Public Health Emergency Preparedness and Response Capabilities

National Standards for State, Local, Tribal, and Territorial Public Health

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Introduction

Public health systems play an integral role in preparing communities to respond to and recover from threats and emergencies. The public health consequences of disasters and emergencies initially affect local jurisdictions. During the initial response, the people and communities that are impacted must rely on local community resources. As a result, all state, local, tribal, and territorial emergency response stakeholders must be prepared to coordinate, cooperate, and collaborate with cross-sector partners and organizations at all governmental levels when emergencies occur, regardless of the type, scale, or severity.

While public health agencies are expected to take the lead when infectious disease outbreaks occur, jurisdictional public health agencies also must be prepared to coordinate with a diverse array of partners and stakeholders, including other government agencies to refine public health lead and support roles, responsibilities, and assignments when other technological, human-caused, or natural disasters occur.

In 2011, the Centers for Disease Control and Prevention (CDC) established the Public Health Preparedness Capabilities: National Standards for State and Local Planning, a set of 15 distinct, yet interrelated, capability standards designed to advance the emergency preparedness and response capacity of state and local public health systems. These standards pioneered a national capability-based framework that helped jurisdictional public health agencies structure emergency preparedness planning and further formalize their public health agency Emergency Support Function (ESF) #8 role(s) in partnership with emergency management agencies.

Each capability standard identifies priority resource elements that are relevant to both routine public health activities and essential public health services. This helps support an "everyday use" model in which applying the capability standards to improve day-to-day effectiveness builds a stronger foundation from which a jurisdictional public health agency can surge when an emergency incident occurs. Although jurisdictional public health agencies can demonstrate capability through exercises, planned events, and real incident responses, they also are encouraged to incorporate routine public health agency activities strategically into demonstration projects to test and evaluate their emergency preparedness and response capacity.

Public Health Emergency Preparedness Cooperative Agreement Program

In 1999, CDC competitively awarded approximately $40 million to 50 states and four major metropolitan health departments to support bioterrorism preparedness and response. The program, now administered by CDC's Center for Preparedness and Response, Division of State and Local Readiness (DSLR), evolved into the current Public Health Emergency Preparedness (PHEP) cooperative agreement.

Today, the PHEP program funds 62 cooperative agreement recipients: 50 states, four localities, and eight territories and freely associated states. Depending upon the organizational structure of the funded jurisdictional public health agency, directly funded PHEP recipients may share PHEP funding with local public health agencies, tribes, and native-serving organizations. This approach provides financial resources to help build public health emergency response capability both nationally and at state, local, tribal, and territorial government levels.

Since the initial publication of the preparedness capability standards in 2011, CDC has required that the 62 PHEP recipients develop and implement capability-based work plans and use their PHEP funding to build and sustain their public health preparedness and response capacity. However, use of the capability standards now extends well beyond informing jurisdictional public health agency cooperative agreement work plans. Today, the capability standards are a vital framework for jurisdictional public health agencies to organize and evaluate emergency responses and exercises, ensure the public health consequences of jurisdictional emergencies are a response priority, and promote collaboration by establishing a common language among preparedness professionals. Perhaps most importantly, the capability standards allow state, local, tribal, and territorial public health agencies to advance response strategies aligned with community needs, preferences, and resources without dictating or overprescribing "how" to specifically manage every jurisdictional response.

Operational Support for the National Preparedness System and the National Preparedness Goal

CDC's capability standards and PHEP cooperative agreement program provide operational support for the Federal Emergency Management's (FEMA) National Preparedness System to strengthen the security and resilience of the United States through systematic preparation for threats that pose the greatest risk to the nation's security. The National Preparedness System has six parts that include identifying and assessing risk, estimating capability requirements, building and sustaining capabilities, planning to deliver capabilities, validating capabilities, and reviewing and updating.

The National Preparedness System outlines an organized process for everyone in the whole community to advance their preparedness activities and achieve the National Preparedness Goal

"A secure and resilient nation with the capabilities required across the whole community to prevent, protect against, mitigate, respond to, and recover from the threats and hazards that pose the greatest risk." (FEMA, 2015)

The National Preparedness Goal describes a vision for preparedness nationwide and identifies 32 core capabilities necessary to achieve that vision across five mission areas: Prevention, Protection, Mitigation, Response, and Recovery. Although only one of the 32 core capabilities within the National Preparedness Goal specifically focuses on public health and medical support (Public Health, Healthcare, and Emergency Medical Services), many of the core capabilities relate to and contain public health and medical considerations that are necessary to successfully achieve a secure and resilient nation.

CDC's 2018 Public Health Emergency Preparedness and Response Capabilities: National Standards for State, Local, Tribal, and Territorial Public Health include operational considerations that support the public health and medical components of the 32 core capabilities specified in the National Preparedness Goal. Jurisdictions should use these operational considerations to develop their public health agency response strategies in greater alignment with the jurisdictional public health agency ESF #8 role.

Capability Update Initiative

Since the publication of the capability standards in 2011, public health emergency preparedness and response capacity has continued to be tested at national, state, local, tribal, and territorial levels. Ongoing risks related to chemical, biological, radiological, nuclear, and explosive incidents as well as cyberattacks further underscore the importance of updating and modernizing jurisdictional all-hazards public health preparedness and response strategies to address emerging technologies and new 21st century threats through a continuous cycle of planning, organizing, training, equipping, exercising, evaluating, and taking corrective action (in accordance with FEMA's National Preparedness System).

The PHEP program underwent an internal review in 2015 to identify opportunities to strengthen program tools, resources, and guidance. The review identified the need for CDC to implement several public health emergency preparedness improvement initiatives, including the Capabilities Update Initiative, the formal process CDC used for revising the Public Health Preparedness Capabilities: National Standards for State and Local Planning.

The purpose of the Capability Update Initiative was to update, clarify, and streamline capability content and enact changes that would best support state, local, tribal, and territorial public health emergency preparedness work without drastically altering the established 15-capability structure. Thus, the update process applied a similar approach to that used for the initial development of the 2011 capability standards. The process included individual work groups for each of the 15 capabilities along with four additional cross-cutting work groups to address at-risk individuals with access and functional needs, tribal populations, environmental health, and pandemic influenza.

Lessons learned from public health emergency responses, updates to public health preparedness science, revised guidance and resources, findings from internal reviews and assessments, subject matter expert feedback from the practice community, and input from allied agencies all contributed to capability updates. In addition, representatives from professional associations, including the Association of Public Health Laboratories (APHL), the Association of State and Territorial Health Officials (ASTHO), the Council of State and Territorial Epidemiologists (CSTE), the National Association of County and City Health Officials (NACCHO), and the National Emergency Management Association (NEMA) were instrumental in helping to shape the updated capability content.

Summary of Capability Updates

The 2018 Public Health Emergency Preparedness and Response Capabilities: National Standards for State, Local, Tribal, and Territorial Public Health recognizes the maturity and experience jurisdictional public health emergency preparedness and response programs have gained since 2011. As with the 2011 version, technical content is informed by applicable guidance, science, practice, and input from subject matter experts. Examples of revisions include the addition of public health mission-ready packaging and the importance of identifying jurisdictional public health agency lead or support roles based on incident characteristics. Other revisions include updates to public health informatics, vaccine administration, coordination of infectious disease response, chemical laboratory requirements, environmental health, disaster epidemiology, and additional considerations for protecting the safety of emergency responders and volunteers. Unlike the 2011 version, this 2018 update does not include programmatic performance measures. However, jurisdictional public health agencies are encouraged to use the updated content to foster their own evaluation strategies.

The original capability structure remains in place, and capability titles are consistent with 2011 except for Capability 8. Previously recognized as Medical Countermeasure Dispensing, the new title, Capability 8: Medical Countermeasure Dispensing and Administration, better recognizes that pharmaceutical countermeasures, such as vaccines, antidotes, and antitoxins, can also be "administered" rather than "dispensed" like pills.

Overarching changes include

- Revising, resequencing, and merging some capability functions
- Defining capability tasks
- Changing "planning" resource elements to "preparedness" resource elements
- Revising all preparedness, skills and training, and equipment and technology resource elements
- Moving all suggested resources (hyperlinks to resource documents) to the CDC website, the CDC Online Technical Resource and Assistance Center (On-TRAC), and other publicly available websites

Capability Structure

Domains and Tiers

The capability standards are organized into six domains and two tiers. Tier 1 capability standards form the foundation for public health emergency preparedness and response. Tier 2 capability standards are more cross-cutting, and their development relies upon having Tier 1 capability standards established in collaboration with external partners and stakeholders. Although jurisdictional public health agencies should consider prioritizing development of Tier 1 capabilities, jurisdictional risk assessment findings and other community factors also may influence jurisdictional prioritization of some Tier 2 capabilities. For example, based on risk assessment findings and depending on the public health agency's ESF #8 role, a jurisdiction also may need to prioritize development of volunteer management strategies to ensure staffing support for medical countermeasure dispensing and administration activities.

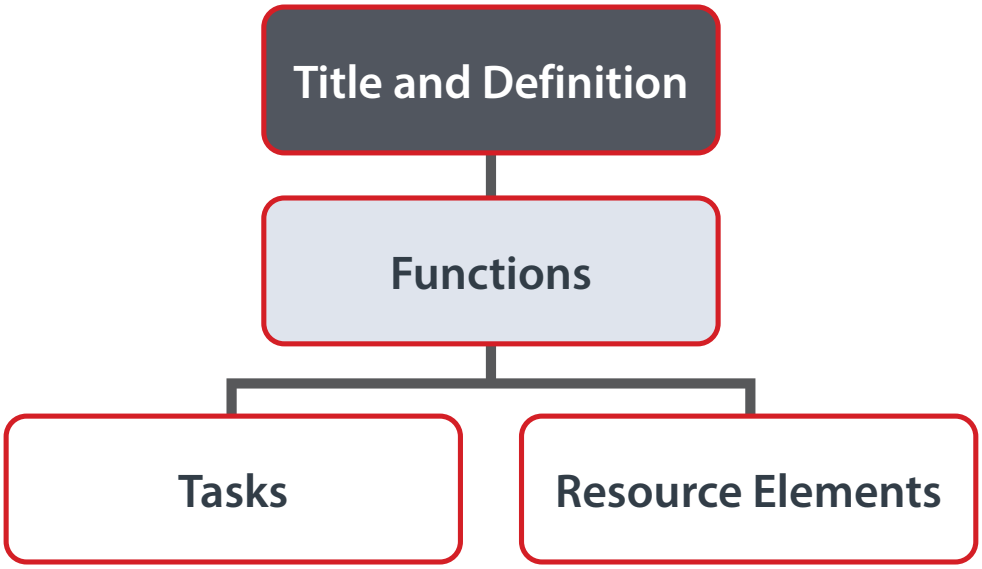
Domain	Capability and Tier
Community Resilience	Community Preparedness (Tier 1)
	Community Recovery (Tier 2)
Incident Management	Emergency Operations Coordination (Tier 1)
Information Management	Emergency Public Information and Warning (Tier 1)
	Information Sharing (Tier 1)
Countermeasures and Mitigation	Medical Countermeasure Dispensing and Administration (Tier 1)
	Medical Materiel Management and Distribution (Tier 1)
	Nonpharmaceutical Interventions (Tier 2)
	Responder Safety and Health (Tier 1)
Surge Management	Fatality Management (Tier 2)
	Mass Care (Tier 2)
	Medical Surge (Tier 2)
	Volunteer Management (Tier 2)
Biosurveillance	Public Health Laboratory Testing (Tier 1)
	Public Health Surveillance and Epidemiological Investigation (Tier 1)

Composition

Each capability standard comprises capability functions, and each capability function contains specific capability tasks that are supported by multiple capability resource elements.

- **Capability Title and Definition**—Description of the capability as it applies to state, local, tribal, and territorial public health agencies. Each definition includes a list of potential partners and stakeholders with which jurisdictions may consider working to achieve the capability
- **Capability Functions**—Critical segments of the capability that must occur to achieve the capability definition
- **Capability Tasks**—Action steps aligned to one or more capability functions. Capability tasks must be accomplished to complete a capability function
- **Capability Resource Elements**—Resources a jurisdiction should have or have access to in order to successfully perform capability tasks associated with capability functions. Resource elements are listed sequentially to align with corresponding tasks in each function. While not necessarily listed first, "**priority**" resource elements are potentially the most critical for completing capability tasks based on jurisdictional risk assessments and other forms of community input. The three categories of capability resource elements are
  - **Preparedness (P)**—Components to consider within existing operational plans, standard operating procedures, guidelines, documents, or other types of written agreements, such as contracts or memoranda of understanding (MOUs)
  - **Skills and Training (S/T)**—General baseline descriptions, competencies, and skills that personnel and teams should possess in order to achieve a capability
  - **Equipment and Technology (E/T)**—Infrastructure a jurisdiction should have or have access to with sufficient quantities or levels of effectiveness to achieve the intent of any related capability task

Capability Structure: Composition



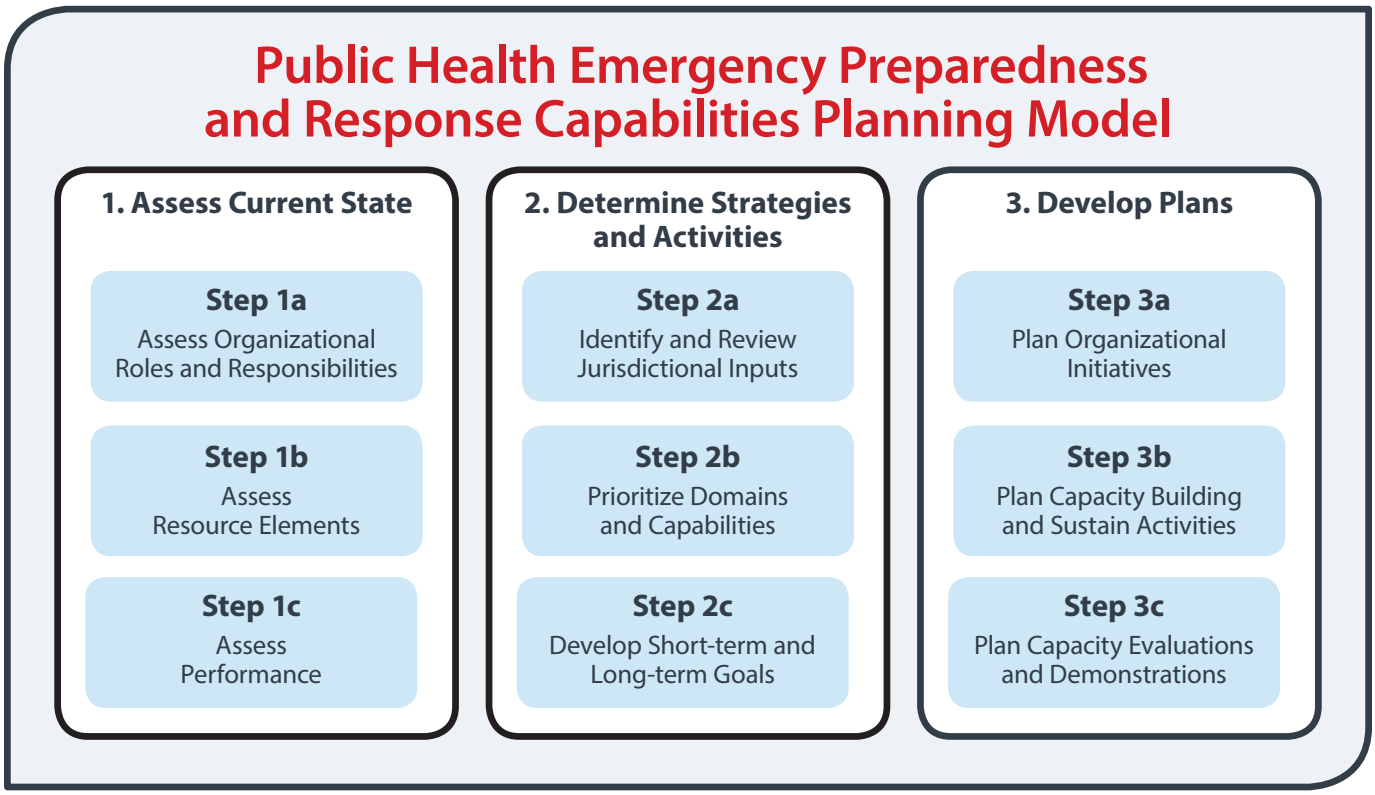
Using the Capability Standards for Strategic Planning

State, local, tribal, and territorial public health agencies exist within a landscape of diverse governance, organizational structures, legal authorities, partnerships, stakeholders, risks, demographics, and resources that influence jurisdiction-to-jurisdiction public health emergency preparedness priorities. The 2018 Public Health Emergency Preparedness and Response Capabilities: National Standards for State, Local, Tribal, and Territorial Public Health describes the components necessary to advance jurisdictional public health preparedness and response capacity.

The capability standards serve as a state, local, tribal, and territorial resource to assess, build, and sustain jurisdictional public health agency preparedness and response capacity by further defining the jurisdictional public health agency ESF #8 role while guiding program improvement initiatives to address preparedness and response planning gaps. Additionally, state, local, tribal, and territorial public health agencies must remain aware of new and emerging public health threats. From Capability 1: Community Preparedness to Capability 15: Volunteer Management, jurisdictional public health agencies must be adaptable when responding to public health threats and emergencies within the context of their communities and in alignment with incident characteristics.

Public Health Emergency Preparedness and Response Capabilities Planning Model

The following Public Health Emergency Preparedness and Response Planning Model updates the planning roadmap described in the 2011 Public Health Preparedness Capabilities: National Standards for State and Local Planning. It outlines a process jurisdictional public health agencies can follow to identify public health emergency preparedness and response program development priorities. Consistent with the U.S. Department of Homeland Security (DHS) Preparedness Cycle, the following diagram illustrates a three-phase approach to identify priorities and implement jurisdictional emergency preparedness planning and response initiatives.



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 domain, capability standard, and applicable capability resource elements. Organizational entities may include allied state agencies, such as emergency management, partner organizations, other jurisdictional public health agencies, health care coalitions, community-based partners, and other jurisdictional stakeholders.

Step 1b: Assess Resource Elements

Each capability function includes a list of capability resource elements from three categories: preparedness, skills and training, and equipment and technology. To assess current capability, jurisdictions should review all resource elements (with emphasis on priority resource elements) and determine the extent of their availability within the jurisdiction. Public health agencies are not expected to be independently responsible for all capability resource elements, as the ability to achieve the capability standards relies heavily on partnerships.

Successfully attaining capability resource elements is defined as the ability to demonstrate that a jurisdictional public health agency either has (on hand or within existing plans and documents) or has access to (partner agency or organization has the jurisdictional authority or responsibility for the resource and evidence exists that agreements regarding roles and responsibilities are in place) the resource element. Strategies that address challenges and barriers for fully attaining capability resource elements should help inform jurisdictional planning, training, and exercise initiatives.

Step 1c: Assess Performance

The ability to achieve capability functions should be reviewed through jurisdictional demonstrations of performance and other types of evaluation. Examples of performance demonstrations may include using CDC-defined performance measures, measuring jurisdictional effectiveness when delivering "everyday" core public health agency mandates, as relevant, implementing jurisdictional training and exercise programs, and implementing formal after-action processes, including developing and completing corrective action plans.

Phase 2: Determine Strategies and Activities

Step 2a: Identify and Review Jurisdictional Inputs

In addition to assessing and reviewing capability resource elements, jurisdictions should review supplementary information sources to help identify jurisdictional needs and gaps. Supplementary information sources may include

- Existing data from jurisdictional hazard vulnerability analyses (jurisdictional risk assessment findings)
- Jurisdictional intelligence data, such as fusion center data or information obtained from intelligence reports or briefings
- Jurisdictional emergency management response plans, such as scenario-based plans
- Funding considerations, such as guidance or funding requirements from related federal preparedness programs
- Current public health strategic plans or strategic priorities
- Previous state and local accreditation or recognition efforts, such as Project Public Health Ready and Public Health Accreditation Board standards
- Jurisdictional results or action plans resulting from CDC operational readiness reviews
- After-action reports and corrective action plans

Step 2b: Prioritize Domains and Capabilities

The definitions described within the capability standards are broad. Jurisdictional public health agencies are not expected to simultaneously and completely address all identified issues, gaps, and needs across all capabilities in the short term. Instead, jurisdictions should periodically reprioritize the capability standards they pursue based on regularly updated jurisdictional inputs, including risk assessment findings.

Equally important, resource elements described within each capability function are not representative of all potential resource types or the quantities that may be required. Therefore, identifying the need for additional prioritization criteria when assessing individual capability resource elements is critical for public health agencies because resources that are not specifically stated in the capability standards may be necessary to achieve capability tasks.

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

For the purposes of this planning model, short-term goals are defined as one-year goals, and long-term goals are defined as two- to five-year goals. Jurisdictional public health agencies 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 and long-term capability development goals.

Goals for capability development should align with capability definitions, capability functions, capability tasks, and capability resource elements. For example, short-term goals may include building a particular set of tasks within a capability function by ensuring the presence of all priority resource elements, while a long-term goal would be to demonstrate performance and ultimately sustain all capability functions.

Phase 3: Develop Plans

Step 3a: Plan Organizational Initiatives

Jurisdictional public health agencies should establish concrete organizational initiatives and plan activities to achieve short- and long-term goals. For the purposes of this planning model, an assumption is made that activities specifically relate to individual capability domains, capability definitions, capability functions, capability tasks, and capability resource elements. However, in practice, jurisdictional public health agencies may group related activities to address multiple capability standards within any single project or program development initiative.

Step 3b: Plan Capacity Building and Sustain Activities

Generally, jurisdictional public health agencies build, sustain, or potentially scale back organizational initiatives based on the most recent assessment of needs, gaps, priorities, and goals. For build-and-sustain scenarios, jurisdictional public health agencies should pursue formal and informal partnerships where necessary based on the projected type(s) of support required. Guidance provided to local jurisdictional public health agencies should ideally describe development priorities for capability standards and capability functions. For scale-back scenarios, jurisdictional public health agencies should clearly identify specific conditions, such as strategic, budgetary, and risk assessments that influence the need to scale back efforts.

Jurisdictional public health agencies also should identify and prioritize technical assistance needed, from CDC or other sources, when developing the capability standards. Technical assistance needs may relate to the development of specific capability functions and capability resource elements, such as developing or modifying plans or processes, training personnel, or building or investing in new equipment and technology.

Step 3c: Plan Capacity Evaluations and Demonstrations

Demonstrating and evaluating strategies and activities are generally a later step in the capability development process. Jurisdictional public health agencies can demonstrate the capability standards by participating in various levels of exercises, planned events, and real incidents. CDC strongly encourages jurisdictional public health agencies to leverage routine public health activities, as applicable, to exercise and evaluate the capability standards. Exercises, events, or incidents should be documented and after-action reports and corrective action plans should be developed and implemented.

At-A-Glance: Capability Definitions, Functions, and Summary of Changes

Capability 1: Community Preparedness

Definition: Community preparedness is the ability of communities to prepare for, withstand, and recover from public health incidents in both the short and long term. Through engagement and coordination with a cross-section of state, local, tribal, and territorial partners and stakeholders, the public health role in community preparedness is to

- Support the development of public health, health care, human services, mental/behavioral health, and environmental health systems that support community preparedness
- Participate in awareness training on how to prevent, respond to, and recover from incidents that adversely affect public health
- Identify at-risk individuals with access and functional needs that may be disproportionately impacted by an incident or event
- Promote awareness of and access to public health, health care, human services, mental/behavioral health, and environmental health resources that help protect the community's health and address the access and functional needs of at-risk individuals
- Engage in preparedness activities that address the access and functional needs of the whole community as well as cultural, socioeconomic, and demographic factors
- Convene or participate with community partners to identify and implement additional ways to strengthen community resilience
- Plan to address the health needs of populations that have been displaced because of incidents that have occurred in their own or distant communities, such as after a radiological or nuclear incident or natural disaster

Functions: This capability consists of the ability to perform the functions listed below.

- Function 1: Determine risks to the health of the jurisdiction
- Function 2: Strengthen community partnerships to support public health preparedness
- Function 3: Coordinate with partners and share information through community social networks
- Function 4: Coordinate training and provide guidance to support community involvement with preparedness efforts

Summary of Changes: The updates align content with new national standards, updated science, and current public health priorities and strategies. Listed below are specific changes made to this capability.

- Defines at-risk individuals as people with access and functional needs that may be disproportionately impacted by an incident or event, and provides parameters to identify those populations
- Highlights Americans with Disabilities Act (ADA) requirements in jurisdictional public health preparedness and response plans
- Accentuates the importance of community partnerships, including tribes and native-serving organizations in public health preparedness and response activities
- Promotes integration of community partners to support restoration of community networks and social connectedness to improve community resilience

Capability 2: Community Recovery

Definition: Community recovery is the ability of communities to identify critical assets, facilities, and other services within public health, emergency management, health care, human services, mental/behavioral health, and environmental health sectors that can guide and prioritize recovery operations. Communities should consider collaborating with jurisdictional partners and stakeholders to plan, advocate, facilitate, monitor, and implement the restoration of public health, health care, human services, mental/behavioral health, and environmental health sectors to at least a day-to-day level of functioning comparable to pre-incident levels and to improved levels, where possible.

Functions: This capability consists of the ability to perform the functions listed below.

- Function 1: Identify and monitor community recovery needs
- Function 2: Support recovery operations for public health and related systems for the community
- Function 3: Implement corrective actions to mitigate damage from future incidents

Summary of Changes: The updates align content with new national standards, updated science, and current public health priorities and strategies. Listed below are specific changes made to this capability.

- Highlights the need to define the jurisdictional public health agency recovery lead and support role
- Supports the National Disaster Recovery Framework (NDRF)
- Promotes integration of community partners to support community recovery and restoration
- Emphasizes engagement of community partners to access hard-to-reach populations to ensure inclusive communications that meet the needs of the whole community

Capability 3: Emergency Operations Coordination

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

Functions: This capability consists of the ability to perform the functions listed below.

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

Summary of Changes: The updates align content with new national standards, updated science, and current public health priorities and strategies. Listed below are specific changes made to this capability.

- Distinguishes the need to identify and clarify the jurisdictional ESF #8 response role based on incident type and characteristics
- Incorporates the National Health Security Strategy and Crisis Standards of Care for public health activation
- Emphasizes the importance of supporting development of mission-ready packages (MRPs) for mutual aid and understanding the Emergency Management Assistance Compact (EMAC)

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 personnel.

Functions: This capability consists of the ability to perform the functions listed below.

- Function 1: Activate the emergency public information system
- Function 2: Determine the need for a Joint 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

Summary of Changes: The updates align content with new national standards, updated science, and current public health priorities and strategies. Listed below are specific changes made to this capability.

- Promotes the need to leverage social media platforms for issuing emergency public information and warnings
- Clarifies conditions for establishing a virtual Joint Information Center and Joint Information System
- Includes content to identify and reach populations at risk to be disproportionately impacted by incidents and those with limited access to public information messages

Capability 5: Fatality Management

Definition: Fatality management is the ability to coordinate with partner organizations and agencies to provide fatality management services. The public health agency role in fatality management activities may include supporting

- Recovery and preservation of remains
- Identification of the deceased
- Determination of cause and manner of death
- Release of remains to an authorized individual
- Provision of mental/behavioral health assistance for the grieving

The role also may include supporting activities for the identification, collection, documentation, retrieval, and transportation of human remains, personal effects, and evidence to the examination location or incident morgue.

Functions: This capability consists of the ability to perform the functions listed below.

- Function 1: Determine the public health agency role in fatality management
- Function 2: Identify and facilitate access to public health resources to support fatality management operations
- Function 3: Assist in the collection and dissemination of antemortem data
- Function 4: Support the provision of survivor mental/behavioral health services
- Function 5: Support fatality processing and storage operations

Summary of Changes: The updates align content with new national standards, updated science, and current public health priorities and strategies. Listed below are specific changes made to this capability.

- Clarifies importance of identifying the public health agency role in fatality management and describes potential fatality management lead, advisory, and support roles
- Aligns the fatality management definition to the existing federal definition as recommended by the U.S. Department of Health and Human Services (HHS), Disaster Mortuary Operational Response Team (DMORT)
- Updates resources to improve coordination, accuracy, and timeliness of electronic mortality reporting

Capability 6: Information Sharing

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

Functions: This capability consists of the ability to perform the functions listed below.

- Function 1: Identify stakeholders that should be incorporated into information flow and define information sharing needs
- Function 2: Identify and develop guidance, standards, and systems for information exchange
- Function 3: Exchange information to determine a common operating picture

Summary of Changes: The updates align content with new national standards, updated science, and current public health priorities and strategies. Listed below are specific changes made to this capability.

- Increases alignment to public health surveillance and data strategies
- Emphasizes the need to implement data security and cybersecurity
- Emphasizes the need to decrease reporting time and increase collaboration by expanding use of electronic information systems, such as electronic death registration (EDR), electronic laboratory reporting (ELR), and syndromic surveillance systems

Capability 7: Mass Care

Definition: Mass care is the ability of public health agencies to coordinate with and support partner agencies to address, within a congregate location (excluding shelter-in-place locations), the public health, health care, mental/behavioral health, and human services needs of those impacted by an incident. This capability includes coordinating ongoing surveillance and public health assessments to ensure that health needs continue to be met as the incident evolves.

Functions: This capability consists of the ability to perform the functions listed below.

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

Summary of Changes: The updates align content with new national standards, updated science, and current public health priorities and strategies. Listed below are specific changes made to this capability.

- Incorporates content for accommodating individuals with access and functional needs within general population shelters
- Includes considerations for registration of individuals requiring decontamination or medical tracking in the event of an environmental health incident
- Coordinated content with the HHS Assistant Secretary for Preparedness and Response's (ASPR) Health Care Preparedness and Response Capabilities

Capability 8: Medical Countermeasure Dispensing and Administration

Definition: Medical countermeasure dispensing and administration is the ability to provide medical countermeasures to targeted population(s) to prevent, mitigate, or treat the adverse health effects of a public health incident, according to public health guidelines. This capability focuses on dispensing and administering medical countermeasures, such as vaccines, antiviral drugs, antibiotics, and antitoxins.

Functions: This capability consists of the ability to perform the functions listed below.

- Function 1: Determine medical countermeasure dispensing/administration strategies
- Function 2: Receive medical countermeasures to be dispensed/administered
- Function 3: Activate medical countermeasure dispensing/administration operations
- Function 4: Dispense/administer medical countermeasures to targeted population(s)
- Function 5: Report adverse events

Summary of Changes: The updates align content with new national standards, updated science, and current public health priorities and strategies. Listed below are specific changes made to this capability.

- Revises the Capability 8 title, definition, and content to account for both the dispensing and the administration of medical countermeasures, such as vaccines, antidotes, and antitoxins
- Adds content and resources to account for potential radiological or nuclear exposure
- Broadens the network of dispensing and administration sites to include pharmacies and other locations

Capability 9: Medical Materiel Management and Distribution

Definition: Medical materiel management and distribution is the ability to acquire, manage, transport, and track medical materiel during a public health incident or event and the ability to recover and account for unused medical materiel, such as pharmaceuticals, vaccines, gloves, masks, ventilators, or medical equipment after an incident.

Functions: This capability consists of the ability to perform the functions listed below.

- Function 1: Direct and activate medical materiel management and distribution
- Function 2: Acquire medical materiel from national stockpiles or other supply sources
- Function 3: Distribute medical materiel
- Function 4: Monitor medical materiel inventories and medical materiel distribution operations
- Function 5: Recover medical materiel and demobilize distribution operations

Summary of Changes: The updates align content with new national standards, updated science, and current public health priorities and strategies. Listed below are specific changes made to this capability.

- Broadens the cold chain management guidance to include all aspects of storage and handling
- Expands recovery activities to incorporate proper handling and disposal of infectious, hazardous, or contaminated materiel and waste
- Accounts for security and inventory management tasks that occur throughout the entire distribution process

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 health care system to endure a hazard impact, maintain or rapidly recover operations that were compromised, and support the delivery of medical care and associated public health services, including disease surveillance, epidemiological inquiry, laboratory diagnostic services, and environmental health assessments.

Functions: This capability consists of the ability to perform the functions listed below.

- 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

Summary of Changes: The updates align content with new national standards, updated science, and current public health priorities and strategies. Listed below are specific changes made to this capability.

- Emphasizes the need to define public health agency lead and support roles within medical surge operations
- Eliminates use of the term "HAvBED" because the term is no longer promoted by the Hospital Preparedness Program (HPP) and focuses instead on "situational awareness" and "health care systems tracking" as an overarching theme
- Emphasizes the need to identify and clarify the jurisdictional ESF #8 response role in medical surge operations based on jurisdictional role and incident characteristics

Capability 11: Nonpharmaceutical Interventions

Definition: Nonpharmaceutical interventions are actions that people and communities can take to help slow the spread of illness or reduce the adverse impact of public health emergencies. This capability focuses on communities, community partners, and stakeholders recommending and implementing nonpharmaceutical interventions in response to the needs of an incident, event, or threat. Nonpharmaceutical interventions may include

- Isolation
- Quarantine
- Restrictions on movement and travel advisories or warnings
- Social distancing
- External decontamination
- Hygiene
- Precautionary protective behaviors

Functions: This capability consists of the ability to perform the functions listed below.

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

Summary of Changes: The updates align content with new national standards, updated science, and current public health priorities and strategies. Listed below are specific changes made to this capability.

- Focuses on collaboration by expanding suggested partners for implementing nonpharmaceutical interventions
- Supports establishment of community reception center processes to enhance ability to respond to radiological and nuclear threats
- Highlights management of mass gatherings (delay and cancel) based on all-hazards scenarios

Capability 12: Public Health Laboratory Testing

Definition: Public health laboratory testing is the ability to implement and perform methods to detect, characterize, and confirm public health threats. It also includes the ability to report timely data, provide investigative support, and use partnerships to address actual or potential exposure to threat agents in multiple matrices, including clinical specimens and food, water, and other environmental samples. This capability supports passive and active surveillance when preparing for, responding to, and recovering from biological, chemical, and radiological (if a Radiological Laboratory Response Network is established) public health threats and emergencies.

Functions: This capability consists of the ability to perform the functions listed below.

- Function 1: Conduct laboratory testing and report results
- Function 2: Enhance laboratory communications and coordination
- Function 3: Support training and outreach

Summary of Changes: The updates align content with new national standards, updated science, and current public health priorities and strategies. Listed below are specific changes made to this capability.

- Updates Laboratory Response Network (LRN) requirements
- Incorporates LRN-chemical requirements
- Prioritizes cooperation, coordination, and information sharing with LRN laboratories, other public laboratories, and jurisdictional sentinel laboratories

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. It also includes the ability to expand these systems and processes in response to incidents of public health significance.

Functions: This capability consists of the ability to perform the functions listed below.

- Function 1: Conduct or support public health surveillance
- 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

Summary of Changes: The updates align content with new national standards, updated science, and current public health priorities and strategies. Listed below are specific changes made to this capability.

- Increases alignment to public health surveillance and data strategies
- Strengthens surveillance systems for persons in isolation or quarantine and persons placed under monitoring and movement protocols
- Emphasizes syndromic surveillance and data collection to improve situational awareness and responsiveness to hazardous events and disease outbreaks, for example, participation in CDC's National Syndromic Surveillance Program BioSense Platform

Capability 14: Responder Safety and Health

Definition: Responder safety and health is the ability to protect public health and other emergency responders during pre-deployment, deployment, and post-deployment.

Functions: This capability consists of the ability to perform the functions listed below.

- Function 1: Identify responder safety and health risks
- Function 2: Identify and support risk-specific responder safety and health training
- Function 3: Monitor responder safety and health during and after incident response

Summary of Changes: The updates align content with new national standards, updated science, and current public health priorities and strategies. Listed below are specific changes made to this capability.

- Incorporates the need to securely manage responder data
- Improves responder on-site management, tracking, in-processing, and out-processing
- Reprioritizes hierarchy of control and promotes the alignment of responder safety and health control measures, for example, personal protective equipment (PPE), with jurisdictional risk assessment findings

Capability 15: Volunteer Management

Definition: Volunteer management is the ability to coordinate with emergency management and partner agencies to identify, recruit, register, verify, train, and engage volunteers to support the jurisdictional public health agency's preparedness, response, and recovery activities during pre-deployment, deployment, and post-deployment.

Functions: This capability consists of the ability to perform the functions listed below.

- Function 1: Recruit, coordinate, and train volunteers
- Function 2: Notify, organize, assemble, and deploy volunteers
- Function 3: Conduct or support volunteer safety and health monitoring and surveillance
- Function 4: Demobilize volunteers

Summary of Changes: The updates align content with new national standards, updated science, and current public health priorities and strategies. Listed below are specific changes made to this capability.

