized agreement.

E2: Laboratory owns and maintains at least one instrument each for rapid nucleic-acid detection and antigen-based detection and instruments are listed in the current equipment list (which is updated annually on the secure LRN website: https://lrnb.cdc.gov/(S(ofugwpznq2yotw45umy04u55))/Login.aspx).

E3: Level 2 laboratories own and maintain equipment for at least one instrument each for detection of LRN-C agents, that are listed in the current equipment list (which is updated annually on the secure LRN website: https://lrnb.cdc.gov/(S(ofugwpznq2yotw45umy04u55))/Login.aspx), to demonstrate qualified status for the listed Level 1 (surge capacity laboratories only) and Level 2 methods.

E4: Level 1 laboratories must obtain and maintain additional support equipment and supplies listed in each method.

E5: LRN-R laboratories (if program funds become available) own and maintain equipment and maintain staff for at least one instrument each for detection of LRN-R agents that are listed in the LRN-R Equipment List (which is updated annually on the secure LRN website: https://lrnb.cdc.gov/(S(ofugwpznq2yotw45umy04u55))/Login.aspx).

E6: Maintain inventory or reliable sources of testing material that includes CDC/LRN provided analyte-specific test kits, ancillary reagents, control strains, calibration standards, and laboratory supplies required to run LRN analytical methods.

E7: Have or have access to equipment necessary for performing LRN assays.

Function 4: Support public health investigations

Provide analytical and investigative support to epidemiologists, healthcare providers, law enforcement, environmental health, food safety, and poison control efforts to help determine cause and origin of, and definitively characterize, a public health incident.

Tasks

This function consists of the ability to perform the following tasks:

Task 1: Establish and maintain the ability to provide analytical support for investigations with first responders and other health investigation community partners. *(For additional or supporting detail, see Capability 13: Public Health Surveillance and Epidemiological Investigation)*

Task 2: Provide investigative consultation and technical assistance to jurisdictional health departments, first responders, and other health investigation community partners regarding sample collection, management, and safety. *(For additional or supporting detail, see Capability 13: Public Health Surveillance and Epidemiological Investigation)*

Performance Measure(s)

This function is associated with the following CDC-defined performance measures:

Measure 1: Time to complete notification between CDC, on-call laboratorian, and on-call epidemiologist

- Start time: Date and time that CDC Department of Emergency Operations official began notification of on-call laboratorian
- Stop time: Date and time on-call epidemiologist (after receiving notification from on-call laboratorian) notifies CDC Department of Emergency Operations that notification drill is complete

Function 4: Support public health investigations

Performance Measure(s) *(continued)*

Measure 2: Time to complete notification between CDC, on-call epidemiologist, and on-call laboratorian

- Start time: Date and time that CDC Department of Emergency Operations official began notification of on-call epidemiologist
- Stop time: Date and time on-call laboratorian (after receiving notification from on-call epidemiologist) notifies CDC Department of Emergency Operations that notification drill is complete

Resource Elements

*Note: Jurisdictions must have or have access to the resource elements designated as **Priority**.*

PLANNING (P)

P1: Written plans should include processes to coordinate activities, gain assistance from, and/or share data with the following group:

- Poison control centers that can act as resources for chemical exposure incidents, such as food poisoning *(For additional or supporting detail, see Capability 13: Public Health Surveillance and Epidemiological Investigation)*
- First responders (e.g., police, fire, and hazardous materials teams) who can be initial resources for identifying overt chemical, radiological, or biological exposure incidents *(For additional or supporting detail, see Capability 14: Responder Safety and Health)*
- Civil Support Teams (CSTs), to establish a technical link between CSTs and the public health biological, radiological, and chemical laboratories with respect to field analysis of unknown samples
- Healthcare providers who may be packaging and shipping samples and subsequently receiving sample results during a response *(For additional or supporting detail, see Capability 7: Mass Care and Capability 10: Medical Surge)*
- Epidemiologists who are at the interface between clinicians/hospitals, health departments, and the laboratory *(For additional or supporting detail, see Capability 13: Public Health Surveillance and Epidemiological Investigation)*
- Veterinary diagnostic or food safety laboratories, if applicable, which serve animal populations and investigate food products *(For additional or supporting detail, see Capability 13: Public Health Surveillance and Epidemiological Investigation)*
- Local law enforcement and Federal Bureau of Investigation regional offices for screening and triage procedures of mixed environmental samples (to include chemical, biological, radiological and explosive materials) *(For additional or supporting detail, see Capability 3: Emergency Operations Coordination)*
- State emergency operations center and other official components of the state and local emergency response, including the Emergency Management Assistance Compact[274,275] *(For additional or supporting detail, see Capability 3: Emergency Operations Coordination)*

P2: Written plans should include processes to disseminate and receive information to/from select partner agencies as applicable to the situation.

SKILLS AND TRAINING (S)

S1: Public health lab managers and directors should be trained on the CDC Public Health Law Program 101, Forensic Epidemiology 3.0 curriculum (http://www.cdc.gov/phlp).

Function 5: Report results

Provide notification of laboratory results and send laboratory data to public health officials, healthcare providers, and other institutions, agencies, or persons as permitted by all applicable laws, rules, and regulations.

Function 5: Report Results

Tasks

This function consists of the ability to perform the following tasks:

Task 1: Notify appropriate public health, public safety, and law enforcement officials (24/7) of presumptive and/or confirmed laboratory results from clinical, food, or environmental samples that involve a chemical, radiological, or biological threat agent. *(For additional or supporting detail, see Capability 6: Information Sharing)*

Task 2: Send presumptive and confirmed chemical, radiological, or biological laboratory results to CDC and all submitters. *(For additional or supporting detail, see Capability 6: Information Sharing)*

Performance Measure(s)

At present this function is associated with the following CDC-defined performance measures:

Measure 1: Percentage of pulsed field gel electrophoresis (PFGE) subtyping data results for *E. coli* O157:H7 submitted to the PulseNet national database within four working days of receiving isolate at the PFGE laboratory

- Numerator: Number of reference or clinical isolates that were identified as *E. coli* O157:H7 for PFGE subtyping and submitted to CDC's PulseNet database within four working days of receipt of isolate at the PFGE laboratory
- Denominator: Total number of *E. coli* O157:H7 reference or clinical isolates for which the CDC PHEP-funded laboratory performed PFGE subtyping

Measure 2: Percentage of PFGE subtyping data results for *Listeria monocytogenes* submitted to the PulseNet national database within four working days of receiving isolate at the PFGE laboratory

- Numerator: Number of reference or clinical isolates that were identified as *Listeria monocytogenes* for PFGE subtyping and submitted to CDC's PulseNet database within four working days of receipt of isolate at the PFGE laboratory
- Denominator: Total number of *Listeria monocytogenes* reference or clinical isolates for which the CDC PHEP-funded laboratory performed PFGE subtyping

Measure 3: Time to submit PFGE subtyping data results for *Salmonella* to the PulseNet national database upon receipt of isolate at the PFGE laboratory

- Minimum time: Least amount of time (in working days) from receipt of *Salmonella* isolate to submission of Salmonella PFGE subtyping results to PulseNet
- Median time: Median amount of time (in working days) from receipt of *Salmonella* isolate to submission of Salmonella PFGE subtyping results to PulseNet
- Maximum time: Greatest amount of time (in working days) from receipt of *Salmonella* isolate to submission of Salmonella PFGE subtyping results to PulseNet

Measure 4: Time for CDC PHEP-funded laboratory to notify public health partners of significant[276] laboratory results

- Start time: Time CDC PHEP-funded laboratory obtains a significant laboratory result
- Stop time: Time CDC PHEP-funded laboratory completes notification of public health partners of significant laboratory results (i.e., time when last public health partner was notified, if partners were not notified simultaneously)

Resource Elements

*Note: Jurisdictions must have or have access to the resource elements designated as **Priority**.*

PLANNING (P)

P1: Written plans should include processes and protocols to ensure proper security and maintenance of records management system.[277,278] *(For additional or supporting detail, see Capability 6: Information Sharing)*

P2: Written plans should include data-exchange processes, as permitted by all applicable laws, rules and regulations, with law enforcement, public safety, and other agencies with roles in responding to public health threats. These processes should address data security and inappropriate disclosure of information.[279,280,281] *(For additional or supporting detail, see Capability 6: Information Sharing)*

Function 5: Report results

Performance Measures *(continued)*

PLANNING (P)

P3: Written plans should include notification procedures that detail the process of reporting results that are suggestive of an outbreak or exposure to appropriate health investigation partners utilizing secure contact methods per the LRN-B, LRN-C, or LRN-R (if program funds become available) Notification Policy and/or laboratory-specific policies.[282] *(For additional or supporting detail, see Capability 3: Emergency Operations Coordination and Capability 6: Information Sharing)*

P4: Written plans should include protocols to ensure messaging follows the LRN data messaging and laboratory-specific policies for determining specific time frames for sending data.

EQUIPMENT AND TECHNOLOGY (E)

E1: ***(Priority)*** Each LRN laboratory will build or acquire and configure a jurisdictional Laboratory Information Management System (LIMS) with the ability to send testing data to CDC according to CDC-defined standards. (This will reduce the duplicate entry into multiple data exchange systems, i.e., having to put data into results messenger or other data exchange systems to be able to send to CDC, public health partners, and other submitters).[283,284] Configuring the LIMS includes the following elements:

- Developing project plans with deliverables and a timeline to achieve ability to send and receive data from local Laboratory Information Management Solution (LIMS) to CDC and other partners
- Mapping local codes to federal standards (e.g., LRN-B Test Configuration and Vocabulary Requirements, LRN-B Laboratory Results Message Guide)
- Working with IT support staff or developing contractual agreements with LIMS vendors that are familiar with federal (e.g., LIMS integration, Public Health Laboratory Interoperability Project) and industry (e.g., logical observation identities,names, and codes; systematized nomenclature of medicine; HL 7) standards to configure the LIMS
- Validating function of LIMS and structure of message by being able to send a test message to CDC
- Ensuring health information infrastructure and surveillance systems are able to accept, process, and analyze standards-based electronic messages from sending electronic health records (EHRs) as defined by Centers for Medicare & Medicaid Services (42 Code of Federal Regulations Parts 412, 413, 422 et al.) Medicare and Medicaid Programs; Electronic Health Record Incentive Program; Final Rule (published on July 28, 2010 in the Federal Register at http://edocket.access.gpo.gov/2010/pdf/2010-17207.pdf) and the Office of the National Coordinator for Health Information Technology (45 Code of Federal Regulations Part 170) Health Information Technology: Initial Set of Standards, Implementation Specifications, and Certification Criteria for Electronic Health Record Technology; Final Rule (published on July 28, 2010 in the Federal Register at http://edocket.access.gpo.gov/2010/pdf/2010-17210.pdf and http://healthit.hhs.gov/portal/server.pt/community/onc_regulations_faqs/3163/faq_3/20765)

E2: Ensure at least one member of each laboratory area represented in the jurisdiction (LRN-B, LRN-C, LRN-R, if program funds become available) has a working digital certificate for access to electronic results-reporting systems.

E3: Have or have access to at least one working computer for access to LRN and partner electronic reporting systems.

E4: Have or have access to a mechanism (e.g., automated, electronic, or paper) for reporting results to LRN-B, LRN-C and LRN-R (if program funds become available), at a minimum, as appropriate.[285]

CAPABILITY 13: Public Health Surveillance and Epidemiological Investigation

Public health surveillance and epidemiological investigation is the ability to create, maintain, support, and strengthen routine surveillance and detection systems and epidemiological investigation processes, as well as to expand these systems and processes in response to incidents[286] of public health significance.

This capability consists of the ability to perform the following functions:

Function 1: Conduct public health surveillance and detection
Function 2: Conduct public health and epidemiological investigations
Function 3: Recommend, monitor, and analyze mitigation actions
Function 4: Improve public health surveillance and epidemiological investigation systems

Function 1: Conduct public health surveillance and detection

Conduct ongoing systematic collection, analysis, interpretation, and management of public health-related data to verify a threat or incident of public health concern, and to characterize and manage it effectively through all phases of the incident.

Tasks

This function consists of the ability to perform the following tasks:

Task 1: Engage and retain stakeholders, which are defined by the jurisdiction, who can provide health data to support routine surveillance, including daily activities outside of an incident, and to support response to an identified public health threat or incident.

Task 2: Conduct routine and incident-specific morbidity and mortality surveillance as indicated by the situation (e.g., complications of chronic disease, injury, or pregnancy) using inputs such as reportable disease surveillance, vital statistics, syndromic surveillance, hospital discharge abstracts, population-based surveys, disease registries, and active case-finding. *(For additional or supporting detail, see Capability 6: Information Sharing)*

Task 3: Provide statistical data and reports to public health and other applicable jurisdictional leadership in order to identify potential populations at-risk for adverse health outcomes during a natural or man-made threat or incident.