- Addresses the need to monitor volunteer safety, risks, and actions during and after an incident
- Strengthens and clarifies volunteer eligibility considerations, such as medical, physical, and emotional health, during the volunteer selection process
- Promotes use of Emergency Responder Health Monitoring and Surveillance™ (ERHMS™)

Capability 1: Community Preparedness

Definition: Community preparedness is the ability of communities to prepare for, withstand, and recover from public health incidents in both the short and long term. Through engagement and coordination with a cross-section of state, local, tribal, and territorial partners and stakeholders, the public health role in community preparedness is to

- Support the development of public health, health care, human services, mental/behavioral health, and environmental health systems that support community preparedness
- Participate in awareness training on how to prevent, respond to, and recover from incidents that adversely affect public health
- Identify at-risk individuals with access and functional needs that may be disproportionately impacted by an incident or event
- Promote awareness of and access to public health, health care, human services, mental/behavioral health, and environmental health resources that help protect the community's health and address the access and functional needs of at-risk individuals
- Engage in preparedness activities that address the access and functional needs of the whole community as well as cultural, socioeconomic, and demographic factors
- Convene or participate with community partners to identify and implement additional ways to strengthen community resilience
- Plan to address the health needs of populations that have been displaced because of incidents that have occurred in their own or distant communities, such as after a radiological or nuclear incident or natural disaster

Functions: This capability consists of the ability to perform the functions listed below.

- **Function 1:** Determine risks to the health of the jurisdiction
- **Function 2:** Strengthen community partnerships to support public health preparedness
- **Function 3:** Coordinate with partners and share information through community social networks
- **Function 4:** Coordinate training and provide guidance to support community involvement with preparedness efforts

Summary of Changes: The updates align content with new national standards, updated science, and current public health priorities and strategies. Listed below are specific changes made to this capability.

- Defines at-risk individuals as people with access and functional needs that may be disproportionately impacted by an incident or event, and provides parameters to identify those populations
- Highlights Americans with Disabilities Act (ADA) requirements in jurisdictional public health preparedness and response plans
- Accentuates the importance of community partnerships, including tribes and native-serving organizations in public health preparedness and response activities
- Promotes integration of community partners to support restoration of community networks and social connectedness to improve community resilience

For the purposes of Capability 1, partners and stakeholders may include the following: all parts of the whole community such as individuals, businesses, nonprofits, community and faith-based organizations, and all levels of government.

Specific partners and stakeholders may include

- animal services and agencies
- childcare organizations
- chronic disease programs
- communicable disease programs
- community coalitions
- emergency management agencies
- emergency medical services (EMS)
- environmental health agencies
- fire and rescue departments
- groups representing and serving populations with access and functional needs
- health care coalitions
- health care organizations (private and community-based)
- health care systems and providers
- health care associated infection control programs
- housing and sheltering authorities
- human services providers
- immunization programs
- jurisdictional strategic advisory councils
- law enforcement
- media organizations
- mental/behavioral health providers
- public health preparedness programs
- schools and education agencies
- social services
- state office of aging or its equivalent
- surveillance programs
- volunteer organizations

Function 1: Determine risks to the health of the jurisdiction

Function Definition: Identify potential jurisdictional public health, health care, mental/behavioral health, and environmental health hazards, vulnerabilities, and risks, and assess the human impact because of interruption of public health, health care, human services, mental/behavioral health, and environmental health services and supporting infrastructure.

Tasks

Task 1: Conduct a public health jurisdictional risk assessment. Identify and prioritize jurisdictional risks, risk-reduction strategies, and risk-mitigation efforts in coordination with community partners and stakeholders.

Task 2: Support jurisdictional partners and stakeholders to identify services to reduce and mitigate identified jurisdictional public health risks. Support community partners and stakeholders to identify public health, health care, human services, mental/behavioral health, and environmental health services capable of supporting public health risk-reduction strategies and mitigation efforts.

Preparedness Resource Elements

P1: (Priority) Procedures in place to identify at-risk populations that may be disproportionately impacted by incidents or events. At-risk populations include individuals with access and functional needs, such as needs related to communication, maintaining health, independence, support, safety, self-determination, and transportation (CMIST), as defined in the CMIST framework. At-risk populations may include individuals who

- Are at higher risk of severe complications from infectious diseases, such as pandemic influenza, for example, older adults, pregnant women, children, and people with pre-existing chronic medical conditions, such as diabetes or heart disease
- Have limitations that interfere with the receipt of and response to information, such as individuals who may not be able to hear, see, understand, or act on safety information
- Rely on personal care assistance to manage or maintain health
- Function independently if they have durable medical equipment or other assistive devices, service animals, or personal assistance service providers
- Find it difficult to cope in a new environment, such as those with autism, dementia, or intense anxiety
- Have transportation needs, including those who use public transit or accessible vehicles, such as lift-equipped or vehicles suitable for transporting individuals who use oxygen tanks

P2: (Priority) Jurisdictional risk assessments, which may include

- Identification of potential hazards, such as geographic and physical hazards, vulnerabilities, risks related to population characteristics, such as population density and demographics, and other risks in the community with the potential to adversely impact public health and related health care, human services, mental/behavioral health, and environmental health systems
- A definition of risk, including a risk formula
- The relation between identified risks to human impact and the interruption of public health, health care, human, mental/behavioral health, and environmental health services, noting that certain responses may affect basic functions of society, including physical damage to infrastructure or a reduction in the critical workforce
- Estimate of plausibility or probability of risks and hazards for the jurisdiction, such as the likelihood of natural disasters based on historical precedence
- Size and characteristics of the jurisdiction's population
  - Identification or location of populations with access and functional needs
  - Identification of populations with limited language proficiency (language isolation) and limited access to communication channels to receive timely and effective public health information
  - Information on vulnerabilities based on socioeconomic status, education, culture, and other factors
  - Locations or mapping of populations using information sources, including geographic information systems (GIS), the Agency for Toxic Substances and Disease Registry (ATSDR) Social Vulnerability Index, HHS emPOWER data, and other sources
- Data on the size and type of animal populations within the jurisdiction

Jurisdictional risk assessments may be conducted using information, which may include

- Consultation with subject matter experts from jurisdictional partners and stakeholders
- Data that help prioritize jurisdictional hazards and public health vulnerabilities, including historical data from emergency management risk assessment(s), public health programs, relevant scenarios or models, community engagements, GIS, and other supplementary sources
- Identification of factors that influence community resilience
- Estimated impact on public health, environmental health, and health care system functioning, for example, the potential loss or disruption of essential services, such as water, sanitation, vector control, electricity, or other utilities, or the interruption of public health, human services, environmental health, or health care infrastructure and services

P3: Written agreements, such as contracts or memoranda of understanding (MOUs), with applicable stakeholders within the jurisdiction or in neighboring jurisdictions to provide access to health care, human services, mental/behavioral health, and environmental health services, as necessary.

Skills and Training Resource Elements

S/T1: Personnel trained to locate or map at-risk populations using GIS, social vulnerability indexes, and other community assets, such as partnerships with human services and other safety net services to integrate aggregate data or client and consumer lists.

S/T2: Personnel familiar with methods and principles for developing and administering jurisdictional risk assessments.

S/T3: Personnel trained in the Federal Emergency Management Agency (FEMA) Emergency Management Institute course IS-305: Environmental Health Training in Emergency Response (EHTER) Awareness and other EHTER training opportunities.

Equipment and Technology Resource Elements

E/T1: Public health agency may coordinate with other governmental agencies for example, emergency management agencies or academic institutions, such as schools of public health or geography departments, as needed, for access to GIS systems.

Function 2: Strengthen community partnerships to support public health preparedness

Function Definition: Identify and engage public and private community partners to

- Assist with informing jurisdictional risk assessments, mitigating identified health hazards, and controlling risks
- Integrate all-hazards emergency plans with identified community roles and responsibilities related to the provision of public health, health care, human services, mental/behavioral health, and environmental health services
- Define Emergency Support Function (ESF) #8 public health roles at the state, local, tribal, or territorial level
- Implement additional activities to strengthen community resilience

Tasks

Task 1: Engage community partners and other stakeholders to support risk-mitigation. Define and implement strategies for ongoing collaboration with community partners and stakeholders capable of providing services to mitigate pre-identified general and incident-specific public health hazards and controlling risks for targeted populations.

Task 2: Coordinate the delivery of essential public health services. Partner with organizations responsible for essential health care and human services to ensure those services are provided as early as possible during the response, recovery, and return of the public health system after the incident or event.

Task 3: Incorporate partner feedback to continuously improve emergency operations plans. Establish and implement continuous quality improvement methods, including formal after-action processes, to collect and incorporate feedback from community and faith-based partners into emergency operations plans.

Task 4: Engage trusted community spokespersons to deliver public health messages. Collaborate with community partners and stakeholders to develop, test, and disseminate timely public health messaging to targeted populations through trusted representatives or spokespersons.

Preparedness Resource Elements

P1: (Priority) Procedures in place to coordinate relationships with community partners and stakeholders.

P2: (Priority) Procedures in place to register health care personnel, such as physicians, nurses, and allied health professionals from community, faith-based, and professional organizations in the Medical Reserve Corps (MRC) or state Emergency System for Advance Registration of Volunteer Health Professionals (ESAR-VHP) programs to support health services.

(See Capability 15: Volunteer Management)

P3: Procedures in place to integrate community and faith-based partner roles and responsibilities for each stage of a public health incident or event.

P4: Procedures and venues in place to discuss and provide guidance on public health hazard policies and plans of action with community partners and other stakeholders. Venues may include town hall meetings, community gatherings, conferences, and other social engagements.

P5: (Priority) Stand-alone plans, annexes, or other documentation, developed with input from jurisdictional partners, to indicate how the public health agency will assist with activities, which may include

- Continuity of operations for public health, health care, human, mental/behavioral health, and environmental health services within the community, including vaccination and dispensing services using a variety of provider types and settings, such as pharmacies, doctors' offices, school-located vaccination clinics, occupational health or worksite clinics, point-of-dispensing sites, and other traditional and non-traditional locations, during and after an incident. Particular attention should be placed on accessibility of health and human services for at-risk individuals with access and functional needs who may be disproportionately impacted by a public health incident or event, including displaced populations
- Support to address concerns and needs of populations not directly impacted by a particular incident, but concerned about the possibility of adverse health effects. Support services may include
  - Health care
  - Relocation services
  - Sheltering
  - Caregiving
  - Family reunification
  - Other standard services
- Collaboration with community partners to assess and plan for the access and functional needs of at-risk individuals who may be disproportionately impacted by an incident

- Childcare coordination with education and childcare sectors as well as systems that routinely serve children, such as child welfare, foster care, childcare or Head Start, runaway and youth homelessness, and juvenile justice agencies
- Support for animal services and pet care, as applicable
- Psychological first aid and other relevant mental/behavioral health services
- Communication services, which may include interpreter services for populations with limited English proficiency, methods to reach populations with limited access to public health messaging, or methods to alert and communicate with people with hearing, vision, speech, cognitive, and other disabilities

P6: Procedures in place to identify jurisdictional public health agency ESF #8 lead or support roles and functions based on incident characteristics, legal authorities, and existing mandates.

(See Capability 3: Emergency Operations Coordination)

Skills and Training Resource Elements

S/T1: Personnel able to demonstrate the skills and competencies in Domain 3: Plan for and Improve Practice, within the Public Health Preparedness and Response Core Competency Model.

Function 3: Coordinate with partners and share information through community social networks

Function Definition: Engage with community organizations to foster social connections that ensure the availability and community awareness of public health, health care, human, mental/behavioral health, and environmental health services in response to an incident.

Tasks

Task 1: Engage with community partners and stakeholders to coordinate preparedness efforts. Coordinate with community partners to ensure they understand how to access and connect their stakeholders and populations they serve to public health resources during an incident.

Task 2: Provide opportunities for community health services to participate in jurisdictional public health emergency preparedness activities. Engage public health, health care, human services, mental/behavioral health, and environmental health organizations that provide essential health services to the community in the development, implementation, and review of jurisdictional public health emergency preparedness efforts.

Task 3: Leverage community networks to disseminate information during an incident. Use local businesses, community and faith-based organizations, radio and other broadcast media, social media, text messaging, and other channels, as applicable, in communication networks to disseminate timely, relevant, accessible, and culturally appropriate information throughout the whole community during an incident.

Preparedness Resource Elements

P1: Procedures and problem-solving strategies in place to ensure access to public health, health care, human, mental/behavioral health, and environmental health services and to identify and engage community partners and stakeholders to support the restoration of community networks and social connectedness (social cohesion).

P2: Procedures in place to define and continuously update community-specific, information-sharing needs within jurisdictions.

(See Capability 6: Information Sharing)

P3: Culturally and socially appropriate health services needed to support identified jurisdictional risks and associated hazards.

(See Capability 4: Emergency Public Information and Warning)

Function 4: Coordinate training and provide guidance to support community involvement with preparedness efforts

Function Definition: Provide public health preparedness and response training and guidance to community partners and other stakeholders in order to address risks including, but not limited to, those identified in the jurisdictional risk assessment.

Tasks

Task 1: Leverage existing disaster preparedness and response trainings and educational programs to build community resilience. Coordinate with community partners and stakeholders to implement existing training and educational programs that incorporate community-based approaches to preparedness and recovery.

Task 2: Promote training and guidance for community partners. Promote training initiatives for community partners and other stakeholders within public health, health care, human services, mental/behavioral health, and environmental health sectors.

Task 3: Provide guidance to groups representing at-risk populations. Promote training and education of community partners and stakeholders to support preparedness and recovery for populations that may be disproportionately impacted by an incident or event based on the jurisdiction's identified risks and increase awareness of and access to services that may be needed during and after the incident.

Preparedness Resource Elements

P1: (Priority) Procedures in place to inform child service providers, such as schools, pediatricians, and children's mental health of and encourage their participation in jurisdictional strategies for addressing children's needs. Procedures may include

- Approaches to support family reunification
- Care for children whose caregivers are deceased, ill, injured, missing, quarantined, or otherwise incapacitated for lengthy periods of time
- Approaches to help children with access and functional needs
- Approaches to strengthen parents' and caregivers' coping skills
- Support for positive mental/behavioral health outcomes in children affected by the incident
- Approaches to help children and adults understand the incident

P2: Procedures in place to provide guidance and training programs, such as FEMA, CDC, and jurisdictional training to partners serving populations that rely on support services, such as HIV/AIDS treatment, substance abuse treatment, and dialysis that may not be accessible during or after an incident.

P3: (Priority) Procedures in place to build and sustain volunteer opportunities for community residents to support jurisdictional emergency responders and community safety efforts year-round, such as coordination with the MRC.

(See Capability 15: Volunteer Management)

Skills and Training Resource Elements

S/T1: Emergency responders, citizen volunteers, and other community residents trained in standardized and competency-based disaster education and training programs, such as the National Disaster Life Support Program and National and State Voluntary Organizations Active in Disaster (VOAD) planning documents.

S/T2 MRC volunteers and procedures to ensure coordination with existing community emergency response teams (CERTs) or Citizen Corps or support for the state ESAR-VHP program.

(See Capability 15: Volunteer Management)

Capability 2: Community Recovery

Definition: Community recovery is the ability of communities to identify critical assets, facilities, and other services within public health, emergency management, health care, human services, mental/behavioral health, and environmental health sectors that can guide and prioritize recovery operations. Communities should consider collaborating with jurisdictional partners and stakeholders to plan, advocate, facilitate, monitor, and implement the restoration of public health, health care, human services, mental/behavioral health, and environmental health sectors to at least a day-to-day level of functioning comparable to pre-incident levels and to improved levels, where possible.

Functions: This capability consists of the ability to perform the functions listed below.

- **Function 1:** Identify and monitor community recovery needs
- **Function 2:** Support recovery operations for public health and related systems for the community
- **Function 3:** Implement corrective actions to mitigate damage from future incidents

Summary of Changes: The updates align content with new national standards, updated science, and current public health priorities and strategies. Listed below are specific changes made to this capability.

- Highlights the need to define the jurisdictional public health agency recovery lead and support role
- Supports the National Disaster Recovery Framework (NDRF)
- Promotes integration of community partners to support community recovery and restoration
- Emphasizes engagement of community partners to access hard-to-reach populations to ensure inclusive communications that meet the needs of the whole community

For the purposes of Capability 2, partners and stakeholders may include the following: all parts of the whole community, such as individuals, businesses, nonprofits, community and faith-based organizations, and all levels of government.

Specific partners and stakeholders may include

- animal services and agencies
- childcare organizations
- chronic disease programs
- communicable disease programs
- community coalitions
- emergency management agencies
- emergency medical services (EMS)
- environmental health agencies
- fire and rescue departments
- groups representing and serving populations with access and functional needs
- health care coalitions
- health care organizations (private and community-based)
- health care systems and providers
- health care associated infection control programs
- housing and sheltering authorities
- human services providers
- immunization programs
- jurisdictional strategic advisory councils
- law enforcement
- media organizations
- mental/behavioral health providers
- public health preparedness programs
- schools and education agencies
- social services
- state office of aging or its equivalent
- surveillance programs
- volunteer organizations

Function 1: Identify and monitor community recovery needs

Function Definition: Assess the impact of an incident on the public health system in collaboration with jurisdictional partners and stakeholders to prioritize public health, emergency management, health care, mental/behavioral health, environmental health, and applicable human services recovery needs.

Tasks

Task 1: Identify jurisdictional community recovery priorities. Collaborate with jurisdictional partners and stakeholders to identify and document jurisdictional community recovery issues and priorities based on the impact of an incident on the population and critical assets, facilities, and other services within the public health, emergency management, health care, mental/behavioral health, and environmental health sectors.

Task 2: Identify the jurisdictional public health agency role in community recovery. In collaboration with the jurisdictional emergency management agency and organizations representing jurisdictional Emergency Support Functions (ESFs) and Recovery Support Functions (RSFs), identify the jurisdictional public health agency lead or support roles for community recovery.

Task 3: Identify recovery services to be provided by the jurisdictional public health agency, partners, and stakeholders. Determine public health agency, partners, and stakeholders services that can be provided for short- and long-term recovery operations, including previously identified services and new services, as appropriate, to address emerging community recovery needs.

Task 4: Solicit community input from jurisdictional partners and stakeholders. Request community input from jurisdictional partners and stakeholders regarding public health service recovery needs before and after the incident to understand recovery needs, issues, barriers, and trends.

Preparedness Resource Elements

P1: (Priority) Procedures in place for collaborating with jurisdictional partners and stakeholders to determine community recovery priorities and to define jurisdictional public health agency role(s) in community recovery. Considerations for determining community recovery priorities and the jurisdictional public health agency role(s) may include

- Recovery needs based on the scope of the incident and available assets, such as funding, volunteers, and other resources for responding to identified hazards
- Public health agency organizational structure, such as whether environmental health or mental/behavioral health services are separate agencies, legal authorities, and existing jurisdictional public health agency mandates
- Short- and long-term public health service delivery priorities and recovery goals
- Periodic assessment of incident impact information to characterize the size or extent of the incident and the sectors and populations impacted
- Review, assessment, and organization of recovery needs to facilitate timely and efficient reporting to federal, regional, state, local, tribal, and territorial emergency management agencies to support situational awareness and resource requests

P2: (Priority) Procedures in place for how the jurisdictional public health agency and jurisdictional partners and stakeholders will assess, conduct, monitor, document, and follow up with public health, emergency management, health care, mental/behavioral and environmental health, and human services needs to support jurisdictional recovery efforts. Procedures may include conducting community assessments or mission scoping assessments (MSAs) performed by federal and state RSF personnel.

(See Capability 1: Community Preparedness, Capability 7: Mass Care, Capability 10: Medical Surge, and Capability 13: Public Health Surveillance and Epidemiological Investigation)

P3: Predefined procedures, egress (exit) strategies, staging locations, and community reception centers for addressing hazards if they persist in the community or environment over time.

P4: Procedures in place to identify state and applicable jurisdictional legal authorities that permit non-jurisdictional clinicians to be credentialed to work in emergency situations.

(See Capability 1: Community Preparedness, Capability 7: Mass Care, Capability 8: Medical Countermeasure Dispensing and Administration, and Capability 10: Medical Surge)

P5: Documentation of identified sectors and partners that can support short-, intermediate-, and long-term community recovery efforts, including services to address the access and functional needs of identified at-risk populations who may be disproportionately impacted by a public health incident or event.

P6: Regularly scheduled community sector forums or local emergency planning committee meetings for representatives from different community sectors to collaborate. Activities may include

- Developing continuity of operations (COOP) plans
- Coordinating overall jurisdictional public health continuity of operations and community recovery roles
- Establishing and maintaining organizational relationships
- Sharing promising practices or approaches to recovery from similar incidents
- Learning about jurisdictional response and recovery processes and policies
- Exchanging information to identify available recovery support services by sector, such as shelter, day care, spiritual guidance, animal care, food, medication support, and transportation

(See Capability 1: Community Preparedness)

Function 2: Support recovery operations for public health and related systems for the community

Function Definition: Facilitate collaboration among jurisdictional partners and stakeholders to build a network of support services to reduce adverse public health consequences resulting from the incident, and develop plans to expedite recovery operations as appropriate based on the jurisdictional public health agency lead or support roles.

Tasks

Task 1: Coordinate with jurisdictional partners and stakeholders to develop recovery solutions. Identify courses of action to address persistent or emergent recovery issues and coordinate among health care, emergency management, education, nonprofit, and social services partners to design solutions, plans, and services based on jurisdictional public health agency lead or support roles.

Task 2: Educate the community about public health services. Coordinate with community partners and stakeholders from within and outside the jurisdiction to educate the community regarding recommended public health services through unified messaging.

Task 3: Notify the community of jurisdictional public health agency recovery plans. In coordination with other jurisdictional agencies, notify the community of jurisdictional public health agency recovery plans that support the restoration of public health, emergency management, health care, mental/behavioral health, and environmental health services during and after the acute phase of the incident.

Task 4: Notify the community of available public health services. In coordination with jurisdictional partners and stakeholders, communicate recovery services available to the community, with attention to the access and functional needs of populations that may be disproportionately impacted.

Task 5: Inform the community of disaster case management or community case management services. In collaboration with jurisdictional partners and stakeholders, notify the community of available disaster case management or community case management services for impacted community members.

Task 6: Coordinate with jurisdictional emergency management agencies to support mutual aid agreements with neighboring jurisdictions to provide recovery services. Partner with jurisdictional emergency management agencies when developing intra- and inter-state public health mutual aid and resource sharing agreements with neighboring jurisdictions for the provision of community recovery support resources and services.

Preparedness Resource Elements

P1: (Priority) Integrated recovery coordination plan that accounts for the jurisdictional public health agency lead or support roles. The integrated recovery coordination plan should include

- Major public health recovery priorities
- Short-, intermediate-, and long-term recovery issues based on known hazards
- Intended actions to address identified public health recovery priorities
- Expected or intended actions to support a federally-led recovery support strategy

P2: Procedures in place to routinely collect and share response and recovery information, including information about community recovery priorities resulting from cross-jurisdictional and inter-state coordination with organizations providing outreach to impacted populations. Procedures should specify who is responsible for developing messages and identifying audiences, such as community partners, the community at large, and populations disproportionately impacted by the incident.

(See Capability 4: Emergency Public Information and Warning, Capability 6: Information Sharing, Capability 8: Medical Countermeasure Dispensing and Administration, and Capability 11: Nonpharmaceutical Interventions)

P3: Procedures in place to support regular monitoring, surveillance, and reporting to track health, social services, and case management-related recovery over the long term, depending on the incident.

(See Capability 4: Emergency Public Information and Warning, Capability 6: Information Sharing, and Capability 13: Public Health Surveillance and Epidemiological Investigation)

P4: (Priority) Procedures in place within a stand-alone public health COOP plan or as a component of another plan to support community recovery. Procedures may include

- Definitions, identification, and prioritization of essential services needed to sustain public health agency mission and operations
- Procedures to sustain essential services regardless of the nature of the incident (all-hazards planning)
- Positions, skills, and personnel needed to continue essential services and functions (human capital management)
- Identification of public health agency and personnel roles and responsibilities in support of ESF #8—Public Health and Medical Services
- Scalable workforce reduction
- Limited access to facilities because of issues, such as structural safety or security concerns
- Broad-based implementation of social distancing policies
- Identification of agency vital records, such as legal documents, payroll, personnel assignments that must be preserved to support essential functions or for other reasons
- Alternate and virtual worksites
- Devolution of uninterruptible services for scaled down operations
- Reconstitution of uninterruptible services
- Cost of additional services to augment recovery

P5: Predefined statements (message templates) that address expected questions and concerns related to the incident. Public health spokespersons should consider strategies that may include

- Collaborating with jurisdictional partners and stakeholders to develop unified, timely, and consistent messaging across agencies
- Using message maps when interacting with jurisdictional media and community organizations
- Developing tailored messages, such as fact sheets to disseminate information to the public and responders to help amplify support for disaster survivors

(See Capability 1: Community Preparedness, Capability 3: Emergency Operations Coordination, and Capability 4: Emergency Public Information and Warning)

P6: Recovery strategies that guide the timely provision of public health, health care, and mental/behavioral health care beyond initial life-sustaining care. Strategies based on the jurisdictional public health agency role may include

- Accessible, safe, and functional facilities to provide public health services, including restoration of facilities or designation of new facilities, as necessary
- Short- and long-term programs and services for disaster survivors, responders, and the public
- Programs and interventions for managing stress, grief, fear, panic, anxiety, and other medical, human services, and mental/behavioral health issues for disaster survivors, responders, and the public

(See Capability 1: Community Preparedness and Capability 14: Responder Safety and Health)

P7: Procedures in place to coordinate health and related community services for physical injury, illness, mental/behavioral trauma, or environmental exposures sustained as a result of the incident.

(See Capability 10: Medical Surge)

P8: Procedures in place to support environmental health operations.

(See Capability 11: Nonpharmaceutical Interventions, Capability 13: Public Health Surveillance and Epidemiological Investigation, and Capability 15: Volunteer Management)

Skills and Training Resource Elements

S/T1: Volunteers from the Medical Reserve Corps (MRC) and other sources, such as Emergency System for Advance Registration of Volunteer Health Professionals (ESAR-VHP) trained in expected roles and responsibilities for community recovery activities. Training programs may incorporate mental health or psychological first aid to address immediate post-disaster behavioral health needs.

(See Capability 15: Volunteer Management)

S/T2: Environmental health personnel trained in mitigation of public health hazards related to disaster debris removal, hazardous waste, radiation, sanitation, and vector control.

(See Capability 14: Responder Safety and Health)

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

Function Definition: Incorporate improvement observations from past incidents to inform actions needed to restore the public health, health care systems, mental/behavioral and environmental health, and human services sectors to at least a day-to-day level of functioning comparable to pre-incident and to improved levels, where possible. Document actions within written after-action reports (AARs) and improvement plans (IPs) and implement corrective actions based on jurisdictional public health lead or support roles.

Tasks

Task 1: Conduct post-incident assessment and planning for AARs and IPs. In collaboration with jurisdictional partners and stakeholders, conduct post-incident assessment and planning as part of the after-action process for short- and long-term recovery efforts.

Task 2: Facilitate collaboration between government and the community to develop corrective action plans. Facilitate and advocate for collaboration among government agencies and community partners to support the completion of agency-specific corrective actions.

Task 3: Collect community feedback for corrective actions. Collaborate with sector leaders to facilitate collection of community feedback to inform and identify corrective actions.

Task 4: Implement corrective actions into recovery plans and operations. Implement corrective actions that are within the scope or control of the jurisdictional public health agency for short- and long-term recovery, including the mitigation of damage from future incidents, in recovery plans.

Task 5: Develop a transition plan for implementing and monitoring corrective actions. In partnership with key stakeholders, create a transition plan based on the jurisdictional public health agency lead or support roles to integrate implementation and monitoring of corrective actions into day-to-day agency operations.

Task 6: Assess and strengthen community resilience to future disasters. Coordinate with jurisdictional partners and stakeholders to evaluate and strengthen community resilience to future incidents by improving routine community functioning and reducing community vulnerability. Based on the known or anticipated health and social services recovery issues that the community will experience, integrate the necessary interventions for those issues and barriers into day-to-day business through inclusion in multiyear budgets, planning efforts, and staffing approaches.

Preparedness Resource Elements

P1: Procedures in place for continuous development and maintenance of partnerships with cross-sector community partners and stakeholders to support the restoration of access to public health, emergency management, health care, and mental/behavioral and environmental health services.

(See Capability 1: Community Preparedness)

P2: (Priority) Procedures in place to solicit feedback and recommendations from leaders in key sectors to improve community access to public health, emergency management, health care, mental/behavioral and environmental health, and human services. Key sectors may include

- Business
- Childcare
- Community and faith-based organizations
- Education
- Government
- Health care
- Housing and sheltering
- Media

P3: Corrective action plans based on jurisdictional public health agency lead or support roles that may include

- Mitigation plans to reduce damage from future incidents
- Jurisdictional and cross-sectoral models of community resilience to ensure the participation of all potential stakeholders in developing strategies to withstand and recover from future events
- Transition plan that identifies specific corrective actions, assigns them to responsible parties, and establishes targets for their completion

Capability 3: Emergency Operations Coordination

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

Functions: This capability consists of the ability to perform the functions listed below.

- **Function 1:** Conduct preliminary assessment to determine the need for activation of public health emergency operations
- **Function 2:** Activate public health emergency operations
- **Function 3:** Develop and maintain an incident response strategy
- **Function 4:** Manage and sustain the public health response
- **Function 5:** Demobilize and evaluate public health emergency operations

Summary of Changes: The updates align content with new national standards, updated science, and current public health priorities and strategies. Listed below are specific changes made to this capability.

- Distinguishes the need to identify and clarify the jurisdictional Emergency Support Function (ESF) #8 response role based on incident type and characteristics
- Incorporates the National Health Security Strategy and Crisis Standards of Care for public health activation
- Emphasizes the importance of supporting development of mission ready packages (MRPs) for mutual aid and understanding the Emergency Management Assistance Compact (EMAC)

For the purposes of Capability 3, partners and stakeholders may include the following:

- communicable disease programs
- emergency management agencies
- infection control programs
- preparedness and response programs
- public health agencies
- public health laboratories
- tribes and native-serving organizations
- volunteer organizations

Function 1: Conduct preliminary assessment to determine the need for activation of public health emergency operations

Function Definition: Identify the public health risks of an incident or event and coordinate with subject matter experts to help determine the scale of incident management operations.

Tasks

Task 1: Determine the public health response role. Coordinate with emergency management officials to determine if public health will have a lead response role, a supporting role, or no role based on identified or potential public health consequences.

Task 2: Determine response activation levels based on the complexity of the incident or event. Coordinate with emergency management officials in collecting and analyzing data to assess the situation and determine emergency response operations applicable to jurisdictional needs.

Task 3: Develop the public health incident management structure. Document a flexible and scalable public health incident management structure that is consistent with NIMS and is coordinated with the jurisdictional incident, unified, or area command structure.

Preparedness Resource Elements

P1: (Priority) Response procedures in place to detail how the agency manages and responds to situational awareness information that indicates when a jurisdictional incident with public health consequences requires an agency-level response.

Identify incidents where public health will function as the lead agency in coordination with other agencies or where public health will not function as the lead agency, but the incident has significant public health implications including localized incidents and incidents of national significance, which include Presidentially declared emergencies, major disasters, and catastrophes that pose a public health threat.

P2: (Priority) Maintain a roster of primary and backup individuals who will serve as incident commander or manager and other key roles within the jurisdictional incident management structure based on the incident public health agency lead or support role.

P3: Procedures in place for public health preparedness and response based on jurisdictional risk assessment (JRA) findings that are coordinated with the jurisdictional emergency management agency. Coordination with the jurisdictional emergency management agency may include

- Sharing identified public health risks, hazards, threats, and vulnerabilities to help identify public health incident management roles
- Communicating the availability of public health resources in relation to the projected impacts of identified jurisdictional public health risks, hazards, threats, and vulnerabilities
- Identifying the need to establish additional mutual aid agreements or other agreements with other public health organizations
- Consulting with subject matter experts including immunization, epidemiology, laboratory, surveillance, health care, chemical, biological, and radiological subject matter experts, and emergency management agency leadership to help inform the scope of public health involvement in an incident that may differ from those identified in the JRA

(See Capability 1: Community Preparedness and Capability 13: Public Health Surveillance and Epidemiological Investigation)

P4: Scenario-specific and all–hazards, response-based procedures in place that describe incident response strategies based on the nature and scope of the incident including pandemic influenza, anthrax, other emerging infectious disease, natural disasters, and intentional incidents. Recommended procedures include

- Definition of public health incident management roles as necessitated by the incident or event
- Guidelines for when public health incident management roles must be filled, such as to support prevention, protection, mitigation, response, and recovery activities
- Safety implications of the incident, such as any hazardous conditions that could arise for responders and how to protect them
- Resources including personnel and equipment necessary to fulfill public health incident management roles

P5: Special event plans developed in coordination with the jurisdictional emergency management agency and other Emergency Support Function (ESF) #8 partners. Plan data may be submitted by the State Homeland Security Office on behalf of all state ESFs to the United States Department of Homeland Security (DHS) for Special Event Assessment Rating (SEAR) evaluation.

Skills and Training Resource Elements

S/T1: Personnel trained in incident management, as applicable to their role. At a minimum, personnel should complete the following NIMS 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-700.a)
- National Response Framework, An Introduction (IS-800.b)

Equipment and Technology Resource Elements

E/T1: Primary and backup communications systems, which may include

- Cellular telephones with chargers
- Dual-band and P25 compliant radios (walkie-talkies)
- Fax machines
- Amateur (HAM) radio
- High-frequency radios
- Internet
- Non-technology dependent systems
- Satellite communication
- Telephones and dedicated telephone lines
- Television

Function 2: Activate public health emergency operations

Function Definition: Engage senior leadership and resources including technologies, physical space, and other assets to address an incident or event consistent with the NIMS and jurisdictional standards and practices.

Tasks

Task 1: Activate public health incident command and emergency management functions. Activate necessary public health functions and support mutual aid according to the public health incident management role and incident requirements.

Task 2: Identify personnel with the necessary skills to fulfill required incident command and public health incident management roles. Coordinate with emergency management agencies and other partners to develop staffing pools that include federal, regional, state, local, tribal, and territorial personnel with necessary public health expertise to serve as incident commander and other public health incident management roles.

Task 3: Designate personnel coverage for multiple operational periods. Develop continuous long-term staffing plans for required incident command and other public health incident management roles.

Task 4: Establish primary and alternate locations and virtual communication structures for the public health emergency operations center. Identify primary and backup physical space and secure necessary equipment, such as desks, lighting, power outlets, and internet access as well as virtual communication structures to support public health emergency operations.

Task 5: Assemble designated personnel at the appropriate emergency operations center(s). Notify personnel to report either physically or virtually to the public health emergency operations center (EOC) or jurisdictional EOC.

Preparedness Resource Elements

P1: (Priority) Procedures in place to manage, operate, and staff the public health EOC or public health functions within another EOC. Recommended procedures may include

- Statutes and authorities under which activities are carried out
- Differing activation levels, including who is authorized to activate the plan and under what circumstances
- Recall or assembly of required incident command and management personnel and verification that facilities are available and operationally ready for assembled personnel
- Development of communication plans and supporting technology systems
- Verification that virtual communication structures are available and operational
- Identification of functional roles and responsibilities anticipated for internal and external agencies, organizations, departments, and positions, such as strike teams, task forces, or other units
- Logistics support and other resources necessary to implement the emergency operations procedures

P2: (Priority) Mutual aid agreements or other agreements, such as local agreements, EMAC, and health care coalitions, as applicable, between public health agencies and response partners to support public health response related activities (ESF #8) across jurisdictions. Agreements may include

- Development of public health MRPs detailing public health resources for use during mutual aid deployments
- Agreements with external organizations to help support specific public health functions, such as the American Red Cross, community emergency response team (CERT), Voluntary Organizations Active in Disaster (VOAD), and Mobile Medical Response (MMR)
- 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 (MOUs) or other agreements
- Workers compensation
- Treatment of liability and immunity
- Recognition of qualifications and certifications
- Resource sharing agreements as necessary

(See Capability 15: Volunteer Management)

P3: (Priority) Job action sheets or equivalent documentation for incident command positions and other public health incident management roles during a public health emergency.

P4: Procedures in place to ensure personnel and equipment arriving at the incident or event can check in and check out at various incident locations. Recommended documentation includes the Incident Command System Form 211—Incident Check-In List or equivalent forms.

Skills and Training Resource Elements

S/T1: (Priority) Personnel trained in NIMS training, such as ICS 300 and ICS 400, as applicable based on discipline, level, and jurisdictional requirements.

S/T2: Personnel identified in advance of an incident or event who can adequately fill, lead, or support public health incident management roles, including arrangements to staff multiple emergency operations centers at the agency, local, and state levels, as necessary.

S/T3: Personnel participation in applicable jurisdictional emergency management training and certification courses.

Equipment and Technology Resource Elements

E/T1: Backup equipment and infrastructure, such as generators, facilities, and security systems in the event of system failure or power loss in the public health emergency operations center.