Task 4: Maintain surveillance systems that can identify health problems, threats, and environmental hazards and receive and respond to (or investigate) reports 24/7.[287] *(For additional or supporting detail, see Capability 6: Information Sharing)*

Performance Measure(s)

This function is associated with the following CDC-defined performance measure:

Measure 1: Proportion of reports of selected reportable diseases received by a public health agency within the jurisdiction-required time frame[288]

- Numerator: Number of reports of selected reportable disease received by a public health agency within the jurisdiction-required time frame
- Denominator: Number of reports of selected reportable disease received by a public health agency

Resource Elements

*Note: Jurisdictions must have or have access to the resource elements designated as **Priority**.*

PLANNING (P)

P1: ***(Priority)*** Written plans should document the legal and procedural framework that supports mandated and voluntary information exchange with a wide variety of community partners, including those serving communities of color and tribes.[289]

P2: ***(Priority)*** Written plans should include processes and protocols for accessing health information that follow jurisdictional and federal laws and that protect personal health information via instituting security and confidentiality policies. *(For additional or supporting detail, see Capability 6: Information Sharing)*

Function 1: Conduct public health surveillance and detection

Resource Elements *(continued)*

PLANNING (P)

P3: ***(Priority)*** Written plans should include processes and protocols to gather and analyze data from the following:[290]

- Reportable condition surveillance (i.e., conditions for which jurisdictional law mandates name-based case reporting to public health agencies). Jurisdictions should plan to receive Electronic Laboratory Reporting for reportable conditions from healthcare providers using national Meaningful Use standards. [291] *(For additional or supporting detail, see Capability 6: Information Sharing)*
- Syndromic surveillance systems. Jurisdictions are encouraged to establish or participate in such systems to monitor trends of illness or injury, and to provide situational awareness of healthcare utilization[292]
  - Participation in the CDC BioSense data-sharing program is encouraged *(For additional or supporting detail, see Capability 6: Information Sharing)*
- Surveillance of major causes of mortality, including the use of vital statistics as a data source *(For additional or supporting detail, see Capability 5: Fatality Management)*
- Surveillance of major causes of morbidity
  Suggested Resource: Natural Disaster Morbidity Surveillance Individual Form:[293]
  http://www.bt.cdc.gov/disasters/surveillance/pdf/NaturalDisasterMorbiditySurveillanceIndividualForm.pdf
- Written plans should be able to adapt to include novel and/or emerging public health threats.

Gathering and analyzing data from the following sources should also be taken into consideration:

- Environmental conditions[294]
- Hospital discharge abstracts
- Information from mental/behavioral health agencies
- Population-based surveys[295]
- Disease registries
- Immunization registries/Immunization information systems
- Active case finding (e.g., by healthcare logs and record reviews)

(For additional or supporting detail, see Capability 1: Community Preparedness, Capability 6: Information Sharing, and Capability 10: Medical Surge)

P4: ***(Priority)*** Written plans should include procedures to ensure 24/7 health department access (e.g., designated phone line or contact person in place to receive reports) to collect, review, and respond to reports of potential health threats.[296,297] *(For additional or supporting detail, see Capability 3: Emergency Operations Coordination)*

P5: ***(Priority)*** Written plans should include processes and protocols to notify CDC of cases on the Nationally Notifiable Infectious Disease List within the time frame identified on the list, including immediate notification when indicated. Electronic exchange of personal health information should meet applicable patient privacy-related laws and standards, including state or territorial laws. These include the Health Insurance Portability and Accountability Act, the Health Information Technology for Economic and Clinical Health Act, and standards from the National Institute of Standards and Technology and the Office of the National Coordinator for Health Information Technology of the U.S. Department of Health and Human Services. Plans should include procedures to move to electronic case notification using CDC's Public Health Information Network Case Notification Message Mapping Guides.

Suggested resource

- Case Notification Message Mapping Guides:
  http://www.cdc.gov/phin/resources/guides/mmghomepagecasenotification.html

P6: Written plans should include a process to conduct surveillance if the primary notifiable surveillance system (i.e., electronic system) is disrupted during an incident. The process should describe not only electronic back-ups, but also how surveillance will be conducted if no electricity or electronic infrastructure is available or in place.

Suggested resource

- Natural Disaster Morbidity Surveillance Individual Form:
  http://emergency.cdc.gov/disasters/surveillance/pdf/NaturalDisasterMorbiditySurveillanceIndividualForm.pdf

Function 1: Conduct public health surveillance and detection

Resource Elements *(continued)*

SKILLS AND TRAINING (S)

S1: ***(Priority)*** Public health staff conducting data collection, analysis, and reporting in support of surveillance and epidemiologic investigations should achieve, at a minimum, the Tier 1 Competencies and Skills for Applied Epidemiologists in Governmental Public Health Agencies.

- When creating new surveillance systems, consideration should be given to securing assistance (e.g., from academic institutions or state-level staff) from individuals with Tier 2 Competencies and Skills for Applied Epidemiologists in Governmental Public Health Agencies.
- Note: Formal educational degree requirement and masters' degree supervision requirement is suggested but not required.

Suggested resources

- Tier 1 Competencies and Skills for Applied Epidemiologists in Governmental Public Health Agencies: http://www.cste.org/dnn/Portals/0/AEC_Summary_Tier1.pdf
- Tier 2 Competencies and Skills for Applied Epidemiologists in Governmental Public Health Agencies: http://www.cste.org/dnn/Portals/0/AEC_Summary_Tier2.pdf

EQUIPMENT AND TECHNOLOGY (E)

E1: ***(Priority)*** Have or have access to health information infrastructure and surveillance systems that are able to accept, process, analyze, and share data for surveillance and epidemiological investigation activities. *(For additional or supporting detail, see Capability 6: Information Sharing)*

- Electronic exchange of personal health information should meet applicable patient privacy-related laws and standards, including state or territorial laws. These include the Health Insurance Portability and Accountability Act, the Health Information Technology for Economic and Clinical Health Act, and standards from the National Institute of Standards and Technology and the Office of the National Coordinator for Health Information Technology of the U.S. Department of Health and Human Services. *(For additional or supporting detail, see Capability 6: Information Sharing)*

E2: Have or have access to a system compatible with the National Electronic Disease Surveillance System that can determine or report the following:

- Electronic case reporting,[298] including the data that follows:
  - □ Number of case reports received
  - □ Case Report Classification: infectious or non-infectious
- Integrated Data Repository[299]
- Case Notification,[300] including the data that follows:
  - □ Number of case notifications sent to CDC
  - □ Number of case notifications sent to other jurisdictions
- Establish an integrated repository or record locator that enables all condition reports for an individual to be retrieved and reviewed

E3: Have or have access to equipment that may be necessary to ensure the electronic management and exchange of information (e.g., laboratory test orders, samples, and results) with hospitals, doctor's offices, community health centers, and poison control centers

Function 2: Conduct public health and epidemiological investigations

Identify the source of a case or outbreak of disease, injury, or exposure and its determinants in a population (e.g., time, place, person, disability status, living status, or other indices) to coordinate and report the summary results of the analysis to jurisdictional and federal partners, as appropriate.

Function 2: Conduct public health and epidemiological investigations

Tasks

This function consists of the ability to perform the following tasks:

Task 1: Conduct investigations of disease, injury or exposure in response to natural or man-made threats or incidents and ensure coordination of investigation with jurisdictional partner agencies. Partners include law enforcement, environmental health practitioners, public health nurses, maternal and child health, and other regulatory agencies if illegal activity is suspected.

Task 2: Provide epidemiological and environmental public health consultation, technical assistance, and information to local health departments regarding disease, injury, or exposure and methods of surveillance, investigation, and response.[301]

Task 3: Report investigation results to jurisdictional and federal partners, as appropriate. *(For additional or supporting detail, see Capability 6: Information Sharing)*

Performance Measure(s)

This function is associated with the following CDC-defined performance measures:

Measure 1: Percentage of infectious disease outbreak investigations[302] that generate reports
- Numerator: Number of infectious disease outbreak investigation reports generated
- Denominator: Number of infectious disease outbreak investigation reports investigated

Measure 2: Percentage of infectious disease outbreak investigation reports that contain all minimal elements[303]
- Numerator: Number of infectious disease outbreak investigation reports generated containing all minimal elements
- Denominator: Total number of infectious disease outbreak investigation reports generated

Measure 3: Percentage of acute environmental exposure[304] investigations that generate reports
- Numerator: Number of acute environmental exposure investigation reports generated
- Denominator: Number of acute environmental exposures investigated

Measure 4: Percentage of acute environmental exposure reports that contain all minimal elements
- Numerator: Number of acute environmental exposure reports generated containing all minimal elements
- Denominator: Number of acute environmental exposure investigation reports generated

Resource Elements

*Note: Jurisdictions must have or have access to the resource elements designated as **Priority**.*

PLANNING (P)

P1: ***(Priority)*** Written plans should include investigation report templates that contain the following minimal elements:[305,306,307,308]

- Context / Background – Information that helps to characterize the incident, including the following:
  - □ Population affected (e.g., estimated number of persons exposed and number of persons ill)
  - □ Location (e.g., setting or venue)
  - □ Geographical area(s) involved
  - □ Suspected or known etiology
- Initiation of Investigation – Information regarding receipt of notification and initiation of the investigation, including the following:
  - □ Date and time initial notification was received by the agency
  - □ Date and time investigation was initiated by the agency
- Investigation Methods - Epidemiological or other investigative methods employed, including the following:
  - □ Any initial investigative activity (e.g., verified laboratory results)
  - □ Data collection and analysis methods (e.g., case-finding, cohort/case-control studies, environmental)
  - □ Tools that were relevant to the investigation (e.g., epidemic curves, attack rate tables, and questionnaires)
  - □ Case definitions (as applicable)
  - □ Exposure assessments and classification

Function 2: Conduct public health and epidemiological investigations

Resource Elements *(continued)*

PLANNING (P)

- ☐ Review of reports developed by first responders, lab testing of environmental media, reviews of environmental testing records, industrial hygiene assessments, questionnaires
  - Investigation Findings/Results - all pertinent investigation results, including the following:
    - ☐ Epidemiological results
    - ☐ Laboratory results (as applicable)
    - ☐ Clinical results (as applicable)
    - ☐ Other analytic findings (as applicable)
  - Discussion and/or Conclusions – analysis and interpretation of the investigation results, and/or any conclusions drawn as a result of performing the investigation. In certain instances, a Conclusions section without a Discussion section may be sufficient
  - Recommendations for Controlling Disease and/or Preventing/Mitigating Exposure – specific control measures or other interventions recommended for controlling the spread of disease or preventing future outbreaks and/or for preventing/mitigating the effects of an acute environmental exposure
  - Key investigators and/or report authors – names and titles are critical to ensure that lines of communication with partners, clinicians ,and other stakeholders can be established.

P2: Written plans should include processes for how and when the jurisdiction will conduct investigations of health incidents (e.g., infectious disease outbreaks, injuries, and other incidents) and environmental public health hazards. Depending on the investigation, a plan will include at minimum the following information:

- Trigger points for initiating the investigation (e.g., elements/instances that trigger the start of an investigation)
- When the investigation began
- Processes for identifying the population(s) at risk
- Processes to identify confirmed cases or exposures as well as presumed or probable cases or exposed persons
- Processes that ensure the ability to perform contact tracing or identification of exposed persons
- Processes that ensure the ability to determine transmission, exposure, and source
- Processes to map/geo-code identified and suspect cases, injuries, or exposures within the jurisdiction

P3: Written plans should include processes and protocols for conducting investigations in coordination with other governmental agencies, key stakeholders, and organizations that support populations at-risk for adverse health outcomes.

- Groups for consideration include veterinarians, laboratories, medical examiners, school nurses, food inspectors, poison control centers, infectious disease physicians, hospitals, school health authorities, other healthcare providers, emergency responders and other community partners including communities of color, and tribal representatives.

P4: Written plans should include memoranda of understanding or other letters of agreement authorizing joint investigations and exchange of epidemiological information with law enforcement and other agencies, as well as defined roles for each participating agency.

Suggested resources

- FBI-CDC Criminal and Epidemiological Investigation Handbook: http://www2a.cdc.gov/phlp/docs/crimepihandbook2006.pdf
- Joint Public Health Law Enforcement Investigations: Model Memorandum of Understanding, created by Public Health and Law Enforcement Emergency Preparedness Workgroup, CDC and Bureau of Justice Assistance: http://www.nasemso.org/Projects/DomesticPreparedness/documents/JIMOUFinal.pdf

P5: Written plans should include a procedure to ensure that jurisdictional public health departments are provided a uniform set of jurisdictional health-related data associated with potential exposure to diseases, exposures, or injury conditions. *(For additional or supporting detail, see Capability 6: Information Sharing)*

Function 2: Conduct public health and epidemiological investigations

Resource Elements *(continued)*

SKILLS AND TRAINING (S)

S1: ***(Priority)*** Maintain staffing capacity to manage the routine epidemiological investigation systems at the jurisdictional level as well as to support surge epidemiological investigations in response to natural or intentional threats or incidents. This is accomplished through the following:

- Surge staff should be competent in Tier 1 Competencies and Skills for Applied Epidemiologists in Governmental Public Health Agencies
- Consideration should be given to securing assistance (e.g., academic institutions or state-level staff) from an individual with Tier 2 Competencies and Skills for Applied Epidemiologists in Governmental Public Health Agencies
- Note: Formal educational degree requirement and masters' degree supervision requirement is suggested but not required.

Suggested resources

- Tier 1 Competencies and Skills for Applied Epidemiologists in Governmental Public Health Agencies: http://www.cste.org/dnn/Portals/0/AEC_Summary_Tier1.pdf
- Tier 2 Competencies and Skills for Applied Epidemiologists in Governmental Public Health Agencies: http://www.cste.org/dnn/Portals/0/AEC_Summary_Tier2.pdf

(For additional or supporting detail, see Capability 15: Volunteer Management)

EQUIPMENT AND TECHNOLOGY (E)

E1: Have or have access to jurisdictional health monitoring systems (electronic and/or paper, if applicable) needed to monitor health status , including criteria for reporting health events and criteria/processes for maintaining and/or contributing to population health registries.

E2: Have or have access to electronic databases or registries of ill, exposed, and potentially exposed persons; these systems should be capable of developing Public Health Investigation Reports *(See Function 1: Planning Resource Element for Additional or Supporting Detail)* as warranted, utilizing information from clinical, environmental, and/or forensic samples, and utilizing lab and disease tracking data.

- Databases or registries should include protocols to protect personal health information in conformity with jurisdictional and federal law and via instituting security and confidentiality policies *(For additional or supporting detail, see Capability 6: Information Sharing)*

Function 3: Recommend, monitor, and analyze mitigation actions

Recommend, implement, or support public health interventions that contribute to the mitigation of a threat or incident as well as monitor the effectiveness of the interventions.

Tasks

This function consists of the ability to perform the following tasks:

Task 1: Determine public health mitigation, including clinical and epidemiological management and actions to be recommended for the mitigation of the threat or incident based upon data collected in the investigation and on applicable science-based standards outlined by *Morbidity and Mortality Weekly Report*, control of Communicable Diseases Manual, Red Book of Infectious Diseases or, as available, a state or CDC incident annex.

Task 2: Provide information to public health officials to support them in decision making related to mitigation actions. *(For additional or supporting detail, see Capability 6: Information Sharing)*

Task 3: Monitor and analyze mitigation actions throughout the duration of the public health threat or incident. *(For additional or supporting detail, see Capability 2: Community Recovery, Capability 5: Fatality Management, Capability 7: Mass Care, Capability 8: Medical Countermeasure Dispensing, Capability 11: Non-Pharmaceutical Interventions, and Capability 14: Responder Safety and Health)*

Function 3: Recommend, monitor, and analyze mitigation actions

Tasks *(continued)*

Task 4: Recommend additional mitigation activities, based upon mitigation monitoring and analysis, throughout the duration of the incident, as appropriate.

Performance Measure(s)

This function is associated with the following CDC-defined performance measure:

Measure 1: Proportion of reports of selected reportable diseases for which initial public health control measure(s) were initiated within the appropriate time frame[309]

- Numerator: Number of reports of selected reportable diseases for which public health control measure(s) were initiated within an appropriate time frame
- Denominator: Number of reports of selected reportable diseases received by a public health agency

Resource Elements

*Note: Jurisdictions must have or have access to the resource elements designated as **Priority**.*

PLANNING (P)

P1: ***(Priority)*** Written plans should include protocols for recommending and initiating, if indicated, containment and mitigation actions in response to public health incidents. Protocols include case and contact definitions, clinical management of potential or actual cases, the provision of medical countermeasures, and the process for exercising legal authority for disease, injury, or exposure control.[310,311] Protocols should include consultation with the state or territorial epidemiologist when warranted. *(For additional or supporting detail, see Capability 8: Medical Countermeasure Dispensing and Capability 11: Non-Pharmaceutical Interventions*

P2: Written plans should include procedures for monitoring actual performance, and document actions and outcomes using tools such as data reports or statistical summaries consistent with *Morbidity and Mortality Weekly Report* and other criteria.[312,313]

P3: Written plans should include procedures to utilize health-related data and statistics from programs within the jurisdictional public health agency to support recommendations regarding populations at-risk for adverse outcomes during a natural or intentional threat or incident. *(For additional or supporting detail, see Capability 1: Community Preparedness)*

SKILLS AND TRAINING (S)

S1: ***(Priority)*** Public health staff participating in epidemiological investigations should receive awareness-level training with the Homeland Security Exercise and Evaluation After Action Report process.

Function 4: Improve public health surveillance and epidemiological investigation systems

Assess internal agency surveillance and epidemiologic investigation both during and after an incident and implement quality improvement measures that are within jurisdictional public health agency control.

Function 4: Improve public health surveillance and epidemiological investigation systems

Tasks

This function consists of the ability to perform the following tasks:

Task 1: Identify issues and outcomes during and after the incident.

Task 2: Conduct post-incident/post-exercise agency evaluation meeting(s) including all active participants (e.g., law enforcement, volunteer agencies, clinical partners or environmental regulatory agency) to identify internal protocols and deficiencies that require corrective actions in areas such as programs, personnel, training, equipment, and organizational structure.

Task 3: Develop an After Action Report/Improvement Plan.

Task 4: Communicate recommended After Action Report Improvement Plan corrective actions to public health leadership.

Performance Measure(s)

At present there are no CDC-defined performance measures for this function.

Resource Elements

*Note: Jurisdictions must have or have access to the resource elements designated as **Priority**.*

PLANNING (P)

P1: ***(Priority)*** Written plans should include procedures to communicate the improvement plan to key stakeholders (including groups representing at-risk populations) and to implement corrective actions identified in the improvement plan.

P2: Written plans should include procedures to re-engage local public health agencies and key stakeholders and at-risk populations, as applicable, after the acute phase of a threat or incident to ensure that the jurisdiction's plans and response reached all necessary populations.

SKILLS AND TRAINING (S)

S1: Public health epidemiology staff should have awareness-level training of quality improvement processes and techniques.[314]

S2: Have access to individual(s) trained to meet competencies for a Public Health Informatician as defined in Competencies for Public Health Informaticians[315] to contribute to information sourcing, use, and reuse for surveillance and epidemiologic analysis.[316]

EQUIPMENT AND TECHNOLOGY (E)

E1: Have or have access to electronic or paper-based tools for data collection, management, and analysis, including methods for collecting, managing, and analyzing data electronically.

CAPABILITY 14: Responder Safety and Health

The responder safety and health capability describes the ability to protect public health agency staff responding to an incident[317] and the ability to support the health and safety needs of hospital and medical facility personnel, if requested.

This capability consists of the ability to perform the following functions:

Function 1: Identify responder safety and health risks
Function 2: Identify safety and personal protective needs
Function 3: Coordinate with partners to facilitate risk-specific safety and health training
Function 4: Monitor responder safety and health actions

Function 1: Identify responder safety and health risks

Assist in the identification of the medical and mental/behavioral health[318] risks (routine and incident-specific) to responders and communicate this information prior to, during, and after an incident.

Tasks

This function consists of the ability to perform the following tasks:

Task 1: Prior to an incident, identify the medical, environmental exposure, and mental/behavioral health risks that may be faced by staff responding to the public health incident in conjunction with partner agencies and based on jurisdictional risk assessment. *(For additional or supporting detail, see Capability 1: Community Preparedness)*

Task 2: Prior to an incident, identify subject matter experts and other informational resources that can be used by public health staff to make health and safety recommendations to the Incident Safety Officers or lead agency.

Task 3: Prior to an incident, and as applicable during an incident, work with subject matter experts to develop information on potential acute and chronic health conditions that may develop/occur during and after an exposure.

Task 4: In consultation with the Incident Safety Officer and subject matter experts, participate in the formulation of recommendations to the Incident Commander regarding responder-specific risks to be addressed in incident action plans.

Task 5: Distribute safety materials to public health responders through daily briefings at the onset of, and throughout an incident, in consultation with the Incident Safety Officer and jurisdictional subject matter experts. *(For additional or supporting detail, see Capability 4: Emergency Public Information and Warning)*

Performance Measure(s)

At present there are no CDC-defined performance measures for this function.

Resource Elements

*Note: Jurisdictions must have or have access to the resource elements designated as **Priority**.*

PLANNING (P)

P1: ***(Priority)*** Written plans should include documentation of the safety and health risk scenarios likely to be faced by public health responders, based on pre-identified jurisdictional incident risks, which are developed in consultation with partner agencies (e.g., environmental health, occupational health and safety, jurisdictional Local Emergency Planning Committee, risk-specific subject matter experts).[319] This documentation should include the following elements:

- Limits of exposure or injury necessitating response
- Job-specific worker safety guides[320] (e.g., radiation, heat, fire, and infrastructure damage resulting in other chemical release)
- Potential for post-event medical and mental/behavioral health follow-up assessments[321]

Suggested resources

- State Occupational Safety and Health Plans: http://www.osha.gov/dcsp/osp/index.html
- Environmental Protection Agency guidelines: http://www.epa.gov/radiation/rert/pags.html
- Jurisdictional National Weather Service Office: http://www.weather.gov/stormready/contact.htm

Function 1: Identify responder safety and health risks

Resource Elements *(continued)*

PLANNING (P)

- Hybrid Single Particle Lagrangian Integrated Trajectory Model: http://www.arl.noaa.gov/HYSPLIT_info.php
- Area Locations of Hazardous Atmospheres Predictive Model for Chemical Emergencies: http://response.restoration.noaa.gov/topic_subtopic_entry.php?RECORD_KEY(entry_subtopic_topic)=entry_id,subtopic_id,topic_id&entry_id(entry_subtopic_topic)=518&subtopic_id(entry_subtopic_topic)=24&topic_id(entry_subtopic_topic)=1
- U.S. Department of Transportation, Emergency Response Guidebook (ERG2008): http://www.tc.gc.ca/media/documents/canutec-eng/erg2008eng.pdf
- World Health Organization, Manual for the Public Health Management of Chemical Incidents: http://www.who.int/environmental_health_emergencies/publications/FINAL-PHM-Chemical-Incidents_web.pdf
- Jurisdictional Association for Professionals in Infection Control and Epidemiology: http://www.apic.org/scriptcontent/custom/members/chapters/chaptermap.cfm?section=chapters

P2: ***(Priority)*** Written plans should include documentation that identifies public health roles and responsibilities related to the jurisdiction's identified risks, that was developed in conjunction with partner agencies (e.g., state environmental health, state occupational health and safety, and hazard-specific subject matter experts) and emergency managers. This documentation should identify the protective equipment, protective actions, or other mechanisms that public health responders will need to have to execute potential roles. Roles for consideration may include the following elements:

- Conducting environmental health assessments
- Potable water inspections
- Field surveillance interviews

Recommend inclusion of the following groups, at a minimum:

- State versions of Environmental Protection Agency
- State Radiation Control Programs: http://www.crcpd.org/Map/RCPmap.htm
- State Occupational Safety and Health Agency

Suggested resources

- Federal Emergency Management Agency, Center for Domestic Preparedness Responder Handbook: http://cdp.dhs.gov/pdfs/responder_handbook.pdf
- Department of Homeland Security, Planning Guidance for Protection and Recovery Following RDD and IND Incidents: http://ogcms.energy.gov/73fr45029.pdf
- CDC National Institute for Occupational Safety and Health, Pocket Guide to Chemical Hazards: http://www.cdc.gov/niosh/npg/npgsyn-c.html
- Jane's Chem-Bio Handbook
- American Conference of Governmental Industrial Hygienists Threshold Limit Values and Biological Exposure Indices Guide
- CDC, Population Monitoring in Radiation Emergencies: A Guide for State and Local Public Health Planners: http://emergency.cdc.gov/radiation/pdf/population-monitoring-guide.pdf
- CDC Radiological Terrorism: Just in Time Training for Hospital Clinicians: http://emergency.cdc.gov/radiation/justintime.asp
- CDC Radiological Terrorism: Tool Kit for Public Health Officials: http://emergency.cdc.gov/radiation/publichealthtoolkit.asp
- Federal Emergency Management Agency, Environmental Health Training in Emergency Response: https://cdp.dhs.gov/resident/ehter.html
- Occupational Safety and Health Administration, Keeping Workers Safe During Clean Up and Recovery Operations Following Hurricanes, 2005: www.osha.gov/OshDoc/hurricaneRecovery.html.
- American Public Health Association (APHA) Policy Statement 20027: Protecting the Health and Safety of Workers Who Respond to Disasters. APHA Policy Statements, 1948 - present, cumulative: http://www.apha.org/legislative/policy/policysearch/index.cfm?fuseaction=search_results&YearofPolicy=2002
- American Public Health Association Policy Statement 20069: Response to Disasters: Protection of Rescue and Recovery Workers, Volunteers, and Residents Responding to Disasters: http://www.apha.org/advocacy/policy/policysearch/default.htm?id=1333

Function 1: Identify responder safety and health risks

Resource Elements *(continued)*

SKILLS AND TRAINING (S)

S1: Public health staff who will participate in planning for responder risks (e.g. planners, environmental health staff, preparedness staff, and epidemiologists) should have awareness-level training on population monitoring to identify risks and recommendations for personal protective equipment.

S2: Public health staff participating in the role of Incident Safety Officer should take the National Incident Management System ICS-300 course.

S3: Public health staff participating in responses where Level A equipment is to be used should have Level A awareness and technical response training.

EQUIPMENT AND TECHNOLOGY (E)

E1: Have or have access to Level D basic safety equipment, such as the following:

- Coveralls
- Gloves
- Boots/shoes, chemical-resistant steel toe and shank
- Boots, outer, chemical-resistant (disposable)
- Safety glasses or chemical splash goggles
- Hard hat
- Escape mask
- Face shield
- N95 or dust masks (surgical masks)

If participating in a clinical scenario, public health staff should have or have access to standard precautions, including gloves, gowns, and masks and goggles or face shields.

Suggested resources

- Occupational Safety and Health Administration, general description and discussion of the levels of protection and protective gear: http://www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=STANDARDS&p_id=9767
- CDC Guidance for the Selection and Use of Personal Protective Equipment in Healthcare Settings: www.cdc.gov/ncidod/dhqp/pdf/ppe/PPEslides6-29-04.ppt

Function 2: Identify safety and personal protective needs

Coordinate with occupational health and safety and other subject matter experts, based on incident-specific conditions, to determine the necessary personal protective equipment, medical countermeasures, mental/behavioral health support services and other items and services, and distribute these, as applicable, to protect the health of public health responders.