E/T2: Primary and backup communications equipment to transmit information inside and outside the emergency operations center, with contact numbers and radio frequencies stored with corresponding equipment. Communications equipment may include

- Cellular telephones with chargers
- Dual-band and P25 compliant radios (walkie-talkies)
- Fax machines
- High-frequency radios
- Internet
- Non-technology dependent systems
- Satellite communication
- Telephones and dedicated telephone lines
- Television

(See Capability 6: Information Sharing)

E/T3: Information technology equipment in quantities sufficient to meet incident or event objectives, such as projectors, computers, and audio/video teleconferencing equipment.

E/T4: Information technology systems in quantities sufficient to meet incident or event objectives. Recommended systems may include WebEOC, inventory tracking systems, such as the Inventory Management and Tracking System (IMATS), and the jurisdiction's immunization information system.

Function 3: Develop and maintain an incident response strategy

Function Definition: Produce or provide input to incident action plans containing response strategies appropriate to the incident and as described in NIMS during one or more operational periods.

Tasks

Task 1: Develop incident action plans. Produce or contribute to (as appropriate for the public health incident management role) an incident action plan that receives approval prior to each operational period.

Task 2: Update and share incident action plans. Revise and brief personnel on the incident action plan by the start of each new operational period.

Task 3: Disseminate incident action plans. Make incident action plans available to relevant public health response personnel, volunteers, and partner agencies according to emergency operations protocols.

Preparedness Resource Elements

P1: (Priority) Capacity for producing incident action plans that document accomplishments from the previous operational period as well as goals, objectives, and priorities for the next operational period.

P2: Incident action plans, with dissemination and briefings, for all personnel at the start of each new operational period.

Function 4: Manage and sustain the public health response

Function Definition: Direct ongoing public health emergency operations to sustain the public health and health care response for multiple operational periods and concurrent responses.

Tasks

Task 1: Coordinate public health and health care emergency management operations. Ensure coordination among public health agencies, the health care system, and other relevant stakeholders according to incident requirements.

Task 2: Track public health resources. Ensure systems are in place to track and account for all public health resources during the public health response.

Task 3: Maintain health situational awareness (HSA). Compile information gathered from public health, health care, and other stakeholders, such as fusion centers to support a common operating picture.

Task 4: Conduct shift change briefings. During shift changes, formally share information between outgoing and incoming public health personnel to communicate priorities, status of tasks, and safety guidance.

Task 5: Develop continuity of operations plan(s). Identify response priorities to ensure the continuation and recovery of critical public health functions.

Preparedness Resource Elements

P1: Standard operating procedures in place to manage a response. Recommended procedures include

- Procedures to account for personnel, time, equipment, and other items used during the public health response
- Procedures for media engagement, such as managing media inquiries about the incident and using the media to disseminate critical information
- Procedures for situation reports and shift change briefings
- Procedures to collect critical or required information
- Supporting templates for key operations center activities, including situation reports, shift change briefings, call logs, and activity logs

P2: Procedures in place for information sharing with fusion centers or comparable state centers or agencies in order to provide and receive relevant intelligence information that may influence the response.

P3: Common operating picture that facilitates coordinated information sharing among public health, the health care system, and other relevant stakeholders. Establish key indicators, critical information requirements, and essential elements of information to assist with timing of notifications, alerts, and responses

P4: (Priority) Procedures in place to ensure the continued performance of pre-identified essential functions during a public health incident. Recommended procedures may include

- Identification and definition of essential services needed to sustain public health agency mission and operations
- Protocols to sustain essential services, regardless of the nature of the incident (all-hazards planning)
- Identification of alternate or COOP worksites
- Identification and definition of positions, skills, and personnel needed to continue essential services and functions (human capital management)
- Protocols to reduce workforce for scaled-down operations
- Protocols for devolution of uninterruptible services for scaled-down operations
- Protocols for reconstitution of uninterruptible services
- Contingencies to continue operations when personnel have limited access to facilities because of social distancing measures or other staffing or security concerns
- Protocols for broad-based implementation of social distancing policies to prevent the spread of infectious disease or for other reasons based on the incident
- Identification of agency vital records, such as legal documents, payroll, and personnel assignments that must be preserved in order to support essential functions or for other reasons

(See Capability 2: Community Recovery and Capability 6: Information Sharing)

Skills and Training Resource Elements

S/T1: Personnel trained on any jurisdictionally identified software needed to support emergency operations centers, such as WebEOC prior to an incident.

S/T2: Personnel trained on public health agency procedures for emergency operations as documented in standard operating procedures, COOP plan, demobilization plan, and emergency operations plan with an understanding of their public health incident management role(s), if any, during a public health response.

Function 5: Demobilize and evaluate public health emergency operations

Function Definition: Release and return resources no longer required by the incident or event to their ready state and assess efforts, resources, actions, leadership, coordination, and communication to implement continuous improvement activities. Complete evaluation activities throughout response operations, and finalize response activities with after-action processes.

Tasks

Task 1: Return public health resources and staffing to their prior "ready state" of operations. Archive records and restore systems, supplies, and staffing to pre-incident readiness.

Task 2: Conduct final incident closeout of public health operations. Turn over documentation, conduct hot washes and incident debriefings, and identify final closeout requirements with responsible agencies and jurisdiction officials.

Task 3: Produce after-action report(s). Conduct after-action processes for public health operations in partnership with other emergency operations stakeholders to identify areas of success, promising practices, and opportunities for improvement.

Task 4: Develop improvement plan(s). Document priorities and identify corrective actions assigned to public health.

Task 5: Implement and track progress on improvement plan(s). Complete the corrective actions assigned to public health and establish a system to track completion and effectiveness of corrective actions.

Preparedness Resource Elements

P1: (Priority) Procedures in place for demobilization of public health operations. Recommended procedures may include

- Procedures to scale down operations, including transitioning workforce and services back to their normal levels, and returning or releasing equipment and other resources
- General information about the demobilization process
- Responsibilities or agreements for reconditioning equipment or resources
- Responsibilities for implementing the demobilization plan, the systematic approach for an orderly, safe, and efficient return of a resource to its original status (NIMS definition)
- General release priorities meaning resources, such as personnel, services, or equipment to be returned and detailed procedures for releasing those resources
- Directories, including maps and telephone listings

P2: Incident closeout briefing for the public. Briefings may include

- Incident summary
- Lasting implications of major events
- Continuing activities or corrective actions that will not be completed under response operations
- Opportunity for discussion to bring up any concerns from agency officials
- Final evaluation of incident management by agency officials
- Team performance evaluation

P3: After-action report and improvement plan. Recommended elements include

- Executive summary
- Event overview
- Event summary
- Observations (strengths or areas for improvement)
- Analysis of capabilities
- Conclusion
- IP, recommended to include (at a minimum)
  - Identification of the capability being assessed
  - Observation
  - Title
  - Recommendation
  - Corrective action description
  - Capability element
  - Primary responsible agency
  - Agency point of contact
  - Start date
  - Completion date

Skills and Training Resource Elements

S/T1: Public health personnel who will evaluate incident responses, including development of the AAR and IP or lead exercises have an understanding of Homeland Security Exercise and Evaluation Program (HSEEP) policies, procedures, and terminology. Personnel should have experience in administration, design, development, evaluation, and improvement planning for exercises. Recommended trainings may include

- FEMA Emergency Management Institute Training: An Introduction to Exercises (IS.120.A), Exercise Evaluation and Improvement Planning (IS-130), and Exercise Design (IS-139)
- HSEEP training
- Incident Command System Form 221 - Demobilization Checkout

S/T2: Personnel trained in demobilization procedures as relevant to the public health incident management role.

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 personnel.

Functions: This capability consists of the ability to perform the functions listed below.

- **Function 1:** Activate the emergency public information system
- **Function 2:** Determine the need for a Joint 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

Summary of Changes: The updates align content with new national standards, updated science, and current public health priorities and strategies. Listed below are specific changes made to this capability.

- Promotes the need to leverage social media platforms for issuing emergency public information and warnings
- Clarifies conditions for establishing a virtual Joint Information Center (JIC) and Joint Information System (JIS)
- Includes content to identify and reach populations at risk to be disproportionately impacted by incidents and those with limited access to public information messages

For the purposes of Capability 4, partners and stakeholders may include the following:

- 911 authority
- community and faith-based organizations
- elected officials
- emergency management agencies
- emergency medical services (EMS)
- health care organizations
- media organizations
- poison control centers
- public health agencies
- volunteer organizations

Function 1: Activate the emergency public information system

Function Definition: Notify and assemble key public information personnel and potential spokespersons identified prior to an incident to provide information to the public during an incident.

Tasks

Task 1: Identify key public information personnel. Identify public information officers (PIOs), spokespersons, and trained support personnel, such as subject matter experts to implement jurisdictional public information and communication strategies.

Task 2: Identify a primary and alternate physical or virtual JIC. Establish physical and virtual structures to support the creation and dissemination of health alerts and public information operations.

Task 3: Mobilize PIOs, spokespersons, and support personnel. Notify public information and communication teams of the need to be on call or report for duty within incident-appropriate timeframes, including no-notice events.

Task 4: Establish roles and responsibilities of personnel to convey public information. Assemble public information personnel at a physical location or virtually to establish roles and responsibilities.

Task 5: Ensure personnel are trained in the functions they may fulfill. Provide public information and communication education and training to PIOs, spokespersons, and support personnel according to jurisdictional need.

Task 6: Support local public health systems with the implementation of emergency communications. Clarify state, local, tribal, and territorial public health information roles and confirm communication support and coordination needs.

Preparedness Resource Elements

P1: (Priority) Procedures in place to document roles and responsibilities for PIOs, spokespersons, and support personnel based on the incident and subject matter expertise.

P2: (Priority) Message templates and risk communication message development to address identified jurisdictional risks and vulnerabilities related to incident characteristics. Recommended templates may include

- Stakeholder identification
- Potential stakeholder questions and concerns
- Key messages to address stakeholder questions and concerns
- Common sets of underlying concerns

P3: Primary and alternate physical locations or virtual structures to support the creation and dissemination of health alert and other emergency public information and warning operations. Personnel assembly can occur at a physical location, like an emergency operations center (EOC), virtual location, such as conference calls or web-based interfaces, like WebEOC, or combination of both physical and virtual locations.

(See Capability 3: Emergency Operations Coordination)

P4: Current roster or call-down lists with pre-identified personnel to participate in key emergency communications functions, including a minimum of one backup per role, as necessary.

P5: Procedures in place for personnel to notify and report for duty. Recommended notification procedures may include

- Notification methods, such as health alert network, e-mail, and other personnel notification methods
- Personnel notification time frame (how quickly personnel will be notified)
- Personnel reporting times and locations (may be virtual)

P6: Job action sheets that detail specific tasks for personnel and volunteer communications roles.

(See Capability 3: Emergency Operations Coordination and Capability 15: Volunteer Management)

P7: Systems and procedures to mobilize communication activities and roles applicable to the incident or event, such as information gathering, information dissemination, operations support, and liaison. One or more individuals may conduct activities and roles, which include

- Fact gathering
- Rumor control or message testing
- Monitoring and publishing content across print, Internet, social, and other media
- Providing support to speakers, such as developing talking points, speeches, and visuals
- Managing or responding to public inquiries using hotlines or other channels

(See Capability 3: Emergency Operations Coordination)

P8: Emergency communication implementation and coordination support to local public health systems from state and territorial jurisdictions.

(See Capability 6: Information Sharing)

Skills and Training Resource Elements

S/T1: (Priority) Public information personnel trained in relevant National Incident Management System (NIMS) courses, which may include

- 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 Incident Management System Public Information Systems (IS-702.a)
- National Response Framework, An Introduction (IS-800.b)

S/T2: (Priority) Public information personnel able to develop key messages using the principles of crisis and emergency risk communication. Within six months of hire and at least once every five years thereafter, the following trainings are recommended for completion

- CDC's Crisis and Emergency Risk Communication (CERC) Basic Training
- CERC training administered by CDC personnel or local personnel already trained by CDC personnel

S/T3: PIO able to complete responsibilities, which may include

- Representing and advising the incident commander as part of the command personnel on all public information matters relating to communication management for the incident, and monitoring and handling media and public inquiries
- Managing day-to-day operations of the JIC and functioning within a JIS
- Coordinating with PIOs from participating government departments and organizations to manage resources and avoid duplication of efforts

Equipment and Technology Resource Elements

E/T1: Dedicated phone line(s) to receive and address inquiries from the media, stakeholders, and the public.

E/T2: Capacity for 24/7 health alerting (using phone or other alerting or notification methods), including maintenance, licensing, and mechanisms, such as contracts in place to purchase media time or short system messaging (SMS) code, as necessary.

E/T3: Redundant power supply to support 24/7 alerting and public messaging capacity.

E/T4: Communication devices to support partnerships with emergency management or other local authorities. Communication devices may include

- Amateur radios
- Government Emergency Telecommunications Service (GETS) card issued by the U.S. Department of Homeland Security (DHS)
- Satellite phones
- Walkie-talkies, such as P25 compliant radios
- Other wireless devices

Function 2: Determine the need for a Joint Information System

Function Definition: Coordinate with emergency management agencies to determine the need for and scale of a JIS, including, if appropriate, activation of a new public health JIC. Participate with other jurisdictional JICs to combine information sharing abilities and coordinate messages.

Tasks

Task 1: Coordinate with jurisdictional emergency management to establish a public health JIC or a virtual JIC and participate in a JIS as needed. Activate a public health JIC or a virtual JIC, as applicable to the incident, and coordinate with emergency management to determine the need for a JIS.

Task 2: Ensure appropriate participation from public health communications representatives in the jurisdictional EOC. If a public health JIC is not activated for the incident, identify a public health communication representative, such as a PIO to participate in the jurisdictional EOC to ensure public health messaging capacity is represented.

Task 3: Coordinate public information messages through four common functions. Assign leads to the four common functions: information gathering, information dissemination, operations support, and liaison roles to public information personnel. Ensure coverage for extended operational periods, as applicable.

Preparedness Resource Elements

P1: Procedures in place to activate a JIC or virtual JIC connecting public information agencies or personnel through telephone, Internet, or other technologies and means of communication.

(See Capability 3: Emergency Operations Coordination)

P2: Standard operating procedures in place to request additional emergency public information and warning resources including personnel and equipment, and replace inoperable equipment to ensure continuity of operations through the jurisdictional incident management system.

P3: Decision support matrix to help determine when to scale up or scale down JIS operations. Recommended considerations may include

- Contingencies if incident information needs exceed the public health agen cy resources
- Procedures in place to detail how the public health agency will participate in the jurisdictional JIC or JIS if the response involves multiple organizations requiring coordinated messaging and spokespersons

Skills and Training Resource Elements

S/T1: Personnel or volunteers from partner agencies who will support information gathering, information dissemination, operations support, and liaison roles during an incident.

S/T2: Personnel or volunteers from partner agencies who have awareness-level training specific to media operations during an incident. Media operations may include television, Internet, radio, social media, newspapers, and other channels.

Equipment and Technology Resource Elements

E/T1: **(Priority)** Minimum components of a virtual JIC may include

- Electronic communications equipment to exchange information within the jurisdiction and with CDC in real time, as possible
- Plans for continuity of operations if equipment is inoperable
- Shared site, mechanism, or system to store electronic files of JIC products, e-mail distribution lists, incident information, and scheduling

E/T2: Supporting infrastructure for state, local, tribal, and territorial jurisdictions to send and receive information, with the ability to meet access and functional needs guidelines. Infrastructure may include

- Cellular phones
- Clocks
- Computers and printers
- Contact information for state and local officials and media
- Fax machines
- Internet access
- Phones and multiple phone lines
- Radio (dual-band, HAM, or high-frequency)
- Recording devices for both radio and television
- SMS text
- Television
- Video conferencing equipment

Function 3: Establish and participate in information system operations

Function Definition: Monitor jurisdictional media, conduct press briefings, and provide rumor control for media outlets using the principles of NIMS for organizing and coordinating incident-related communications.

Tasks

Task 1: **Participate in public information sharing.** Develop, recommend, and execute approved public health communication plans and strategies on behalf of the incident command or unified command structure based on the public health incident management role. Before sharing information with the public, collect, evaluate, and verify all information and obtain approval from authorized officials, such as health officer or incident commander.

Task 2: Control rumors. Control myths and rumors within the jurisdiction using media and digital outlets, including television, Internet, radio, social media, and newspapers.

Task 3: Provide a single point for dissemination of information for public health and health care issues. Release public health and health care information through pre-identified procedures based on jurisdictional processes, such as systems and spokespersons in coordination with the JIC.

Preparedness Resource Elements

P1: Procedures in place for when the public health agency may designate a lead PIO or provide public information support within emergency operations plans, job action sheets, or other applicable documentation.

P2: Procedures in place to track and monitor media, which may include

- Tracking media contacts and public inquiries, including contact, date, time, query, and outcome
- Monitoring media coverage to ensure information is accurately relayed
- Correcting misinformation before the next news cycle
- Addressing public health and health care concerns received from jurisdictional media interests
- Maintaining media contact lists and protocols for media engagement

Skills and Training Resource Elements

S1: Public information personnel trained in incident management and information systems operations. Relevant trainings may include

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

Equipment and Technology Resource Elements

E/T1: Equipment and digital media accounts that are accessible to PIOs or spokespersons in order to receive messaging from the jurisdiction's public health alert system or network.

(See Capability 3: Emergency Operations Coordination or Capability 6: Information Sharing)

Function 4: Establish avenues for public interaction and information exchange

Function Definition: Provide methods for the public to contact the public health agency with questions and concerns. Methods may include

- Call centers
- Help desks
- Hotlines
- Instant messaging
- Social media
- Text messaging
- Websites

Tasks

Task 1: Establish systems for managing public and media inquiries. Implement scalable methods, such as Internet sites, call centers, poison control centers, non-emergency lines, such as 211 or 311, and social media to respond to public and media inquiries, as needed, for the incident.

Task 2: Post incident-related information on the public health agency website. Establish an Internet presence to inform and connect with the public that adheres to the principles of CERC.

Task 3: Use social media platforms and text messaging. Implement social media platforms, such as Twitter and Facebook and opt-in targeted notifications through texting, when and if possible, for public health messaging to the public.

Task 4: Identify, protect, and ensure information exchange with disproportionately impacted populations. Use geographic information systems (GIS), demographics, and epidemiological data to understand the complexities of the emergency and the response and to identify appropriate methods and sources, such as trusted spokespersons to protect, reach, and engage at-risk individuals with access and functional needs who may be disproportionately impacted by the incident.

Preparedness Resource Elements

P1: Procedures in place to activate and manage designated inquiry line(s), as applicable. Recommended procedures may include

- Diversion of unnecessary calls away from the community 911 system by establishing call centers or by other methods
- Diversion of non-critically ill patients away from the health care system, including the use of public information, advice, or triage lines
- Provision of updated public information regarding public health agency actions and recommendations

P2: Procedures in place to activate call centers with community partners, as needed. Recommended procedures may include

- Criteria for activating call centers
- Designation of persons to activate the call center system
- Designation of call center leader
- Process for call center system activation
- Procedures to detail how the call center will interface with the jurisdiction's incident management system, to include the JIC
- Call center scripts or message maps for call center personnel
- Coordination of call center scripts with other messages
- Contact information for community partners for example, providing a public health center with poison control center contact information
- Processes to assess staffing needs
- Processes for staffing, increased hours, and demobilization of call centers

P3: Procedures in place for the usage of CDC-INFO or nurse triage lines and poison control centers as resources to increase response capacity for public and health care provider inquiries in emergency and natural disaster incidents, as applicable to the jurisdiction.

(See Capability 6: Information Sharing)

P4: Procedures in place to monitor, manage, and use social media, which may include

- Addressing questions, myths, and misconceptions
- Collecting and reviewing digital media metrics, such as click-through rates, impressions, followers, likes, and shares
- Coordinating social media messaging with call center scripts
- Creating and clearing posts, including a timeframe or schedule for adding new posts
- Evaluating social media engagement and reach
- Hyperlinking to other relevant websites
- Promoting social media channels
- Using geotags and push notifications to target social media messages to users in impacted areas

P5: Message development guidelines for social media, which may include

- Considerations for target audiences
- Use of plain language
- Character limits for messages
- Sign language interpreter and captioning for video messaging
- Audio conversion for scrolled messaging
- Actions the public can and should take during an incident

Skills and Training Resource Elements

S/T1: Public information personnel trained in the use of social media, technology, and health communication.

S/T2: Public information personnel who have completed NIMS Communications and Information Management training (IS-704).

Equipment and Technology Resource Elements

E/T1: Information technology or telephonic equipment to support the scalability of the inquiry line, as needed, for the incident (a transferred call occupies a phone channel until the call is completed).

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

Function Definition: Use CERC principles to 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

Task 1: Comply with jurisdictional legal guidelines when communicating information. Prevent communication of information that is protected for national security or law enforcement purposes or that may infringe on individual or entity rights.

Task 2: Disseminate information to the public using pre-established message maps. Disseminate approved messages to the public through multiple mechanisms, and ensure that languages and formats of information account for the access and functional needs of individuals, which may include individuals

- Who are deaf or hard of hearing
- With vision impairments
- With limited English proficiency
- From diverse cultural backgrounds
- With cognitive limitations
- Who do not use traditional media

Task 3: Disseminate information to responder organizations. Coordinate and transmit health-related information to responder organizations through secure messaging platforms.

Preparedness Resource Elements

P1: Documented and approved intra- and inter-jurisdictional legal authorities to avoid communicating information that is protected for national security or law enforcement purposes or that may infringe on individual or entity rights.

P2: Procedures in place to identify points of contact and establish a clearance process to verify and approve communication products, including talking points, social media messages, public information, and external-facing documents.

P3: Documented information to help populations at risk of being disproportionately impacted by an incident understand personal preparedness, what services are available, and where and how to obtain services. Consider the use of multiple media, multilingual materials, and alternative formats as well as the cultural appropriateness and age appropriateness of information.

P4: Procedures in place to address populations that may be disproportionately impacted by the incident, including at-risk populations with access and functional needs, in the development of informational materials.

P5: Procedures in place to reach rural or isolated populations.

Skills and Training Resource Elements

S/T1: Information technology personnel with necessary skills to support and sustain the jurisdictional health alert network or system.

(See Capability 6: Information Sharing)

S/T2: Personnel trained in health communication and cultural competency.

Capability 5: Fatality Management

Definition: Fatality management is the ability to coordinate with organizations and agencies to provide fatality management services. The public health agency role in fatality management activities may include supporting

- Recovery and preservation of remains
- Identification of the deceased
- Determination of cause and manner of death
- Release of remains to an authorized individual
- Provision of mental/behavioral health assistance for the grieving

The role may also include supporting activities for the identification, collection, documentation, retrieval, and transportation of human remains, personal effects, and evidence to the examination location or incident morgue.

Functions: This capability consists of the ability to perform the functions listed below.

- **Function 1:** Determine the public health agency role in fatality management
- **Function 2:** Identify and facilitate access to public health resources to support fatality management operations
- **Function 3:** Assist in the collection and dissemination of antemortem data
- **Function 4:** Support the provision of survivor mental/behavioral health services
- **Function 5:** Support fatality processing and storage operations

Summary of Changes: The updates align content with new national standards, updated science, and current public health priorities and strategies. Listed below are specific changes made to this capability.

- Clarifies importance of identifying the public health agency role in fatality management and describes potential fatality management lead, advisory, and support roles
- Aligns the fatality management definition to the existing federal definition as recommended by the U.S. Department of Health and Human Services' (HHS) Disaster Mortuary Operational Response Team (DMORT)
- Updates resources to improve coordination, accuracy, and timeliness of electronic mortality reporting

For the purposes of Capability 5, partners and stakeholders may include the following:

- emergency management agencies
- emergency medical services (EMS)
- federal authorities
- funeral homes
- funeral industry
- health care coalitions
- health care organizations
- hospitals
- law enforcement agencies
- medical examiner or coroner offices
- medicolegal authorities
- public health agencies
- subject matter experts (SMEs)[1]
- vital statistics partners

[1] Including SMEs with expertise in epidemiology, laboratory, surveillance, community cultural or religious beliefs, or burial practices

Function 1: Determine the public health agency role in fatality management

Function Definition: Coordinate with jurisdictional authorities and partners to estimate and characterize potential fatalities and the impact of these fatalities on fatality management needs, resources, and activities to determine the public health agency role in fatality management.

Tasks

Task 1: Estimate fatality management needs based on jurisdictional risks. Characterize potential fatalities based on findings from jurisdictional risk assessment(s) and determine the resources and activities needed to manage potential fatalities based on the normal expected fatality rate and fatalities related to the incident.

Task 2: Clarify, document, and communicate the jurisdictional public health agency role(s) in fatality management. Coordinate with subject matter experts and cross-disciplinary partners and stakeholders to clarify, document, and communicate the public health agency role in fatality management based on jurisdictional risks, incident needs, and partner and stakeholder authorities.

Preparedness Resource Elements

P1: (Priority) Fatality management procedures that are scaled to address potential fatality scenarios based on jurisdictional hazards and risks. Jurisdictional fatality management procedures should be included in relevant jurisdictional emergency operation plans.

(See Capability 1: Community Preparedness)

P2: (Priority) Definition of the jurisdictional public health agency role for fatality management established in coordination with jurisdictional authorities, subject matter experts, and other cross-disciplinary stakeholders. Recommended activities to establish roles may include

- Identification of jurisdictional fatality management lead authority (individual or organization)
- Identification of public health liaison(s) to support fatality management operations and leadership
- Consideration of incident characteristics, existing plans, services, infrastructure, and information sharing needs in coordination with jurisdictional authorities and partners to determine public health support roles
  - Incident characteristics
  - Magnitude of incident, including the estimated number of decedents
  - Condition of human remains (intact or fragmented human remains, meaning comingled, decomposed, charred, or mutilated)
  - Rate of recovery (rapid, moderate, or slow)
  - Recovery area complexity, including the extent of gridding necessary and whether recovery area boundaries are known or unknown
  - Presence of hazards, including chemical, biological, radiological, environmental, or communicable disease hazards
  - Disaster site location characteristics, such as fixed or distributed location and the need for excavation or debris removal
  - Public health or law enforcement community constraints, such as limitations on public gatherings or establishment of curfews

- Event occurrence, such as single event at one location, single event at multiple locations, or recurring event at multiple locations
- Decedent identification needs, including antemortem data collection, postmortem data collection, requirement to issue death certificates, and communication with next of kin
  - Existing plans, services, and infrastructure
  - Medical examiner or coroner services and availability of interoperable case management system(s), mass fatality database(s), and electronic death registration system(s) (EDRS)
  - Procedures to coordinate with other fatality management, funeral industry, and the American Red Cross to support investigations, relieve health care facilities, and support family, cultural, religious, and bereavement needs
  - Death certification procedures to indicate that death is associated with a specific event, if applicable
  - Public health laboratory plans for detection, characterization, confirmation, and reporting of public health threats based on testing of clinical specimens, food, water, and other environmental samples
  - Health and safety plans for facilities and tasks involving hazardous work, such as complex recovery operations
  - Plans to account for recovered remains and materials
  - Family management services, including family assistance centers and long-term family management support
  - Mental/behavioral services and grief or bereavement counseling for survivors, responders, next of kin, and affected communities
  - Plans to coordinate with hospitals, health care facilities, and designated morgue facilities
  - Information sharing needs
  - Public messaging to identify human remains that should not be moved or manipulated
  - Public messaging to communicate expectations for recovery, care, identification, and release of human remains
  - Public messaging to communicate funeral capacity
  - Information sharing with applicable jurisdictional committees, such as maternal mortality review or child fatality review committees
  - Call centers to coordinate the collection of missing persons information and assist in prompt identification of remains
  - Mortality reporting and information sharing requirements
  - Press releases and social media announcements
  - Death certificate record release to families
  - Notification to the Federal Emergency Management Agency (FEMA), Veterans Affairs (VA), or other agencies and organizations to facilitate funeral or other benefits

P3: Written agreements, such as contracts or memoranda of understanding (MOUs) or co-signed plans among jurisdictional stakeholders that support coordinated fatality management activities to leverage shared resources, facilities, services, and other support based on identified roles.

P4: (Priority) Procedures in place to designate lead authorities to request resources based on ongoing assessments of the incident or event needs for example, public health agency response

plans, coordinated with the jurisdictional emergency management agency, to facilitate state requests for federal resources through HHS Regional Emergency Coordinators (RECs). Procedures for resource requests may include

- County or jurisdictional mass fatality protocols that indicate thresholds for requesting additional resources, including requests from local to state, state to state, and state to federal
- State, regional, and federal resources, including HHS DMORTs, to be requested when anticipated resource needs exceed local capacity
- Mutual aid agreements for resource requests, for example Emergency Management Assistance Compact (EMAC) or MOUs through appropriate channels, such as EMAC coordinator and emergency management

(See Capability 3: Emergency Operations Coordination and Capability 10: Medical Surge)

P5: Procedures in place, based on jurisdictional public health agency role(s), to support activities in coordination with partners and stakeholders.

(See Capability 1: Community Preparedness and Capability 13: Public Health Surveillance and Epidemiological Investigation)

Skills and Training Resource Elements

S/T1: Personnel trained on mass fatality or fatality management through courses offered nationally, by the state's emergency management agency, the public health agency, or other partners, as applicable. Recommended trainings may include

- Center for Domestic Preparedness: Healthcare Leadership for Mass Casualty Incidents (MGT-901)
- Emergency Management Institute: Mass Fatalities Incident Response Course (G-386)
- FEMA Emergency Support Function #8—Public Health and Medical Services (IS-808)
- Rural Domestic Preparedness Consortium: Mass Fatalities Planning and Response for Rural Communities (AWR-232)

Equipment and Technology Resource Elements

E/T1: Personal protective equipment (PPE), such as protective clothing and respiratory equipment necessary to support fatality management procedures and activities.

(See Capability 14: Responder Safety and Health)

E/T2: Human remains pouches, facilities, and other equipment and locations to store human remains.

Function 2: Identify and facilitate access to public health resources to support fatality management operations

Function Definition: Develop recommendations to identify and facilitate access to resources, such as personnel and subject matter experts, record keeping, and physical space to address fatality management needs resulting from an incident in accordance with public health agency jurisdictional roles and standards outlined in jurisdictional fatality management procedures.

Tasks

Task 1: Assess incident data. Assess incident data to develop public health fatality management activity guidance and define resource needs.

Task 2: Develop and share incident-specific public health fatality management recommendations. Coordinate with jurisdictional, regional, private, and federal stakeholders as defined in the jurisdictional fatality management procedures to make incident-specific recommendations regarding the safe and efficient recovery, processing, reporting, storage, and final disposition of human remains.

Task 3: Initiate and coordinate public health support for fatality management operations. Coordinate with identified stakeholders to operationalize strategies as defined in the jurisdictional fatality management procedures and share incident recommendations for managing human remains.

Preparedness Resource Elements

P1: (Priority) Procedures in place to collect and analyze incident data and develop recommendations for safe and efficient fatality management operations.

P2: (Priority) Procedures in place to identify and support public health agency lead or support activities for fatality incident management, including continuity of operations, based on incident data and recommendations. Public health agency activities for fatality incident operations, communication, and community support may include

- Mass fatality incident operations activities
  - Coordinating with law enforcement and forensics agencies, such as medical examiners or coroners
  - Participating in joint criminal-epidemiological (Crim-Epi) investigations
  - Participating with the search and recovery of human remains
  - Providing human health hazard mitigation and risk prevention and control recommendations
  - Maintaining a roster of additional personnel
  - Providing training on appropriate PPE
  - Supporting security and preserving the mass fatality incident site
  - Identifying multiple sites for interim storage and disposition of human remains
  - Obtaining additional refrigerated space or equipment
  - Managing the security and preservation of remains
  - Implementing a tracking system for the identification of recovered remains
  - Collecting and analyzing mass–fatality, incident-related mortality surveillance data
  - Completing death certificates of decedents
- Communications and guidance activities
  - Using communications systems to rapidly disseminate and receive incident health alerts
  - Disseminating public communications, including the use of social media
  - Providing guidance to the public on health and safety issues involving hazards and potential communicable disease(s)
  - Providing guidance to the public on what to do if they find or know of the location of human remains, such as guidance to not move bodies from the scene
  - Providing guidance on health and safety issues to prevent responder mortality
  - Coordinating public affairs and establishing call centers

- Community resilience and support activities
  - Organizing family assistance center(s)
  - Facilitating the provision of funeral or other benefits for eligible next of kin from FEMA, VA, or other agencies and organizations
  - Providing access to grief or bereavement and spiritual counseling
  - Providing mental/behavioral health services to ease traumatic reactions experienced by responders and the public

(See Capability 4: Emergency Public Information and Warning, Capability 12: Public Health Laboratory Testing, Capability 13: Public Health Surveillance and Epidemiological Investigation, and Capability 15: Volunteer Management)

P3: Procedures in place to share information with fatality management partners, including fusion centers or comparable centers and agencies, emergency operations centers (EOCs), and epidemiologist(s), in order to provide and receive relevant intelligence information that may impact the response.

(See Capability 6: Information Sharing)

Skills and Training Resource Elements

S/T1: Personnel trained on functional activities based on designated jurisdictional fatality management roles.

Equipment and Technology Resource Elements

E/T1: Materiel to manage fatality operations based on the incident. Materiel may include

- Standard and hazardous materials (HazMat) PPE and clothing, such as gloves, boots, coats, hard hats, rain suits, and respirators
- Human remains pouches (appropriate number and type)
- Refrigerated storage
- Tents
- Equipment, supplies, and human remains storage
- Marking flags or barricade tape
- Barcoded toe tags
- Biohazard bags and boxes
- Photography equipment
- Gridding, laser survey, and global positioning systems
- Communication devices, such as radios and cell phones
- Equipment for scene documentation
- Hazard assessment or monitoring and mitigation unit
- Radiation survey equipment
- X-ray and laboratory equipment

E/T2: Data tracking systems that may be available through the medical examiner's or coroner's office to collect and manage data, which may include

- Missing person data
- Antemortem data, including DNA, medical or dental records, reported tattoos, and physical belongings
- Postmortem data, including human remains and scene data

(See Capability 6: Information Sharing)

E/T3: Death reporting systems available to ensure initial reporting (line lists) and accurate and timely completion of death certifications. Death reporting systems may include electronic mass fatality case management and incident systems, medical examiner or coroner case management systems, and electronic death registration systems.

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

Function Definition: Assist the jurisdictional fatality management lead authority and other partners including regional partners, as necessary, to gather and disseminate antemortem data through family assistance centers or other models, as defined in jurisdictional fatality management procedures.

Tasks

Task 1: Establish and refine antemortem data management processes. Coordinate with partners, such as family assistance centers to establish and refine processes and methods to collect and share antemortem data.

Task 2: Assemble necessary resources for antemortem data management. Coordinate with partners to support the identification and assembly of resources to collect and share antemortem data.

Task 3: Collect and share antemortem data with partners. Coordinate with partners to assist in the collection and dissemination of antemortem data to law enforcement, other agencies, and families of the deceased.

Task 4: Support electronic mortality reporting. Support recording and reporting of antemortem data through electronic systems or other information sharing platforms.

Preparedness Resource Elements

P1: (Priority) Procedures in place to collect and handle antemortem data in a secure and confidential manner, including data collection and dissemination methods, for example the use of call centers, family reception centers, and family assistance centers, and relevant personnel functions, such as interviews with families to acquire antemortem data, data entry, and administrative activities.

(See Capability 6: Information Sharing)

P2: Procedures in place for family notification, depending upon public health agency fatality management lead or support role(s). Procedures may include

- Contacting and notifying family members
- Releasing information in coordination with the medical examiner's or coroner's office
- Managing family expectations for decedent identification, such as fingerprint or DNA identification
- Handling and release of decedents' personal effects

Skills and Training Resource Elements

S/T1: Personnel trained, as necessary, to assist in the collection and dissemination of antemortem data. Training may include

- Courses covering the following topics
  - Providing relief to families after a mass fatality
  - Supporting roles identified by lead agency
  - Supporting family assistance and reception centers
- Courses offered by the National Transportation Safety Board (NTSB) Training Center, as necessary, which may include
  - Family Assistance (TDA301)
  - Advanced Skills in Disaster Family Assistance (TDA405)
  - Emergency Accounting for Victims Following Transportation Mass Casualty Incidents (TDA406)

Equipment and Technology Resource Elements

E/T1: Central repository or database for the collection, recording, and storage of antemortem and postmortem data.

E/T2: Technology to establish call centers or toll free numbers to collect and disseminate information.

Function 4: Support the provision of survivor mental/behavioral health services

Function Definition: Support the provision of non-intrusive and culturally sensitive mental/behavioral health services to incident survivors, family members of the deceased, and responders according to the jurisdictional public health agency role for fatality management in coordination with the jurisdictional fatality management lead authority and stakeholders.