Tasks

This function consists of the ability to perform the following tasks:

Task 1: Prior to an incident, and as applicable during an incident, work with subject matter experts (e.g., state environmental health, state occupational health and safety, hazard-specific subject matter experts, and emergency managers) to identify responder safety and health resource requirements (e.g., equipment needs).

Task 2: Prior to an incident, and as applicable during an incident, and in conjunction with subject matter experts, formulate recommendations to public health responders regarding personal protective equipment that are consistent with local jurisdictional requirements.

Task 3: Coordinate with partner agencies to provide medical countermeasures and/or personal protective equipment to public health responders, if indicated by the incident. *(For additional or supporting detail, see Capability 8: Medical Countermeasure Dispensing)*

Function 2: Identify safety and personal protective needs

Performance measure(s)

At present there are no CDC-defined performance measures for this function.

Resource Elements

*Note: Jurisdictions must have or have access to the resource elements designated as **Priority**.*

PLANNING (P)

P1: ***(Priority)*** Written plans should include recommendations for risk-related personal protective equipment for public health responders that have been developed in conjunction with partner agencies (e.g., state environmental health, state occupational health and safety, and risk-specific subject matter experts).

Suggested resources

- CDC's National Institute for Occupational Safety and Health, Pocket Guide to Chemical Hazards: http://www.cdc.gov/niosh/npg/npgsyn-c.html
- U.S. Health and Human Services, Radiation Emergency Medical Management Guide PPE Guidance: http://www.remm.nlm.gov/onsite.htm
- Occupational Safety and Health Administration, general description and discussion of the levels of protection and protective gear: http://www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=STANDARDS&p_id=9767

P2: Written plans should include processes (either led by public health agency or delivered via partnerships with the appropriate lead agency, i.e., state/local occupational safety and health lead) that assure that public health responders are fit-tested and medically cleared to use personal protective equipment indicated for their particular response role, both prior to and at the time of the incident.

P3: Written plans should include protocols and processes to access (e.g., through mutual aid agreements or other mechanism) backup/cache equipment for incident response, including identifying sources of additional equipment and expertise both within and outside of the jurisdiction. These protocols and processes should follow emergency management request procedures. *(For additional or supporting detail, see Capability 9: Medical Materiel Management and Distribution)*

EQUIPMENT AND TECHNOLOGY (E)

E1: ***(Priority)*** Have or have access to personal protective equipment that is consistent with the identified risks in the jurisdiction and associated job functions of public health response personnel. This equipment should meet nationally recognized standards as defined by the InterAgency Board for Equipment Standardization and Interoperability (https://iab.gov).

Note: If public health departments elect to purchase personal protective equipment for their responders, they must follow state, Occupational Safety and Health Administration, CDC's National Institute for Occupational Safety and Health, and other applicable regulations regarding the storage, dissemination, fit testing, and maintenance of such personal protective equipment.

Suggested resource

- General description and discussion of the levels of protection and protective gear, OSHA: http://www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=STANDARDS&p_id=9767

Function 3: Coordinate with partners to facilitate risk-specific safety and health training

In conjunction with partner agencies, facilitate the inclusion of risk-specific physical safety, mental/behavioral health, and personal protective equipment topics (based on jurisdictional risk assessment) into public health responder training to prepare responders for the incident.

Function 3: Coordinate with partners to facilitate risk-specific safety and health training

Tasks

This function consists of the ability to perform the following task:

Task 1: Prior to an incident, and as applicable during an incident, work with subject matter experts to determine/recommend risk-specific training (both training for protective actions as well as training for response to exposure or injury).

Performance Measure(s)

At present there are no CDC-defined performance measures for this function.

Resource elements

*Note: Jurisdictions must have or have access to the resource elements designated as **Priority**.*

SKILLS AND TRAINING (S)

S1: ***(Priority)*** Public health staff required to use N-95 or other respirators as part of their response role should undergo respiratory function testing.

Suggested resources

- Professional Training and Certification in Spirometry Testing and Respiratory Health Surveillance, a National Institute for Occupational Safety and Health-approved Program for Health Professionals
- National Institute for Occupational Safety and Health Spirometry Initial Training and National Institute for Occupational Safety and Health Spirometry Refresher Course
- American National Standards Institute/American Industrial Hygiene Association Z88 Accredited Standards Committee, Respiratory Protection: http://www.aiha.org/insideaiha/standards/Pages/Z88.aspx

S2: ***(Priority)*** Public health staff that perform responder functions, as well as staff identified as surge-capacity personnel, should have documentation of training, with documentation updated a minimum of once per year. Documentation should include training date and manner of delivery (e.g., formal training or "train the trainer"). Formal training examples include CDC courses and CD or DVD-based courses, with completion verified by a formal demonstration.

S3: Awareness and technician refresher courses depending upon responder role. [Public health staff participating in HAZWOPER incidents should have Occupational Safety and Health Administration HAZWOPER initial 40 hour and annual 8 hour refresher training (OSHA 29CFR 1910.120).]

Function 4: Monitor responder safety and health actions

Conduct or participate in monitoring and surveillance activities to identify any potential adverse health effects of public health responders.

Tasks

This function consists of the ability to perform the following tasks:

Task 1: Conduct or participate in exposure, mental/behavioral health, and medical surveillance of public health incident responders before, during, and after an incident. *(For additional or supporting detail, see Capability 13: Public Health Surveillance and Epidemiological Investigation)*

Task 2: Coordinate with healthcare partners to facilitate access to and promote the availability of medical and mental/behavioral health services for responders, either on-site or off-site as applicable to the incident.

Task 3: Provide guidance to partner organizations to help conduct monitoring of any responder staff for medical/mental/behavioral incident-related health outcomes.

Task 4: Utilize surveillance data and other applicable inputs from partner agencies to provide recommendations or considerations for any changes related to the use of personal protective equipment (e.g., to alter, suspend, or terminate any activity or personal protective equipment usage judged to improve the outcome or be an imminent danger or immediately dangerous to life and health). *(For additional or supporting detail, see Capability 6: Information Sharing)*

Function 4: Monitor responder safety and health actions

Tasks *(continued)*

Task 5: Support the Public Information Officer and partner agencies to implement risk-communication strategies that communicate risks to responders after the completion of the acute phase of an incident. Include risks known pre-incident and those discovered during and after the acute phase. *(For additional or supporting detail, see Capability 3: Emergency Operations Coordination and Capability 4: Emergency Public Information and Warning)*

Performance Measure(s)

At present there are no CDC-defined performance measures for this function.

Resource Elements

*Note: Jurisdictions must have or have access to the resource elements designated as **Priority**.*

PLANNING (P)

P1: ***(Priority)*** Written plans should include process and protocols for how the public health agency, in conjunction with lead partners (e.g., occupational health and safety) will participate in surveillance activities to monitor levels of environmental exposure, environmental effects on the responders, and/or incident-related injuries. *(For additional or supporting detail, see Capability 13: Public Health Surveillance and Epidemiological Investigation)*

Suggested resources

- Physical Health Status of World Trade Center Rescue and Recovery Workers and Volunteers -New York City, July 2002 - August 2004. *Morbidity and Mortality Weekly Report* , 53(35): 807-812. September 10, 2005: www.cdc.gov/mmwr/preview/mmwrhtml/mm5335a1.htm
- CDC, Chemical Exposure Assessment Considerations for Use in Evaluating Deepwater Horizon Response Workers and Volunteers: http://www.cdc.gov/niosh/topics/oilspillresponse/assessment.html
- National Institute for Occupational Safety and Health (NIOSH) Deepwater Horizon Data Use and Disclosure: http://www.cdc.gov/niosh/topics/oilspillresponse/pdfs/NIOSH-Disclosure-English-051110.pdf
- NIOSH Deepwater Horizon Initial Roster Form: http://www.cdc.gov/niosh/topics/oilspillresponse/pdfs/NIOSH-Roster-Form-English-051210.pdf
- Procedures for Recruiting Volunteers for Investigative Studies from the NIOSH Deepwater Horizon Response: http://www.cdc.gov/niosh/topics/oilspillresponse/recruiting.html

P2: Written plans should include a process or protocol to coordinate with partner agencies for medical-readiness screening of potential public health responders at the time of an incident to detect symptoms that may affect medical readiness (e.g., cough, cold, heat stress, and emotional stress).

Suggested resources

- Medical Pre-Placement Evaluation for Workers Engaged in the Deepwater Horizon Response: http://www.cdc.gov/niosh/topics/oilspillresponse/preplacement.html
- Medical Pre-Placement Evaluation Indicators for Health Professionals: http://www.cdc.gov/niosh/topics/oilspillresponse/indicators.html

P3: Written plans should include a process and protocols for how the public health agency (in conjunction with lead healthcare and mental/behavioral health partners) can promote the availability of medical and mental/behavioral health services.

EQUIPMENT AND TECHNOLOGY (E)

E1: ***(Priority)*** Have or have access to a registry database of responders who were exposed and/or injured during an incident. This database should be updated at a frequency appropriate to the incident.

CAPABILITY 15: Volunteer Management

Volunteer management is the ability to coordinate the identification, recruitment, registration, credential verification, training, and engagement of volunteers[322] to support the jurisdictional public health agency's response to incidents of public health significance.

The capability consists of the ability to perform the following functions:

Function 1: Coordinate volunteers
Function 2: Notify volunteers
Function 3: Organize, assemble, and dispatch volunteers
Function 4: Demobilize volunteers

Function 1: Coordinate volunteers

Recruit, identify, and train volunteers who can support the public health agency's response to an incident. Volunteers identified prior to an incident must be registered with the Emergency System for Advance Registration of Volunteer Health Professionals (ESAR-VHP), Medical Reserve Corps, or other pre-identified partner groups (e.g., Red Cross or Community Emergency Response Teams).

Tasks

The function consists of the ability to perform the following tasks:

Task 1: Prior to an incident, identify the types and numbers of volunteers most likely to be needed in a public health agency's response based on the jurisdictional community risk assessment. *(For additional or supporting detail, see Capability 1: Community Preparedness)*

Task 2: Prior to an incident, coordinate with existing volunteer programs (e.g., ESAR-VHP, Medical Reserve Corps) and partner organizations to support the pre-incident recruitment of volunteers that may be needed in a public health agency's response.

Task 3: Prior to an incident, assure pre-incident screening and verification of volunteers' credentials through jurisdictional ESAR-VHP and Medical Reserve Corps.

Task 4: Prior to an incident and as necessary at the time of an incident, support provision of initial and ongoing emergency response training for registered volunteers. Training should be supported in partnership with jurisdictional Medical Reserve Corps unit(s) and other partner groups.

Performance Measure(s)

At present there are no CDC-defined performance measures for this function.

Resource Elements

*Note: Jurisdictions must have or have access to the resource elements designated as **Priority**.*

PLANNING (P)

P1: ***(Priority)*** Written plans should address anticipated volunteer needs in response to incidents or situations identified in the jurisdictional risk assessment including the following elements:[323]

- Identification of functional roles
- Skills, knowledge, or abilities needed for each volunteer task or role
- Description of when the volunteer actions will happen
- Identification of jurisdictional authorities that govern volunteer liability issues and scope of practice

P2: ***(Priority)*** Written plans should include memoranda of understanding or other letters of agreement with jurisdictional volunteer sources. Suggested partners include but are not limited to the following groups: [324,325]

- Professional medical organizations (e.g., nursing and allied health)
- Professional guilds (e.g., behavioral health)
- Academic institutions

Function 1: Coordinate volunteers

Resource Elements *(continued)*

PLANNING (P)

- Faith-based organizations
- Voluntary Organizations Active in Disasters
- Medical Reserve Corps
- Non-profit, private, and community-based volunteer groups

Partnership agreements should include plans for the following:

- Partner organizations' promotion of public health volunteer opportunities
- Referral of all volunteers to register with jurisdictional Medical Reserve Corps and/or ESAR-VHP
- Policies for protection of volunteer information, including destruction of information when it is no longer needed (e.g., Red Cross, Community Emergency Response Teams, and member organizations of the National and State Voluntary Organizations Active in Disasters)
- Liability protection for volunteers
- Efforts to continually engage volunteers through routine community health activities
- Documentation of the volunteers' affiliations (e.g., employers and volunteer organizations) at local, state, and federal levels (to assist in minimizing "double counting" of prospective volunteers), and provision for registered volunteer Identification cards denoting volunteers' area of expertise

P3: Written plans should include a process to assure that professional volunteer diplomas, licenses, certifications, credentials and registrations are verified in accordance with state laws (e.g., using the state's ESAR-VHP).

P4: Written plans should include a process and protocol to address eligibility of volunteers based on pre-existing health conditions or background screening (either conducted by health department or in conjunction with other partner agency) to determine if prospective volunteers have any history that would preclude them from doing a certain type of volunteer activity (e.g., previous convictions, sexual offender registry, or licensing issues).

SKILLS AND TRAINING (S)

S1: Documentation (either through a training curriculum or other vehicle) that volunteer training has occurred (either delivered by the jurisdictional health department or leveraging programs by/in conjunction with other partners including healthcare facilities and Preparedness and Emergency Response Learning Centers) to ensure that volunteers receive the jurisdiction-defined training for their assigned responsibilities.