Tasks

Task 1: Assemble trained mental/behavioral health team(s). Support the assembly of personnel and resources trained to provide mental/behavioral health services that are non-intrusive and culturally appropriate to accommodate the access and functional needs and religious or cultural practices of incident survivors, family members of the deceased, and responders.

Task 2: Support mental/behavioral health outreach services. Coordinate with stakeholders to support the provision of culturally appropriate mental/behavioral health services to incident survivors, family members of the deceased, and responders.

Preparedness Resource Elements

P1: (Priority) Procedures in place to identify, develop, and implement services for survivors, families, and responders in conjunction with jurisdictional mental/behavioral health partners. Procedures should reflect relevant cultural, religious, family, and burial practices.

(See Capability 1: Community Preparedness)

P2: (Priority) Pre-identified personnel and resources to provide mental/behavioral health services to survivors and families. Personnel may include

- Public and private agencies including specialized agencies for mental health, children, and aging, as appropriate to assist with the organization and provision of services
- Spiritual care providers
- Translators
- Embassy and consulate representatives, when international victims are involved

Skills and Training Resource Elements

S/T1: Personnel trained in mental/behavioral health-related fatality management activities, such as supporting family assistance centers.

S/T2: Personnel with cultural competency training as related to fatality management.

Function 5: Support fatality processing and storage operations

Function Definition: Support activities to ensure that human remains, associated personal effects, and official documentation are safely and accurately recovered, processed, transported, tracked, recorded including death certificates, stored, and disposed of or released to authorized person(s) according to the jurisdictional public health agency role and fatality management procedures.

Tasks

Task 1: Support the safe management of human remains. Provide health protection and safety guidance to incident management or the jurisdictional lead authority to ensure the safe recovery, receipt, identification, transportation, storage, and disposition of human remains.

Task 2: Support timely and accurate investigations. Support forensic and other investigations, as requested, to assist with the identification of hazards, risks, and cause and manner of death.

Task 3: Conduct death reporting. Coordinate with partners to support near-real time electronic death reporting during the fatality management incident.

Task 4: Ensure death recording in official documentation. Coordinate with partners to facilitate accurate and timely collection and recording of mortality information for official death certificates.

Preparedness Resource Elements

P1: (Priority) Procedures in place for the jurisdictional public health agency to coordinate with partners and stakeholders in fatality processing and storage operations, including procedures to monitor the location of human remains and storage capacity.

P2: Procedures in place for timely electronic death reporting in medical examiner or coroner case management systems or electronic death registration systems for information sharing. Recommended data elements for electronic death reporting may include

- Incident details, including date, time, location, and situation
- Victim identification, including name, date of birth, gender, ethnicity, height, weight, address, social security number, and medical history

- Victim relationships, such as identified family members and friends
- Location and types of injuries
- Cause of death (presumed, actual, or underlying)
- Death details, including date, time, location, and manner of death
- Circumstances that indicate whether the death was attributable to the event
- Human remains processing details
- Human remains storage location
- Health provider or responder details
- Survivor interview details
- Human remains disposition procedures

(See Capability 6: Information Sharing)

Skills and Training Resource Elements

S/T1: Medical examiners, morticians, and other relevant personnel trained to conduct their identified role.

Equipment and Technology Resource Elements

E/T1: Materiel and equipment to process, store, and release human remains for final disposition. Materiel and equipment may include

- Portable x-ray unit
- Morgue equipment, such as storage trailers
- Medical instruments for autopsies
- Radiation survey equipment
- Portable autoclave
- Gloves, gowns, and other PPE
- Digital cameras
- Specimen containers and preservatives
- Refrigerated storage
- Computers and printers
- Death certificate special embossed paper

Capability 6: Information Sharing

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

Functions: This capability consists of the ability to perform the functions listed below.

- **Function 1:** Identify stakeholders that should be incorporated into information flow and define information sharing needs
- **Function 2:** Identify and develop guidance, standards, and systems for information exchange
- **Function 3:** Exchange information to determine a common operating picture

Summary of Changes: The updates align content with new national standards, updated science, and current public health priorities and strategies. Listed below are specific changes made to this capability.

- Increases alignment to public health surveillance and data strategies
- Emphasizes the need to implement data security and cybersecurity
- Emphasizes the need to decrease reporting time and increase collaboration by expanding use of electronic information systems, such as electronic death registration (EDR), electronic laboratory reporting (ELR), and syndromic surveillance systems)

For the purposes of Capability 6, partners and stakeholders may include the following:

- clinical and other professional organizations
- critical infrastructure services[2]
- emergency management agencies
- emergency response organizations[3]
- environmental health agencies
- federal, state, local, tribal, and territorial agencies
- food safety and agricultural representatives
- fusion centers
- hazardous material regulators and responders
- health care coalitions
- health care organizations
- health care providers
- health information exchanges
- immunization programs
- medical examiner or coroner offices
- mental/behavioral health agencies
- pharmacies
- private sector organizations
- public health agencies
- tribes and native-serving organizations

[2] For example, water and electrical utilities

[3] For example, law enforcement, fire departments, and emergency medical services (EMS)

Function 1: Identify stakeholders that should be incorporated into information flow and define information sharing needs

Function Definition: Identify intra- and inter-jurisdictional stakeholders to participate in information exchange, and determine and periodically reassess stakeholders' needs for bi-directional information sharing.

Tasks

Task 1: Identify intra- and inter-jurisdictional stakeholders to incorporate into information flow. Identify intra- and inter-jurisdictional stakeholders to incorporate into information flow, and determine the information sharing needs for each stakeholder.

Task 2: Update and refine information sharing needs. Engage identified stakeholders regularly, and use quality improvement processes to continuously update and refine information sharing needs and capabilities.

Preparedness Resource Elements

P1: (Priority) Roster of identified stakeholders to engage for bi-directional information exchange across jurisdictional public health agencies and other partners and stakeholders.

P2: (Priority) Procedures in place to review and update the role-based public health directory that supports public health alert messaging. Recommended directory categories may include

- Organizational affiliation
- Assigned role(s) and notification tier
- Multiple sources of contact information, as available

(See Capability 4: Emergency Public Information and Warning)

P3: Established channels for stakeholder communications, such as standing meetings, electronic messaging, e-mailed communications, and web conferencing.

(See Capability 3: Emergency Operations Coordination and Capability 4: Emergency Public Information and Warning)

Equipment and Technology Resource Elements

E/T1: Information system(s) updated regularly and with appropriate backup to store and retrieve stakeholder contact information in a timely manner.

E/T2: System credentials and security clearances to access restricted information and systems, such as Epi-X, Homeland Security Information Network (HSIN), and the jurisdictional health alert network (HAN).

Function 2: Identify and develop guidance, standards, and systems for information exchange

Function Definition: Define procedures and establish systems for information governance, management, and sharing.

Tasks

Task 1: Identify relevant data regulations, policies, and standards. Identify current jurisdictional and federal laws and policies that authorize, limit, or protect the exchange of information relevant to emergency situational awareness.

Task 2: Identify stakeholder data requirements. Coordinate with identified stakeholders to determine routine and incident-specific essential elements of information (EEI) for each stakeholder.

Task 3: Determine the conditions for information exchange. Identify when and to what extent information and data exchange is necessary for public health events and incidents.

Task 4: Develop systems for data storage and exchange. Identify and develop systems, such as electronic or non-electronic solutions to store, protect, control, and exchange data.

Task 5: Identify and mitigate barriers to information exchange. Use continuous quality improvement processes and corrective action systems to identify and mitigate procedural, legal, and policy-related barriers.

Preparedness Resource Elements

P1: (Priority) Procedures in place for information exchange that adhere to available national standards for health information exchange. Recommended standards and considerations may include

- Information exchange standards
  - Security levels, such as sensitive, but unclassified or confidential
  - Personnel authorized to share and receive information
  - Timeline and frequency
  - Data format, such as text or numeric and structure to ensure proper consumption in electronic health records (EHRs) and clinical decision support (CDS) systems
  - Data use and release parameters
  - Metadata needs
  - Data privacy and cybersecurity
  - Legal, statutory, and intellectual property regulations
- Other relevant considerations
  - Inventory Data Exchange (IDE) dependent upon medical countermeasure type
  - Electronic laboratory reporting (ELR), electronic case reporting (eCR), electronic death reporting (EDR), syndromic surveillance reporting, electronic laboratory test order and reporting (ETOR), immunization information systems (IIS), exchange of data among health jurisdictions, and data for other registries

- Environmental exposures data including hazardous material releases, air monitoring, water quality samples, food contamination, and radiation detection Monitoring of individuals in isolation or quarantine and monitoring of populations for contamination
- Dissemination of clinical guidance for diagnostic evaluation and care
- Situational awareness briefings

(See Capability 9: Medical Materiel Management and Distribution and Capability 13: Public Health Surveillance and Epidemiological Investigation)

P2: (Priority) Stakeholder-specific procedures, determinants, trigger events or other applicable criteria for health information exchange. Determinants may include

- Epidemiology/Surveillance
  - Unusual cluster(s) of illness that threaten closure of institutional settings, such as illness among health care workers or prisoners
  - Large numbers of patients with similar and unusual symptoms
  - Large number of unexplained deaths
  - High burden of illness or a cluster of illness confined to a specific population
  - Simultaneous clusters of similar illness in noncontiguous areas for example, because of travel to affected areas
  - Higher than expected morbidity and mortality associated with common symptoms or failure of patients to respond to traditional therapies
  - Incidents in other jurisdictions that raise possible risk in an individual's home jurisdiction including elevation of the pandemic influenza alert level
  - World Health Organization's (WHO's) Public Health Emergency of International Concern (PHEIC)
  - Laboratory
  - Diagnosis or clinical, laboratory, environmental, or pathology finding of public health concern
  - Public health laboratory findings not identified by clinical, surveillance, or epidemiological investigations, such as a novel virus
- Other
  - Illness or injury burden expected to overwhelm local health care or public health resources
  - Received threats or intelligence
  - Mass casualty incident due to a catastrophic event, such as flood, earthquake, terrorism, or industrial release

(See Capability 10: Medical Surge, Capability 12: Public Health Laboratory Testing, and Capability 13: Public Health Surveillance and Epidemiological Investigation)

P3: Procedures in place for data exchange in both routine and incident-specific settings, including agreed upon systems for data storage and exchange and data exchange frequency with CDC and other stakeholders, in accordance with jurisdictional standards.

P4: Strategies for collaboration and system integration to improve intra- and inter-jurisdictional information sharing for situational awareness during routine operations and public health events or incidents. Consider collaborative strategies and activities, which may include

- Increasing information system interoperability to support disease and syndromic surveillance, public health registries, outbreak management, exposure assessment, and other activities
- Extending data availability with dashboards and other information sharing tools

P5: (Priority) Written agreements, such as contracts or memoranda of understanding (MOUs) with relevant agencies and other stakeholders to define participation, security or access levels, and procedures for information exchange.

P6: (Priority) Procedures in place to account for laws, provisions, and policies addressing privacy, security including cybersecurity, civil liberties, intellectual property, information sharing limitations, and other substantive issues. Relevant laws and policies may include

- Emergency powers for public health data collection and sharing
- Health Insurance Portability and Accountability Act (HIPAA)
- Office of the National Coordinator for Health Information Technology Policy
- U.S. Department of Health and Human Services (HHS) Information Management Policy
- State laws and regulations prohibiting information sharing to federal or inter-jurisdictional entities

P7: Guidelines for information exchange that requires security clearances, such as information exchange with the Federal Bureau of Investigation (FBI), state bureau of investigation, fusion centers, or agents with a "need to know."

Skills and Training Resource Elements

S/T1: Personnel with awareness-level training in pertinent laws and policies for information sharing procedures including transport of data and use of personally identifiable information (PII).

S/T2: Personnel trained in informatics and information technology project management, as necessary, to implement public health informatics systems.

Equipment and Technology Resource Elements

E/T1: Information systems that meet national data standards for interoperability as identified by CDC, other federal agencies, such as the Office of the National Coordinator for Health Information Technology, or other standards development organizations (SDOs). Recommended information system capabilities may include

- Receiving and transmitting data electronically using standards-based messaging
- Converting non-standard formats or terminologies into federally accepted standards for communication
- Receiving, using, and transmitting messages that adhere to certified EHR technologies or standards under Meaningful Use guidelines
- Transmitting and receiving data from non-electronic data sources, only if electronic capabilities are unavailable
- Gathering EEI or data from cross-disciplinary stakeholders and transmitting data into a public health situational awareness system

Function 3: Exchange information to determine a common operating picture

Function Definition: Share information across public health agencies and intra- and inter-jurisdictional stakeholders using available national standards, such as data vocabulary, storage, transport, security, and accessibility standards.

Tasks

Task 1: Exchange health information. Exchange meaning request, send, and receive relevant data and information with identified cross-disciplinary stakeholders using procedures and systems that meet jurisdictional or federal standards.

Task 2: Maintain accessible data repositories. Support information exchange among cross-disciplinary stakeholders using accessible data repositories that adhere to jurisdictional or federal standards.

Task 3: Apply data security protocols. Request, send, and receive information using security protocols that meet jurisdictional or federal standards.

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

Task 5: Acknowledge receipt of information. Confirm the successful transmission and receipt of information, as appropriate, for the incident.

Preparedness Resource Elements

P1: (Priority) Procedures in place to develop information and public health alert messages. Procedures may include

- Time sensitivity of information
- Relevance to public health
- Target audience
- Security level or sensitivity of information
- Actions required following the receipt of information, such as sending a response

(See Capability 4: Emergency Public Information and Warning)

P2: (Priority) Procedures in place for information exchange with fusion centers and other intelligence entities. Procedures may include

- Defined intelligence requirements that prioritize and guide planning, collection, analysis, and information dissemination efforts
- Delineated roles, responsibilities, and requirements for each level and sector of government

P3: (Priority) Procedures in place for information exchange among jurisdictional health care entities using electronic public health case-reporting systems, syndromic surveillance systems, notifiable disease surveillance systems, electronic death registration systems, immunization information systems, or other specialized registries. Data should be shared using electronic systems when available or as possible. Electronic information sharing may include

- Sharing reportable diagnoses and related information from a health information exchange (HIE) or an EHR system to state and local public health agencies

- Sharing laboratory test results from commercial, public health, hospital, and other laboratories' laboratory information management system (LIMS) to state and local public health agencies
- Sharing laboratory test orders and results between a public health laboratory and another laboratory or a clinical setting
- Sharing immunization information between an HIE or EHR system and public health immunization registries, public health syndromic surveillance systems, such as CDC's National Syndromic Surveillance Program BioSense Platform, or other public health registries
- Sharing notifiable disease data among public health agencies and between public health agencies and CDC
- Sharing information regarding individuals undergoing health monitoring or in isolation and quarantine

P4: Procedures in place to acknowledge receipt by trusted sources and send verification of information to intended audience(s).

P5: Templates for public health alert messages and procedures including distribution methods to ensure messages reach intended individuals 24/7 year-round. Public health alert message templates may include

- Subject or title
- Description
- Background
- Request or recommendations (if action requested)
- Recipient(s)
- Point of contact to address additional questions
- Links to additional information

(See Capability 4: Emergency Public Information and Warning)

P6: Information Sharing and Access Agreements (ISAA) or similar agreements with data sharing partners. Recommended elements for ISAAs may include

- Breach notification procedures, particularly if data is not stored in an encrypted state
- Maintenance of HIPAA Security Rule compliance, when potential PII must be shared

Skills and Training Resource Elements

S/T1: Personnel, such as informaticians trained on public health information systems to develop, sustain, coordinate, and oversee public health informatics.

S/T2: Information system support personnel trained, as necessary, to maintain or enhance the functionality and capacity of public health information systems, perform public health information specialist and informatics roles, and use data standards and facilitate interoperability across allied disciplines, including the Open Geospatial Consortium.

Equipment and Technology Resource Elements

E/T1: (Priority) Electronic systems for routine information transmission, emergency notification, and situational awareness between health care and public health systems and between jurisdiction-based surveillance systems and CDC that meet applicable national and jurisdictional standards. Standards may include

- Data format and structure
- System interoperability
- Data quality and reliability
- Consent, security, and privacy for protected health information and other sensitive information, as applicable, such as protections against data breaches using encryption
- Data governance or ownership and rules or agreements for data use, reuse, release, and publication
- Controls and safeguards for data storage and access that may include
  - Authentication service for data requests and submissions from various locations
  - System administrator password policies
  - Updated security patches
  - Encryption, as required

(See Capability 3: Emergency Operations Coordination and Capability 13: Public Health Surveillance and Epidemiological Investigation)

E/T2: Systems that automate transmission of information from the clinical setting, such as an EHR system, to the public health agency in compliance with jurisdiction-specific reporting regulations to support overall public health surveillance, improve the timeliness and accuracy of data submitted to state and local public health agencies, and enable subsequent information sharing with CDC.

E/T3: (Priority) Secondary systems for information sharing and public health alerting in the event that the primary system is unavailable.

(See Capability 4: Emergency Public Information and Warning)

E/T4: Data visualization tools, such as analytic dashboards and geographic information systems (GIS) for effective presentation and dissemination of data for situational awareness in routine and response situations.

Capability 7: Mass Care

Definition: Mass care is the ability of public health agencies to coordinate with and support partner agencies to address within a congregate location (excluding shelter-in-place locations) the public health, health care, mental/behavioral health, and human services needs of those impacted by an incident. This capability includes coordinating ongoing surveillance and assessments to ensure that health needs continue to be met as the incident evolves.

Functions: This capability consists of the ability to perform the functions listed below.

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

Summary of Changes: The updates align content with new national standards, updated science, and current public health priorities and strategies. Listed below are specific changes made to this capability.

- Incorporates content for accommodating individuals with functional and access needs within general population shelters
- Includes considerations for registration of individuals requiring decontamination or medical tracking in the event of an environmental health incident
- Coordinated content with the U.S. Department of Health and Human Services (HHS) Assistant Secretary for Preparedness and Response's (ASPR) Health Care Preparedness and Response Capabilities

For the purposes of Capability 7, partners and stakeholders may include the following:

- agricultural departments
- animal control[4]
- designated safety officers
- emergency management agencies[5]
- emergency medical services (EMS)
- fire departments
- HazMat authorities
- health care coalitions
- health care organizations
- human services organizations and providers
- human services providers
- humane societies
- law enforcement agencies
- organizations that can provide or support mass care services[6]
- public health agencies
- radiation control authorities
- social services
- state hospital associations
- tribes and native-serving organizations

[4] For example, Board of Animal Health and National Veterinarian Response teams

[5] For example, the Federal Emergency Management Agency (FEMA)

[6] For example, the American Red Cross and other voluntary organizations active in disasters (VOADs)

Function 1: Determine public health role in mass care operations

Function Definition: In coordination with Emergency Support Functions (ESFs) #6, #8, and #11 partners and stakeholders, define the public health roles and responsibilities in supporting mass care operations.

Tasks

Task 1: Identify the public health agency role in mass care operations. Determine mass care roles and responsibilities of the jurisdictional public health agency as a lead or support agency when working with collaborating organizations. Address the access and functional needs of at-risk individuals.

Task 2: Operationalize the public health agency mass care role. Coordinate with ESF #6, #8, and #11 partners to conduct infectious disease surveillance and environmental health and safety assessments, provide support for addressing the access and functional needs of at-risk individuals, and support decontamination to assist in a mass care response.

Preparedness Resource Elements

P1: (Priority) Procedures in place to coordinate with ESF #6, #8, and #11 partners, including emergency management, environmental health, and other agencies, to identify the jurisdictional public health agency lead or support role(s) for mass care. Public health agency roles and responsibilities may include

- Supporting the delivery of health care by jurisdictional partners
- Providing access to mental/behavioral health services
- Coordinating logistics for mass sheltering with the Incident Command System and other responsible entities
- Providing access to human services and other support to individuals with access and functional needs
- Conducting and reporting on human health surveillance, including investigating contagious diseases transmitted between animals and people
- Providing access to medications needed for pre-existing conditions as well as medical countermeasures, including immunization services, if appropriate, for populations being sheltered
- Overseeing environmental health and safety, to include hygiene procedures, sanitation management procedures, and food and facility safety inspections
- Providing radiological, nuclear, biological, and chemical screening and decontamination services
- Providing sanitation and waste removal, including working with entities regulating medical waste
- Providing shelter and care for service animals and pets

P2: Written agreements, such as contracts or memoranda of understanding (MOUs) with partner agencies to support the access and functional needs of at-risk populations. Accommodations for populations with access and functional needs may include

- Individual assistive services, equipment, and care, such as occupational therapy, family caregivers, and assistive technology
- Placement of individuals with disabilities and others with access and functional needs in the least restrictive environment possible
- Social services

- Use of universal design principles in signage and accessibility
- Language translators and sign language interpreters

(See Capability 1: Community Preparedness)

P3: Procedures in place to disseminate situational awareness information to jurisdictional emergency management agencies and to alert partner organizations during a response requiring mass care services based on the jurisdictional public health agency lead or support role. Recommended procedures for notification and information sharing may include

- Contact information of at least one representative from each organization
- Procedures to ensure communication will work properly during an emergency, including regularly updating contact lists and conducting notification drills
- Procedures for using redundant communications systems, such as health communication systems, cell phones, texting, satellite phones, radios, and WebEOC to be used across organizations and health care systems and within operational areas
- Methods for sending health alerts, including e-mail, text, or automated notice
- Methods for confirming receipt of health alerts
- Process for organizations to confirm their participation in the mass care response

(See Capability 3: Emergency Operations Coordination, Capability 6: Information Sharing, Capability 8: Medical Countermeasure Dispensing and Administration, Capability 11: Nonpharmaceutical Interventions, and Capability 13: Public Health Surveillance and Epidemiological Investigation)

Function 2: Determine mass care health needs of the impacted population

Function Definition: Determine the public health, health care, human services, and mental/behavioral health needs of those impacted by the incident in coordination with ESF #6, #8, and #11 partners, emergency management agencies, and other partner agencies.

Tasks

Task 1: Identify population health needs of impacted areas. Coordinate with response partners to identify population health needs in the area impacted by the incident using existing jurisdictional risk assessments; data on biological, chemical, or radiological hazards in the area; other environmental data; and health demographic data.

Task 2: Assess congregate locations. Coordinate with response partners to complete facility-specific environmental health and safety assessments of the pre-selected congregate locations.

Task 3: Ensure food and water safety at congregate locations. Coordinate with partner agencies as necessary to conduct food and water safety inspections at congregate locations.

Task 4: Ensure health screening and identification of access and functional needs. Coordinate with response partners to conduct health screenings and identify medical, access, and functional needs such as needs related to communication, maintaining health, independence, support, safety, self-determination, and transportation (CMIST) (as defined in the CMIST framework), of the population registering at congregate locations.

Preparedness Resource Elements

P1: (Priority) Procedures in place and assessment criteria to be used for environmental health assessments and inspections of shelters.

Recommended elements of the shelter assessment procedures may include

- Contact information and process for contacting the lead shelter operation organization
- Public health presence in shelter decision-making entity or command center
- Equipment needed for the assessment, such as radiation detection devices
- Order of operations for assessment, including activities for prior-to-entry and post-entry
- Corrective action time frames
- Repeat assessments (initial assessment should occur within 48 hours after a site opens)

Recommended criteria for shelter inspection may include

- Absence of barriers that restrict access for people with disabilities and others with access and functional needs
- Infrastructure redundancy, including backup power (generator) and communications equipment
- Absence of contamination, such as radiological, nuclear, biological, or chemical
- Adequate sanitation including toilets, showers, hand washing stations, and other accommodations, and waste removal including for sheltered animals
- Potable water supply
- Adequate ventilation and climate control
- Clean and appropriate location for food preparation and storage
- Absence of pests or vectors
- Separation of medical facility and general living area for privacy, confidentiality, and isolation of infectious disease
- General facility safety, including structural integrity, stairs with handrails, step-downs, and the absence of slick floors, exposed wiring, or other potential facility hazards

P2: (Priority) List of pre-identified site(s) that have undergone an initial assessment to determine their adequacy to serve as congregate locations in accordance with jurisdictional strategies for emergency operations sheltering based on the size, scope, and impact of potential incidents estimated from jurisdictional risk assessments.

(See Capability 1: Community Preparedness)

P3: Procedures in place to adopt or amend jurisdictional restaurant or food service requirements for food and water assessments at shelters or procedures for coordinating assessments of food sources. Procedures may include

- Identifying and assessing general safety issues
- Ensuring food safety including proper storage, handling, and tracking
- Ensuring safety of potable water
- Assessing housekeeping, cleaning, and sanitation
- Ensuring proper management of wastewater and solid waste
- Ensuring that personal hygiene amenities, such as soap, hot water, and hand sanitizer are provided
- Ensuring hygiene education is provided to clients, response partners, and volunteers handling food

- Ensuring air quality control
- Identifying and assisting with vector or pest control issues
- Assessing safety and sanitation of childcare
- Coordinating with partners, if appropriate, to ensure personnel safety and security

P4: Procedures in place for how the public health agency, based on the jurisdictional public health agency mass care role, will coordinate with partners and stakeholders to provide specialty food items that address the nutritional needs or requirements of young children, pregnant or postpartum women and infants, older adults, and individuals with access and functional needs, such as communication, maintaining health, independence, services and support, and transportation needs (CMIST framework).

(See Capability 13: Public Health Surveillance and Epidemiological Investigation)

P5: Procedures in place to refer individuals to health services from the congregate location, medical facilities, specialized shelters, or other sites. Recommendations include coordinating with organizations assigned as responsible for transfer, such as EMS or medical transport providers, and reviewing emergency transportation strategies with jurisdictional transportation agencies.

(See Capability 6: Information Sharing and Capability 10: Medical Surge)

Skills and Training Resource Elements

S/T1: Access to personnel skilled in the use of and able to access geographical information systems (GIS) or other mapping systems.

S/T2: Personnel trained in conducting environmental health and safety assessments in shelters. Recommended trainings and tools may include

- Environmental Health Training in Emergency Response (EHTER)
- Environmental Health Shelter Assessment Tool
- Council of State and Territorial Epidemiologists (CSTE) Disaster Epidemiology Tool Repository

S/T3: Shelter registration personnel or health professionals trained to recognize the need to refer individuals to health services, specialized shelters, or medical facilities, as appropriate.

S/T4: Personnel trained in chemical, biological, and radiological decontamination.

(See Capability 12: Public Health Laboratory Testing)

Equipment and Technology Resource Elements

E/T1: (Priority): Tools and materials for health screening of individuals during shelter registration. Health screening questions may include

- Immediate medical needs
- Durable medical equipment (DME) and assistive technology needs
- Mental/behavioral health needs
- Immunization history
- Sensory deficits or other disability
- Medication use
- Need for assistance with activities of daily living
- Substance abuse

E/T2: Access to GIS or other system, such as zip code sorting to identify the location of at-risk individuals with access and functional needs that may be disproportionately impacted, including individuals with limited English proficiency, refugees, individuals with low income, people with chronic conditions, people with disabilities, and people living in long-term care within the jurisdiction and to compare their locations to pre-identified shelter locations and incident impact areas.

E/T3: Access to decontamination shelters and facilities and personnel trained on their use based on the type of shelter and facilities to be used.

Function 3: Coordinate public health, health care, and mental/behavioral health services

Function Definition: Coordinate with partner and stakeholder agencies to provide access to health care, mental/behavioral health, and human services; medication, immunization, and consumable medical supplies, such as hearing aid batteries and incontinence supplies; DME for the impacted population; and specialized support to address the access and functional needs of individuals who may be disproportionately impacted by the incident.

Tasks

Task 1: Ensure accessibility of health care and mental/behavioral health services. Coordinate with health care partners and other applicable providers to ensure health care, mental/behavioral health, and human services; medication, immunizations, and consumable medical supplies, such as hearing aid batteries and incontinence supplies; and DME are provided at or through congregate locations based on mass care needs.

Task 2: Support at-risk individuals with access and functional needs impacted by the incident. Coordinate with applicable providers to integrate the delivery of human services and necessary medication and devices that address the access and functional needs of at-risk individuals disproportionately impacted by the incident or event.

Task 3: Support population monitoring and decontamination services. Coordinate with jurisdictional partners, such as lead HazMat authority or other agencies to establish tracking systems and support the decontamination of contaminated or possibly contaminated, including radiological, nuclear, biological, or chemical contaminants, individuals who may enter congregate locations.

Task 4: Provide culturally and linguistically appropriate information. Disseminate and promote accessible and culturally and linguistically appropriate information regarding mass care health services to the public.

Task 5: Coordinate care for service animals. Coordinate with agencies to accommodate and provide care for service animals, including veterinary care, essential needs, and decontamination, within general shelter populations.

Task 6: Coordinate care for household pets. Collaborate with partner agencies to coordinate the location of human sheltering efforts with household pet sheltering efforts.

Task 7: Return displaced individuals to pre-incident medical environments. Coordinate with partners and stakeholders to return individuals displaced by the incident to their pre-incident medical environments, such as prior medical care provider, skilled nursing facility, or place of residence.

Preparedness Resource Elements

P1: (Priority) Written agreements, such as contracts or MOUs with organizations that support the provision of medication and administration of vaccines. Recommended provisions for agreements may include

- Requesting medication and vaccines from providers (circulating inventories or cached supplies)
- Bringing medication and vaccines to congregate locations
- Securing, storing, and distributing medication and vaccines at congregate locations
- Referring and transporting individuals to pharmacies and other providers for medication or vaccine
- Enrolling of pharmacies in the Emergency Prescription Assistance Program (EPAP)

(See Capability 8: Medical Countermeasure Dispensing and Administration, Capability 9: Medical Materiel Management and Distribution, and Capability 10: Medical Surge)

P2: (Priority) Scalable congregate location staffing models for health services, based on the incident, number of impacted individuals, resources available, competing priorities, and time frames in which interventions should occur. Staffing models may address needs and activities, which may include

- Addressing barriers that restrict individuals with disabilities and access and functional needs, as defined in the CMIST framework
- Integrating mental/behavioral health services
- Assessing environmental health standards, such as food, water, and sanitation
- Collecting, monitoring, and analyzing aggregate data
- Integrating immunization services
- Providing infection control practices and procedures
- Using data sharing agreements, such as with the American Red Cross
- Providing risk management and risk communication services to all sheltered individuals, if needed, especially if the incident involves chemical, biological, or radiological hazards

(See Capability 1: Community Preparedness and Capability 10: Medical Surge)

P3: (Priority) General population shelters that accommodate families with children, persons with disabilities, and those with access and functional needs and have procedures to transfer individuals from general shelters to specialized shelters or medical facilities. Recommended procedures for transfers may include

- Procedures to coordinate with medical and non-medical transportation partners
- Procedures for information transfer, such as age, sex, current condition, vital signs (if available), chief complaint, differential diagnosis, relevant medical history, medical supplies, and DME needs
- Procedures for physical transfer of patient and caregiver, if appropriate, to specialized shelters or medical facilities
- Procedures for tracking items transferred with the patient, such as medications, personal medical equipment, identification, and personal items
- Procedures and designated facilities to support isolation and quarantine, including transportation to proper isolation for patients with potential or confirmed exposure to certain biological agents

(See Capability 8: Medical Countermeasure Dispensing and Administration, Capability 9: Medical Materiel Management and Distribution, Capability 10: Medical Surge, and Capability 11: Nonpharmaceutical Interventions)

P4: (Priority) Written agreements, such as contracts or MOUs with partner and stakeholder agencies to monitor populations at congregate locations. These agreements may include

- Assistance with registering, as necessary, injured, exposed, or potentially exposed individuals for long-term health monitoring, including the use of rapid response registries and immunization information systems (IIS)
- Support for establishing separate shelter facilities for monitoring individuals at congregate locations
- Assistance with identifying, stabilizing, and referring individuals requiring immediate health care or decontamination
- Identification of designated facilities to support isolation and quarantine, including transportation to proper isolation for patients with potential or confirmed exposure to certain biological agents

(See Capability 3: Emergency Operations Coordination)

P5: (Priority) Scalable congregate location staffing matrices for radiation incidents that identify each population monitoring and decontamination response role. Roles may include

- Managing a population monitoring operation, such as leading overall Community Reception Center (CRC) operations
- Monitoring those arriving for external contamination and assessing exposure risk
- Supporting decontamination
- Assessing physical exposure and internal contamination

P6: Written agreements, such as contracts or MOUs with medical supply and medical equipment providers to support medical logistics. Agreements may include

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

(See Capability 9: Medical Materiel Management)

P7: Procedures in place to coordinate with response partners responsible for decontamination of individuals at congregate locations, if necessary. Procedures may include

- Identification of organizations trained in decontamination
- Establishment of decontamination stations, including stations accessible to individuals with access and functional needs
- Delivery of decontamination supplies, such as shower supplies, personal protective equipment (PPE), plastic bags to collect possibly contaminated material, and medical supplies
- Delivery of medical countermeasures for treatment
- Removal and security of stored contaminated materials away from congregate location populations

(See Capability 8: Medical Countermeasure Dispensing and Administration, Capability 9: Medical Materiel Management and Distribution, and Capability 11: Nonpharmaceutical Interventions)

P8: Procedures in place to account for sheltering and care for service animals and household pets at congregate locations.

Recommended procedures may include

- Pre-identified locations that can serve as temporary shelters for small and large pets and service animals
- Procedures to ensure non-discrimination for people with disabilities, including those with a service animal
- Pre-established contracts for decontamination and provision of food, water, bedding supply, and other equipment needed for designated animal shelter locations and service animals in congregate locations
- Procedures to coordinate animal medical evaluations for injuries, hazardous material exposure, diseases, and other animal health issues
- Tracking or follow-up mechanism for hazardous material exposures
- Process for the quarantine of animals
- Pre-arranged jurisdictional veterinary support from veterinary teaching hospitals, jurisdictional animal response teams, animal day care centers, and other partners via contracts or other mechanisms
- Processes and identified personnel to conduct service animal or pet decontamination at congregate locations, including washing stations for owners to conduct animal decontamination

Skills and Training Resource Elements

S/T1: Personnel trained to use PPE for all hazards, including infection control, chemical safety, and radiation safety, including management of potentially exposed persons, decontamination, and dosimetry.

S/T2: Personnel that will be involved with animal care services trained as needed. Recommended trainings may include

- Federal Emergency Management Agency (FEMA) Animals in Disaster
  - Module A: Awareness and Preparedness (IS-10)
  - Module B: Community Planning (IS-11)

(See Capability 10: Medical Surge and Capability 15: Volunteer Management)

Function 4: Monitor mass care population health

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

Tasks

Task 1: Monitor environmental health and safety at congregate locations. Conduct facility-specific environmental health and safety monitoring in coordination with partner agencies, including screening for contamination, such as radiological, nuclear, biological, or chemical contamination, and correct any identified deficiencies.

Task 2: Conduct health surveillance at congregate locations. Identify cases of illness, injury, immunization status, and exposure within mass care populations.

Task 3: Provide situational awareness of health needs at congregate locations. Identify ongoing and changing health needs as part of public health agency or jurisdictional situational awareness reports, share information with the incident management system, and request additional federal, regional, state, local, tribal, and territorial assistance.

Task 4: Demobilize mass care operations. Create and execute a health resource demobilization plan in conjunction with partner and stakeholder organizations to de-escalate the response as appropriate to the incident.

Preparedness Resource Elements

P1: (Priority) Procedures in place to conduct ongoing shelter population health surveillance. These procedures may include

- Identification or development of mass care surveillance forms and processes
- Thresholds for when to begin surveillance activities
- Procedures for contacting public health representatives in case of an emergency, such as an outbreak
- Procedures, trainings, and resources to support the use of IIS on site to assess immunization status and document immunizations administered
- Coordination of health surveillance with partner and stakeholder organizations

(See Capability 13: Public Health Surveillance and Epidemiological Investigation and Capability 15: Volunteer Management)

P2: (Priority) Templates for disaster-surveillance forms, including active surveillance and facility 24-hour report forms.

P3: Procedures in place for demobilization operations, which may include

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

(See Capability 3: Emergency Operations Coordination and Capability 10: Medical Surge)

Equipment and Technology Resource Elements

E/T1: Electronic database or other data storage system to document, at a minimum, the number and type of health needs addressed and disposition, such as whether the individual was hospitalized or sent home, of individuals using mass care health services.

E/T2: Registration systems for individuals requiring decontamination or medical tracking.

Capability 8: Medical Countermeasure Dispensing and Administration

Definition: Medical countermeasure dispensing and administration is the ability to provide medical countermeasures to targeted population(s) to prevent, mitigate, or treat the adverse health effects of a public health incident. This capability focuses on dispensing and administering medical countermeasures, such as vaccines, antiviral drugs, antibiotics, and antitoxins.

Functions: This capability consists of the ability to perform the functions listed below.

- **Function 1:** Determine medical countermeasure dispensing/administration strategies
- **Function 2:** Receive medical countermeasures to be dispensed/administered
- **Function 3:** Activate medical countermeasure dispensing/administration operations
- **Function 4:** Dispense/administer medical countermeasures to targeted population(s)
- **Function 5:** Report adverse events

Summary of Changes: The updates align content with new national standards, updated science, and current public health priorities and strategies. Listed below are specific changes made to this capability.