Recommended components of jurisdictional training curriculum include the following:

- Psychological first aid and self care
  Suggested resources
  - After an Earthquare: Mental Health Information for Professionals http://emergency.cdc.gov/disasters/earthquakes/mentalhealth_docs.asp)
  - Psychological First Aid in Radiation Disasters: http://www2a.cdc.gov/TCEOnline/registration/detailpage.asp?res_id=2490
- Cultural competency component that reflects the jurisdictional demographics
- Training to address the functional needs of persons who may be considered in the at-risk population[326] during a disaster response
- Medical Reserve Corps Core Competencies http://www.medicalreservecorps.gov/File/MRC%20TRAIN/Core%20Competency%20Resources/Core_Competencies_Matrix_April_2007.pdf,
- HazMat Awareness trainings
- Basic disaster life support (American Medical Association's National Disaster Life Support Program)
- Advanced disaster life support (American Medical Association's National Disaster Life Support Program)
- Cardiopulmonary resuscitation (CPR)
- Basic first aid skills
- Basic triage skills
- MRC-TRAIN: if jurisdiction participates in TRAIN program (http://www.medicalreservecorps.gov/TRAINResources)
- Other online courses as identified by the jurisdiction
- U.S. Department of Health and Human Services' training offerings (e.g., Integrated Training Summit at http://www.integratedtrainingsummit.org/)

Function 1: Coordinate volunteers

Resource Elements *(continued)*

SKILLS AND TRAINING (S)

S2: Training for staff involved in personnel management

Suggested resource

- Federal Emergency Management Agency (FEMA), Developing and Managing Volunteers (FEMA, IS-244): (http://training.fema.gov/EMIWEB/is/is244.asp).

S3: Prospective volunteers should be offered the following National Incident Management System (NIMS) training:

- Introduction to Incident Command System (ICS-100) and NIMS, An Introduction (IS-700.a) for all volunteers
- ICS for Single Resources and Initial Action Incidents (IS-200.b), Incident Command System (ICS-300) and Advanced ICS Command and General Staff (ICS-400) for volunteer leaders that will hold key leadership positions.
- NIMS website for courses: http://training.fema.gov/IS/NIMS.asp

EQUIPMENT AND TECHNOLOGY (E)

E1: Have or have access to a system, be it electronic or manual, which is able to report the number of registered volunteers by profession and/or skill level.

Function 2: Notify volunteers

At the time of an incident, utilize redundant communication systems where available (e.g., reverse 911 or text messaging) to request that prospective volunteers participate in the public health agency's response.

Tasks

The function consists of the ability to perform the following tasks:

Task 1: At the time of an incident, identify the desired skills and quantity of volunteers needed for the incident from the pre-incident volunteer registration.

Task 2: At the time of an incident, contact pre-incident registered volunteers using multiple modes of communication. *(For additional or supporting detail, see Capability 4: Emergency Public Information and Warning and Capability 6: Information Sharing)*

Task 3: At the time of an incident, notify volunteers who are able and willing to respond of where and how to report.

Task 4: At the time of an incident, coordinate with partner agencies to confirm credentials of responding volunteers. *(For additional or supporting detail, see Capability 6: Information Sharing)*

Task 5: At the time of an incident, notify partner agencies of any need for additional volunteers. *(For additional or supporting detail, see Capability 4: Emergency Public Information and Warning and Capability 6: Information Sharing)*

Performance Measure(s)

At present there are no CDC-defined performance measures for this function.

Function 2: Notify volunteers

Resource Elements

*Note: Jurisdictions must have or have access to the resource elements designated as **Priority**.*

PLANNING (P)

P1: Written plans should include a template for describing incident conditions to potential volunteers (pre-deployment briefing) including the following elements:[327,328,329]

- Potential nature of the work site
- Potential personal security issues
- Potential health safety issues
- Local weather
- Living/work conditions
- Required immunizations or prophylaxis, and the type of identification to bring with them when they report.

P2: Written plans should include a process for how the health agency or applicable lead jurisdictional agency will contact registered volunteers, identifying those willing and able to respond, and notifying them of where to report (i.e., identified staging area/reception center). *(For additional or supporting detail, see Capability 3: Emergency Operations Coordination, Capability 4: Emergency Public Information and Warning, and Capability 6: Information Sharing)*

P3: Written plans should include a process to confirm credentials of responding volunteers through jurisdiction's ESAR-VHP or Medical Reserve Corps. *(For additional or supporting detail, see Capability 6: Information Sharing)*

P4: Written plans should include definition of the volunteer management roles and responsibilities of public health department staff members.

EQUIPMENT AND TECHNOLOGY (E)

E1: Have or have access to communications equipment for health department staff to contact volunteer organizations.

- Suggested equipment includes, but is not limited to phones, computers, ham radios, and/or hand radios. *(For additional or supporting detail, see Capability 6: Information Sharing)*

Function 3: Organize, assemble, and dispatch volunteers

Coordinate the assignment of public health agency volunteers to public health, medical, mental/behavioral health,[330] and non-specialized tasks as directed by the incident, including the integration of interjurisdictional (e.g., cross-border or federal) volunteer response teams into the jurisdictional public health agency's response efforts.

Tasks

This function consists of the ability to perform the following tasks:

Task 1: If the incident differs from or exceeds the public health agency's pre-incident-defined volunteer plans, identify additional volunteers that have the necessary credentials and skills.

Task 2: Assure deployment briefing of public health volunteers, including safety and incident-specific training.

Function 3: Organize, assemble, and dispatch volunteers

Tasks *(continued)*

Task 3: Assure tracking and rotation of volunteers as indicated by the incident and by relevant job function.

Task 4: Manage spontaneous volunteers who may request to support the public health agency's response, either through incorporating them into the response or by triaging them to other potential volunteer resources.

Task 5: Coordinate state and jurisdictional response roles for federal public health staff deployed to the jurisdiction.

Performance Measure(s)

At present there are no CDC-defined performance measures for this function.

Resource Elements

*Note: Jurisdictions must have or have access to the resource elements designated as **Priority**.*

PLANNING (P)

P1: ***(Priority)*** Written plans should include a template for briefing volunteers of current incident conditions, including the following elements:

- Instructions on the current status of the emergency
- Volunteers' role (including how the volunteer is to operate within incident management)
- Just-in-time training
- Safety instructions
- Any applicable liability issues related to the incident and the volunteers' roles, psychological first aid, and/or volunteer stress management

P2: ***(Priority)*** Written plans should include a process to manage spontaneous volunteers. The process should include, at a minimum, the following elements:

- Process to communicate to the public whether spontaneous volunteers should report, and, if so, where and to whom
- Method to inform spontaneous volunteers how to register for use in future emergency responses
- Method to refer spontaneous volunteers to other organization (e.g., non-profit or Medical Reserve Corps)

(For additional or supporting detail, see Capability 4: Emergency Public Information and Warning)

If spontaneous volunteers will be integrated into a response, the process should include the identification of duties spontaneous volunteers can perform.

Suggested resources

- Managing Spontaneous Volunteers in Times of Disaster: The Synergy of Structure and Good Intentions: http://www.nvoad.org/index.php/rl/cat_view/46-volunteer-management-.html
- CDC and Association of State and Territorial Health Officials, At-Risk Populations and Pandemic Influenza: Planning Guidance for State, Territorial, Tribal, and Local Health Departments: http://www.astho.org/Display/AssetDisplay.aspx?id=401

P3: Written plans should include a process for how the public health agency will coordinate with emergency management or other jurisdictional lead agency to assure support (e.g., housing, feeding and mental/behavioral health needs) for public health volunteers.[331] *(For additional or supporting detail, see Capability 6: Information Sharing)*

P4: Written plans should include a process for assigning volunteers to response agencies.

P5: Written plans should include a process for coordinating with volunteer health professional entities and staff from various levels (e.g., local, state, federal), including but not limited to Medical Reserve Corps, ESAR-VHP and the National Disaster Medical System.

Suggested resource

- Medical Surge Capacity and Capability Handbook: http://www.phe.gov/preparedness/planning/mscc/handbook/pages/default.aspx

Function 3: Organize, assemble, and dispatch volunteers

Resource Elements *(continued)*

PLANNING (P)

P6: Written plans should include a request protocol for state and local health departments that should contain, at a minimum, protocols for the following elements:

- Local/ state health department requests for interjurisdictional volunteer assets
- Local health department escalation requests for federal public health assets through the state. The request from local to state should include a clear statement of the role of the requested asset.
- State health department escalation requests for federal public health assets. The request should include a clear statement of the role of the requested asset.
- State health departments to communicate information received from/about federal response teams to local health departments
- Communication between state and local health departments about volunteer needs and assignments during an incident

(For additional or supporting detail, see Capability 6: Information Sharing)

P7: Written plans should include procedures for coordinating support services for responding federal medical stations. States should work with their U. S. Department of Health and Human Services Regional Emergency Coordinator to develop support service plans, to include at a minimum the disposal of biohazard medical waste.

EQUIPMENT AND TECHNOLOGY (E)

E1: Have or have access to a manual or electronic system for tracking volunteer assignment, to include maintenance of a history of volunteer deployments/volunteer activity in incident responses.

Suggested resource

- Emergency System for the Advance Registration of Volunteer Health Professionals: www.phe.gov/esarvhp

Function 4: Demobilize volunteers

Release volunteers based on evolving incident requirements or incident-action plan and coordinate with partner agencies to assure provision of any medical and mental/behavioral health support needed for volunteers to return to pre-incident status.

Tasks

This function consists of the ability to perform the following tasks:

Task 1: Track (record or document) the demobilization of volunteers.

Task 2: Assure coordination of out-processing[332] of volunteers.

Task 3: Coordinate with jurisdictional authorities and partner groups to identify community resources that can support volunteer post-deployment medical screening, stress, and well-being assessment and, when requested or indicated, referral to medical and mental/behavioral health services. *(For additional or supporting detail, see Capability 2: Community Recovery and Capability 14: Responder Safety and Health)*

Performance Measure(s)

At present there are no CDC-defined performance measures for this function.

Function 4: Demobilize volunteers

Resource Elements

*Note: Jurisdictions must have or have access to the resource elements designated as **Priority**.*

PLANNING (P)

P1: ***(Priority)*** Written plans should include a process for releasing volunteers, to be used when the public health department has the lead role in volunteer coordination. The process should include steps to accomplish the following:

- Demobilize volunteers in accordance with the incident action plan
- Assure all assigned activities are completed, and/or replacement volunteers are informed of the activities' status
- Determine whether additional volunteer assistance is needed from the volunteer
- Assure all equipment is returned by volunteer
- Confirm the volunteer's follow-up contact information

(For additional or supporting detail, see Capability 4: Emergency Operations Coordination)

P2: ***(Priority)*** Written plans should include a protocol for conducting exit screening during out-processing, to include documentation of the following:

- Any injuries and illnesses acquired during the response
- Mental/behavioral health needs due to participation in the response
- When requested or indicated, referral of volunteer to medical and mental/behavioral health services

Suggested resource

- Information on post-incident environmental or occupational exposure monitoring: National Institute of Occupational Safety and Health website http://www.cdc.gov/niosh/

(For additional or supporting detail, see Capability 14: Responder Safety and Health)

Capability 1: Community Preparedness

1 The term "incident" is used throughout this document. It is defined in the National Incident Management System Incident Command Structure as "An occurrence either human caused or by natural phenomena, that requires action to prevent or minimize loss of life or damage to property and/or natural resources."
2 Throughout this document, the term "Mental/Behavioral Health" is used as an overarching term to encompass behavioral, psychosocial, substance abuse and psychological health
3 "Human Impact" refers to indicators such as: number of fatalities resulting from a particular hazard, Injuries Requiring Emergency Medical Services Transport, Outpatient Injuries, Hospital ED Visits Due to Injuries, Trauma Center (levels 1&2) Injuries (excerpt from Hazard Risk) Assessment Instrument, University of California, Los Angeles Center for Public Health and Disasters)
4 Adapted from Project Public Health Ready Measure 1.j1
5 Adapted from Public Health Accreditation Board Proposed Standards and Measures (final draft for beta test - July 2009) Measure 7.1.2B
6 Adapted from Project Public Health Ready Measure 1.e2
7 Adapted from Project Public Health Ready Measure 1.e3
8 Adapted from Public Health Accreditation Board Proposed Standards and Measures (final draft for beta test - July 2009) Measure 5.4.1B
9 Adapted from Project Public Health Ready Measure 1.t2
10 Adapted from Project Public Health Ready Measure 1.j2
11 Adapted from Project Public Health Ready Measure 1.t1
12 Adapted from Project Public Health Ready Measure 1.b4
13 Adapted from Project Public Health Ready Measure 1.t3
14 Building Community Resilience for Children and Families: http://www.nctsnet.org/nctsn_assets/pdfs/edu_materials/BuildingCommunity_FINAL_02-12-07.pdf
15 Adapted from Public Health Accreditation Board Proposed Standards and Measures (final draft for beta test - July 2009) Measure 4.1.1B
16 Adapted from Public Health Accreditation Board Proposed Standards and Measures (final draft for beta test - July 2009) Measure 4.1.2B
17 Adapted from Project Public Health Ready Measure 1.w3i
18 Adapted from Project Public Health Ready Measure 1.w3vii
19 Adapted from Public Health Accreditation Board Proposed Standards and Measures (final draft for beta test - July 2009) Measure 4.1.2B
20 Adapted from Public Health Accreditation Board Proposed Standards and Measures (final draft for beta test - July 2009) Measure 4.1.2B
21 Adapted from Project Public Health Ready Measure 1.e3
22 Social connectedness refers to the personal (e.g., family, friend, neighbor) and professional (e.g., service provider, community leader) relationships among community residents. From Chandra, A. et al. (2010). "Understanding Community Resilience in the Context of National Health Security: A Literature Review." Working Paper WR-737. Available at http://www.rand.org/pubs/working_papers/2010/RAND_WR737.pdf
23 People connected to community organizations and other providers of knowledge and resources during an emergency, perceive themselves to be at higher risk and are therefore more likely to engage in preparedness activities before a disaster. From Yong-Chan, K., & Jinae, K. (2009). Communication, neighborhood belonging and household hurricane preparedness. Disasters. As cited in Chandra, A. et al. (2010). "Understanding Community Resilience in the Context of National Health Security: A Literature Review". Working Paper WR-737. Available at http://www.rand.org/pubs/working_papers/2010/RAND_WR737.pdf
24 Adapted from Public Health Accreditation Board Proposed Standards and Measures (final draft for beta test - July 2009) Measure 4.1.2B
25 Adapted from Project Public Health Ready Measure 1.e3
26 Adapted from Project Public Health Ready Measure 1.j2