- Revises the Capability 8 title, definition, and content to account for both the dispensing and the administration of medical countermeasures, such as vaccines, antidotes, and antitoxins
- Adds content and resources to account for potential radiological or nuclear exposure
- Broadens the network of dispensing and administration sites to include pharmacies and other locations

For the purposes of Capability 8, partners and stakeholders may include the following:

- emergency management agencies
- emergency medical services (EMS)
- environmental health agencies
- epidemiology programs
- federal groups and organizations
- government agencies
- health care coalitions
- health care organizations
- hospitals and health care facilities
- immunization programs
- jurisdictional office(s) of homeland security
- laboratory programs
- law enforcement agencies
- medical professional organizations
- mental/behavioral health services
- military installations and other federal facilities
- organizations representing persons with disabilities or persons requiring specialized access and functional accommodations
- pharmacies
- private organizations that may function as dispensing or vaccination sites
- public health agencies
- Public Health Service Commissioned Corps
- radiation control programs
- surveillance programs
- tribes and native-serving organizations
- volunteer groups

[7] For example, the U.S. Department of Health and Human Services regional emergency coordinators (RECs) and medical countermeasure specialists

Function 1: Determine medical countermeasure dispensing/administration strategies

Function Definition: Coordinate with partners to formulate jurisdiction-specific strategies for the timely provision of medical countermeasures based on incident needs.

Tasks

Task 1: Develop jurisdiction-specific strategies to prepare for medical countermeasure dispensing/administration. Coordinate with subject matter experts, partners, and stakeholders to develop strategies to dispense/administer medical countermeasures based on jurisdiction-specific risks, resource availability, and incident characteristics. Strategies should consider allocation methods for scarce resource scenarios.

Task 2: Establish a network of dispensing/administration sites. Identify dispensing/administration sites to activate when responding to a public health incident.

Task 3: Identify and assign required response roles. Identify and assign necessary medical countermeasure response roles and responsibilities in coordination with partners and stakeholders.

Preparedness Resource Elements

P1: (Priority) Multidisciplinary planning group(s), consisting of subject matter experts and key partners, to formulate and confirm medical countermeasure dispensing/administration strategies and roles.

(See Capability 1: Community Preparedness)

P2: (Priority) Procedures in place to identify medical countermeasures required to respond to current or projected incidents. Medical countermeasure needs may be determined by analyzing factors, which may include

- Number(s), location(s), and demographic information of people affected by the incident
- Types of available medical countermeasures
- Supplies and services necessary for individuals with access and functional needs
- Agent or cause of the incident
- Severity of the incident
- Projected timeline for establishing medical countermeasure dispensing/administration operations
- Pre-established activation triggers, indicators, and thresholds
- Types and numbers of personnel needed to provide medical countermeasures
- Types and numbers of dispensing/administration sites needed to provide medical countermeasures, whether a network of points of dispensing (PODs) or a network of vaccination sites in the community
- Federal or jurisdictional guidance for the prioritization of medical countermeasures, such as guidance for allocating vaccine to provider sites and patients during an influenza disease outbreak

(See Capability 3: Emergency Operations Coordination, Capability 9: Medical Materiel Management and Distribution, Capability 12: Public Health Laboratory Testing, and Capability 13: Public Health Surveillance and Epidemiological Investigation)

P3: (Priority) Procedures in place to guide the dispensing/administration of medical countermeasures. Procedures may include

- Screening protocols to ensure an individual receives the appropriate medical countermeasures according to priority or target group status specific to the incident
- Procedures for pre-event and just-in-time event rapid enrollment, ordering and receiving, administration, documentation of medical countermeasures and vaccines dispensed/administered for a range of provider types and settings in public and private sectors
- Protocols to assure informed consent and communication of risks and benefits as outlined in emergency use authorization (EUA) or emergency use instructions (EUI)
- Protocols to track the interval between a first and second dose in cases when this information is necessary
- Procedures to communicate when subsequent doses are due, such as text message, e-mail, or other reminder or recall methods
- Medical countermeasure logistics and storage to maintain product integrity during the dispensing/administration process
- Security protocols to ensure facility safety, personnel safety, product security, and crowd management
- Protocols for use of medical countermeasures in cases when decontamination is needed, such as after chemical or radiological exposures
- Protocols for the disposition of unused medical countermeasures and potentially infectious waste
- Methods for documenting medical countermeasures dispensed/administered, such as immunization information systems (IISs) for vaccines, and procedures for training and on-boarding new providers on use of these information systems
- Strategies for providing medical countermeasures to critical workforce, health care providers, and public health responders to meet the needs of the incident, such as personal protective equipment (PPE), ventilators, vaccines or other medicines
- Multiple strategies to ensure access to medical countermeasures, such as direct contact with affected individuals or hotline contacts
- Contact information of key personnel assigned and trained to fill emergency response roles when medical countermeasures are dispensed/administered
- Strategies for providing medical countermeasures to households of critical workforce, if indicated as directed by the U.S. Government

P4: (Priority) Network of sites for dispensing/administering medical countermeasures. Sites may include points of dispensing (PODs), vaccination clinics, pharmacies, hospitals, health care facilities, school clinics, or temporary mass vaccination sites. Considerations for a network of sites may include

- Written agreements to share resources, facilities, services, and other potential support required when dispensing/administering medical countermeasures, such as contracts or memoranda of understanding (MOUs)
- Comprehensive list of public and private sector medical countermeasure dispensing/administration sites that includes addresses, phone numbers, and e-mail addresses
- Site-specific standard operating procedures and staffing plans for medical countermeasure dispensing/administration, such as processes to order and receive medical countermeasures, personnel training(s), and use of jurisdictional inventory management systems and immunization information systems

- Existing infrastructure and resources that may be available for use, such as the network of vaccine administration sites supported by the Vaccines for Children program or mail order pharmacy systems
- Alternate approaches for reaching tribal populations, including cross-jurisdictional agreements
- Alternate approaches for populations that may be difficult to reach, such as individuals who are undocumented, incarcerated, or experiencing homelessness and individuals who reside in long-term care or other congregate care facilities
- Alternate approaches for providing effective communication in multiple formats to account for the access and functional needs of at-risk individuals who may be disproportionately impacted by a public health incident or event, including children, pregnant women, older adults, and others with access and functional needs as well as communities that may be disproportionately impacted by a public health emergency
- Alternate approaches for providing medical countermeasures, such as direct to patient or home delivery
- Methods to track and monitor countermeasures dispensed, administered, or used across the network of sites

The selection of dispensing/administration sites should be adapted to the incident, and sites may include

- Open or closed PODs
- Vaccination clinics
- Hospitals, primary care, or other health care facilities
- Chain and independent pharmacies
- Public or private facilities
- Community or faith-based organization facilities
- Federal facilities, such as Department of Defense and Veterans Affairs facilities, as applicable
- School-based sites
- Workplace sites or occupational health clinics
- Temporary mass vaccination sites
- Doctor offices and other outpatient facilities

Skills and Training Resource Elements

S/T1: Personnel trained to dispense/administer medical countermeasures. Personnel considerations may include

- Requirements for licensing or certifying personnel providing medical countermeasures as determined by the jurisdiction
- Training to manage a potentially diffused network of dispensing/administration sites, such as vaccine administration through community pharmacies
- Necessary credentialing or background checks to assure personnel qualifications
- Training to ensure operational competence and familiarity with jurisdictional incident command structure
- Training to ensure adherence to clinical dispensing/administration protocols
- Training to communicate with and support those with access and functional needs, such as sign language interpreters

(See Capability 3: Emergency Operations Coordination , Capability 9: Medical Materiel Management, and Capability 15: Volunteer Management)

S/T2: Personnel trained to conduct tabletop, functional, and full-scale exercises in accordance with the Homeland Security Exercise and Evaluation Program (HSEEP) in order to test and evaluate jurisdictional medical countermeasure strategies.

Function 2: Receive medical countermeasures to be dispensed/administered

Function Definition: Request and receive medical countermeasures at the jurisdictional level and ensure receipt of medical countermeasures at dispensing/administration sites based on incident characteristics.

Tasks

Task 1: Evaluate jurisdictional medical countermeasure inventories. Assess the ability of jurisdictional medical countermeasure inventories to meet the jurisdiction's needs based on the incident.

Task 2: Request medical countermeasures. Request or obtain medical countermeasures using established procedures from federal, jurisdictional, or private partners and stakeholders to meet supply needs.

Task 3: Receive medical countermeasures at dispensing/administration sites. Ensure all activated medical countermeasure dispensing/administration sites receive apportioned inventories according to incident requirements, logistics, infrastructure, and security strategies.

Preparedness Resource Elements

P1: (Priority) Procedures in place to assess medical countermeasure inventories and determine the need for additional medical countermeasures. Procedures to assess supply inventories may include

- Initial assessment of jurisdictional medical countermeasure inventories and supporting infrastructure prior to requesting mutual aid or federal assistance
- Inventory assessment and management throughout the incident response, for example, tracking inventory use and redeploying inventory to accommodate surges caused from under or overutilization of medical countermeasure dispensing/administration sites
- Assessments and procedures to identify and maintain ancillary medical countermeasure supplies

(See Capability 9: Medical Materiel Management and Distribution)

P2: (Priority) Procedures in place to request, order, and receive medical countermeasures at dispensing/administration sites, as applicable, in accordance with guidelines provided by the supply source, including the Strategic National Stockpile (SNS), jurisdictional immunization programs receiving vaccine from Biomedical Advanced Research and Development Authority (BARDA), or other applicable sources. These procedures should facilitate

- Assessment of local inventories and medical countermeasure caches to determine initial supply or resupply needs
- Identification of local pharmaceutical and medical supply wholesalers
- Decision tree to guide the process for requesting or ordering additional medical countermeasures and account for the status of emergency declarations
- Adherence to regulatory standards required for maintaining jurisdictional medical countermeasure caches, such as U.S. Food and Drug Administration (FDA) standards, including current good

manufacturing practices, appropriate Drug Enforcement Administration (DEA) registrations, and the ability to track medical countermeasures rotation

P3: (Priority) Procedures in place for the storage and handling of medical countermeasures at dispensing/administration sites. Procedures may include

- Procedures for cold chain management
- Procedures to properly store and package unit-of-use doses according to pharmacy laws and manufacturer specifications
- Procedures for freeze-dried vaccine that must be reconstituted with a diluent
- Procedures to outline requirements for receiving vaccines when jurisdictional vaccine provider agreements are in place, such as the Vaccines for Children program
- Procedures to legally accept and manage controlled substances, including registration with the DEA
- Procedures to consider and incorporate other specific medical countermeasure dispensing/administration storage and handling needs

Equipment and Technology Resource Elements

E/T1: Information system(s) to track the medical countermeasures dispensed or administered for the purposes of informing resupply requests, understanding populations reached, and monitoring adverse events. Information systems may operate independently of the jurisdiction's inventory management system or be electronically networked to the system. Elements to track in information systems may include

- Targeted population(s)
- Name of the drug, generic or brand, or vaccine
- National Drug Code (NDC) number
- Lot number
- Expiration/manufacturing dates
- Site where medical countermeasure was dispensed/administered
- Inventory balance
- Interval between doses of a vaccine

E/T2: Equipment, supplies, and systems needed to support dispensing/administration, which may include

- Materiel-handling equipment, such as pallet jacks, handcarts or dollies, scissor-lifts, and forklifts
- Primary and backup cold chain management equipment, such as portable, insulated containers for transporting temperature-sensitive medical countermeasures, refrigerators, thermometers, and other equipment needed to meet storage and handling requirements
- Ancillary medical supplies and durable medical equipment
- Infrastructure supplies and systems, such as paper supplies, copiers, computers, printers, Internet/network access to support site inventory management, white boards, desks, vests, line tape, signage, and consent forms

Function 3: Activate medical countermeasure dispensing/administration operations

Function Definition: Coordinate with partners and stakeholders to ensure resources, including personnel, equipment, technology, and physical space, are activated to dispense/administer medical countermeasures.

Tasks

Task 1: Activate medical countermeasure dispensing/administration operations based on needs of the incident. Notify and then activate the participating network of sites that will dispense/administer medical countermeasures to achieve coverage goals commensurate with the incident.

Task 2: Notify and assemble personnel who will support medical countermeasure dispensing/administration. Alert and assemble personnel who will support medical countermeasure dispensing/administration according to the roles, responsibilities, and resources needed to achieve medical countermeasure coverage goals.

Task 3: Provide medical countermeasures to public health responders and critical workforce. Dispense/administer medical countermeasures to public health responders and critical workforce based on the incident needs and relevant guidance, such as targeting vaccine prioritization to certain population groups.

Task 4: Implement security measures for medical countermeasure dispensing/administration. Implement site-specific security measures to ensure facility safety, personnel safety, product integrity, and crowd management when dispensing or administering medical countermeasures.

Task 5: Provide information to the public. Inform the public about dispensing/administration site locations, operational periods (days and hours open), and populations targeted to receive medical countermeasures.

Preparedness Resource Elements

P1: (Priority) Procedures in place to guide the activation of dispensing/administration sites and the activation of trained personnel, volunteers, and skilled personnel to support those sites, which may include

- Activation procedures for dispensing/administration sites may specify elements, including
  - Site name or identifier
  - Demand estimate (number of people planning to visit the site)
  - Estimated throughput and vaccination capacity
  - Personnel required to operate one shift
  - Number of personnel and shifts required to operate the site throughout the incident
  - Personnel availability
  - Plan to accommodate access and functional needs of at-risk individuals who may be disproportionately impacted by a public health incident or event

- Mechanisms to address legal and liability barriers may include
  - Clinical standards of care
  - Licensing
  - Civil liability for volunteers
  - Liability for private sector participants
  - Property needed to dispense/administer medical countermeasures

(See Capability 1: Community Preparedness, Capability 6: Information Sharing, and Capability 15: Volunteer Management)

P2: (Priority) Procedures in place to dispense/administer medical countermeasures to public health responders and critical workforce either pre-incident or during the early stages of an incident. Targeting of critical workforce groups would depend on severity of the threat, the risk of severe illness by age group, medical countermeasure supply, and the accompanying disruption to security, society, and the economy. Procedures may include dispensing/administering medical countermeasures to the household members of responders or critical workforce, as indicated in incident-specific targeting guidance.

(See Capability 14: Responder Safety and Health and Capability 15: Volunteer Management)

P3: Security measures, specific to each medical countermeasure dispensing and vaccine administration site, as necessary, to ensure personnel safety, product security, and crowd management during an incident. Security measures may include

- Identifying and activating security personnel
- Safeguarding site property
- Protecting site personnel
- Controlling traffic at and around sites
- Implementing crowd management measures at and around sites
- Collaborating with law enforcement and emergency management
- Formulating evacuation plans
- Developing security breach procedures

(See Capability 14: Responder Safety and Health and Capability 15: Volunteer Management)

P4: List of identified partners and stakeholders for private sector dispensing/administration and procedures to activate private sector partners, as applicable.

P5: Communication messages and procedures in place to develop tailored messages that address various threats and incidents, such as cases of a novel agent. Communication message strategies should be designed to account for individuals with sensory or mobility disabilities and individuals with cognitive, intellectual, developmental, mental, or other disabilities. Communication messages should include

- Tailored messages to meet the specific information needs of the intended audiences, including target populations, at-risk populations, health care providers, and the public
- Guidance from relevant federal or jurisdictional agencies
- Information about site locations, operating hours, and known risks and benefits
- Information that is standardized or harmonized within a jurisdiction or across jurisdictions, such as in cases where media outlets reach audiences across state lines
- Information for populations that are specifically targeted to receive medical countermeasures

- Information for populations that are not targeted to receive medical countermeasures to ensure that the public understands priorities for allocating limited resources

(See Capability 4: Emergency Public Information and Warning)

Equipment and Technology Resource Elements

E/T1: Equipment for dispensing/administering medical countermeasures may include

- Materiel-handling equipment, such as pallet jacks, handcarts or dollies, and forklifts
- Equipment to ensure proper storage and handling of medical countermeasures, such as refrigerators and temperature tracking for cold chain management
- PPE
- Ancillary medical supplies
- Administrative supplies
- Specialized items, such as scales for weighing children, mixing equipment for pediatric portions, and Broselow tapes

E/T2: Information systems and communication tools to inform the community, target populations, and health care providers about key medical countermeasure information. Systems and tools may include jurisdictional health alert networks, social media, community outreach information network (COIN), or call center systems, such as poison control centers.

(See Capability 4: Emergency Public Information and Warning and Capability 6: Information Sharing)

E/T3: Information systems to support the development and maintenance of staffing models, such as RealOpt©.

E/T4: Equipment and Internet connection, as needed, to access an individual's immunization status as found in an immunization registry, or information about medical conditions as found in an electronic health record.

(See Capability 15: Volunteer Management)

Function 4: Dispense/administer medical countermeasures to targeted population(s)

Function Definition: Provide medical countermeasures to the target population in accordance with public health guidelines and recommendations appropriate to the incident.

Tasks

Task 1: Dispense/administer medical countermeasures to target populations. Identify, screen, and triage target populations to receive medical countermeasures and then to dispense/administer medical countermeasures according to appropriate protocols.

Task 2: Provide essential information to those who receive medical countermeasures. Provide product name, rationale for use and contraindications, point(s) of contact, and other information about the medical countermeasures provided.

Task 3: Monitor and adjust medical countermeasure dispensing/administration throughput and coverage. Monitor and adjust staffing and supplies to achieve and sustain throughput and coverage goals based on the remaining needs of the population, such as inventory level and remaining regimen use surge or decline.

Task 4: Track medical countermeasures that are dispensed/administered. Maintain inventory management systems to track medical countermeasure inventories and ancillary medical supplies.

Preparedness Resource Elements

P1: (Priority) Procedures in place to dispense/administer medical countermeasures to affected, targeted, and prioritized populations that align with current science, incident characteristics, and public health guidelines. Procedures and guidance may include

- Screening and triaging patients based on patient characteristics, such as age, weight, signs and symptoms, medical history, drug or food allergies, or assessment of exposure
- Ensuring that medical record or log or file of the recipient indicates the following information, as necessary
  - Date the medical countermeasure was provided to the individual
  - Product name, NCD number, lot number, expiration date, and other critical identifying information
  - Health care provider detail, such as name and contact information, prescription number, date of prescription, name of patient (if stated on prescription), directions for use, and cautionary statements
  - Version date of the information statement distributed
- Ensuring medical countermeasure recipients receive the information statement aligned to the medical countermeasure provided
- Ensuring data is recorded to report to state or federal entities, as necessary. Consideration should be given to potential priority status, population demographics, such as sex, age group, and risk factors, and characteristics of the medical countermeasure, such as product name, site, and date
- Ensuring that medical countermeasures are provided according to requirements of applicable state and federal laws or regulations, such as emergency use authorization, investigational new drug protocols, or expanded access to investigational drugs

P2: Drug or vaccine information available to the public and to persons receiving medical countermeasures. Drug and vaccine information may include

- Information for individuals receiving medical countermeasures, such as drug or Vaccine Information Statements (VISs), adapted for targeted populations and languages spoken
- Instructions for return visits, care of injection site, reporting of adverse events, and other key medical information
- Data forms required by federal regulation or other applicable regulations, such as the VISs prescribed by federal law for routine vaccines
- Information needed to ensure medical countermeasures compliance or adherence
- Information about product labeling or expiration, such as relevant consumer-focused information about Shelf Life Extension Program
- Emergency use instructions (fact sheets) developed by CDC about the conditions under which FDA has approved use

(See Capability 10: Medical Surge)

P3: Procedures in place to request additional personnel and supplies based on incident characteristics. Procedures should describe how the jurisdiction will

- Assess inventory use rates to determine resupply intervals
- Access existing jurisdictional medical caches
- Implement national, regional, and intrastate mutual aid agreements, such as the Emergency Medical Assistance Compact (EMAC)
- Coordinate with relevant agencies, partners and stakeholders including jurisdictional emergency management agencies, HHS RECs, and SNS
- Deploy personnel and supplies to dispensing/administration sites based on public use
- Notify and allocate volunteers

Skills and Training Resource Elements

S/T1: Personnel trained on jurisdictional medical countermeasure tracking systems, such as immunization information systems, electronic health records, or other tracking databases.

Equipment and Technology Resource Elements

E/T1: Information statements, such as drug or vaccine information statements, for persons who receive medical countermeasures. Information statements should be adapted to the needs of target populations, such as accommodating different literacy levels and languages.

E/T2: Information system(s) for dispensing and administering medical countermeasures, such as inventory tracking systems to manage medical countermeasure supplies or state IISs to track vaccinations given to individuals. Backup system(s), such as other inventory management software, electronic spreadsheets, or paper-based systems, must be available in case of emergencies.

Function 5: Report adverse events

Function Definition: Monitor and report or facilitate the reporting of adverse events associated with a medical countermeasure.

Tasks

Task 1: Prepare for adverse event reporting. Assure jurisdictional procedures are in place for adverse event reporting and information dissemination to ensure persons who dispense, administer, or receive medical countermeasures are informed and understand actions to take in the instance of an adverse event.

Task 2: Activate adverse event reporting procedures. Activate adverse event reporting processes to accommodate reporting from any relevant source, including individuals, health care providers, or public health agencies.

Task 3: Promote and facilitate reporting of adverse events. Promote and facilitate reporting of adverse events, disseminate relevant trend data to applicable entities, such as federal agencies, jurisdictional government agencies, and health response partners, and monitor emerging data to inform potential modifications to medical countermeasure strategies.

Preparedness Resource Elements

P1: (Priority) Procedures in place to guide the reporting of adverse events including receipt of reports and dissemination of adverse event information, to include provisions for adverse event reporting at national and jurisdictional levels. Adverse event reporting procedures should specify

- When and how to use applicable national adverse event reporting systems, such as Vaccine Adverse Events Reporting System (VAERS) or FDA MedWatch Reporting System
- When and how to use adverse event reporting systems that are managed by the jurisdiction
- How to identify and analyze adverse event trends and modify medical countermeasure operations accordingly
- How to communicate emerging trends to health care providers and individuals receiving medical countermeasures
- Data elements to be collected, which may include
  - Name of person who received the vaccine or medication
  - Health care provider
  - Person reporting the adverse event
  - Adverse event being reported
  - Relevant diagnostic tests, laboratory data, and health status
  - Recovery status
  - Vaccine(s) or medications(s) received, date, lot number, dosage
- Written agreements, such as contracts or memoranda of understanding (MOUs), among relevant agencies and clinicians that specify how the jurisdiction will work together to investigate or report adverse events

P2: (Priority) Procedures in place to generate and disseminate pertinent information related to adverse event reporting. Information may include

- Information for persons receiving medical countermeasures regarding potential side effects; for vaccines, these messages are contained in the CDC VISs
- Information for health care providers or individuals to explain how to report adverse events, such as using VAERS or FDA MedWatch system

(See Capability 1: Community Preparedness)

Skills and Training Resource Elements

S/T1: (Priority) Personnel trained on federal and applicable jurisdictional adverse event reporting system procedures, including the designation of a vaccine safety coordinator.

Equipment and Technology Resource Elements

E/T1: Access to national and jurisdictional adverse event reporting systems, such as VAERS, FDA MedWatch, or local reporting systems.

(See Capability 4: Emergency Public Information and Warning and Capability 6: Information Sharing)

Capability 9: Medical Materiel Management and Distribution

Definition: Medical materiel management and distribution is the ability to acquire, manage, transport, and track medical materiel during a public health incident or event and the ability to recover and account for unused medical materiel, such as pharmaceuticals, vaccines, gloves, masks, ventilators, or medical equipment after an incident.

Functions: This capability consists of the ability to perform the functions listed below.

- **Function 1:** Direct and activate medical materiel management and distribution
- **Function 2:** Acquire medical materiel from national stockpiles or other supply sources
- **Function 3:** Distribute medical materiel
- **Function 4:** Monitor medical materiel inventories and medical materiel distribution operations
- **Function 5:** Recover medical materiel and demobilize distribution operations

Summary of Changes: The updates align content with new national standards, updated science, and current public health priorities and strategies. Listed below are specific changes made to this capability.

- Broadens the cold chain management guidance to include all aspects of storage and handling
- Expands recovery activities to incorporate proper handling and disposal of infectious, hazardous, or contaminated materiel and waste
- Accounts for security and inventory management tasks that occur throughout the entire distribution process

For the purposes of Capability 9, partners and stakeholders may include the following:

- emergency management agencies
- emergency medical services (EMS)
- environmental health agencies
- epidemiology programs
- government agencies
- health care coalitions
- health care organizations
- hospitals and health care facilities
- immunization programs
- jurisdictional office(s) of homeland security
- laboratory programs
- law enforcement agencies
- medical professional organizations
- mental/behavioral health services
- pharmacies
- public health agencies
- surveillance programs
- tribes and native-serving organization
- volunteer groups

Function 1: Direct and activate medical materiel management and distribution

Function Definition: Coordinate with the jurisdictional emergency management agency and health care systems to activate medical materiel distribution operations when an incident exceeds the normal capacity of the jurisdictional supply chain.

Tasks

Task 1: Identify jurisdictional needs for distributing medical materiel. Assess medical materiel response needs based on risk-based scenarios, identify available jurisdictional resources to support medical materiel distribution, and identify potential distribution challenges.

Task 2: Develop procedures to distribute medical materiel. Formulate and update procedures for medical materiel distribution throughout the distribution process, meaning acquisition, management, transport, and tracking during an incident; recovery, disposal, and return or loss after an incident.

Task 3: Establish a network of distribution sites. Identify distribution sites, including receipt, stage, store (RSS), sites regional distribution sites (RDSs), local distribution sites (LDSs), hospitals and health care facilities, or other potential distribution sites, to manage and distribute medical materiel.

Task 4: Develop and establish a transportation strategy. Identify and document transportation assets, based on jurisdictional availability of commercial and governmental transportation resources and establish procedures to mobilize transportation assets based on incident characteristics.

Task 5: Identify and train medical materiel distribution personnel. Identify personnel to manage and distribute medical materiel and ensure identified personnel meet training or certification requirements.

Task 6: Establish an inventory management system. Establish a reliable inventory management system to track medical materiel and exchange inventory-related data with CDC throughout the distribution process.

Task 7: Identify security needs and establish security measures. Identify security needs for personnel, medical materiel, and the network of distribution sites, and establish appropriate security measures based on incident characteristics.

Task 8: Activate medical materiel management and distribution operations. Start procedures to activate identified personnel and the network of distribution sites for medical materiel management and distribution.

Preparedness Resource Elements

P1: (Priority) Assessment of jurisdictional medical materiel needs and distribution response capacity to identify gaps and inform distribution site selection (number of sites and locations), personnel resource requirements, transportation requirements, inventory management strategies, and security measures. The assessment may include

- Inter- and intrajurisdictional roles and responsibilities, such as determining the respective roles of supporting jurisdictional agencies and third party professional warehouse and transportation companies

- RSS sites, warehousing strategies, and logistical support needs for the jurisdiction's network of distribution sites
  - Materiel needs for general and targeted populations, including supplies and resources for populations at risk to be disproportionately impacted by an incident
  - Additional resources necessary to execute the jurisdictional medical materiel distribution strategy
  - Solutions to address potential transportation challenges, including road closures, inclement weather, power outages, and other challenges
  - Anticipated needs of sites, such as hospitals and health care facilities, that would serve as both distribution sites and dispensing/administration sites
  - Assessment of distribution needs when medical countermeasures would be delivered through direct ship methods

(See Capability 1: Community Preparedness and Capability 3: Emergency Operations Coordination)

P2: (Priority) Jurisdictional plans that reflect the sequential process of medical materiel distribution, meaning acquisition, management, transport, tracking, recovery, disposal, and return or loss. The planning process may include

- Projecting the types and quantities of medical countermeasures, durable medical equipment (DME), or consumable medical supplies to be provided during an incident
- Building working relationships with professional warehouse companies to formalize resources, roles, and responsibilities
- Coordinating direct ship sites at the dispensing/administration site from a national, centralized distributor
- Building working relationships with commercial or public sector delivery operators to develop and formalize transportation plans
- Establishing staffing estimates for all aspects of medical materiel distribution
- Modeling distribution response times, such as response times for transportation
- Establishing operating procedures and confirming specifications for primary and alternate inventory management systems
- Establishing procedures to resupply distribution sites and dispensing/administration sites

P3: (Priority) Identified lead or jurisdictional authority to initiate medical materiel distribution operations based on incident triggers and incident characteristics.

P4: (Priority) Written agreements, such as contracts or memoranda of understanding (MOUs), with partner and stakeholder organizations to support medical materiel distribution operations.

P5: (Priority) Primary and backup distribution sites capable of receiving, staging, storing, and distributing medical materiel, regardless of the originating supply source, such as the Strategic National Stockpile (SNS), the state immunization program receiving vaccine from Biomedical Advanced Research and Development Authority (BARDA), other vaccine distributors, or commercial sources. Distribution sites should be capable of supplying all dispensing/administration sites in the jurisdiction. Distribution site lists describe characteristics, which may include

- Type of site (commercial vs. government)
- Physical location of site
- 24-hour contact number
- Hours of operation

- Inventory of materiel-handling equipment on site and list of minimum equipment that need to be procured or delivered at the time of the incident
- Inventory of office equipment on site and a list of minimum equipment or supplies that need to be procured or delivered at the time of the incident
- Inventory of storage equipment, such as refrigerators and freezers on site and a list of minimum storage equipment that needs to be procured or delivered at the time of the incident
- The network of distribution sites may include
- Primary and backup RSS Sites
- RDSs
- LDSs
- Pharmacies or their distribution partner locations
- Hospitals and health care facilities
- Other locations assessed by the jurisdiction as capable distribution sites

P6: A transportation strategy that may include

- List of transportation assets to support distribution of medical materiel to the network of distribution sites
- Routing systems or modeling software used to assist with developing transportation plans
- Primary transport, backup transport, and number of transportation assets
- Vehicle types and load capacities
- Cold chain management and other environmental control management requirements, such as humidity requirements
- Response time(s) to mobilize transportation resources
- Jurisdictional medical materiel suppliers and distributor points of contact to facilitate jurisdictional access to medical materiel
- Delineation of the respective roles of the public health agency, outside vendors, and other partners
- Written agreements, such as contracts or MOUs, with outside transportation vendors. Transportation agreements should specify, at a minimum
  - 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
  - Response time of vendor(s)
  - Ability of vendor(s) to meet storage and handling requirements, such as cold chain management

P7: Procedures in place to identify and prepare personnel or volunteers to support medical materiel distribution. Procedures may include

- Staffing plans for all categories of distribution sites. Staffing plans may include site leads, alternates, security staff, logistics support staff, and Drug Enforcement Administration (DEA) registrant(s) to sign for controlled medical countermeasures
- Badging and credentialing requirements for personnel at sites
- Training for response personnel and volunteers, including orientation materials, job action sheets, and other training resources or strategies

- Procedures to request additional personnel from outside the jurisdiction, such as from the National Guard or Medical Reserve Corps (MRC) based on state and local mutual aid agreements in coordination with the jurisdictional emergency management agency
- Procedures for immediate contracting of additional trained distribution support personnel based on state and local emergency procurement practices

(See Capability 3: Emergency Operations Coordination and Capability 15: Volunteer Management)

P8: Procedures in place to ensure security throughout the medical materiel distribution process. Procedures may include

- Designation of security leads and contact information
- Evacuation procedures
- Exterior and interior physical security
- Coordination within and across jurisdictional sovereignty lines for law enforcement and security agencies to secure personnel and facilities
- Physical measures, such as cages, locks, and alarms to secure materiel within the distribution site
- Security measures for transporting materiel, such as escorts and securing of designated roadways
- Security measures at alternate distribution sites
- Traffic control staffing
- Worker safety
- Cybersecurity measures, such as protection of personally identifiable information and prevention of unauthorized use of social media

(See Capability 3: Emergency Operations Coordination, Capability 6: Information Sharing, Capability 8: Medical Countermeasure Dispensing and Administration, Capability 14: Responder Safety and Health, and Capability 15: Volunteer Management)

Skills and Training Resource Elements

S/T1: Personnel trained to manage and distribute medical materiel in alignment with jurisdictional procedures. Job action sheets for key distribution positions may include

- Distribution lead
- Logistics lead
- Receiving site lead(s)
- Security lead
- Inventory management
- DEA registrant

S/T2: Personnel trained to use and manage inventory management systems that track medical materiel throughout the distribution process.

S/T3: Personnel trained to conduct tabletop, functional, and full-scale exercises in accordance with the Homeland Security Exercise and Evaluation Program (HSEEP) guidance to test and evaluate jurisdictional medical materiel management and distribution strategies.

Equipment and Technology Resource Elements

E/T1: Transportation assets scalable for distributing medical materiel to distribution sites based on incident characteristics and logistical conditions. Incident characteristics and logistical conditions may include

- Vehicle types and load capacity
- Response time(s) for mobilizing initial transportation resources
- Warehouse characteristics, including loading dock type and quantity, staging and storage footprint, and cold chain resources
- Delivery vehicle characteristics, including compatibility of the vehicle(s) with loading dock, presence of lift gate, and capacity for full pallet
- Receiving site characteristics, including compatibility to receive a full pallet, loading dock type, and on-site equipment
- Medical countermeasure characteristics, including the total quantity, weight, and size of the shipments, storage and handling requirements, and packaging
- Distribution plan characteristics, including the number of delivery vehicles that can be allocated simultaneously, routes, and security escorts

E/T2: Inventory management system(s) to coordinate and account for medical materiel receipt and distribution, such as CDC's Inventory Management and Tracking System (IMATS). Interoperable information systems to exchange and store inventory-related data. Inventory management system requirements may include

- Compliance with Inventory Data Exchange (IDE) standards or interoperability with CDC information systems
- Ability to track the name of drug, quantity, National Drug Code number, lot number, dispensing/administration site, expiration date, and unit configuration of issue, such as case, box, or bottles
- Backup systems for redundancy, such as alternate inventory management software, electronic spreadsheets, or paper-based systems

(See Capability 6, Information Sharing)

E/T3: Equipment needed to maintain security for personnel and facilities, which may include

- Physical security measures, such as cages, locks, and alarms
- Personal protective equipment (PPE)

(See Capability 14: Responder Safety and Health, and Capability 15: Volunteer Management)

Function 2: Acquire medical materiel from national stockpiles or other supply sources

Function Definition: Acquire, receive, stage, and store medical materiel from jurisdictional caches or from private, regional, or federal partners.

Tasks

Task 1: Acquire medical materiel. Request or obtain medical materiel to meet the needs of the jurisdiction based on incident characteristics.

Task 2: Manage medical materiel. Receive, stage, and store medical materiel in accordance with manufacturer specifications.

Preparedness Resource Elements

P1: (Priority) Procedures in place to request medical materiel for both initial requests and resupply requests whether sourced from SNS, the state immunization program, or other source. Procedures may include

- Defined request triggers, indicators, thresholds, and validation strategies to guide decision-making
- Identification of individuals within the jurisdiction empowered with the authority to request federal, state, local, tribal, and territorial assets, such as emergency management representatives, senior health officials, and elected representatives with statutory authority to request mutual aid
- Strategies to use local circulating inventories and existing jurisdictional medical countermeasure caches
- Strategies to use existing infrastructure, such as state immunization programs with experience in vaccine ordering and distribution through the Vaccines for Children Program
- Special provisions that may affect medical materiel request procedures
  - Stafford Act vs. non-Stafford Act declarations
  - Declarations of a public health emergency
  - Procedures to coordinate with U.S. Department of Health and Human Services (HHS), as required
- Procedures to request medical materiel through the Emergency Medical Assistance Compact (EMAC)
- Protocols to ensure compliance with regulatory standards, including
  - U.S. Food and Drug Administration (FDA) standards
  - Current Good Manufacturing Practices (cGMP)
  - Appropriate DEA registrations
- Procedures to obtain medical materiel outside of the SNS, such as pandemic influenza vaccine anticipated to be supplied in coordination with the jurisdiction's immunization program and CDC's centralized distributor for publicly funded vaccines
- Identification of local pharmaceutical and medical supply wholesalers
- Processes to justify requests for medical countermeasures and other medical materiel

(See Capability 3: Emergency Operations Coordination and Capability 8: Medical Countermeasure Dispensing and Administration)

P2: (Priority) Procedures in place to receive, stage, and store medical materiel. Procedures may include

- Facility characteristics, such as docks, open floor space, and climate
- Maintenance of cold chain integrity according to storage and handling guidelines
- Storage and access of controlled substances
- Access for authorized persons
- Security measures, including personnel, physical security, and other security measures

Skills and Training Resource Elements

S/T1: Personnel trained on procedures to request and manage medical materiel in accordance with manufacturer specifications and jurisdictional procedures.

Equipment and Technology Resource Elements

E/T1: Materiel-handling equipment at receiving sites (provision of equipment may be included in contracts or memoranda of understanding with receiving sites). Equipment may include

- Pallets and pallet jacks
- Handcarts or dollies
- Forklifts
- Cold chain storage equipment

Function 3: Distribute medical materiel

Function Definition: Transport medical materiel to receiving sites based on incident needs.