Capability 2: Community Recovery

27 Institute of Medicine (1988). The Future of Public Health
28 http://www.cdc.gov/nphpsp/essentialServices.html
29 Adapted from Project Public Health Ready Measure 1.y1
30 Adapted from Public Health Accreditation Board Proposed Standards and Measures (final draft for beta test - July 2009) Measure 5.4.2B
31 A "public health system" is defined as executing the core functions of public health agencies at all levels of government: assessment, policy development, assurance (The Future of Public Health, 1988, Institute of Medicine)
32 Adapted from Project Public Health Ready Measure 1.v1
33 Adapted from Project Public Health Ready Measure 1.v2
34 Adapted from Project Public Health Ready Measure 1.v4
35 Gurwitch, R.H., Pfefferbaum, B., Montgomery, J.M., Klomp, R.W., & Reissman, D.B. (2007). Available at http://www.nctsnet.org/nctsn_assets/pdfs/edu_materials/BuildingCommunity_FINAL_02-12-07.pdf
36 "Functional Needs" defined as communication, medical, independence, supervisory, and transportation) of at-risk individuals
37 Business; Community Leadership; Cultural and Faith-based Groups and Organizations; Emergency Management; Healthcare; Social Services; Housing and Sheltering; Media; Mental/behavioral Health; State Office of Aging or its equivalent; Education and Childcare Settings

Capability 3: Emergency Operations Coordination

38 The term "event" is used throughout this document. It is defined in the National Incident Management System Incident Command Structure as "A planned, non-emergency activity (e.g., parades, concerts, or sporting events)."
39 The term "incident" is used throughout this document. It is defined in the National Incident Management System Incident Command Structure as "An occurrence either human caused or by natural phenomena, that requires action to prevent or minimize loss of life or damage to property and/or natural resources."
40 Adapted from Public Health Accreditation Board Proposed Standards and Measures (final draft for beta test - July 2009) Measure 5.4.2B
41 The term "demobilize" is used throughout this document. It is defined in Incident Command Structure Training Course 300 (manual page 7-4) to refer to "the release and return of resources that are no longer required for the support of an incident"
42 Federal Emergency Management Agency Incident Types: http://training.fema.gov/EMIWeb/IS/ICSResource/assets/IncidentTypes.pdf
43 Adapted from Project Public Health Ready Measure 1.k1
44 Adapted from Project Public Health Ready Measure 1.k2
45 Federal Emergency Management Agency Incident Types: http://training.fema.gov/EMIWeb/IS/ICSResource/assets/IncidentTypes.pdf
46 Adapted from Project Public Health Ready Measure 1.g2
47 "Virtual structure" can be defined as a software solution such as webEOC or a just in time modular "go kit" style solution to creating a physical emergency operations center
48 http://training.fema.gov/EMIWeb/IS/ICSResource/assets/IncidentTypes.pdf
49 Public health is not required to produce their own Incident Action Plan when not the lead agency

Capability 4: Emergency Public Information and Warning

50 The term "incident" is used throughout this document. It is defined in the National Incident Management System Incident Command Structure as "An occurrence either human caused or by natural phenomena, that requires action to prevent or minimize loss of life or damage to property and/or natural resources."
51 Adapted from Public Health Accreditation Board Proposed Standards and Measures (final draft for beta test - July 2009) Measure 3.2.2 B
52 Adapted from Project Public Health Ready Measure 1.i3
53 Adapted from Project Public Health Ready Measure 1.l2v-vii

54 See Administration Manage/Specialist for examples of job description: http://www.fema.gov/pdf/pao/field_guide.pdf
55 Approved by the jurisdictional approving authority (health officer or Incident Commander)
56 Adapted from Public Health Accreditation Board Proposed Standards and Measures (final draft for beta test - July 2009) Measure3.2.2 B
57 Adapted from Public Health Accreditation Board Proposed Standards and Measures (final draft for beta test - July 2009) Measure 3.2.4 B
58 "Secure" is defined as message information that can only be accessed by the intended receiver e.g. https, login/password.
59 Adapted from Project Public Health Ready Measure 1.l2v-vii
60 Adapted from Public Health Accreditation Board Proposed Standards and Measures (final draft for beta test - July 2009) Measure 3.2.5 B
61 Adapted from Public Health Accreditation Board Proposed Standards and Measures (final draft for beta test - July 2009) Measure 3.2.5 B
62 Adapted from Public Health Accreditation Board Proposed Standards and Measures (final draft for beta test - July 2009) Measure 3.2.5 B

Capability 5: Fatality Management

63 Adapted from Project Public Health Ready Measure 1.q1
64 Gavin, Cynthia, and John Nesler. Critical Aspects of Mass Fatality Planning for State and Local Governments. In Death in Large Numbers: The Science, Policy, and Management of Mass Fatality Events.
65 Adapted from Public Health Accreditation Board Proposed Standards and Measures (final draft for beta test - July 2009) Measure 7.2.3B
66 Adapted from Project Public Health Ready Measure 1.q1
67 Adapted from Project Public Health Ready Measure 1.q1
68 Adapted from Project Public Health Ready Measure 1.q2
69 Adapted from Public Health Accreditation Board Proposed Standards and Measures (final draft for beta test - July 2009) Measure 5.4.1B
70 Adapted from Project Public Health Ready Measure 1.q2
71 Ante-mortem data is "Information about the missing or deceased person that can be used for identification. This includes demographic and physical descriptions, medical and dental records, and information regarding their last known whereabouts. Ante-mortem information is gathered and compared to post-mortem information when confirming a victim's identification." (National Association of County and City Health Officials Advance Practice Center Toolkit 'Creating and Operating a Family Assistance Center: A Toolkit for Public Health).
72 Defined by the National Mass Fatalities Institute: http://www.ncbi.nlm.nih.gov/bookshelf/br.fcgi?book=nap12798&part=fatalmgmt
73 Adapted from Project Public Health Ready Measure 1.t2
74 Adapted from Public Health Accreditation Board Proposed Standards and Measures (final draft for beta test - July 2009) Measure 7.2.2B
75 Adapted from Public Health Accreditation Board Proposed Standards and Measures (final draft for beta test - July 2009) Measure 2.2.3B

Capability 6: Information Sharing

76 An "alert" is a time sensitive tactical communication sent to parties potentially impacted by an incident to increase their preparedness and response. Alerts can convey 1) urgent information for immediate action, 2) interim information with actions that may be required in the near future, or 3) information that requires minimal or no action by responders. A Health Alert is an alert, issued by a public health agency or public health partner to a collection of people and organizations with which the sender has a response relationship.
77 The term "event" is used throughout this document. It is defined in Incident Command Structure as "A planned, non-emergency activity (e.g., parades, concerts, or sporting events)."

78 The term "incident" is used throughout this document. It is defined in Incident Command Structure as "An occurrence eitherhuman caused or by natural phenomena, that requires action to prevent or minimize loss of life or damage to property and/or natural resources."

79 Adapted from Public Health Accreditation Board Proposed Standards and Measures (final draft for beta test - July 2009) Measure 3.2.2B

80 Adapted from Project Public Health Ready Measure 1.l1ii

81 Adapted from Project Public Health Ready Measure 1.l1iii

82 Adapted from Project Public Health Ready Measure 1.l1v

83 Adapted from Project Public Health Ready Measure 1.l1v

84 Suggested source for up to date national standards: CDC Public Health Information Network: www.cdc.gov/phin

85 Adapted from Project Public Health Ready Measure 1.l2iii

86 Adapted from Project Public Health Ready Measure 1.l1viii

87 Centers for Medicare and Medicaid Services (42 CFR Parts 412, 413, 422 et al.) Medicare and Medicaid Programs; Electronic Health Record Incentive Program; Final Rule (published on July 28, 2010 in the Federal Register at http://edocket.access.gpo.gov/2010/pdf/2010-17207.pdf) and the Office of the National Coordinator for Health Information Technology Health Information Technology Standards, Implementation Specifications, and Certification Criteria and Certification Programs for Health information Technology (45 Code of Federal Regulations Part 170) viewable at http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?c=ecfr&sid=7c3390b0a0d2aecc6951346873b39efd&rgn=div5&view=text&node=45:1.0.1.4.77&idno=45. The latest updates to these standards will be made available at www.cdc.gov/phin.

88 Adapted from Project Public Health Ready Measure 1.l3ii

89 Centers for Disease Control and Prevention and University of Washington's Center for Public Health Informatics. Competencies for Public Health Informaticians. Atlanta, GA: U.S .Department of Health and Human Services, Centers for Disease Control and Prevention. 2009. This document is available online at http://www.cdc.gov/InformaticsCompetencies and at http://cphi.washington.edu/resources/competencies.html.

90 Individuals with informatician competencies may be available from governmental IT service units; other health agencies; major medical centers; biomedical informatics programs at local universities; public health informatics programs at universities (typically those with Schools of Public Health); private consulting firms; and vendors of health information technology. It is suggested that discussions regarding desired competencies from the Competency list, and attitudes of impartiality regarding commercial products be assessed prior to engagement.

91 Adapted from Project Public Health Ready Measure 1.l1viii

92 See www.cdc.gov/phin for more information. These should include addressing requirements of Centers for Medicare and Medicaid Services (CMS) and the Office of the National Coordinator for Health Information Technology (ONC) related to the Meaningful Use privacy objectives of the CMS Incentive Program for Electronic Health Records. CMS & ONC regulations of January, 2011 are posted at http://healthit.hhs.gov/portal/server.pt/community/healthit_hhs_gov__meaningful_use_announcement/2996 or at http://edocket.access.gpo.gov/2010/pdf/2010-17207.pdf and http://edocket.access.gpo.gov/2010/pdf/2010-17210.pdf respectively). Additional information is available at the Office of the National Coordinator for Health Information Technology Health Information Technology Standards, Implementation Specifications, and Certification Criteria and Certification Programs for Health information Technology (45 Code of Federal RegulationsPart 170) viewable at http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?c=ecfr&sid=7c3390b0a0d2aecc6951346873b39efd&rgn=div5&view=text&node=45:1.0.1.4.77&idno=45. The latest updates to these standards will be made available at www.cdc.gov/phin.

93 Note Meaningful Use Stage 1 Requirements at Endnote 91

94 Valid encryption processes for data in motion are those which comply, as appropriate, with NIST SP 800-52, 800-77, or 800-113, or others which are Federal Information Processing Standards (FIPS) 140-2 validated

95 Note Meaningful Use Stage 1 Requirements at Endnote 91

96 Adapted from Project Public Health Ready Measure 1.l3i

97 http://healthit.hhs.gov/portal/server.pt/community/healthit_hhs_gov__privacy___security_framework/1173

Capability 7: Mass Care

98 Excludes shelter-in-place

99 At-Risk Population: Populations whose members may have additional needs before, during, and after an incident in functional areas, including but not limited to: maintaining independence, communication, transportation, supervision, medical care. Individuals in need of additional response assistance may include those who have disabilities; who live in institutionalized settings; who are elderly; who are children; who are from diverse cultures; who have limited English proficiency; or who are non-English speaking; or who are transportation disadvantaged (U.S. Department of Health and Human Services).

100 Adapted from Project Public Health Ready Measure 1.l2x

101 Adapted from Project Public Health Ready Measure 1.p1ii

102 Americans with Disabilities Act, Title II

103 Population monitoring includes registration, screening, decontamination, and long-term follow-up.

104 Adapted from Project Public Health Ready Measure 1.p4

105 Adapted from Project Public Health Ready Measure 1.p4

Capability 8: Medical Countermeasure Dispensing

106 Those who have, in addition to their medical needs, other functional needs that may interfere with their ability to access or receive medical care.

107 Adapted from Public Health Accreditation Board Proposed Standards and Measures (final draft for beta test - July 2009) Measure 2.3.4B

108 Adapted from Public Health Accreditation Board Proposed Standards and Measures (final draft for beta test - July 2009) Measure 4.1.2B

109 Intermediary distribution sites are locations where medical countermeasures are taken before they reach a point of dispensing. In some cases, medical countermeasures will remain in custody of public health. In others, custody will be transferred to other partners and these partners will be responsible for dispensing the medical countermeasures.