Tasks

Task 1: Transport medical materiel to receiving sites. Activate strategies for apportioning and transporting medical materiel to distribution sites and dispensing/administration sites.

Task 2: Ensure product integrity of medical materiel. Maintain medical materiel integrity in accordance with established safety and manufacturer specifications during transport and distribution.

Preparedness Resource Elements

P1: (Priority) Procedures in place to apportion and transport medical materiel, which may include

- Delivery locations and routes
- Delivery schedule/frequency
- Respective roles and responsibilities of public health agencies, transportation partners, and other relevant entities

P2: Written agreements with receiving sites and transportation partners to ensure distribution of medical materiel.

(See Capability 8: Medical Countermeasure Dispensing and Administration)

Skills and Training Resource Elements

S/T1: Personnel trained to apportion and transport medical materiel.

Equipment and Technology Resource Elements

E/T1: Equipment and supplies for the distribution of medical materiel at receiving site(s) that are scalable to receiving site operations, incident characteristics, and logistical conditions.

Function 4: Monitor medical materiel inventories and medical materiel distribution operations

Function Definition: Maintain real-time situational awareness of medical materiel management and distribution in order to address emerging needs for resupply, security, transportation, and use of receiving sites.

Tasks

Task 1: Identify and respond to medical materiel resupply needs. Monitor inventory status reports and request resupply based on demand and incident needs.

Task 2: Monitor security of medical materiel operations. Maintain situational awareness of security needs throughout the duration of the incident and adjust security measures, as necessary.

Task 3: Monitor transportation operations. Maintain situational awareness of transportation assets and adjust transportation plans, as necessary.

Task 4: Monitor receiving sites and associated personnel. Assess the effectiveness and efficiency of receiving sites and adjust operations, as applicable.

Preparedness Resource Elements

P1: (Priority) Procedures in place to report inventory status to federal, regional, state, local, tribal, and territorial authorities. Inventory status reports should include

- Amount of medical materiel received
- Additional information about medical materiel received, including receipt date, time, and name of individual who accepted custody of materiel
- Amount of medical materiel distributed
- Current available quantity of medical materiel

(See Capability 6: Information Sharing)

P2: (Priority) Procedures in place to request resupply for distribution sites that specify information, which may include

- Date of request
- Date of medical materiel receipt
- Urgency of medical materiel needs
- Receiving site addresses
- Distribution strategy, such as distribution through established channels or direct-ship from vendor
- Specifics of the requested medical materiel, including item type, size, quantity, intended use, and other relevant information to aid fulfillment choices
- Requestor (or other point of contact) information
- Justifications for resupply

(See Capability 3: Emergency Operations Coordination and Capability 8: Medical Countermeasure Dispensing and Administration)

P3: (Priority) Procedures in place to assess ongoing security measures throughout the distribution process and make adjustments, as necessary. Security measures may be assessed with information from sources, which may include

- Security coordinator
- Law enforcement and security agencies that secure personnel, transportation, and facilities
- Incident management personnel, such as command staff or general staff
- Transportation or warehouse personnel

P4: Procedures in place to resupply, replace, or adapt transportation assets based on incident characteristics and emerging needs.

Skills and Training Resource Elements

S/T1: Supplemental inventory management personnel trained and ready to sustain medical materiel distribution throughout the response.

Equipment and Technology Resource Elements

E/T1: Ongoing access to physical security measures, such as cages, locks, and alarms, for maintaining security of materiel throughout the distribution process.

E/T2: Ongoing access to primary or backup system(s) to manage inventory.

Function 5: Recover medical materiel and demobilize distribution operations

Function Definition: Recover remaining medical materiel and demobilize distribution operations in accordance with jurisdictional policies, federal regulations, and incident characteristics.

Tasks

Task 1: Identify recovery and demobilization needs. Determine the needs of the jurisdiction to recover medical materiel and scale down medical materiel management operations.

Task 2: Recover medical materiel. Recover remaining medical materiel when demobilizing jurisdictional distribution operations.

Task 3: Return or dispose of unused medical materiel. Account for, return, or dispose of unused and unopened medical materiel.

Task 4: Demobilize distribution operations. Deactivate transportation assets, receiving sites, and personnel.

Task 5: Dispose of biomedical waste or other hazardous material. Dispose of biomedical and other potentially infectious, hazardous, or contaminated materials and waste.

Task 6: Prepare after-action reports and improvement plans. Document within an after-action report (AAR) the strengths and challenges encountered during the medical materiel distribution process and develop a corresponding improvement plan (IP).

Task 7: Implement IPs. Implement an IP based on the identified opportunities for improvement.

Preparedness Resource Elements

P1: (Priority) Procedures in place to demobilize operations, including the release of personnel, closure of distribution sites, recovery of unused medical materiel, and disposal of biomedical waste, according to laws and regulations and in coordination with the health care system and the jurisdictional emergency management agency, as required.

(See Capability 3: Emergency Operations Coordination, Capability 10: Medical Surge, and Capability 15: Volunteer Management)

P2: Procedures in place to store, distribute, dispose of, or return unused or unopened materiel, including pharmaceuticals and durable items, in compliance with federal or jurisdiction-specific regulations and product-specific guidance from the manufacturer.

P3: Procedures in place to dispose of biomedical waste or other hazardous materials with appropriate waste management procedures that comply with applicable laws and regulations, such as disposal of chemical or radiological material.

(See Capability 14: Responder Safety and Health)

P4: Procedures in place to complete an AAR and IP consistent with HSEEP guidance, which may include

- Critical information required to determine the areas of strength and areas for improvement following an incident
- A timeline to ensure completion of after-action reporting and development of corrective action or IPs

(See Capability 3: Emergency Operations Coordination)

Skills and Training Resource Elements

S/T1: Personnel trained on medical materiel and equipment recovery according to manufacturer and jurisdictional guidelines.

S/T2: Personnel trained on established procedures for disposal of unused or unopened medical materiel, pharmaceuticals, durable items, and hazardous materials and medical waste.

S/T3: Personnel trained on established procedures for after-action reporting, including the National Incident Management System (NIMS) and HSEEP trainings.

(See Capability 3: Emergency Operations Coordination)

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 health care system to endure a hazard impact, maintain or rapidly recover operations that were compromised, and support the delivery of medical care and associated public health services, including disease surveillance, epidemiological inquiry, laboratory diagnostic services, and environmental health assessments.

Functions: This capability consists of the ability to perform the functions listed below.

- **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

Summary of Changes: The updates align content with new national standards, updated science, and current public health priorities and strategies. Listed below are specific changes made to this capability.

- Emphasizes the need to define public health agency lead and support roles within medical surge operations
- Eliminates use of the term "HAvBED" because the term is no longer promoted by the Hospital Preparedness Program (HPP),[8] and focuses instead on "situational awareness" and "health care systems tracking" as an overarching theme
- Emphasizes the need to identify and clarify the jurisdictional Emergency Support Function (ESF) #8 response role in medical surge operations based on jurisdictional role and incident characteristics

For the purposes of Capability 10, partners and stakeholders may include the following:

- ambulatory care providers
- clinics
- emergency management agencies
- emergency medical services (EMS)
- environmental health
- fire departments
- health care coalitions
- health care organizations
- health professional volunteer entities[9]
- law enforcement agencies
- long-term care agencies
- mental/behavioral health pharmacies
- poison control centers
- public health agencies
- public works
- social services
- stand-alone emergency rooms
- state hospital associations
- tribes and native-serving organizations
- urgent care
- volunteer organizations[10]

[8] Subject matter experts from the HHS Office of the Assistant Secretary for Preparedness and Response Hospital Preparedness Program made significant contributions to the updates for Capability 10: Medical Surge

[9] For example, the National Voluntary Organizations Active In Disaster (NVOAD), and the National Disaster Medical System (NDMS)

[10] For example, the Emergency System for Advance Registration of Volunteer Health Professionals (ESAR-VHP), and the Medical Reserve Corps (MRC)

Function 1: Assess the nature and scope of the incident

Function Definition: Coordinate with Emergency Support Function (ESF) #8 partners, the jurisdiction's health care response, and other partners and stakeholders to define incident needs and available health care personnel and resources through the collection and analysis of data, including resource tracking data, data resulting from mutual aid agreements, such as the Emergency Management Assistance Compact (EMAC), disease surveillance data, and other applicable health data.

Tasks

Task 1: Define the role of the public health agency in medical surge. Identify jurisdictional public health medical surge lead or support roles and responsibilities in coordination with other jurisdictional authorities and partners.

Task 2: Evaluate the structural needs of the jurisdictional incident management system. Support the jurisdictional incident management system to determine the public health medical surge role within the Incident Command System (ICS).

Task 3: Complete incident assessments. Assess and document initial needs and availability of resources, including personnel, facilities, logistics, and other health care resources.

Task 4: Exchange data with jurisdictional health care organizations or health care coalitions. Provide public health data to jurisdictional health care organizations or health care coalitions to support activation of plans, if required, to maximize scarce resources and prepare for shifts into and out of conventional, contingency, and crisis standards of care.

Preparedness Resource Elements

P1: (Priority) Personnel trained and assigned to fill public health incident management roles, as applicable, to a medical surge response to include emergency operations center (EOC) staffing at agency, local, and state levels as necessary.

(See Capability 3: Emergency Operations Coordination)

P2: (Priority) Procedures in place to ensure coordination with jurisdictional partners and stakeholders for emergency incidents, exercises, and pre-planned (recurring or special) events in accordance with ICS organizational structures, doctrine, and procedures, as defined by the National Incident Management System (NIMS).

P3: Bidirectional situational awareness system between public health and health care organizations to assess and maintain visibility of emergency surge resources. Situational awareness system activities may include

- Regularly assessing staffing surge across facilities and locations
- Routinely tracking bed availability including specialty beds across facilities, as necessary
- Continually tracking, allocating, and comprehensively managing medical materiel
- Sharing ongoing epidemiological and surveillance data that may impact resource use
- Sharing ongoing findings from community and environmental assessments

(See Capability 6: Information Sharing and Capability 9: Medical Materiel Management and Distribution)

P4: (Priority) Procedures in place for public health to engage the health care system and health care coalitions to collect, provide, and receive situational awareness in alignment with health care system institutional and jurisdictional expectations. Jurisdictional health care system or coalition responsibilities may include

- Including health care system emergency response planning into jurisdictional and state response plans
- Preparing to address the needs of communities and at-risk individuals who may be disproportionately impacted by a public health incident or event, including children, pregnant women, older adults, and others with access and functional needs, as defined by the Communication; Maintaining Health; Independence; Support, Safety and Self-determination; Transportation (CMIST) framework.
- Minimizing duplication of effort by supporting coordination among federal, state, local, tribal, and territorial planning, preparedness, response, and demobilization activities
- Coordinating with jurisdictional emergency management organizations and assisting the health care system at the level necessary to maintain continuity of operations if standard operations are overwhelmed and disaster operations become necessary
- Supporting jurisdiction-wide situational awareness to ensure the maximum number of people requiring care receive safe and appropriate care, including facilitating triage and directing people to appropriate facilities and providing facility support

P5: Procedures in place to define when the jurisdiction's health care system and health care coalitions transition into and out of conventional, contingency, and crisis standards of care during an incident based on the level of stress on the health care system. This may include assessing risks to formalize strategies that define transition processes and indicators in coordination partners and stakeholders.

(See Capability 1: Community Preparedness)

P6: Procedures in place for the inclusion of partners to assist in the effective management of medical surge needs, such as balanced use of population-based interventions.

P7: Ongoing communications, community messaging, and data sharing with the health care system, health care coalitions, public safety answering points, such as 911 emergency medical dispatch systems, poison control centers, and EMS organizations. This may include requesting and using National Emergency Medical Services Information System (NEMSIS) data elements.

(See Capability 1: Community Preparedness, Capability 3: Emergency Operations Coordination, Capability 4: Emergency Public Information and Warning, Capability 6: Information Sharing, Capability 7: Mass Care, Capability 9: Medical Materiel Management and Distribution, Capability 13: Public Health Surveillance and Epidemiological Investigation, and Capability 15: Volunteer Management)

Skills and Training Resource Elements

S/T1: Personnel trained to use NEMSIS and 911 data.

S/T2: Personnel trained to use the jurisdictional bed-tracking system to obtain data for jurisdictional situational awareness activities.

S/T3: Personnel trained for the role of the public health agency programs in incident response requiring medical surge. Training materials may include

- ESF #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 Resource Elements

E/T1: Primary and backup Internet connection to access local and state NEMSIS, 911 data, or access bed-tracking data.

E/T2: Jurisdictional situational awareness system coordinated with the health care system and health care coalitions as necessary.

Function 2: Support activation of medical surge

Function Definition: Convene subject matter experts to discuss incident-specific changes to clinical care in protracted incidents, such as pandemic influenza, and expand access to health care services, such as call centers, alternate care systems, EMS, inpatient services, pharmacies, and occupational health clinics, during a surge on the jurisdiction's health care system from an incident or event. Support the health care system, health care coalitions, and response partners based on identified public health response role(s), including providing recommendations for allocation of scarce resources.

Tasks

Task 1: Mobilize medical surge personnel. Support mobilization of incident-specific medical and mental/behavioral treatment personnel, public health personnel, and support personnel.

Task 2: Activate alternate care facilities. Assist health care organizations and health care coalitions with monitoring and activating alternate care facilities, as requested.

Task 3: Support additional health care services. Assist with the surge of the health care system through coordination with health care coalitions, including hospitals and non-hospital entities.

Task 4: Ensure situational awareness. Support situational awareness by using real-time information exchange among response partners, the health care system, and health care coalitions.

Task 5: Coordinate public education opportunities. Provide information to educate the public regarding available health care services, and adapt messaging for populations that may be disproportionately impacted by the incident, including individuals with access and functional needs.

Preparedness Resource Elements

P1: (Priority) Procedures in place that indicate how the jurisdictional public health agency will access volunteer resources through ESAR-VHP, the MRC health professional volunteer entities, such as NVOAD, and other personnel resources.

(See Capability 15: Volunteer Management)

P2: (Priority) Procedures in place that indicate how the public health agency will engage with health care coalitions and other response partners in the development and execution of health and medical response plans, integrating the access and functional needs of at-risk individuals who may be disproportionately impacted by a public health incident or event to meet incident and medical surge needs. Procedures may include

- Written list of health care organizations, coalitions, and human services providers that can support the access and functional needs of at-risk individuals
- Communication strategies for coalitions, including health care organizations and human services providers, in advance of an event
- Current (up-to-date) list of available human services organizations that provide support and services to address the access and functional needs of at-risk individuals
- Pre-identified site(s) that have undergone an initial assessment to determine their adequacy to serve as an alternate care facility

P3: (Priority) Jurisdictional procedures in place to identify critical information sharing requirements (situational awareness information) for partners and stakeholders. Procedures for characterizing critical information requirements may include

- Identifying, defining, and establishing essential information and requirements
- Determining elements of information needed to establish a common operating picture
- Identifying data owners
- Validating data with stakeholders

(See Capability 6: Information Sharing)

P4: (Priority) Procedures in place to document participation from jurisdictional and regional pediatric and geriatric providers, trauma centers, and burn centers in a variety of settings, such as maternal and child health programs, clinic-based, hospital-based, long-term care, and rehabilitation within jurisdictional response planning. Recommended procedures may include

- Identification of gaps in the provision of pediatric and geriatric care
- Coordination of pediatric and geriatric care within the jurisdiction
- Coordination with jurisdictional trauma and burn centers

(See Capability 1: Community Preparedness, Capability 2: Community Recovery, and Capability 4: Emergency Public Information and Warning)

P5: Procedures in place to connect health care organizations and providers with additional volunteers or other personnel through volunteer or staffing programs, such as ESAR-VHP, MRC, and the National Disaster Medical System (NDMS), if necessary.

(See Capability 15: Volunteer Management)

P6: Procedures in place to provide support for the integration of MRC units with local, regional, and statewide infrastructure. Recommended procedures may include

- Supporting MRC personnel or coordinators for the primary purpose of integrating the MRC structure with the state ESAR-VHP program or other volunteer management process
- Including MRC volunteers in trainings and exercises that are integrated with other regional, state, local, tribal, territorial assets, health care systems, or volunteers through the ESAR-VHP program

(See Capability 15: Volunteer Management)

P7: Written agreements, such as contracts or memoranda of understanding MOUs, with partner agencies, if needed, to create formal and informal partnerships with jurisdictional volunteer sources.

(See Capability 15: Volunteer Management)

P8: Pre-identified potential locations for Federal Medical Stations (FMSs) and potential alternate care sites that have been assessed for environmental suitability in partnership with the applicable U.S. Department of Health and Human Services (HHS) Regional Emergency Coordinator(s) (RECs).

P9: Partnership with the applicable HHS RECs to address the need for wrap-around services, such as facility security, biomedical, and medical waste disposal, or provide information regarding accessing other services, such as food service at projected FMS locations.

P10: Procedures in place to staff call centers with volunteer resources to manage increased call volumes at health care organizations and health care coalitions.

(See Capability 15: Volunteer Management)

P11: Procedures in place to create, clear or approve, and disseminate medical surge guidance to inform the population of where and when to seek care as well as the appropriate use of 911 and acute care health systems during an incident or event. Considerations for making messages accessible for individuals with access and functional needs may include

- Developing translated materials or resources that are accessible for people with limited English proficiency and that are linguistically appropriate, culturally sensitive, and account for varied literacy levels
- Developing materials or resources that are accessible for people who are blind, have low vision, are deafblind, or have other visual disabilities
- Developing materials or resources that are accessible for people who are deaf, hard of hearing, deafblind, or have other hearing disabilities

(See Capability 1: Community Preparedness and Capability 4: Emergency Public Information and Warning)

P12: Procedures in place for the local EMS system to request additional resources, such as specialty equipment and personnel, for the needs of pediatric cases as part of the jurisdictional ESF #8 annex or other documentation.

P13: Legal and regulatory mechanisms to support surge activities at the jurisdictional level and identification and engagement of the health care workforce to execute the mechanisms. Recommended considerations may include

- Liability protections for providers or facilities
- Allowances and limitations for Health Insurance Portability and Accountability Act (HIPAA) compliance
- Ability to commandeer resources
- Ability to change regulations to support emergency and alternate systems of care

Skills and Training Resource Elements

S/T1: Personnel trained and knowledgeable on the Strategic National Stockpile (SNS) formulary and trained on FMS implementation.

S/T2: Personnel trained on providing care to pediatric patients and using pediatric equipment.

Equipment and Technology Resource Elements

E/T1: (Priority) Incorporation of equipment, communication, and data interoperability into the health care organizations' acquisition programs.

(See Capability 6: Information Sharing)

Function 3: Support jurisdictional medical surge operations

Function Definition: Coordinate health care resources in conjunction with response partners, including the tracking of patients, medical personnel, equipment, and supplies from intra- or inter-state and federal partners, if necessary, in quantities needed to support medical response operations.

Tasks

Task 1: Maintain communications and continuity of services. Coordinate and maintain communications per jurisdictional authority or jurisdictional incident management structure with partners and stakeholders to maintain situational awareness, account for jurisdictional needs, and maintain continuity of medical response operations.

Task 2: Coordinate with partners to provide required resources. Assess resource requirements during each operational period and coordinate with partners, including those able to provide mental/behavioral health services for the community, to obtain necessary resources and to support medical surge.

Task 3: Track patients impacted by the incident. Coordinate with jurisdictional partners and stakeholders to facilitate patient tracking during the incident response and recovery.

Preparedness Resource Elements

P1: (Priority) Procedures in place to collect, communicate, and share situational awareness information, including number and types of patients seen by location, to partners and stakeholders through jurisdictional emergency management procedures.

(See Capability 6: Information Sharing and Capability 13: Public Health Surveillance and Epidemiological Investigation)

P2: (Priority) Procedures in place that detail jurisdictional public health agency participation in the development and execution of health and medical response and recovery plans that integrate the access and functional needs of populations at risk of being disproportionately impacted by the incident or event.

(See Capability 1: Community Preparedness and Capability 2: Community Recovery)

P3: (Priority) Procedures in place to support or implement family reunification.

P4: (Priority) Public health and health care system coordination procedures that account for public health and medical materiel management, inventory assessments, and personnel and equipment resource requests from jurisdictional and other ESF #8 partners as the incident evolves. Recommended considerations may include

- Management of available medical supplies, medications, and vaccines
- Use of jurisdictional medical caches
- Processes for requesting additional supplies
- Availability of ventilators (portable or otherwise) within the jurisdiction
- Management of laboratory diagnostic services, for example equipment and supplies
- Field- and facility-based epidemiological tracking

(See Capability 8: Medical Countermeasure Dispensing and Administration, Capability 9: Medical Materiel Management and Distribution, Capability 12: Public Health Laboratory Testing, Capability 13: Public Health Surveillance and Epidemiological Investigation, and Capability 15: Volunteer Management)

P5: Jurisdictional patient-tracking and disease surveillance systems operated in conjunction with state and local emergency management, EMS, health care organizations, and other jurisdictional partners. Recommended considerations for patient-tracking systems may include

- Close coordination with state government systems
- Interoperability with relevant state and national patient-tracking systems and registries
- Consistency with federal and state-approved privacy protection, regulations, and standards for patient-tracking systems and registries

(See Capability 6: Information Sharing and Capability 13: Public Health Surveillance and Epidemiological Investigation)

P6: Procedures in place to coordinate with the jurisdiction's patient-tracking system, including immunization information systems (IISs), local and state EMS, and 911 authorities, as applicable.

(See Capability 6: Information Sharing)

Equipment and Technology Resource Elements

E/T1: Electronic or other data storage systems to inform situational awareness, such as the jurisdiction's IIS and Joint Patient Assessment and Tracking System (JPATS), in accordance with national standards.

(See Capability 6: Information Sharing)

Function 4: Support demobilization of medical surge operations

Function Definition: In conjunction with jurisdictional partners, return the health care system to pre-incident operations by incrementally decreasing surge staffing, equipment needs, alternate care facilities, and other systems and transitioning patients from acute care services into their pre-incident medical environments or other applicable medical settings.

Tasks

Task 1: Assist in the return movement of patients. Assist or coordinate with partners to return patients to their pre-incident medical environments, such as prior medical care provider, skilled nursing facility, or place of residence, or other applicable medical settings.

Task 2: Assist the health care system in the demobilization of resources. Coordinate with partners to demobilize health care resources including facilities, personnel, and equipment according to incident needs. Ensure effective discharge planning for people with disabilities and other access and functional needs to avoid inappropriate placement, and maintain independent living in the least restrictive environment.

Task 3: Demobilize alternate care facilities and mutual aid resources. Coordinate with partners to demobilize alternate care facilities and resources obtained through mutual aid, EMAC, and other means of assistance, as appropriate for the incident.

Preparedness Resource Elements

P1: (Priority) Procedures in place to coordinate with state EMS to demobilize transportation assets used in the incident.

P2: (Priority) Procedures in place to demobilize surge personnel, including state medical personnel, such as MRC, and federal medical personnel, such as NDMS, and to use thresholds and indicators to detect the need for further demobilization of personnel and other medical surge resources.

(See Capability 15: Volunteer Management)

P3: Communication between public health and the health care system, health care coalitions, and community partners to maintain situational awareness of health care system impacts that may inform demobilization priorities.

P4: Procedures in place to coordinate case management or other support to assist in the transition to pre-incident medical environments or other applicable medical settings, as requested by health care organizations based on the public health lead or support role.

(See Capability 2: Community Recovery)

P5: Coordinated procedures to communicate with HHS Regional Health Administrators (RHAs); regional directors; state, local, tribal, territorial, or county agencies; and HHS RECs to address the access and functional needs of patients during the demobilization of medical surge efforts.

P6: Coordination of 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.

(See Capability 2: Community Recovery, Capability 14: Responder Safety and Health, and Capability 15: Volunteer Management)

P7: Procedures in place to release volunteers and other personnel when the public health agency has the lead role or supporting role in the coordination of volunteers or other personnel. Recommended procedures may include

- Demobilizing volunteers and other personnel in accordance with the incident action plan
- Completing all assigned activities or informing replacement volunteers of the activities' status
- Determining additional assistance needed from volunteers or other personnel
- Returning equipment used by volunteers or other personnel
- Recording follow-up contact information for volunteers and other personnel

(See Capability 3: Emergency Operations Coordination and Capability 15: Volunteer Management)

P8: Exit screening procedures for out-processing activities. Screening elements may include

- Injuries and illnesses acquired during the response
- Mental/behavioral health needs resulting from the response
- Referral of volunteers to medical and mental/behavioral health services, as requested or indicated

(See Capability 3: Emergency Operations Coordination, Capability 7: Mass Care, Capability 9: Medical Materiel Management and Distribution, Capability 14: Responder Safety and Health, and Capability 15: Volunteer Management)

Capability 11: Nonpharmaceutical Interventions

Definition: Nonpharmaceutical interventions are actions that people and communities can take to help slow the spread of illness or reduce the adverse impact of public health emergencies. This capability focuses on communities, community partners, and stakeholders recommending and implementing nonpharmaceutical interventions in response to the needs of an incident, event, or threat. Nonpharmaceutical interventions may include

- Isolation
- Quarantine
- Restrictions on movement and travel advisories or warnings
- Social distancing
- External decontamination
- Hygiene
- Precautionary protective behaviors

Functions: This capability consists of the ability to perform the functions listed below.

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

Summary of Changes: The updates align content with new national standards, updated science, and current public health priorities and strategies. Listed below are specific changes made to this capability.

- Focuses on collaboration by expanding suggested partners for implementing nonpharmaceutical interventions (NPIs)
- Supports establishment of community reception center processes to enhance ability to respond to radiological and nuclear threats
- Highlights management of mass gatherings (delay and cancel) based on all-hazards scenarios

For the purposes of Capability 11, partners and stakeholders may include the following:

- agriculture departments
- businesses
- community and faith-based organizations
- environmental health agency
- government agencies
- groups representing and serving populations with access and functional needs
- health care organizations
- jurisdictional emergency management agency
- law enforcement
- legal authorities
- mental/behavioral health agencies
- public health agencies
- school districts
- social services
- state radiation control programs
- travel and transportation agencies
- tribes and native-serving organizations

Function 1: Engage partners and identify factors that impact nonpharmaceutical interventions

Function Definition: Engage with partners and stakeholders to identify authorities, policies, and community factors that guide decision-making about NPIs and to determine jurisdictional roles and responsibilities for NPIs.

Tasks

Task 1: Identify authorities, policies, and other factors that impact NPIs. Identify jurisdictional, legal, and regulatory authorities and policies as well as other community factors that enable or limit the ability to recommend and implement NPIs.

Task 2: Determine jurisdictional roles and responsibilities related to NPIs. Determine jurisdictional lead and support roles for implementing NPIs, and confirm roles and responsibilities among partners and stakeholders.

Preparedness Resource Elements

P1: (Priority) Documentation of applicable jurisdictional, legal, and regulatory authorities and policies for recommending and implementing NPIs in incident-specific situations. Develop and incorporate guidance to address existing legal and policy gaps with assistance from legal counsel or academic partners as necessary. Policies and guidance may include

- Written agreements, such as contracts or memoranda of understanding (MOUs), with law enforcement that describe how NPIs would be implemented
- Procedures for how decision-making processes are used to identify the most effective NPIs while imposing the least amount of restrictions on individual rights
- Criteria for initiating and ceasing use of NPIs
- Written agreements with community partners outlining roles, responsibilities, and access to necessary resources to implement NPIs
- Contact information for representatives from partner agencies and organizations
- Written agreements with health care providers to establish a common operating picture, including
  - Procedures to communicate case definitions to health care providers, as determined from epidemiological surveillance
  - Procedures for health care providers to rapidly report suspected and confirmed cases to the public health agency
- Assessment of the access and functional needs of at-risk individuals who may be disproportionately impacted by the incident and plans to address identified access and functional needs

(See Capability 1: Community Preparedness, Capability 6: Information Sharing, and Capability 13: Public Health Surveillance and Epidemiological Investigation)

P2: (Priority) Identification and documentation of local conditions or incident characteristics that are relevant to the NPI decision-making process. These factors may include

- Individuals and groups, such as active monitoring and restriction of movement
- Facilities, such as health care facilities, safe housing, and shelters
- Animals, such as service animals, ill animals, animals exposed to infectious diseases, and animals exposed to environmental, chemical, and radiological hazards

- Food safety, such as contaminated consumer food products
- Imported items that fall under federal regulations, such as human remains, human tissues or products, animal meat, trophy shipments, and non-human primate shipments
- Public works and utilities, such as water supply
- Travel through ports of entry

Function 2: Determine nonpharmaceutical interventions

Function Definition: Collaborate with subject matter experts and community representatives to make recommendations for NPIs based on incident characteristics and subject matter expertise in applicable specialties, such as epidemiology, laboratory, surveillance, health care, chemistry, biology, radiology, social service, emergency management, and law enforcement.

Tasks

Task 1: Engage subject matter experts to assess exposure or transmission. Assemble subject matter experts to assess the severity of exposure or transmission at the jurisdictional level and the need for NPIs.

Task 2: Develop recommendations for NPIs. Identify NPI recommendations based on science, risks, resource availability, and legal authorities.

Preparedness Resource Elements

P1: Decision matrix indicating questions for public health leadership and recommendation options based on existing community risk assessments and incident severity.

P2: (Priority) Procedures in place to develop NPI recommendations specific to the incident and based on science, risks, resource availability, and legal authorities. Categories of NPIs may include

- Separation of individuals with a contagious disease from individuals who are not sick (isolation)
- Separation or restricted movement of healthy, but exposed individuals to determine if they are ill (quarantine)
- Restrictions on movement and travel advisories and warnings, such as screening at port of entry, limiting public transportation, and issuing travel precautions
- Social distancing
  - School and childcare closures
  - Postponement or cancellation of mass gatherings
  - Closures and modifications of workplace or community events
- External decontamination
- Hygiene and sanitation
- Precautionary protective behaviors, such as personal decontamination, shelter in place, and face mask in special situations during severe pandemics

NPI recommendations may include

- Personnel and subject matter expert roles and responsibilities
- Intervention actions and their associated legal and public health authorities
- Pre-identified locations with specific equipment or easily adaptable locations

- Contact information and notification plans for community partners involved in intervention, meaning those providing services or equipment
- Impact of any secondary effects of implementing measures, such as needs for additional security or provision of essential goods and services to isolated or quarantined persons
- Intervention-specific methods for disseminating information to the public, such as methods to distribute information at ports of entry during public health events
- Processes for the phasedown of interventions when they are no longer needed
- Processes to supplement existing resources for surge capacity
- Guidance for health educators about NPIs
- Guidance for individuals about NPIs
- Identification of considerations that can inform decision making about starting or stopping use of NPIs

(See Capability 1: Community Preparedness, Capability 4: Emergency Public Information and Warning, Capability 13: Public Health Surveillance and Epidemiological Investigation, and Capability 14: Responder Safety and Health)

Skills and Training Resource Elements

S/T1: Personnel trained to understand jurisdictional risks, legal authorities, and options for implementing NPIs based on the best available science.

S/T2: Personnel trained to understand and implement their respective agency role(s) and responsibilities as they relate to NPIs.

Function 3: Implement nonpharmaceutical interventions

Function Definition: Coordinate with jurisdictional partners and stakeholders to implement and, if necessary, enforce the recommended NPI(s).

Tasks

Task 1: Implement NPIs in designated locations. Coordinate with jurisdictional officials to implement NPIs in priority locations, such as community settings where disease is circulating, isolation sites, or quarantine sites.

Task 2: Coordinate support services for NPIs. Assist community partners with coordinating support services, such as medical care, mental health services, and the provision of food and water, for individuals and communities targeted for NPI(s).

Task 3: Close locations and cancel events with mass gatherings. Implement voluntary or mandatory closure of specific locations or cancel large events in coordination with appropriate jurisdictional officials and other stakeholders.

Task 4: Restrict movement. Implement voluntary or mandatory restrictions on movement, as needed, in coordination with relevant jurisdictional officials, partners, and stakeholders.

Task 5: Manage and detain passengers at ports of entry. Coordinate with CDC's Division of Global Migration and Quarantine (quarantine station), port authorities, and jurisdictional officials to manage and detain passengers at ports of entry, as applicable to the incident, including security and law enforcement support, notification of family, and provision of food, shelter, water, and communication channels.

Task 6: Ensure external decontamination of individuals. Screen, register, and conduct external decontamination of potentially exposed or contaminated individuals.

Task 7: Inform the public, responder agencies, and other partners of recommendations for NPIs. Provide education and appropriate messaging to the public, responder agencies, and other partners regarding the recommended NPIs.

Preparedness Resource Elements

P1: (Priority) Written agreements, such as contracts or MOUs, with partners to implement appropriate plans for NPIs, including provisions of support services, such as care for dependent children, notification of family, and provision of food, shelter, water, and communication channels, to individuals during isolation or quarantine scenarios.

(See Capability 1: Community Preparedness and Capability 10: Medical Surge)

P2: (Priority) Written agreements, such as contracts or MOUs, to provide mental/behavioral health services to individuals affected by NPIs, including services to address the access and functional needs of at-risk individuals who may be disproportionately impacted by a public health incident or event. Agreements may be established for services, which may include

- Mental/behavioral health services for specific populations when monitoring restriction of movement, such as isolation or quarantine, or other NPIs , such as social distancing and implementation of specialized hygiene requirements
- Mental/behavioral health services for families and dependents of those placed under mandatory restrictions
- Systems to provide mental/behavioral health services in person or via alternate communication methods, including phone, Internet, social media, teleconference, or other means

P3: (Priority) Procedures in place to separate and monitor cohorts of potentially exposed travelers from the general population at ports of entry.

Legal and regulatory considerations that apply to ports of entry may include

- State or local legal authorities for detention, quarantine, and conditional release of potentially exposed persons and isolation of ill persons
- Triggers for transfer of authority, such as from federal to state or local levels or vice versa
- Local and state port of entry Communicable Disease Response Plans, as described in the Code for Federal Regulations, 42 CFR, Parts 70 and 71
- Information sharing between CDC and state, local, tribal, and territorial public health authorities, including protection of sensitive information, such as protected health information

Resource and planning considerations may include

- Identification of personnel and other resources, including facilities and equipment, at or near ports of entry to be used for separation of cohorts
- Resources to address the needs of individuals for food, water, shelter, communications, and other resources
- Processes to supplement or surge resources
- Scalable plans to accommodate cohorts of various sizes in facilities
- Processes for transportation of cohorts to and security at pre-identified sites

(See Capability 13: Public Health Surveillance and Epidemiological Investigation)

P4: Procedures in place to implement isolation or quarantine measures at designated locations. Procedures may include

- Timeframe for establishing supporting operations at designated locations
- MOUs or similar agreements with site owners for use of sites
- Written agreements for equipment needed at designated sites
- Triggers for transfer of authority, such as from federal to state or local levels or vice versa
- Pre-identified sites for housing cohorts to be isolated or placed under quarantine
- Environmental conversion of sites needed for intervention, such as converting rooms to negative pressure and establishing isolation rooms, dedicated patient care equipment, and separate areas for donning and doffing personal protective equipment (PPE)
- Processes to supplement and surge resources, such as reallocating resources or obtaining additional resources through mutual aid or other agreements
- Documentation of expenses for potential reimbursement at either the jurisdictional or federal level
- Returning the site to normal operation, including decontamination, managing medical waste, or sanitization, if needed
- Advance consideration of family or child care issues that may have an impact on the implementation of a quarantine order

P5: Procedures in place to support coordination of population monitoring and external decontamination of individuals. Procedures may include

- Screening based on incident-specific criteria determined by relevant radiological or chemical subject matter experts
- Registration of exposed or possibly exposed individuals, including name, address, contact information, and location at the time of the incident. Include responders and volunteers in this registration process, as needed
- Processes to coordinate with organizations trained in decontamination to establish external decontamination stations at designated sites and removing or storing contaminated materials
- Facilitating referrals or transfers of individuals to emergency housing (accessible housing as needed) and to immediate or follow-up medical care

(See Capability 14: Responder Safety and Health and Capability 15: Volunteer Management)

P6: Procedures in place to support evacuation or relocation of populations because of a nuclear emergency, as appropriate, based on the jurisdictional public health role.