110 Adapted from Project Public Health Ready Measure 1.o2

111 Dispensing modalities are the strategies or methods that a jurisdiction can utilize to provide the countermeasures (e.g. point of dispensing locations, drive-through pick-up locations, pushing medications to private businesses)

112 As defined by the incident and the jurisdiction

113 Adapted from Public Health Accreditation Board Proposed Standards and Measures (final draft for beta test - July 2009) Measure 2.3.4B

114 Adapted from Public Health Accreditation Board Proposed Standards and Measures (final draft for beta test - July 2009) Measure 2.2.1B

115 Adapted from Strategic National Stockpile Local Technical Assistance Review Users Guide Measure 10.1

116 Adapted from Strategic National Stockpile Local Technical Assistance Review Users Guide Measure 6.3

117 Adapted from Strategic National Stockpile Local Technical Assistance Review Users Guide Measure 6.4

118 Adapted from Strategic National Stockpile Local Technical Assistance Review Users Guide Measure 6.5

119 Adapted from Strategic National Stockpile State Technical Assistance Review Users Guide Measure 6.3

120 Adapted from Strategic National Stockpile Local Technical Assistance Review Users Guide Measure 11.1

121 Adapted from Strategic National Stockpile Local Technical Assistance Review Users Guide Measure 12.3

122 Adapted from Public Health Accreditation Board Proposed Standards and Measures (final draft for beta test - July 2009) Measure2.4.4B

123 Adapted from Strategic National Stockpile Local Technical Assistance Review Users Guide Measure 5.2

124 Adapted from Strategic National Stockpile Local Technical Assistance Review Users Guide Measure 5.4

125 Adapted from Strategic National Stockpile State Technical Assistance Review Users Guide Measure 5.2

126 Adapted from Strategic National Stockpile State Technical Assistance Review Users Guide Measure 5.3

127 Adapted from Project Public Health Ready Measure 1.o1

128 Adapted from Strategic National Stockpile Local Technical Assistance Review Users Guide Measure 6.3

129 Adapted from Strategic National Stockpile Local Technical Assistance Review Users Guide Measure 6.4

130 Adapted from Strategic National Stockpile Local Technical Assistance Review Users Guide Measure 6.5
131 Adapted from Strategic National Stockpile State Technical Assistance Review Users Guide Measure 6.3
132 Adapted from Strategic National Stockpile Local Technical Assistance Review Users Guide Measure 8.2
133 Adapted from Strategic National Stockpile State Technical Assistance Review Users Guide Measure 8.2
134 Adapted from Strategic National Stockpile Local Technical Assistance Review Users Guide Measure 8.1
135 Adapted from Strategic National Stockpile State Technical Assistance Review Users Guide Measure 8.1
136 Adapted from Project Public Health Ready Measure 1.o3

Capability 9: Medical Materiel Management and Distribution

137 The term "incident" is used throughout this document. It is defined in National Incident Management System Incident Command Structure as "An occurrence either human caused or by natural phenomena, that requires action to prevent or minimize loss of life or damage to property and/or natural resources."
138 This decision can be based on a number of factors, including, but not limited to, size of the incident, size and quantity of materiel to be acquired and distributed, necessity of cold chain management.
139 Adapted from Strategic National Stockpile Local Technical Assistance Review Users Guide Measure 7.2
140 Adapted from Strategic National Stockpile State Technical Assistance Review Users Guide Measure 7.2
141 Adapted from Strategic National Stockpile Local Technical Assistance Review Users Guide Measure 7.14
142 Adapted from Strategic National Stockpile State Technical Assistance Review Users Guide Measure 7.14
143 Adapted from Strategic National Stockpile Local Technical Assistance Review Users Guide Measure 7.15
144 Adapted from Strategic National Stockpile State Technical Assistance Review Users Guide Measure 7.15
145 Adapted from Strategic National Stockpile Local Technical Assistance Review Users Guide Measure 9.5
146 Adapted from Strategic National Stockpile State Technical Assistance Review Users Guide Measure 10.5
147 Adapted from Strategic National Stockpile Local Technical Assistance Review Users Guide Measure 9.3
148 Adapted from Strategic National Stockpile State Technical Assistance Review Users Guide Measure 10.3
149 Those who have, in addition to their medical needs, other functional needs that may interfere with their ability to access or receive medical care.
150 Adapted from Strategic National Stockpile Local Technical Assistance Review Users Guide Measure 6.4
151 Adapted from Strategic National Stockpile State Technical Assistance Review Users Guide Measure 6.3
152 Adapted from Public Health Accreditation Board Proposed Standards and Measures (final draft for beta test - July 2009) Measure 8.1.2B
153 This could include personnel from neighboring jurisdictions all the way up to a Strategic National Stockpile task force.
154 Adapted from Public Health Accreditation Board Proposed Standards and Measures (final draft for beta test - July 2009) Measure 2.4.1B
155 Adapted from Strategic National Stockpile Local Technical Assistance Review Users Guide Measure 11.1
156 Adapted from Strategic National Stockpile State Technical Assistance Review Users Guide Measure 12.3
157 Adapted from Project Public Health Ready Measure 1.i3
158 Adapted from Strategic National Stockpile Local Technical Assistance Review Users Guide Measure 2.2
159 Adapted from Strategic National Stockpile Local Technical Assistance Review Users Guide Measure 7.13
160 Adapted from Strategic National Stockpile State Technical Assistance Review Users Guide Measure 7.13
161 Ideally a logistician, but could also be someone with experience in warehousing or supply chain management (i.e., public works)
162 Adapted from Strategic National Stockpile Local Technical Assistance Review Users Guide Measure 9.1
163 Adapted from Strategic National Stockpile State Technical Assistance Review Users Guide Measure 10.1
164 This includes temperature control, cleanliness, packaging, handling, chain of custody, and other pertinent protocols.
165 Adapted from Project Public Health Ready Measure 1.x3
166 Adapted from Strategic National Stockpile State Technical Assistance Review Users Guide Measure 3.4
167 Adapted from Strategic National Stockpile State Technical Assistance Review Users Guide Measure 3.6
168 Adapted from Project Public Health Ready Measure 1.x4
169 Adapted from Project Public Health Ready Measure 1.x5

170 Adapted from Public Health Accreditation Board Proposed Standards and Measures (final draft for beta test - July 2009) Measure 2.2.2B
171 Adapted from Strategic National Stockpile Local Technical Assistance Review Users Guide Measure 3.1
172 Adapted from Strategic National Stockpile State Technical Assistance Review Users Guide Measure 3.2
173 Adapted from Strategic National Stockpile State Technical Assistance Review Users Guide Measure 3.1
174 Adapted from Strategic National Stockpile Local Technical Assistance Review Users Guide Measure 3.3
175 These may be included in the contracts and memoranda of understanding with receiving sites.
176 Adapted from Strategic National Stockpile Local Technical Assistance Review Users Guide Measure 3.4
177 Adapted from Strategic National Stockpile Local Technical Assistance Review Users Guide Measure 3.5
178 Adapted from Strategic National Stockpile Local Technical Assistance Review Users Guide Measure 8.2
179 Adapted from Strategic National Stockpile State Technical Assistance Review Users Guide Measure 8.2
180 Adapted from Project Public Health Ready Measure 1.o2
181 Adapted from Strategic National Stockpile Local Technical Assistance Review Users Guide Measure 8.1
182 Adapted from Strategic National Stockpile State Technical Assistance Review Users Guide Measure 8.1
183 This can be personnel (e.g., state police, county sheriff, city police, and private security staff) or other measures (e.g., locks, alarms)
184 Adapted from Strategic National Stockpile Local Technical Assistance Review Users Guide Measure 6.3
185 Adapted from Strategic National Stockpile State Technical Assistance Review Users Guide Measure 6.4
186 Adapted from Strategic National Stockpile Local Technical Assistance Review Users Guide Measure 6.2
187 Adapted from Strategic National Stockpile State Technical Assistance Review Users Guide Measure 6.2
188 Adapted from Strategic National Stockpile Local Technical Assistance Review Users Guide Measure 8.5
189 Adapted from Strategic National Stockpile State Technical Assistance Review Users Guide Measure 8.4
190 This includes temperature control, cleanliness, packaging, handling, chain of custody, and other pertinent protocols.
191 Adapted from Strategic National Stockpile Local Technical Assistance Review Users Guide Measure 9.2
192 Adapted from Strategic National Stockpile State Technical Assistance Review Users Guide Measure 10.2
193 Adapted from Project Public Health Ready Measure 3

Capability 10: Medical Surge

194 The term "adequate" implies a system, process, procedure, or quantity that will achieve a defined response objective.
195 Public health, medical, and mental/behavioral health
196 Adapted from Project Public Health Ready Measure 1. i2
197 Adapted from Project Public Health Ready Measure 1. i1
198 Adapted from Public Health Accreditation Board Proposed Standards and Measures (final draft for beta test - July 2009) Measure 2.3.3B
199 Adapted from Project Public Health Ready Measure 1. a2
200 Adapted from Public Health Accreditation Board Proposed Standards and Measures (final draft for beta test - July 2009) Measure 2.3.4B
201 Situational awareness involves capturing, analyzing, and interpreting data to inform decision making in a continuous and timely cycle. National health security calls for both routine and incident-related situational awareness. Situational awareness requires not only coordinated information collection to create a common operating picture (COP), but also the ability to process, interpret, and act upon this information. Action, in turn, involves making sense of available information to inform current decisions and making projections about likely future developments. Situational awareness helps identify resource gaps, with the goal of matching available and identifying additional resources to current needs. Ongoing situational awareness provides the foundation for successful detection and mitigation of emerging threats, better use of resources, and better outcomes for the population.
202 Adapted from Public Health Accreditation Board Proposed Standards and Measures (final draft for beta test - July 2009) Measure 4.1.1B
203 Adapted from Project Public Health Ready Measure 1. a2, 1.k

204 These indicators at the healthcare organization, community or regional level are those that indicate stress on the system in order to anticipate when resources are being overwhelmed so demands can be managed through additional resources or adaptive strategies.
205 Adapted from Public Health Accreditation Board Proposed Standards and Measures (final draft for beta test - July 2009) Measure 2.2.2B
206 Adapted from Project Public Health Ready Measure 1.e1, 1.f1
207 Adapted from Public Health Accreditation Board Proposed Standards and Measures (final draft for beta test - July 2009) Measure2.3.4B
208 Adapted from Project Public Heath Ready Measure 1.h3, 1.k1
209 Incorporates Joint Commission on the Accreditation of Healthcare Organizations Emergency Management Standard EM 01.01.01
210 Adapted from Project Public Health Ready Measure 1.b2i
211 Adapted from Project Public Health Ready Measure 1.b2ii
212 Adapted from Project Public Health Ready Measure 1.i4
213 Adapted from Public Health Accreditation Board Proposed Standards and Measures (final draft for beta test - July 2009) Measure 2.3.3B
214 Adapted from Project Public Health Ready Measure 1.i4
215 Adapted from Public Health Accreditation Board Proposed Standards and Measures (final draft for beta test - July 2009) Measure 4.1.1B
216 National Commission on Children and Disasters Interim Report, 2009: http://www.acf.hhs.gov/nccd/20091014_508IR_partII.pdf
217 Adapted from Public Health Accreditation Board Proposed Standards and Measures (final draft for beta test - July 2009) Measure 2.3.3B
218 Post Katrina Emergency Management Reform Act, Title VI, National Emergency Management: http://frwebgate.access.gpo.gov/cgi-bin/getdoc.cgi?dbname=109_cong_public_laws&docid=f:publ295.109.pdf
219 Adapted from Public Health Accreditation Board Proposed Standards and Measures (final draft for beta test - July 2009) Measure2.3.3B
220 Adapted from Project Public Health Ready Measure 1.i4
221 Adapted from Public Health Accreditation Board Proposed Standards and Measures (final draft for beta test - July 2009) Measure 2.3.3B
222 Adapted from Project Public Health Ready Measure 1.i4
223 Adapted from Public Health Accreditation Board Proposed Standards and Measures (final draft for beta test - July 2009) Measure 2.3.4B
224 Adapted from Public Health Accreditation Board Proposed Standards and Measures (final draft for beta test - July 2009) Measure 3.2.2B, 3.2.5B, 7.2.3B
225 Adapted from Project Public Health Ready Measure 1.l2i, 1.l2ii, 1.l2iii
226 Adapted from Public Health Accreditation Board Proposed Standards and Measures (final draft for beta test - July 2009) Measure 2.4.1B
227 Adapted from Public Health Accreditation Board Proposed Standards and Measures (final draft for beta test - July 2009) Measure 3.2.2B
228 Adapted from Project Public Health Ready Measure 1.l2x
229 Adapted from Public Health Accreditation Board Proposed Standards and Measures (final draft for beta test - July 2009) Measure 7.1.1B
230 Adapted from Public Health Accreditation Board Proposed Standards and Measures (final draft for beta test - July 2009) Measure 7.2.3B
231 Adapted from Project Public Health Ready Measure 1.j2

Capability 11: Non-Pharmaceutical Interventions

232 "Removal of radioactive materials from people, materials, surfaces, food, or water. For people, external decontamination is done by removal of clothing and washing the hair and skin." http://emergency.cdc.gov/radiation/pdf/population-monitoring-guide.pdf

233 "Hygiene" is defined as "Behaviors that can improve cleanliness and lead to good health, such as frequent hand washing, face washing, and bathing with soap and water". http://www.cdc.gov/healthywater/hygiene/

234 "Personal protective behaviors" is defined as "Personal behaviors to prevent the transmission of infection, such as coughing into your elbow, cover sneezing, hand washing, keeping your hands away from your face." http://www.cdc.gov/flu/professionals/infectioncontrol/resphygiene.htm

235 Adapted from Public Health Accreditation Board Proposed Standards and Measures (final draft for beta test - July 2009) Measure 2.1.4 B

236 Adapted from Public Health Accreditation Board Proposed Standards and Measures (final draft for beta test - July 2009) Measure 4.1.2 B

237 Adapted from Public Health Accreditation Board Proposed Standards and Measures (final draft for beta test - July 2009) Measure A 2.2 B

238 Adapted from Public Health Accreditation Board Proposed Standards and Measures (final draft for beta test - July 2009) Measure 6.1.1 B

239 Adapted from Public Health Accreditation Board Proposed Standards and Measures (final draft for beta test - July 2009) Measure A 2.2 B

240 Adapted from Public Health Accreditation Board Proposed Standards and Measures (final draft for beta test - July 2009) Measure 2.1.4 B

241 Adapted from Project Public Health Ready Measure 1.g2

242 Adapted from Project Public Health Ready Measure 1.x1

243 The term "event" is used throughout this document. It is defined in Incident Command Structure as "A planned, non-emergency activity (e.g., parades, concerts, or sporting events)".