P7: Templates and intervention-specific public educational materials that are modifiable at the time of the incident. Public education content may include

- How the public can access reliable information and sources for obtaining official information, such as hotlines, websites, radio station or public service announcements, social media, and television
- Populations recommended to seek medical care
- When and where the public should or should not seek medical care, if applicable
- How to prevent infection or exposure, including hand washing and other protective behaviors applicable to an incident

(See Capability 1: Community Preparedness, Capability 4: Emergency Public Information and Warning, Capability 7: Mass Care, and Capability 10: Medical Surge)

Skills and Training Resource Elements

S/T1: Personnel trained in supporting operations at an emergency community reception center (CRC). This training focuses on

- Locating CRCs based on the amount of space needed, the anticipated magnitude of the incident, and population needs of the community
- Establishing crowd management operations, including the development of process flow or triage procedures and the distribution of patient information sheets during population monitoring
- Using on-site equipment to monitor external contamination
- Planning for and addressing the access and functional needs of at-risk individuals who may be disproportionately impacted by a public health incident or event to allow them to access and move through the CRC
- Facilitating referrals of individuals experiencing psychological trauma to mental/behavioral health services
- Establishing and maintaining contacts with federal agencies for equipment, personnel, and expertise

S/T2: Personnel or agencies with legal expertise authorized to advise individuals on legal or regulatory aspects of NPIs. Ensure the appropriate legal guidance needed for interventions, such as quarantine, isolation, and mandatory orders to close events or order evacuations.

S/T3: Relevant personnel trained to understand decontamination procedures.

Function 4: Monitor nonpharmaceutical interventions

Function Definition: 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.

Tasks

Task 1: Assess implementation and effectiveness NPIs. Assess the effectiveness and uptake of NPIs using relevant data about the disease or exposure, such as the degree of transmission, contamination, infection, and severity of exposure, and monitor potential unintended or adverse effects of interventions.

Task 2: Provide updated information to partners related to the use of NPIs. Provide reports about the use of NPIs, as needed, to relevant agencies, partners, and stakeholders to inform continuous and timely decision making.

Task 3: Revise recommendations for NPIs. Update recommendations for NPIs as indicated by the incident, including increasing or decreasing frequency or implementing new interventions.

Task 4: Conduct after-action reviews of NPIs. Identify lessons learned related to NPI implementation within after-action reports (AARs) and develop and implement corresponding improvement plans (IPs).

Preparedness Resource Elements

P1: (Priority) Procedures in place, developed in consultation with appropriate public health officials, to monitor the effectiveness of NPIs based on surveillance data and other information. Procedures may include

- Methods for evaluating public understanding of information messages about NPIs
- Indicators of compliance with interventions, such as findings from on-site inspections and participation in active monitoring
- Tracking of environmental changes, such as wind direction, that may impact the need for or effectiveness of interventions
- Surveillance methods to monitor ongoing rates of transmission, contamination, or infection and severity of exposure, including
  - Case definitions
  - Contact investigations
  - Surveys
  - Epidemic curves
  - Reproductive ratios
- Systems to be used for electronic laboratory reporting (ELR), electronic case reporting (eCR), environmental monitoring, and other epidemiological reporting

(See Capability 4: Emergency Public Health Information and Warning and Capability 13: Public Health Surveillance and Epidemiological Investigation)

P2: Procedures in place to describe how the public health agency will monitor cases or exposed persons with assistance from community partners. Procedures may include

- Sharing surveillance information between community partners and jurisdictional public health agencies
- Establishing a common operating picture between the jurisdictional public health agency and the health care system
- Following up with persons or households participating in NPI(s), which may involve registries, call lines, or periodic follow-up observations
- Protecting confidential information or personal identifiers, including secure receipt and storage of sensitive information

(See Capability 3: Emergency Operations Coordination, Capability 6: Information Sharing, and Capability 13: Public Health Surveillance and Epidemiological Investigation)

P3: Documented feedback related to intervention actions taken by local jurisdictions and community partners as part of the incident AAR and IP.

(See Capability 3: Emergency Operations Coordination)

P4: (Priority) Triggers and timeframes for ceasing NPIs.

(See Capability 3: Emergency Operations Coordination and Capability 13: Public Health Surveillance and Epidemiological Investigation)

Equipment and Technology Resource Elements

E/T1: Equipment to support collection and compilation of incident data, such as electronic communications and data storage equipment.

(See Capability 6: Information Sharing)

Capability 12: Public Health Laboratory Testing

Definition: Public health laboratory testing is the ability to implement and perform methods to detect, characterize, and confirm public health threats. It also includes the ability to report timely data, provide investigative support, and use partnerships to address actual or potential exposure to threat agents in multiple matrices, including clinical specimens and food, water, and other environmental samples. This capability supports passive and active surveillance when preparing for, responding to, and recovering from biological, chemical, and radiological (if a Radiological Laboratory Response Network is established) public health threats and emergencies.

Functions: This capability consists of the ability to perform the functions listed below.

- **Function 1:** Conduct laboratory testing and report results
- **Function 2:** Enhance laboratory communications and coordination
- **Function 3:** Support training and outreach

Summary of Changes: The updates align content with new national standards, updated science, and current public health priorities and strategies. Listed below are specific changes made to this capability.

- Updates Laboratory Response Network (LRN) requirements
- Incorporates LRN-chemical requirements
- Prioritizes cooperation, coordination, and information sharing with LRN laboratories, other public laboratories, and jurisdictional sentinel laboratories

For the purposes of Capability 12, partners and stakeholders may include the following:

- civil support teams
- clinical laboratories
- emergency management agencies
- environmental health
- epidemiologists
- federal laboratory networks and member laboratories[11]
- first responders
- food safety
- health care providers
- jurisdictional sentinel laboratories[11]
- law enforcement
- LRNs
- non-laboratory response health care providers
- non-LRN public health
- poison control centers

[11] For example, the Food Emergency Response Network, National Animal Health Laboratory Network, and the Environmental Response Laboratory Network

Function 1: Conduct laboratory testing and report results

Function Definition: Perform or coordinate laboratory testing to detect, characterize, confirm, and report biological, chemical, radiological, and public health threats using established protocols and procedures. Testing may include clinical specimens and food, water, and other environmental samples.

Tasks

Task 1: Check in samples for specimen testing. Receive, record, and route specimen samples to ensure that the samples are received by the appropriate laboratory for testing and that the specimen information is populated in the laboratory information system.

Task 2: Conduct specimen sample testing. Test clinical specimens and food, water, and other environmental samples according to designated laboratory type and level in order to identify biological, chemical, or radiological threat agents.

Task 3: Report presumptive or confirmed laboratory results. Notify appropriate public health, public safety, and law enforcement officials of results using electronic messaging in appropriate formats with the ability to notify 24/7.

Task 4: Maintain plans for surge and continuity of operations. Establish and maintain the ability to implement continuity of operations (COOP) plans and surge plans for both the short term (days) and long term (weeks to months).

Preparedness Resource Elements

P1: (Priority) LRN for Biological Threats Preparedness (LRN-B) Reference laboratories with proficiency in LRN-B testing methods and the ability to accurately test for agents as defined in the LRN-B Standard Laboratory Checklist.

P2: (Priority) LRN for Chemical Threats Preparedness (LRN-C) member laboratories with LRN-C Quality Assurance Program "Qualified" status achieved through the successful participation in proficiency testing challenges. LRN-C core and additional methods are identified on the restricted access LRN website and updated annually.

P3: (Priority) LRN for Radiological Threats Preparedness (LRN-R) participating laboratories with LRN-R Quality Assurance Program "Qualified" status achieved through the successful participation in performance testing challenges, if LRN-R is established.

P4: Procedures in place for referring suspicious samples, such as samples from sentinel laboratories or first responders, to the laboratory jurisdictionally designated to receive them. Recommended procedures include those to safely package, document, and ship suspicious samples.

P5: (Priority) Procedures in place to test and report high-consequence samples from designated areas. If a jurisdiction has a high priority area (HPA), the associated LRN-B Reference laboratory must maintain the ability to ensure testing and results reporting of high-consequence samples from these designated areas within 24 hours of notification that testing is required.

P6: Procedures in place to ensure proper security and maintenance of records management systems.

(See Capability 6: Information Sharing)

P7: (Priority) Procedures in place for data exchange with law enforcement, public safety, and other agencies with roles in responding to public health threats, as permitted by applicable laws, rules, and regulations. Procedures should address data security and prevent inappropriate or unauthorized disclosure of secure information. Procedures should detail the acceptable data exchange processes and list the order of priority for using each process.

(See Capability 6: Information Sharing)

P8: (Priority) Procedures in place for laboratory surge capacity based on best practices and models available through LRN programs. Recommended procedures may include

- Procedures to secure and deploy surge personnel, equipment, and facility resources for short-term (days) and long-term (weeks to months) response efforts
- Procedures for triage and management of surge testing, which may include
  - Referral of samples to other LRN laboratories within or outside the jurisdiction using mechanisms and guidance made available by the LRN
  - Prioritization of testing based upon sample type
  - Prioritization of testing based upon risk or threat assessment

(See Capability 10: Medical Surge)

P9: (Priority) Procedures in place for a laboratory COOP plan to ensure the ability to conduct ongoing testing on routine and emerging public health threats. COOP plans should include

- Procedures for regular maintenance of redundant testing supplies
- Processes to designate alternate testing facilities for short-term duration in case of localized infrastructure failure
- Agreements with other agencies to take over critical testing, as appropriate
- Procedures to address personnel shortages
- Procedures to address equipment failures
- Procedures to address operational loss of laboratory facilities

P10: Notification procedures to detail how laboratory results suggestive of an outbreak or exposure will be reported or messaged to appropriate health investigation partners using secure contact methods per LRN notification policies or laboratory-specific policies. Notification procedures should include appropriate messaging timeframes per LRN data messaging and other laboratory-specific policies.

(See LRN Notification and Data Messaging Policies, Capability 3: Emergency Operations Coordination, and Capability 6: Information Sharing)

Skills and Training Resource Elements

S/T1: (Priority) LRN-B Standard and Advanced Reference laboratories must meet all requirements of the LRN-B Standard Reference laboratories as listed in the Checklist of Laboratory Requirements for LRN-B Member Standard Level Reference Laboratories located on the restricted access LRN website. In addition, Advanced Reference laboratories must support CDC's LRN-B program office and the network in activities that may include

- Deployment of new technologies and specialized methods
- Evaluation of new technologies

[12] LRN Notification and Data Messaging Policies are located on the restricted access LRN website.

- Engagement in multicenter validation studies
- Participation in priority partnership exercises
- Provision of high throughput surge testing capacity
- Assistance with quality initiatives, including network training programs and proficiency testing remediation
- Maintenance of registration with Federal Select Agent Program
- Provision of resources to ship isolates to CDC for further clarification

S/T2: (Priority) All LRN-B, LRN-C, and LRN-R (if LRN-R is established) laboratories able to pass LRN proficiency testing, as required by the respective LRN program.

S/T3: LRN-B Advanced Reference laboratories and other Reference laboratories capable of performing LRN-B approved assays and participate in technical meetings, as necessary.

S/T4: Personnel who perform LRN protocols trained in LRN methods and able to demonstrate proficiency and competency in compliance with applicable regulations, such as Clinical Laboratory Improvement Amendments (CLIA) from regulatory agencies, such as the Centers for Medicare and Medicaid Services (CMS), College of American Pathologists (CAP), or other regulatory equivalent. Documentation should include training date(s) and manner of training delivery, such as formal or "train the trainer."

S/T5: Personnel from LRN-C laboratories who participate in the LRN-C biannual technical meeting, formerly known as Level 1 surge capacity meeting.

S/T6: Personnel who regularly perform LRN testing, including those identified for surge capacity, trained annually in appropriate safety procedures. Documentation should include training date(s) and manner of delivery, such as formal training or “train the trainer.”

S/T7: Personnel trained on emergency operations and incident management system.

S/T8: (Priority) All laboratories accredited by an appropriate accreditation body, such as CAP, CMS, or the International Organization for Standardization.

Equipment and Technology Resource Elements

E/T1: (Priority) At least one LRN-B approved instrument for rapid nucleic-acid detection and one LRN-B approved instrument for antigen-based detection owned and maintained by each LRN-B Reference laboratory. Instruments are listed in the current equipment list, which is updated annually on the restricted access LRN website. Preventative maintenance and service agreements must be provided for all equipment listed on the LRN-B equipment list.

E/T2: (Priority) Laboratory equipment and instruments serviced, inspected, and certified. The following should be established and maintained in coordination with public health emergency management

- Preventative maintenance contracts and service agreements for equipment and instruments described within applicable LRN protocols, procedures, and methods
- Inspection and certification of equipment and instruments used by the LRN-B and LRN-C according to manufacturers’ specifications

E/T3: (Priority) LRN-C Level 2 laboratories that own and maintain at least one instrument listed on the LRN-C equipment list. LRN-C Level 1 laboratories that own and maintain at least two instruments each listed on the LRN-C equipment list. Preventative maintenance and service agreements must be provided for all equipment listed on the LRN-C equipment list.

E/T4: (Priority) Reagent inventory and laboratory supplies maintained to levels adequate to perform routine testing, with plans for obtaining additional reagents or supplies during a surge event, establish priority access rights with suppliers, if possible.

E/T5: (Priority) Laboratory Information Management System (LIMS) that is routinely updated and maintained in order to send testing data to CDC according to CDC-defined standards. Procedures and resources needed to use and maintain the LIMS may include

- Protocols, including timelines, to send and receive data from local LIMS to CDC and other partners
- Local codes mapped to federal standards, such as Data Integration Requirements for LRN-B and LRN-C
- Dedicated information technology (IT) support personnel to maintain and update LIMS or contractual agreements with LIMS vendors that are familiar with national standards, such as LIMS integration, Public Health Laboratory Interoperability Project, and industry standards, such as logical observation identities, names, and codes; systematized nomenclature of medicine; Health Level 7 (HL7), to configure the LIMS
- Periodic validation of LIMS functionality and message structure
- Alternate data sharing strategies in the event of a failure in the LIMS or CDC-provided systems for LRN data exchange

E/T6: Representative(s) from both the LRN-B and LRN-C laboratories in the jurisdiction with current Secure Access Management Services (SAMS) access to electronic data exchange systems.

E/T7: At least one working computer able to access LRN and partner electronic data exchange systems.

E/T8: Access to a mechanism (automated, electronic, or paper-based) for messaging results to LRN-B, LRN-C, and LRN-R (if LRN-R is established).

E/T9: Access to an operational and biosafety level 3 (BSL-3) laboratory either on site or through a memorandum of understanding (MOU) or other formalized agreement.

Function 2: Enhance laboratory communications and coordination

Function Definition: Ensure timely laboratory results reporting to stakeholders to support determination of the cause or origin, definitively characterize the threat, and inform deployment of appropriate countermeasures.

Tasks

Task 1: Ensure effective information exchange. Ensure timely exchange of laboratory information and data with laboratories, laboratory network partners, and other stakeholders. Provide unique identifiers that support linking laboratory data to epidemiologic data.

Task 2: Coordinate with preparedness partners to support public health investigations. Use laboratory testing to coordinate public health investigations with preparedness and response partners, as required by the incident.

Task 3: Provide investigative consultation and technical assistance. Support jurisdictional public health agencies, first responders, law enforcement, and other health investigation partners with sample collection, management, and safety.

Preparedness Resource Elements

P1: (Priority) Procedures in place to facilitate cooperation, coordination, and information sharing with and among stakeholders, which may include

- LRN-B, LRN-C, and LRN-R (if LRN-R is established) member laboratories within the jurisdiction, including jurisdictional sentinel laboratories, and non-LRN public health laboratories, such as those identified in COOP planning for example, environmental, agricultural, veterinary, and local public health
- Federal laboratory networks and member laboratories for example, the Food Emergency Response Network, National Animal Health Laboratory Network, and the Environmental Response Laboratory Network
- Poison control centers that can serve as supporting resources for exposure incidents
- Health care providers or clinical laboratories that may be packaging and shipping samples and, subsequently, receiving sample results during a response
- Epidemiologists who interface with hospitals, public health agencies, and laboratories

(See Capability 6: Information Sharing, Capability 7: Mass Care, Capability 10: Medical Surge, and Capability 13: Public Health Surveillance and Epidemiological Investigation)

P2: (Priority) Procedures or guidelines in place to coordinate with relevant stakeholders in specific incidents. Procedures may include

- Procedures for communicating with sentinel laboratories in the event of a public health incident
- Policies developed in coordination with jurisdictional stakeholders for handling biological, chemical, radiological, nuclear, and explosive incidents
- Coordination with first responders who may initially identify overt exposure incidents
- Coordination with Civil Support Teams (CSTs) to establish partnerships between CSTs and the public health laboratories with respect to field analysis of unknown samples
- Coordination with local law enforcement and Federal Bureau of Investigation (FBI) field offices for screening and triage procedures for environmental samples, such as biological, chemical, radiological, and explosive materials
- Coordination with emergency management officials and other relevant entities, such as fusion centers supporting an emergency response, including incidents when the Emergency Management Assistance Compact (EMAC) is activated
- Updated contact list for state, local, tribal, and territorial law enforcement and first responder units, such as HazMat and poison control center, who are approved to perform screening and triage procedures on unknown samples

(See Capability 3: Emergency Operations Coordination and Capability 14: Responder Safety and Health)

P3: Designated individual(s) responsible for coordinating emergency response activities, such as personnel safety, sample collection, methods training, plans, guidance, and outreach to sentinel laboratories and first responder communities.

(For additional guidance on chain of custody procedures, see the restricted access LRN website)

P4: Updated contact list for LRN-B laboratories (sentinel and public health laboratories), LRN-C laboratories, and LRN-R laboratories (if LRN-R is established) in the jurisdiction as well as other jurisdictional laboratories that collaborate with the public health agency.

(See Capability 6: Information Sharing)

Skills and Training Resource Elements

S/T1: Personnel with awareness of current national policy and leading practices for biological, chemical, and radiological (if LRN-R is established) threat preparedness attained through regular participation in LRN national meetings, if available.

S/T2: Public health laboratory managers and directors, meaning those responsible for overseeing laboratory activities, who have completed the CDC/FBI Joint Criminal Epidemiology Investigations workshop, as needed. Coordinate with FBI field office to complete this workshop.

Function 3: Support training and outreach

Function Definition: Perform outreach, facilitate access to training, and maintain applicable protocols for sample collection, handling, packaging, processing, shipping, transport, receipt, storage, retrieval, and disposal.

Tasks

Task 1: Facilitate access to training for handling, packaging, and shipping samples. Ensure established International Air Transport Association (IATA), U.S. Department of Transportation (DOT), and other laboratory-specific protocols are followed when managing laboratory samples.

Task 2: Maintain chain of custody procedures. Ensure chain of custody requirements are maintained throughout the sample management process.

Task 3: Support training, exercising, and laboratory participation in preparedness and response operations. Provide or facilitate access to training and exercises for relevant stakeholders.

Preparedness Resource Elements

P1: (Priority) Procedures in place for sample collection, triage, labeling, packaging, shipping, transport, handling, storage, and disposal. Sample collection procedures should include 24/7 contact information and submission criteria in accordance with applicable requirements, such as requirements from the IATA, DOT, and Federal Select Agent Program.

P2: (Priority) Transportation security procedures in place that may include

- Select agent and toxin regulations (if applicable)
- Biosafety or biosecurity plan (applicable even if laboratory is not select agent registered)
- Chemical hygiene plan
- LRN-R: Radiation Safety and Security Plan (if LRN-R is established)
- Other protocols, as needed, to ensure adherence to applicable federal, state, local, tribal, and territorial regulations related to transport of clinical specimens and hazardous and radiological materials

P3: Procedures in place for chain of custody that meet the minimum sample control evidentiary procedures established by federal agencies and partners, such as the FBI, LRN, and Integrated Consortium of Laboratory Networks.

P4: A designated biological safety officer or official (BSO) for technical support and guidance regarding internal laboratory activities and technical assistance to strengthen biosafety in sentinel clinical laboratories.

P5: Procedures in place to ensure adequate supplies for packaging and shipping are available 24/7, including procedures to rapidly procure additional supplies when needed.

Skills and Training Resource Elements

S/T1: Ability to provide packaging and shipping training or information on the availability of packaging and shipping training in DOT regulations or IATA guidance for public health laboratory personnel and sentinel laboratories.

S/T2: (Priority) Laboratory personnel certified in a shipping and packaging program that meets national and state or territorial requirements.

S/T3: Biological, chemical, and radiological (if LRN-R is established) threat laboratory personnel trained annually on chain of custody procedures. Documentation should include training date(s) and manner of delivery, such as formal training or "train the trainer."

S/T4: Laboratory personnel trained annually in safety protocols for handling samples being prepared for shipment. Documentation should include training date and manner of delivery, such as formal training or "train the trainer."

S/T5: Laboratory adherence to appropriate regulatory requirements that may include

- A valid select agent registration number (LRN-B Advanced Reference laboratories only). Standard Reference laboratories are encouraged, but not required, to maintain select agent registration
- Valid shipping permit(s) from the U.S. Department of Agriculture, Animal and Plant Health Inspection Service, and Veterinary Services, as necessary
- License(s) from the Nuclear Regulatory Commission or state entities as required (LRN-R laboratories only, if network is established)

S/T6: Public health laboratory designee(s) trained, as needed, to advise on proper collection, packaging, labeling, shipping, and chain of custody procedures for shipping samples.

S/T7: (Priority) Laboratories trained in partnership with public health emergency management programs to support laboratory preparedness and response operations. Activities may include

- Education, training, and exercising to advance knowledge and skills necessary to perform LRN duties. Trainings may be provided by CDC, the Association of Public Health Laboratories (APHL), or other respected entities with appropriate expertise and may include
  - Rule-out and refer for biological threat agents
  - Packaging and shipping of infectious substances
  - Specimen collection and shipping for chemical and radiological analysis
- Participation in public health exercises and drills, including those required for LRN membership and others necessary for emergency preparedness and response
- Moot court training

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. It also includes the ability to expand these systems and processes in response to incidents of public health significance.

Functions: This capability consists of the ability to perform the functions listed below.

- **Function 1:** Conduct or support public health surveillance
- **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

Summary of Changes: The updates align content with new national standards, updated science, and current public health priorities and strategies. Listed below are specific changes made to this capability.

- Increases alignment to public health surveillance and data strategies
- Strengthens surveillance systems for persons in isolation or quarantine and persons placed under monitoring and movement protocols
- Emphasizes syndromic surveillance and data collection to improve situational awareness and responsiveness to hazardous events and disease outbreaks, for example, participation in the CDC's National Syndromic Surveillance Program BioSense Platform

For the purposes of Capability 13, partners and stakeholders may include the following:

- agricultural agencies
- clinical laboratories
- clinicians
- community health centers
- environmental health agencies
- first responders
- food safety agencies
- health care organizations
- law enforcement agencies
- medical examiner or coroner offices
- poison control centers
- public health officials

Function 1: Conduct or support public health surveillance

Function Definition: Conduct or support ongoing systematic collection, analysis, interpretation, and management of public health-related data to effectively detect, verify, characterize, and manage a threat, hazard, risk, or incident of public health concern throughout and following an incident.

Tasks

Task 1: Engage stakeholders to support public health surveillance and investigation. Coordinate activities with jurisdictional laboratories, partners, and stakeholders who can provide public health-related surveillance data to support routine and emergency responses requiring surveillance and epidemiological investigation.

Task 2: Conduct or support routine and incident-specific surveillance. Use data to conduct and support health-related surveillance. Data sources for surveillance may include

- Case findings
- Hospital discharge abstracts
- Population-based surveys
- Pre-hospital emergency medical services records
- Registries
- Reportable disease surveillance
- Syndromic surveillance
- Vital records
- Other inputs

Task 3: Share surveillance findings. Share surveillance data and communicate statistical analyses of surveillance data to the jurisdictional public health agency and other applicable jurisdictional leaders, health care providers, and data providers to assist with the prompt identification of potentially affected populations at risk for adverse health outcomes and enable rapid decision making during a natural or human-caused public health threat or incident.

Task 4: Maintain and improve surveillance systems. Maintain, assess, and strengthen surveillance systems, and continuously support bi-directional information exchange to respond promptly to public health threats, hazards, and incidents.

Preparedness Resource Elements

P1: (Priority) Legal and procedural frameworks for jurisdiction personnel involved in surveillance and epidemiology to support mandated and voluntary information exchange with a wide variety of community partners and stakeholders, including tribal communities and populations at risk to be disproportionately impacted by the incident.

P2: (Priority) Procedures in place to gather and analyze data on a broad range of health indicators, such as indicators identified in novel or emerging public health threats, case definitions, and World Health Organization (WHO) public health emergencies of international concern (PHEIC) declarations.

Surveillance activities, ranging from passive to active, may include

- Reportable condition surveillance for conditions mandated for inclusion in case reporting to public health agencies, such as monitoring travelers from high-risk areas. Reportable condition surveillance activities may include
  - Electronic laboratory reporting (ELR)
  - Electronic case reporting (eCR) for reportable conditions from clinical laboratories and health care providers
  - Other notifiable disease and injury surveillance, such as non-electronic reporting and astute clinician notification
- Environmental health surveillance
- Incident-specific surveillance (sentinel surveillance)
- Syndromic surveillance to improve situational awareness, which may include
  - CDC's National Syndromic Surveillance Program BioSense Platform
  - Surveillance systems for pregnancy, infants, and birth defects
  - State or locally developed syndromic surveillance systems
- Vital statistics surveillance, including birth and death registration
- Animal-related surveillance and vector control

Data to gather and analyze may include

- Active case finding data, such as health care logs and record reviews
- Background or baseline disease data
- Chemical exposure assessment data, such as data from the Assessment of Chemical Exposure (ACE) Program
- Environmental data, such as air quality, ground or surface water, water quality testing, and soil or sediment data
- HazMat data, such as hazardous material spills
- Hospital and other health care services data, such as discharge abstracts
- Immunization data
- Law enforcement data
- Mental/behavioral health data
- Poison control center data
- Population-based survey data
- Radiological exposure and dose reconstruction data
- Responder monitoring data
- Unusual incident of unexplained morbidity or mortality in humans or animals data
- Workers compensation claims data
- Work-related injuries and illnesses data, such as Occupational Safety and Health Administration (OSHA) 300 logs
- Zoonotic disease or animal data

(See Capability 6: Information Sharing, Capability 14: Responder Safety and Health, and Capability 15: Volunteer Management)

P3: (Priority) Procedures specific to public health surveillance in place to access and share health-related information while following jurisdictional requirements and federal laws for protecting personal health information and personally identifiable information, such as institutional security and confidentiality policies.

(See Capability 6: Information Sharing and Capability 12: Public Health Laboratory Testing)

P4: (Priority) Procedures in place for the jurisdictional public health agency to access, collect, analyze, interpret, and respond to reports of potential public health threats or incidents.

(See Capability 3: Emergency Operations Coordination)

P5: (Priority) Regularly updated and verified list(s) of identified stakeholders who will share, receive, and distribute surveillance reports.

(See Capability 6: Information Sharing)

P6: (Priority) Procedures in place to notify CDC of cases of diseases or conditions included in the National Notifiable Disease Surveillance System (NNDSS). Procedures also include immediate notifications concerning PHEICs.

(See Capability 6: Information Sharing)

P7: Procedures in place to ensure the electronic exchange of personal health information meets applicable patient privacy-related laws, standards, and jurisdictional requirements. Laws, standards, and requirements may include

- Health Insurance Portability and Accountability Act (HIPAA)
- Health Information Technology for Economic and Clinical Health Act
- 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 (HHS)
- Message mapping guides for Health Level 7 (HL7) case notifications

(See Capability 6: Information Sharing)

P8: Procedures in place to assess and improve systems to ensure continuity of surveillance operations if primary surveillance and detection systems are disrupted for example, due to power failure or compromise of electronic infrastructure.

Skills and Training Resource Elements

S/T1: (Priority) Public health personnel who participate in data collection, analysis, and reporting to support surveillance investigations trained, at a minimum, in the Tier 1 level Applied Epidemiology Competencies (AEC). Personnel skilled and able to use software systems to support data collection, reporting, management, and analysis. Consideration should be given to

- Securing assistance (through coordination with academic institutions or state-level personnel) from individuals with Tier 2 level AECs when creating a new system or updating an existing system
- The Public Health Informatics Institute Applied Public Health Informatics Competency Model

Equipment and Technology Resource Elements

E/T1: Systems to accept, process, analyze, exchange, and share surveillance and epidemiological data across multiple disciplines. These systems also may track and monitor known cases and exposed persons through disposition to enable short- and long-term follow-up. Systems may include

- ELR systems
- Electronic laboratory test order and reporting (ETOR) systems
- eCR systems
- Electronic death registration systems (EDRS)
- Syndromic surveillance systems
- Outbreak management systems
- System for tracking investigation or monitoring of potential contacts to cases, meaning systems that track isolated and quarantined persons for direct active monitoring
- Immunization registries or immunization information systems
- Emergency management information sharing systems, such as WebEOC
- Emergency Responder Health Monitoring and Surveillance™ (ERHMS™) and occupational registries
- Zoonotic disease surveillance systems
- HazMat reporting systems
- National Poison Data System (NPDS)
- Environmental public health tracking systems (EPHT)

(See Capability 6: Information Sharing, Capability 14: Responder Safety and Health, and Capability 15: Volunteer Management)

E/T2: Systems to ensure the electronic management and exchange of information, including laboratory test orders, samples, results, and other information, with jurisdictional partners and stakeholders. Systems should be capable of interfacing with pertinent databases and meet necessary computing power and technical specifications.

Function 2: Conduct public health and epidemiological investigations

Function Definition: Identify the source of a case or outbreak of disease, injury, or exposure and the associated determinants in a population, including time, place, person, vital status, or other indices, to report results and findings to cross-disciplinary jurisdictional and federal partners and stakeholders.

Tasks

Task 1: Conduct public health and epidemiological investigations. Investigate diseases, injuries, and exposures in response to natural or human-caused threats or incidents in collaboration with jurisdictional stakeholders.

Task 2: Provide support to local public health and epidemiological investigations. Provide clinical and public health-related consultations to support public health agency investigations.

Task 3: Share public health and epidemiological investigation findings. Report investigation results to impacted communities and jurisdictional and federal partners, as applicable.

Preparedness Resource Elements

P1: (Priority) Templates for outbreak or multiple exposure investigation reports that may include

- Context and background—Information to characterize the incident may include
  - Population(s) affected, including the estimated number of persons exposed, number of persons affected, and relevant demographic information, such as age, disability status, chronic health condition(s), and pregnancy or lactation status
  - Location(s), such as setting or venue
  - Geographical area(s) involved
  - Timeframe(s)
  - Suspected or known etiology
  - Jurisdictional risks
- Initiation of investigation—Information regarding receipt of the case report or notification and initiation of the investigation may include
  - 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 may include
  - Initial investigative activity, such as verified laboratory results
  - Interviews
  - Case definitions (as applicable)
  - Data collection and analysis methods , such as case-finding, cohort or case-control studies, and environmental data
  - Disaster epidemiology tools, such as the Community Assessment for Public Health Emergency Response (CASPER) toolkit and the Assessment of Chemical Exposures (ACE) Program toolkit
  - Data presentation and visualization, such as disaster epidemiology tools, epidemic curves, attack rate tables, and maps
  - Questionnaires
  - Exposure assessments and classifications
  - Radiation dose assessment or reconstruction
  - Review reports developed by first responders, laboratory testing of environmental samples, reviews of environmental testing records, and industrial hygiene assessments
- Investigation findings and results—Applicable investigation results may include
  - Epidemiological results
  - Exposure assessment results
  - Laboratory results
  - Biomonitoring results
  - Clinical results
  - Other analytic findings
  - Record(s) of case notification(s)
- Discussion and conclusions—Analysis and interpretation of investigation results and conclusions drawn as a result of performing the investigation

- Recommendations—Suggested approaches for controlling spread of disease or preventing future outbreaks or preventing or mitigating the effects of an acute environmental hazard
- Key investigators and report authors—Names and titles to facilitate communication with partners, clinicians, and other stakeholders

P2: Procedures in place to support jurisdictional methods for conducting investigations of public health, environmental, and occupational threats, incidents, and hazards. Investigation considerations may include

- Elements or instances that trigger the start of an investigation, including the initiation date and time of investigation
- Identification of population(s) at risk to be disproportionately impacted by an incident
- Identification of individual case or exposure status (confirmed, probable, and suspected cases)
- Identification of jurisdictional risks, including jurisdictional risk assessment findings
- Identification of exposed persons and contact tracing
- Determination of source, exposure, and, as applicable, transmission mapping of identified and suspect cases, injuries, or exposures within the jurisdiction

P3: Procedures in place to establish partnerships, conduct investigations, and share information with other governmental agencies, partners, and organizations to support populations at risk of adverse health outcomes as a result of the incident.

P4: Written agreements, such as contracts or memoranda of understanding (MOUs), to authorize joint investigations and information exchange and to clarify agency roles between public health and other partners and stakeholders.

P5: Laws, statutes, policies, and procedures that ensure jurisdictional public health agencies have the authority to collect and share a uniform set of jurisdictional health-related data associated with diseases, exposures, or injury conditions of public health importance.

(See Capability 6: Information Sharing)

Skills and Training Resource Elements

S/T1: Personnel trained to manage and monitor routine surveillance and epidemiological investigation systems at the jurisdictional level and support surge requirements in response to natural and human-caused threats or incidents. Personnel skilled and able to use software systems to support data collection, reporting, management, and analysis. Specific jurisdictional needs may include

- Personnel, including surge support personnel with Tier 1 level AECs
- Access to individuals, such as academic or state-level personnel, with Tier 2 level AECs when creating a new or updating an existing system

Equipment and Technology Resource Elements

E/T1: Public health surveillance systems to monitor health status and exposure risks of individuals and groups, including criteria for reporting health events and criteria or processes for maintaining or contributing to population health surveillance registries.

E/T2: Information systems to aid in the development of public health investigation reports using available and relevant information, such as results from clinical, environmental, or forensic samples may include

- Databases or registries with the capacity to both receive and transmit data cross-jurisdictionally using standards-based electronic messaging that adheres to relevant HHS standards for Certified Electronic Health Records, Meaningful Use, and other interoperability standards
- Databases and registries that include protocols to protect personal health information in conformity with jurisdictional requirements and federal law, such as privacy and cybersecurity policies

(See Capability 6: Information Sharing)

Function 3: Recommend, monitor, and analyze mitigation actions

Function Definition: Recommend, implement, and support public health interventions that contribute to the mitigation of a threat, hazard, risk, or incident, and monitor intervention effectiveness.

Tasks

Task 1: Identify public health guidance and recommendations. Determine appropriate clinical, epidemiological, and environmental-related public health actions to mitigate threats, hazards, risks, or incidents based on current public health science-based standards.

Task 2: Share appropriate public health guidance and recommendations. Communicate and coordinate guidance and recommendations with public health officials, partners, and stakeholders to support decision-making related to mitigation actions.

Task 3: Monitor and assess public health interventions. Evaluate public health mitigation actions throughout the duration of the public health response and recommend additional mitigation measures as appropriate.

Preparedness Resource Elements

P1: (Priority) Procedures in place, developed in consultation with appropriate public health officials, to initiate and sustain surveillance, exposure containment, control, and mitigation actions, such as embargo, access restrictions, and isolation and quarantine in response to public health threats, hazards, risks and incidents. Procedures may include

- Case definitions
- Contact investigations
- Clinical management of potential or actual cases
- Provision of medical countermeasures
- Processes for exercising relevant legal authorities
- Provision of essential goods and services for isolated or quarantined persons
- Consultation with the Council of State and Territorial Epidemiologists (CSTE)

(See Capability 1: Community Preparedness, Capability 6: Information Sharing, Capability 8: Medical Countermeasure Dispensing and Administration, and Capability 11: Nonpharmaceutical Interventions)

P2: Procedures in place to use health-related data and statistics from partners, stakeholders, and jurisdictional public health agency programs that support recommendations for populations at higher risk for adverse outcomes during a natural or human-caused threat, hazard, risk, or incident.

(See Capability 1: Community Preparedness and Capability 6: Information Sharing)

P3: Procedures in place to track mitigation actions, monitor performance, and document and share outcomes using data instruments, such as data reports or statistical summaries consistent with recommended science-based standards and sources, which include

- Control of Communicable Diseases Manual
- Epidemic Information Exchange (Epi-X)
- Health Alert Network (HAN) alerts
- Morbidity and Mortality Weekly Report
- Red Book of Infectious Diseases
- State or CDC incident reports/annexes

(See Capability 2: Community Recovery, Capability 5: Fatality Management, Capability 7: Mass Care, Capability 8: Medical Countermeasure Dispensing and Administration, Capability 11: Nonpharmaceutical Interventions, and Capability 14: Responder Safety and Health)

Skills and Training Resource Elements

S/T1: Personnel trained to conduct epidemiological investigations, including radiation assessment and monitoring, public health informatics, and public health information systems. CDC recommends that personnel are trained on the specific information systems used within their jurisdiction.

(See Capability 1: Community Preparedness)

S/T2: Personnel trained on Homeland Security Exercise and Evaluation Program (HSEEP) processes for developing after-action reports (AARs) and improvement plans (IPs).

Function 4: Improve public health surveillance and epidemiological investigation systems

Function Definition: Assess internal agency surveillance and epidemiologic investigation systems and implement quality improvement measures within jurisdictional public health agency control.