244 Place where persons and goods are allowed to pass into and out of a country (airports, water ports, and land border crossings) and where customs officers are stationed to inspect or appraise imported goods.

245 Adapted from Public Health Accreditation Board Proposed Standards and Measures (final draft for beta test - July 2009) Measure 2.2.1 B

246 Adapted from Public Health Accreditation Board Proposed Standards and Measures (final draft for beta test - July 2009) Measure 2.3.4 B

247 Adapted from Project Public Health Ready Measure 1.u1

248 Adapted from Project Public Health Ready Measure 1.u2ii-iv

249 Adapted from Project Public Health Ready Measure 1.u3

250 CDC Division of Global Migration and Quarantine Airport Template Communicable Disease Response Plan

251 Adapted from Project Public Health Ready Measure 1.s1

252 Adapted from Project Public Health Ready Measure 1.t1

253 Adapted from Project Public Health Ready Measure 1.t2

254 Adapted from Project Public Health Ready Measure 1.x3

255 Adapted from Project Public Health Ready Measure 1.f2v

256 As defined by the National Health Security Strategy 2010, "Situational awareness involves capturing, analyzing, and interpreting data to inform decision making in a continuous and timely cycle. National health security calls for both routine and incident-related situational awareness. Situational awareness requires not only coordinated information collection to create a common operating picture, but also the ability to process, interpret, and act upon this information. Action, in turn, involves making sense of available information to inform current decisions and making projections about likely future developments. Situational awareness helps identify resource gaps, with the goal of matching available and identifying additional resources to current needs. Ongoing situational awareness provides the foundation for successful detection and mitigation of emerging threats, better use of resources, and better outcomes for the population."

257 Adapted from Project Public Health Ready Measure 1.p4
258 Adapted from Public Health Accreditation Board Proposed Standards and Measures (final draft for beta test - July 2009) Measure 2.2.3 B
259 Adapted from Public Health Accreditation Board Proposed Standards and Measures (final draft for beta test - July 2009) Measure 4.1.1 B

Capability 12: Public Health Laboratory Testing

260 All-hazard incidents include those deliberately released with criminal intent, as well as those that may be present as a result of unintentional or natural occurrences.
261 The term "sample" is used throughout this document. It is used generically to refer to anything that can be termed a sample or specimen.
262 The term "event" is used throughout this document. It is defined in the National Incident Management System Incident Command Structure as "A planned, non-emergency activity (e.g., parades, concerts, or sporting events).
263 The term "incident" is used throughout this document. It is defined in National Incident Management System Incident Command Structure as "An occurrence either human caused or by natural phenomena, that requires action to prevent or minimize loss of life or damage to property and/or natural resources".
264 Adapted from Project Public Health Ready Measure 1.n1iv
265 Adapted from Public Health Accreditation Board Proposed Standards and Measures (final draft for beta test - July 2009) Measure 2.3.2B
266 Adapted from Project Public Health Ready Measure 1.n1iii
267 Adapted from Project Public Health Ready Measure 1.v1
268 Newborn Screening Saves Lives Act of 2007: http://thomas.loc.gov/cgi-bin/query/z?c110:S.634:
269 Adapted from Project Public Health Ready Measure 1.n1iv
270 Adapted from Project Public Health Ready Measure 1.n1i
271 Adapted from Project Public Health Ready Measure 1.n4
272 Adapted from Project Public Health Ready Measure 1.n1ii
273 Newborn Screening Saves Lives Act of 2007: http://thomas.loc.gov/cgi-bin/query/z?c110:S.634:
274 Adapted from Project Public Health Ready Measure 1.n3
275 Adapted from Public Health Accreditation Board Proposed Standards and Measures (final draft for beta test - July 2009) Measure 2.1.4B
276 Any significant result (e.g., positive or negative) obtained from testing a clinical specimen or non-clinical sample that requires notification to CDC and other key partners. Refer to the CDC/Laboratory Response Network Policy Statement on Notification of Officials of Significant Laboratory Results (LGE-00010) and agency specific protocols.
277 Adapted from Project Public Health Ready Measure 1.n2
278 Adapted from Project Public Health Ready Measure 1.n4
279 Adapted from Project Public Health Ready Measure 1.n2
280 Adapted from Project Public Health Ready Measure 1.n3
281 Adapted from Project Public Health Ready Measure 1.n4
282 Adapted from Project Public Health Ready Measure 1.n3
283 Adapted from Project Public Health Ready Measure 1.n2
284 Adapted from Public Health Accreditation Board Proposed Standards and Measures (final draft for beta test - July 2009) Measure A1.5B
285 Adapted from Project Public Health Ready Measure 1.n2

Capability 13: Public Health Surveillance and Epidemiological Investigation

286 The term "incident" is used throughout this document. It is defined in the National Incident Management System Incident Command Structure as "An occurrence either human caused or by natural phenomena, that requires action to prevent or minimize loss of life or damage to property and/or natural resources."

287 Adapted from Public Health Accreditation Board Proposed Standards and Measures (final draft for beta test - July 2009) Measure 1.1.1B

288 For the purposes of CDC's Public Health Emergency Preparedness program, awardee-required timeframe is determined as follows: Time requirements for disease reporting by providers and labs to public health agencies are typically determined at the awardee level through statute or regulation (e.g., "Providers should report measles within 24 hours to their local public health department".). In some awardee jurisdictions, reporting timeframes for select diseases differ depending on whether reported by providers or labs. Awardees are requested to ensure that calculations of timeliness of reporting for each case of disease are compared against the appropriate required timeframe.

289 Adapted from Project Public Health Ready Measure 1.n3

290 Adapted from Project Public Health Ready Measure 1.m1i -m1ii

291 Centers for Medicare and Medicaid Services (42 Code of Federal Regulations Parts 412, 413, 422 et al.) Medicare and Medicaid Programs; Electronic Health Record Incentive Program; Final Rule (published on July 28, 2010 in the Federal Register at http://edocket.access.gpo.gov/2010/pdf/2010-17207.pdf) and the Office of the National Coordinator for Health Information Technology Health Information Technology Standards,Implemsntation Specifications, and Certification Criteria and Certification Programs for Health information Technology(45 CFR Part 170) viewable at http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?c=ecfr&sid=7c3390b0a0d2aecc6951346873b39efd&rgn=div5&view=text&node=45:1.0.1.4.77&idno=45. The latest updates to these standards will be made available at www.cdc.gov/phin.

292 See http://www.cdc.gov/ncphi/disss/nndss/syndromic.htm. Systems should seek to address at minimum the Core Business Model and Electronic Health Record Requirements for Syndromic Surveillance (International Society for Disease Surveillance, http://www.syndromic.org/) and accept electronic information using the latest version of the Public Health Information Network Syndromic Surveillance Messaging Guide, and Centers for Medicare and Medicaid Services (CMS) and Office of the National Coordinator for Health Information Technology electronic transmission standards established for the Meaningful Use objective for the CMS Incentive Program for Electronic Health Records "Capability to submit electronic surveillance data to public health agencies." (As of January, 2011 the latest regulations are posted at http://edocket.access.gpo.gov/2010/pdf/2010-17207.pdf and http://edocket.access.gpo.gov/2010/pdf/2010-17210.pdf). For updates, consult www.cdc.gov/phin.

293 Can be found at http://www. emergency.cdc.gov/disasters/surveillance/

294 Such as wind direction, ground/ surface water, and soil/sediment

295 See: Behavioral Risk Factor Surveillance System, www.cdc.gov/brfss, and the Gulf States Population Survey, http://www.cdc.gov/OSELS/ph_surveillance/gsps.html.

296 Adapted from Project Public Health Ready Measure 1.m2vii

297 Adapted from Public Health Accreditation Board Proposed Standards and Measures (final draft for beta test - July 2009) Measure 1.1.1B

298 Capable of receiving/processing/sending or routing electronic case reports in an automated process

299 Capable of tracking a single person across surveillance models/systems

300 Capable of processing/sending electronic case notification to CDC using current national data standards

301 Adapted from Public Health Accreditation Board Proposed Standards and Measures (final draft for beta test - July 2009) Measure 2.1.6S

302 Infectious disease outbreak investigations include food-borne outbreaks but not HIV, STD, tuberculosis

303 Minimal elements: Context / Background, Initiation of Investigation, Investigation Methods, Investigation Findings/Results, Discussion and/or Conclusions, Recommendations, Key investigators and/or report authors

304 Acute environmental exposure: Discrete, sudden and/or generally unexpected exposure to a non-infectious agent that could potentially cause adverse symptoms, conditions, illness, or disease in a human population

305 Adapted from Project Public Health Ready Measure 1.f2

306 Adapted from Project Public Health Ready Measure 1.m2i-m2iv

307 Adapted from Project Public Health Ready Measure 1.m4i

308 Adapted from Project Public Health Ready Measure 1.r1i-r1ii

309 Appropriate timeframe refers to a timeframe for intervention(s) or control measures with meaningful public health relevance. Although individual cases may vary in practice, appropriate timeframes for each of the six diseases (Botulism, E. coli, Hepatitis A (acute), Measles, Meningococcal Disease, Tularemia) have been standardized for the purpose of this performance measure.

310 Adapted from Project Public Health Ready Measure 1.o9iii

311 Adapted from Public Health Accreditation Board Proposed Standards and Measures (final draft for beta test - July 2009) Measure 2.2.1B

312 Adapted from Public Health Accreditation Board Proposed Standards and Measures (final draft for beta test - July 2009) Measure 9.1.4B

313 Adapted from Public Health Accreditation Board Proposed Standards and Measures (final draft for beta test - July 2009) Measure 9.1.5B

314 Adapted from Project Public Health Ready Measure 2.e4

315 CDC and University of Washington's Center for Public Health Informatics. Competencies for Public Health Informaticians: http://cphi.washington.edu/resources/competencies.html.

316 Individuals with informatics competencies may be available from governmental IT service units; other health agencies; major medical centers; biomedical informatics programs at local universities; public health informatics programs at universities (typically those with Schools of Public Health); private consulting firms; and vendors of health information technology.

Capability 14: Responder Safety and Health

317 For the purposes of this capability, responders are defined as public health agency staff. Dependent on the jurisdiction, the definition of responder may also include first receivers in the form of hospital and medical staff.

318 Mental health refers to behavioral health, mental health, and psychological health.

319 Adapted from Project Public Health Ready Measure 1.e2

320 Protective Action Guides suggest precautions that authorities can take during an emergency to keep people from receiving an amount of radiation that may be dangerous to their health. For more information, please see "Protective Action Guides": http://www.epa.gov/rpdweb00/rert/pags.html.

321 Adapted from Project Public Health Ready Measure 1.s1

Capability 15: Volunteer Management

322 Throughout the document, the term "volunteer" refers only to individuals or groups volunteering in support of the public health agency's response, including public health, medical and non-medical personnel.

323 Adapted from Project Public Health Ready Measure 1.w4

324 Adapted from Project Public Health Ready Measure 1.w3ii

325 Adapted from Project Public Health Ready Measure 1.w3i

326 At-risk populations may include those who may have additional needs in one or more of the following functional areas: communication, medical care, maintaining independence, supervision, and transportation. In addition to those individuals specifically recognized as at-risk in the Pandemic and All-Hazards Preparedness Act (i.e., children, senior citizens, and pregnant women), individuals who may need additional response assistance include those who have disabilities, live in institutionalized settings, are from diverse cultures, have limited English proficiency or are non-English speaking, are transportation disadvantaged, have chronic medical disorders, and have pharmacological dependency.

327 Adapted from Project Public Health Ready Measure 1.w3iii

328 Adapted from Project Public Health Ready Measure 1.w3v

329 Adapted from Project Public Health Ready Measure 1.w3vii

330 Throughout this document, the term "mental/behavioral health" is used as a general term to encompass behavioral, psychosocial and psychological health.

331 Adapted from Project Public Health Ready Measure 1.w3iv

332 Out-processing refers to return of equipment, operational debriefing, and any transfer of command or responsibilities.

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This document is available at www.cdc.gov/phpr/capabilities.
For more information on CDC's preapredness and emergency response activities, visit the website of the Office of Public Health Preparedness and Response at www.cdc.gov/phpr.