Tasks

Task 1: Evaluate effectiveness of public health surveillance and epidemiological investigation processes and systems. Evaluate surveillance and epidemiological investigation outcomes to identify deficiencies encountered during responses to public health threats and incidents and recommend opportunities for improvement.

Task 2: Identify and prioritize corrective actions. Conduct post-incident or post-exercise agency evaluation meetings with response participants and relevant partners and stakeholders to identify procedures and organizational opportunities for improvement requiring corrective action.

Task 3: Establish an after-action process, share after-action report(s) and improvement plan(s), and implement and monitor corrective actions. Obtain feedback from after-action conferences, hot washes, and incident debriefings. Develop and share AARs and IPs, and implement corrective actions.

Preparedness Resource Elements

P1: (Priority) Procedures in place to assess jurisdictional response effectiveness with local public health agencies, data submitters, affected populations, and other key partners and stakeholders after the acute phase of a threat or incident. Recommended procedures may include

- Hot washes to effectively communicate response strengths and opportunities for improvement
- After-action processes, including completing AARs and IPs, and committees to effectively identify corrective actions
- Venues, such as town hall meetings to inform affected populations and other stakeholders
- Presentation and publication of epidemiologic investigations to contribute to the scientific body of evidence and improve knowledge of best practices and lessons learned

(See Capability 3: Emergency Operations Coordination)

P2: (Priority) Procedures in place to communicate AAR and IP findings to data submitters and other key partners and stakeholders, including groups representing affected populations, to implement identified corrective actions.

Skills and Training Resource Elements

S/T1: Personnel trained on quality improvement processes and techniques.

S/T2: Personnel trained on HSEEP AAR and IP guidelines.

(See Capability 3: Emergency Operations Coordination)

S/T3: Personnel trained to meet public health informatician competencies, as defined in CDC's Competencies for Public Health Informaticians, to contribute to information sourcing, use, and re-use for surveillance and epidemiologic analysis.

Equipment and Technology Resource Elements

E/T1: Electronic and non-electronic tools and methods for data collection, management, analysis, and sharing.

E/T2: Systems to track implementation and impact of corrective actions identified within AARs and IPs.

(See Capability 3: Emergency Operations Coordination)

Capability 14: Responder Safety and Health

Definition: Responder safety and health is the ability to protect public health and other emergency responders during pre-deployment, deployment, and post-deployment.

Functions: This capability consists of the ability to perform the functions listed below.

- **Function 1:** Identify responder safety and health risks
- **Function 2:** Identify and support risk-specific responder safety and health training
- **Function 3:** Monitor responder safety and health during and after incident response

Summary of Changes: The updates align content with new national standards, updated science, and current public health priorities and strategies. Listed below are specific changes made to this capability.

- Incorporates the need to securely manage responder data
- Improves responder on-site management, tracking, in-processing, and out-processing
- Reprioritizes hierarchy of control and promotes the alignment of responder safety and health control measures for example, personal protective equipment (PPE), with jurisdictional risk assessment findings

For the purposes of Capability 14, partners and stakeholders may include the following:

- agriculture agencies
- emergency management agencies
- emergency responders[12]
- environmental health agencies
- environmental protection agencies
- health care agencies
- immunization programs
- incident safety officers
- mental/behavioral health providers
- occupational health subject matter experts
- occupational safety and health agencies
- public health agencies
- responder representatives
- social services
- state radiation control programs
- state epidemiology and communicable disease programs
- veterinary public health programs
- volunteer organizations
- wildlife agencies

[13] For example, contractors, volunteers, emergency medical services (EMS), law enforcement, fire departments, hospital and medical services personnel

Function 1: Identify responder safety and health risks

Function Definition: Identify and prioritize responder safety and health risks, and determine the protection and control measures, medical services, including the provision of medical countermeasures, and mental/behavioral health support services necessary to protect and support responders.

Tasks

Task 1: Identify and prioritize safety and health risks. In conjunction with partner agencies, identify and prioritize the potential medical, environmental, and mental/behavioral health risks responders may encounter during an incident with public health consequences based on jurisdictional risk assessment findings.

Task 2: Identify, prioritize, and recommend protection and control measures, medical services, and mental/behavioral health support services for responders. Use a hierarchical approach in coordination with partners and stakeholders to identify, prioritize, and recommend protection and control measures, medical countermeasures, such as vaccinations, mental/behavioral health support services, and other resources to protect and support incident responders.

Task 3: Develop or refine incident safety plan. Use identified safety and health recommendations to develop or refine incident safety plan.

Task 4: Support responder eligibility confirmation. Provide recommendations and guidance to support pre-incident screening and verification of responder credentials, training, and health status, such as vaccinations, physical fitness, and mental health, to ensure suitability for deployment role.

Preparedness Resource Elements

P1: (Priority) Safety and health risk scenarios for public health responders, identified in consultation with partners and coordinating agencies. Scenario characteristics to consider before, during, and after an incident or event may include

- Exposure limits or injury risks necessitating a response
- Job-specific worker safety guides to address risks and hazards from radiation, heat, fire, infectious disease vectors and exposures, infrastructure damage resulting in hazardous material release, and other sources
- Potential for medical and mental/behavioral health assessments during and after the event
- Health care facilities
- PPE or other protective actions, behaviors, or activities required to execute potential response assignments

P2: (Priority) Defined public health agency roles and responsibilities for responder safety and health, such as conducting public health assessments, potable water inspections, field interviews, and points of dispensing staffing, related to identified jurisdictional risks established in conjunction with partner agencies.

P3: (Priority) Incident safety plans, such as site safety and control plan and medical plan (ICS 206 and 208) that include clear and concise statements for safety message(s), priorities, and key command emphasis, decisions, and directions. Plans should include mutual aid agreements (or similar agreements)

to access and provide backup equipment for incident response, including intra- and inter-jurisdictional sources of additional equipment and personal protective resources.

(See Capability 3: Emergency Operations Coordination and Capability 9: Medical Materiel Management and Distribution)

P4: (Priority) Procedures in place to determine responder eligibility for deployment based on medical readiness, physical and mental/behavioral health screenings, background checks, and verification of credentials and certifications. Conduct additional screening according to the nature of the work and identified individual risk factors. Factors to consider in screenings and background checks may include

- Medical health, such as pre-existing conditions, immunization status, and medications
- Physical fitness
- Mental/behavioral health
- Criminal records, such as sexual offender registry

(See Capability 15: Volunteer Management)

P5: (Priority) PPE recommendations for responders, including public health responders, developed in conjunction with partner agencies and risk-specific subject matter experts, such as physicists within radiation control programs.

Skills and Training Resource Elements

S/T1: Public health personnel who fill the role of Incident Safety Officer trained to perform core functions, such as coordination, communications, resource dispatch, and information collection, analysis, and dissemination. Recommended trainings may include

- National Incident Management System (NIMS) ICS-300 and ICS-400 courses
- NIMS ICS All-Hazards Position Specific Safety Officer (E/L 954)
- FEMA Safety Orientation (IS-35.18)

S/T2: Personnel trained to use various types of PPE and decontamination procedures when responding to chemical, biological, and radiological incidents.

S/T3: Personnel trained on jurisdictional systems for population monitoring to identify risks and recommendations for PPE. Training is recommended for various responder types, including environmental health personnel, preparedness personnel, epidemiologists, and other disciplines, such as HazMat Teams who will participate in planning and identifying responder risks.

Equipment and Technology Resource Elements

E/T1: Responder registration system that is scalable, secure, and compliant with NIMS.

E/T2: Information technology and cybersecurity safeguards and practices to prevent unauthorized access to personally identifiable information of responders or unauthorized use of social media.

(See Capability 6: Information Sharing)

E/T3: PPE consistent with the identified risks and associated job functions of public health response personnel. Equipment may include

- Coveralls
- Gloves
- Boots or shoes that are chemical-resistant with steel toe and shank

- Outer, chemical-resistant (disposable) clothing
- Safety glasses or chemical splash goggles
- Hard hat
- Face shield
- Goggles
- National Institute of Occupational Safety and Health (NIOSH)-approved or FDA-approved filtering facepiece respirators
- FDA-approved surgical masks
- Gowns

Function 2: Identify and support risk-specific responder safety and health training

Function Definition: Support responder safety and health training that accounts for physical safety, mental/behavioral health, use of hierarchical controls, such as administrative controls, engineering controls, and PPE, and other responder safety and health topics based on identified risks and recommendations.

Tasks

Task 1: Determine responder safety and health training needs. Conduct a training needs assessment to determine the types and frequency of training(s) required to support responder safety and health, such as physical safety, mental/behavioral health, pre-deployment requirements, such as immunization needs, and hierarchical protection and control measures.

Task 2: Support safety and health training initiatives. Support provision of just-in-time, initial, and ongoing emergency response safety and health training in partnership with jurisdictional emergency management, other agencies, and partnering organizations.

Preparedness Resource Elements

P1: (Priority) Procedures in place to ensure the completion, verification, and documentation of responder safety and health training prior to and during an incident to ensure jurisdictional public health personnel and supporting surge capacity personnel are prepared to respond to emergencies and understand the jurisdictional Incident Command System.

Skills and Training Resource Elements

S/T1: (Priority) Responder safety and health training topics may include

- Safety awareness
- Self-care or buddy care
- Communications
- Incident Command System
- Site operations
- Hazard communication
- Decontamination
- Respiratory protection

- PPE
- Hazardous waste operations
- Medical record management
- Responder tracking and use of registries
- Immunization needs
- Relevant information systems, such as immunization information systems and registries

S/T2: (Priority) Personnel qualified to conduct trainings for public health responders.

S/T3: (Priority) Personnel trained, as appropriate for their roles, in level A, B, or C OSHA PPE standards awareness and technical response trainings.

S/T4: (Priority) Personnel trained on safely donning and doffing various types of PPE and safe handling and disposal of infectious or contaminated waste (depending on role).

S/T5: (Priority) Personnel who are required to use N95 or other respirators as part of their job duties, including response roles, enrolled in a respiratory protection program that is established and maintained by their employer. This program would include medical clearance and fit testing for respirator wear.

Equipment and Technology Resource Elements

E/T1: PPE consistent with the identified jurisdictional risks and job functions for public health response personnel.

E/T2: Respirator fit testing kit with a certified fit for public health responders.

E/T3: Immunization information systems (IISs) that include demographic records for all responders prior to an event. Equipment and software to assess immunization status and document immunizations administered before, during, and after incident response.

Function 3: Monitor responder safety and health during and after incident response

Function Definition: Coordinate with the Incident Safety Officer or others to conduct and participate in monitoring or surveillance activities to identify potential adverse health effects on public health responders, communicate identified hazards and control measures, and provide medical support services, as necessary.

Tasks

Task 1: Conduct responder safety and health monitoring and surveillance. Ensure the appropriate level of safety monitoring and health surveillance for responders based on identified risks, jurisdictional responder roles, and subject matter expert recommendations.

Task 2: Document additional incident-specific safety and health risks. Identify potential responder safety and health risks based on responder monitoring and surveillance findings.

Task 3: Update incident safety plan. Update and revise the incident safety plan, as needed, based on responder monitoring and surveillance findings.

Task 4: Conduct responder in-processing. Ensure appropriate badging and rostering during on-site incident responder in-processing.

Task 5: Conduct exposure assessment activities. Execute or provide guidance on exposure assessment activities to identify evidence and documentation of hazardous exposures.

Task 6: Provide mental/behavioral and medical support services. Coordinate with health care partners to facilitate access to and promote the availability of mental/behavioral and medical support for responders, as necessary.

Task 7: Track responder demobilization and out-processing. Conduct post-deployment responder out-processing and track responder physical and mental/behavioral health status upon demobilization.

Preparedness Resource Elements

P1: (Priority) Documentation of incident-specific responder safety and health risks, threats, and necessary precautions identified by the jurisdictional public health agency in collaboration with partner agencies.

P2: (Priority) Public health responder on-site rostering and badging to facilitate visual identification of responders and ensure access to appropriate resources and facilities based on responder roles. Rostering and badging procedures should address

- Computer or other technological resource access
- Collection of demographic information
- Collection of personal information, including emergency contact information
- Collection of pre-incident health assessment information
- Incident and organization badging
- Job assignment
- PPE dispensing
- Physical location access
- Site-specific training
- Verification of valid, current professional licenses and trade certifications
- Visual identification

P3: Procedures in place to support volunteer needs during the response. Volunteer needs may include

- Housing
- Safe food and potable water
- Medical countermeasures, including vaccinations
- First aid and emergency medical care
- Mental/behavioral health services

(See Capability 1: Community Preparedness and Capability 2: Community Recovery)

P4: (Priority) Procedures in place for monitoring, exposure assessment, and sampling activities to assess levels of environmental exposure and effects on individual responders and procedures in place for surveillance activities to assess actions, practices, and trends that contribute to incident-related physical and behavioral illnesses and injuries.

(See Capability 13: Public Health Surveillance and Epidemiological Investigation)

P5: (Priority) Incident safety plans, such as site safety and control plan and medical plan (ICS 206 and 208) updated to reflect monitoring, exposure assessment, sampling, and surveillance findings.

(See Capability 3: Emergency Operations Coordination and Capability 9: Medical Materiel Management and Distribution)

P6: (Priority) Communication strategy for disseminating detailed results of responder safety and health monitoring and surveillance to responders, the public, and the media. CDC recommends that communications be cleared, as appropriate, and address

- Known pre-incident risks
- Risks encountered during the response to the incident
- Considerations to manage identified risks and update incident safety plan
- Morbidity and mortality related to the incident

(See Capability 4: Emergency Public Information and Warning)

P7: (Priority) Procedures in place to ensure responders are properly demobilized after a response. Demobilization procedures may include

- Formal check-out or out-processing activities to document responders' health status including physical and mental/behavioral health before they leave the worksite
- Documentation of contact information for each responder
- Procedures developed or modified for the incident to identify responders with incident-related delayed or long-term adverse health effects. Indicators for delayed or long-term adverse health effects may include
  - Hazardous work exposures
  - Hazardous work activities
  - Injuries and illness incurred during deployment
  - Concerns, such as political and public, expressed by others
- Collection of after-action information during out-processing to identify lessons learned and support corrective action planning

(See Capability 3: Emergency Operations Coordination)

P8: Procedures in place to provide long-term support for responders and conduct periodic assessments of responder safety and health measures. Procedures may include

- Exposure assessments
- Environmental sampling
- Long-term mental health considerations
- Medical examination results
- Medical monitoring and surveillance
- Out-processing interview and data collection
- Pre-deployment baseline assessments and review of activity logs

(See Capability 2: Community Recovery and Capability 3: Emergency Operations Coordination)

Equipment and Technology Resource Elements

E/T1: Registry or database created in coordination with emergency management entities to document responders exposed to hazards or injured during an incident.

E/T2: Equipment and software to collect, analyze, and report responder safety and health data during and after incident response.

(See Capability 6: Information Sharing)

Capability 15: Volunteer Management

Definition: Volunteer management is the ability to coordinate with emergency management and partner agencies to identify, recruit, register, verify, train, and engage volunteers to support the jurisdictional public health agency's preparedness, response, and recovery activities during pre-deployment, deployment, and post deployment.

Functions: This capability consists of the ability to perform the functions listed below.

- **Function 1:** Recruit, coordinate, and train volunteers
- **Function 2:** Notify, organize, assemble, and deploy volunteers
- **Function 3:** Conduct or support volunteer safety and health monitoring and surveillance
- **Function 4:** Demobilize volunteers

Summary of Changes: The updates align content with new national standards, updated science, and current public health priorities and strategies. Listed below are specific changes made to this capability.

- Addresses the need to monitor volunteer safety, risks, and actions during and after an incident
- Strengthens and clarifies volunteer eligibility considerations, such as medical, physical, and emotional health, during the volunteer selection process
- Promotes use of Emergency Responder Health Monitoring and Surveillance™ (ERHMS™)

For the purposes of Capability 15, partners and stakeholders may include the following:

- academic institutions
- emergency management agencies
- faith-based organizations
- government agencies
- health care coalitions
- health care organizations
- professional associations
- volunteer programs and organizations[13]

[14] For example, the Emergency System for Advance Registration of Volunteer Health Professionals (ESAR-VHP), the Medical Reserve Corps (MRC), the National Voluntary Organizations Active in Disaster (NVOAD), the American Red Cross, Radiation Response Volunteer Corps (RRVC), community emergency response teams (CERTs), and other jurisdictional nongovernmental or community service organizations.

Function 1: Recruit, coordinate, and train volunteers

Function Definition: Identify, recruit, register, verify, and train volunteers to support the jurisdictional public health agency incident response.

Tasks

Task 1: Identify needs for volunteers and other supporting resources. Identify the types and numbers of volunteers and other supporting resources needed to address potential public health responses based on jurisdictional risk assessments.

Task 2: Recruit volunteers. Support the pre-incident recruitment of volunteers needed in a potential jurisdictional public health response by coordinating with existing volunteer programs and partner organizations.

Task 3: Verify volunteer credentials. Ensure pre-incident screening and verification of volunteer credentials through jurisdictional ESAR-VHP, MRC, or other volunteer programs.

Task 4: Support volunteer emergency response training. Support provision of just-in-time, initial, and ongoing emergency response training, including access and functional needs training, for registered volunteers in partnership with jurisdictional MRC unit(s) and other partner groups.

Preparedness Resource Elements

P1: (Priority) Volunteers and other resources identified as necessary to respond to public health incidents or events based on jurisdictional risks. Considerations for volunteers may include

- Functional roles, assignments, and corresponding competencies
- Description of necessary skills, knowledge, such as language proficiency and expertise on access and functional needs, or credentials for each volunteer task or role
- Timeline for mobilizing and assembling volunteers
- Plan and triggers for when to activate volunteers including deployments
- Jurisdictional authorities that govern issues of volunteer liability and scope of practice

(See Capability 1: Community Preparedness and Capability 14: Responder Safety and Health)

P2: (Priority) Written agreements, such as contracts or memoranda of understanding (MOUs), established with jurisdictional or regional volunteer sources, as needed, to address potential public health responses. Recommended partnership agreements may include

- Partner organizations' promotion of public health volunteer opportunities
- Registration requirements for ESAR-VHP, MRC, or other pre-identified partner groups, such as the American Red Cross or CERTs
- Liability protection for volunteers
- Recognition of qualifications and certifications
- Efforts to continually engage volunteers through routine community health promotion activities
- Identification and administration of appropriate trainings for volunteers
- Documentation of the volunteer affiliations, such as employers and volunteer organizations at federal, state, local, tribal, and territorial levels to assist in minimizing "double counting" of prospective volunteers

P3: Verification of professional volunteer diplomas, licenses, certifications, credentials, and registrations in accordance with federal and state laws using the state's ESAR-VHP or other programs, as appropriate.

P4: Deployment eligibility for pre-identified volunteer responders based on medical, physical, and mental/behavioral health screenings and background checks. Eligibility criteria may include

- Medical health, such as immunization status, medications, and pre-existing conditions
- Physical fitness
- Mental/behavioral health
- Criminal records, such as sexual offender registry

(See Capability 14: Responder Safety and Health)

Skills and Training Resource Elements

S/T1: Documentation of completed training(s), as required by the jurisdiction, to prepare volunteers for their assigned responsibilities. Recommended trainings may include those addressing

- Cardiopulmonary resuscitation (CPR)
- Basic first aid skills
- Medical countermeasure dispensing roles
- Incident Command System training
- Basic triage skills, psychological first aid, and self-care
- Basic and advanced disaster life support (American Medical Association's [AMA] National Disaster Life Support Program)
- Cultural competency
- Access and functional needs during a disaster response
- HazMat awareness
- MRC TRAIN (as applicable to the jurisdiction)
- Privacy and confidentiality of information collected during emergency response
- Other skills and courses identified by the jurisdiction for specific roles

S/T2: Personnel trained in volunteer management. Recommended training may include FEMA IS244.B: Developing and Managing Volunteers.

S/T3: Prospective volunteers trained in jurisdictional incident management or National Incident Management System (NIMS) trainings, which may include

- Introduction to Incident Command System (IS-100)
- NIMS- An Introduction (IS-700.a)
- Incident Command System for Single Resources and Initial Action Incidents (IS-200.b)
- Incident Command System (IS-300) and Advanced ICS Command and General Staff (IS-400) for volunteer leaders that will hold key leadership positions
- MRC Volunteer Orientation

Equipment and Technology Resource Elements

E/T1: Access to a system or registry for volunteer managers to track the number of registered volunteers by profession and skill level, the number of hours of volunteer services performed, and previous volunteer activities in incident responses. The system or registry should be capable of reporting data to the Volunteer Reception Center (VRC).

E/T2: Information technology (IT) security measures that prevent unauthorized access to any personally identifiable information (PII) of volunteers.

Function 2: Notify, organize, assemble, and deploy volunteers

Function Definition: Notify, organize, assemble, and deploy volunteers participating in the jurisdictional public health agency response efforts based on identified assignments and incident characteristics.

Tasks

Task 1: Identify incident-specific volunteer needs. Identify the number of volunteers, skills, and resources needed to support an incident based on existing volunteer registration lists.

Task 2: Identify volunteers. Contact volunteer organizations to support the identification of volunteers based on incident-specific needs.

Task 3: Notify registered volunteers of incident-specific assignment details. Notify pre-incident registered volunteers who are able and willing to respond and share assignment details using multiple modes of communication.

Task 4: Request additional volunteers as needed. Notify partner organizations of any additional volunteer needs and request additional volunteers.

Task 5: Manage or support spontaneous volunteers. Manage spontaneous volunteers by incorporating them into the incident response or triaging them to other potential volunteer agencies, as applicable.

Preparedness Resource Elements

P1: Procedures in place to coordinate with partners, inter- and intrajurisdictional agencies, and other relevant organizations, contact registered volunteers, identify volunteers willing and able to respond, identify supporting resources needed for volunteers, and share incident-specific assignment details. Recommended procedures may include

- Processes to describe how the jurisdictional public health agency requests volunteers
- Processes to determine the best use of available volunteers based on mission and capabilities
- Processes for the jurisdictional public health agency to request federal resources, such as personal protective equipment (PPE), response-specific vaccinations, and response teams, that include a clear statement of need, list of requested asset(s), and role of the requested asset(s), if applicable
- Plans for communications between state and local health departments about volunteer needs and assignments during an incident
- Plans to provide volunteer pre-deployment briefings that describe incident conditions and assignment details. Briefing topics should include
  - Incident or event details
  - Volunteer roles and responsibilities
  - Health safety risks
  - PPE
  - Local weather
  - Liability protection

  - Living and work conditions
  - Nature of the work site
  - Personal security risks
  - Required immunizations or prophylaxis
  - Required identification for rostering and badging volunteers
- Procedures to assign volunteers to other response agencies

(See Capability 3: Emergency Operations Coordination, Capability 4: Emergency Public Information and Warning, Capability 6: Information Sharing, and Capability 14: Responder Safety and Health)

P2: Procedures in place to identify public health agency personnel and their roles and responsibilities in volunteer management.

P3: Procedures in place to coordinate with agencies and organizations involved in the identification of volunteers.

P4: (Priority) Procedures in place to support additional and spontaneous volunteers, meaning volunteers not pre-identified. Recommended procedures may include

- Informing volunteers how to report to appropriate incident management leads, such as volunteer coordinators or off-site incident command
- Ensuring all volunteers follow standardized, in-processing requirements
- Identifying duties spontaneous volunteers can perform
- Verifying credentials of spontaneous volunteers
- Managing spontaneous volunteers who are not assigned to the appropriate job functions or tasks based on their skills and the needs of the response
- Registering spontaneous volunteers for future emergency responses
- Referring spontaneous volunteers who are not aligned with an identified partner organization to other organizations, such as nonprofits or MRC

(See Capability 4: Emergency Public Information and Warning and Capability 14: Responder Safety and Health)

P5: Procedures in place to support volunteer needs during the response. Volunteer needs may include

- Housing
- Safe food and potable water
- Medical countermeasures or vaccination
- First aid and emergency medical care
- Mental/behavioral health services

(See Capability 1: Community Preparedness and Capability 2: Community Recovery)

Equipment and Technology Resource Elements

E/T1: Communication equipment for public health agency personnel to contact volunteer organizations. Communication equipment may include

- Phones
- Computers
- HAM or hand radios

(See Capability 6: Information Sharing and Capability 10: Medical Surge)

E/T2: Volunteer registries and rosters that are maintained with the appropriate IT security measures to safeguard PII.

(See Capability 6: Information Sharing)

E/T3: (Priority) PPE consistent with incident risks and associated job functions of volunteers.

Function 3: Conduct or support volunteer safety and health monitoring and surveillance

Function Definition: Conduct or support monitoring and surveillance activities to identify potential volunteer safety and health needs.

Tasks

Task 1: Communicate incident-specific safety and health risks to volunteers. Identify potential volunteer safety and health risks based on incident characteristics and communicate identified risks and recommended precautions to volunteers.

Task 2: Conduct volunteer safety and health monitoring and surveillance. Ensure volunteer safety and health monitoring and surveillance are conducted according to volunteer role risk profile(s).

Preparedness Resource Elements

P1: (Priority) Documentation of incident-specific volunteer safety and health risks, threats, and precautions identified by the jurisdictional public health agency and lead partners, such as occupational health and safety, environmental health, and radiation control programs.

P2: (Priority) Procedures in place to conduct standardized assessments of the identified safety and health risks and threats as well as the effectiveness of precautions and mitigation measures used, such as training effectiveness and PPE compliance.

(See Capability 14: Responder Safety and Health)

P3: (Priority) Surveillance activities to assess trends in actions and practices that contribute to incident-related physical illness or injury and mental/behavioral trauma.

(See Capability 13: Public Health Surveillance and Epidemiological Investigation)

P4: Procedures in place to communicate the results of volunteer safety and health monitoring and surveillance to responders, the public, and the media (as applicable). Communicated risks should include both known pre-incident risks and risks encountered during the incident response.

Equipment and Technology Resource Elements

E/T1: Surveillance and monitoring systems or databases to track volunteer health and safety.

(See Capability 13: Public Health Surveillance and Epidemiological Investigation and Capability 14: Responder Safety and Health)

Function 4: Demobilize volunteers

Function Definition: Support the release of volunteers based on evolving incident needs or incident action plans and coordinate with partner agencies and organizations to support the provision of any medical and mental/behavioral health support for volunteers.

Tasks

Task 1: Manage volunteer demobilization and out-processing. Conduct post-deployment volunteer out-processing and track volunteer physical and behavioral health status during demobilization.

Task 2: Provide post-incident support to volunteers. Determine need for long-term medical and mental/behavioral health support for volunteers based on information collected from volunteers during the response and at demobilization.

Task 3: Conduct after-action reviews and develop after-action reports and improvement plans. Conduct after-action reviews and develop after-action reports (AARs) and improvement plans (IPs) that identify corrective actions specific to volunteer management to improve future operations.

Preparedness Resource Elements

P1: (Priority) Procedures in place to ensure proper demobilization of volunteers after a response, which may include

- Procedures to collect contact information from each volunteer responder
- Formal check-out or out-processing activities to document volunteer health status including physical and mental/behavioral, as applicable, before volunteers leave the worksite
- Procedures to identify volunteer responders with incident-related delayed or long-term adverse health effects. Identification criteria may include
  - Hazardous material exposures
  - Hazardous work activities
  - Adequacy of control measures
  - Injuries and illness incurred during deployment
  - Other risks identified by jurisdictional stakeholders
- After-action processes to identify corrective actions and lessons learned

(See Capability 2: Community Recovery, Capability 3: Emergency Operations Coordination, and Capability 14: Responder Safety and Health)

P2: Procedures in place to provide long-term support for volunteers and conduct periodic assessments of volunteer responder safety and health measures. Procedures may include

- Exposure assessments
- Environmental sampling
- Long-term mental health considerations
- Medical examination results
- Medical monitoring and surveillance

- Out-processing interview and data collection
- Pre-deployment baseline assessments and review of activity logs

(See Capability 3: Emergency Operations Coordination and Capability 14: Responder Safety and Health)

Equipment and Technology Resource Elements

E/T1: Registry or database created in coordination with emergency management entities and used to document volunteer responders exposed to hazards or injured during an incident or response.

E/T2: Equipment and software to collect, analyze, and report volunteer responder safety and health data during and after an incident or response.

(See Capability 6: Information Sharing)

Glossary of Terms

Access and functional needs: Refers to persons who may have additional needs before, during and after an incident in functional areas, including but not limited to: maintaining health, independence, communication, transportation, support, services, self-determination, and medical care. Individuals in need of additional response assistance may include those who have disabilities; live in institutionalized settings; are older adults; are children; are from diverse cultures; have limited English proficiency or are non-English speaking; or are transportation disadvantaged (U.S. Federal Emergency Management Agency definition).

Acquire: For the purposes of Capability 8: Medical Countermeasure Dispensing and Administration, this term refers to requesting medical materiel (inclusive of medical countermeasures) from the stockpile source or otherwise obtaining it from commercial sources or through mutual aid agreements.

Administer: For the purposes of Capability 8: Medical Countermeasure Dispensing and Administration, this term refers to the act of a clinician or other trained provider giving a medical countermeasure to an individual according to protocols established for that incident, ensuring

- The right individual
- The right medical countermeasure
- The right timing, including the correct age and interval, as well as before the product expiration time and date
- The right dosage
- The right route, including the correct needle gauge, length, and technique
- The right site
- The right documentation

Protocols for the administration of medical countermeasures may consist of routine standard of practice guidance, such as how to give an injection, or may deviate from standard practice if involving emergency use authorizations, investigational new drug protocols, or the federal Shelf Life Extension Program.

Some medical countermeasures must be administered by a clinician or other trained personnel, such as vaccines administered by injection. This task is different from dispensing medical countermeasures when an individual can independently take a pill or use a device without further clinical supervision.

Adverse events reporting: For the purposes of Capability 8: Medical Countermeasure Dispensing and Administration, adverse events reporting involves multidirectional information sharing about possible side effects or health problems that may occur after medical countermeasures are dispensed or administered. The process not only includes solicitation and collection of adverse event information by jurisdictional authorities from health care providers and persons who receive medical countermeasures, but also includes information sharing with the community, especially health care providers, about possible adverse events. Reporting adverse events may occur on a national, jurisdictional, or even dispensing site level. Jurisdictions should use national reporting systems, such as the Vaccine Adverse Event Reporting System (VAERS] or the Food and Drug Administration's (FDA) MedWatch. Jurisdictions may need to develop other jurisdiction-specific mechanisms for identifying and managing adverse events.

Adverse events reporting systems: Systems that collect, analyze, and disseminate information about adverse events. Systems can be national, such as VAERS or FDA MedWatch, or jurisdictional, such as identifying adverse advents at the dispensing site level.

After-action report (AAR): Report that summarizes and analyzes performance in both exercises and real incidents or events. The reports for exercises also may evaluate achievement of the selected exercise objectives and demonstration of the overall capabilities being exercised.

Alert: Time-sensitive tactical communication sent to parties potentially impacted by an incident to increase 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. CDC's Health Alert Network is a primary method of sharing cleared information about urgent public health incidents with public information officers; federal, state, local, tribal, and territorial public health practitioners; clinicians; and public health laboratories.

Antemortem data: Information about a missing or deceased person used for identification. This information includes demographic and physical descriptions, medical and dental records, and information regarding the person's last known whereabouts. Antemortem information is gathered and compared to postmortem information when confirming a victim's identification.

Assessment of Chemical Exposures (ACE) Program Toolkit: Contains surveys, consent forms, training materials, and Epi Info 7 databases that easily can be customized for use in an assessment after a chemical incident. The ACE team also provides training in conducting rapid epidemiologic assessments after chemical releases.

At-risk individuals: At-risk individuals are people with access and functional needs that may interfere with their ability to access or receive medical care before, during, or after a disaster or emergency. Irrespective of specific diagnosis, status, or label, the term "access and functional needs" is a broad set of common and cross-cutting access and function-based needs. The 2013 Pandemic and All-Hazards Preparedness Reauthorization Act defines at-risk individuals as children, older adults, pregnant women, and individuals who may need additional response assistance. Examples of these populations may include but are not limited to individuals with disabilities, individuals who live in institutional settings, individuals from diverse cultures, individuals who have limited English proficiency or are non-English speaking, individuals who are transportation disadvantaged, individuals experiencing homelessness, individuals who have chronic medical disorders, and individuals who have pharmacological dependency (U.S. Department of Health and Human Services definition). However, jurisdictions should use their own discretion in determining which populations are at risk to be disproportionately impacted by a particular incident or event.

Biosafety level-3: Biosafety levels are designated in ascending order by degree of protection provided to personnel, the environment, and the community. Standard microbiological practices are common to all laboratories. Special microbiological practices enhance worker safety and environmental protection and address the risk of handling agents requiring increasing levels of containment.

Biosafety level 3 is applicable to clinical, diagnostic, teaching, research, or production facilities where work is performed with indigenous or exotic agents that may cause serious or potentially lethal disease through the inhalation route of exposure. Laboratory personnel must receive specific training in handling pathogenic and potentially lethal agents and must be supervised by scientists competent in handling infectious agents and associated procedures.

Broselow tapes: Color-coded strips of paper inscribed at length-based intervals with information on the use of fluids, pressors, anticonvulsants, and resuscitation equipment. They are used to provide a quick estimate of the weight of pediatric patients and provide a rapid means of determining the dosages of medications and the size of the equipment that should be used in pediatric resuscitations.

Chain of custody requirements: Tracking of possession of and responsibility for medical materiel during the distribution process.

Closed point of dispensing (closed POD or CPOD): For the purposes of Capability 8: Medical Countermeasure Dispensing and Administration, this term refers to a dispensing site that serves a defined population and is not open to the public.

CMIST framework: The Communication; Maintaining Health; Independence; Support, Safety and Self-determination; Transportation (CMIST) framework defines cross-cutting categories of the access and functional needs of at-risk individuals. The framework addresses a broad set of common access and functional needs that are not tied to specific diagnoses, status, or labels, such as pregnant women, children, or elderly. Ultimately, individuals with access and functional needs must be addressed in all federal, territorial, tribal, state, and local emergency preparedness and response plans.

Community Assessment for Public Health Emergency Response (CASPER): An epidemiologic technique designed to provide quickly and at low-cost household-based information about a community. The CASPER toolkit was developed to assist personnel from any local, state, regional, or federal office in conducting a rapid needs assessment to determine the health status, basic needs, or knowledge, attitudes, and practices of a community in a quick and low-cost manner. Gathering health and basic needs information using valid statistical methods allows public health and emergency managers to make informed decisions. The CASPER tool kit provides guidelines on data collection tool development, methodology, sample selection, training, data collection, analysis, and report writing.

Community emergency response team (CERT): A program that educates volunteers about disaster preparedness for the hazards that may impact their area and trains them in basic disaster response skills, such as fire safety, light search and rescue, team organization, and disaster medical operations. CERT offers a consistent, nationwide approach to volunteer training and organization on which professional responders can rely during disaster situations, which allows them to focus on more complex tasks.

Community mitigation strategies: For the purposes of Capability 11: Nonpharmaceutical Interventions, community mitigation strategies refer to

- Isolation
- Quarantine
- Restrictions on movement and travel advisories and warnings
- Social distancing
- External decontamination
- Hygiene
- Precautionary protective behaviors

Community outreach information network (COIN): A grassroots network of people and trusted leaders who can help with emergency response planning and delivering information to at-risk populations in emergencies.

Community resilience: Community resilience can be defined as the capacity to

- Absorb stress or destructive forces through resistance or adaptation
- Manage or maintain certain basic functions and structures during disastrous events
- Recover or "bounce back" after an event

A focus on resilience means putting more emphasis on what communities can do for themselves and how to

strengthen their capacities, rather than concentrating on their vulnerability to disaster or their needs in an emergency.

Corrective action plans: Improvements and corrective actions that are implemented based on lessons learned from actual incidents or from training and exercises.

Critical infrastructure: For the purposes of Capability 8: Medical Countermeasure Dispensing and Administration, this term refers to assets, systems, and networks, whether physical or virtual, so vital to the United States that the incapacitation or destruction of such assets, systems, or networks would have a debilitating impact on security, national economic security, national public health or safety, or any combination of those matters. Critical infrastructure depends on the incident and jurisdictional characteristics.

Critical workforce: For the purposes of Capability 8: Medical Countermeasure Dispensing and Administration, this term refers to personnel required to maintain critical infrastructure. Specific personnel considered to be critical workforce depends on the incident and jurisdictional characteristics.

Demobilize: Release and return of resources that are no longer required for the support of an incident or event.

Deployment: The movement of assets, including personnel, to a specific area.

Dispensing: For the purposes of Capability 8: Medical Countermeasure Dispensing and Administration, dispensing means to prepare and give out a medication to targeted individuals. Some medical countermeasures, like pills or devices, can be provided to an individual for self-administration. This task is different from medical countermeasure administration, for which clinicians or other trained personnel are needed, such as to administer vaccines by injection.

Dispensing/administration sites: Locations where targeted populations can receive medical countermeasures, whether through the dispensing of pills or the administration of medicines and vaccines. Examples of dispensing/administration sites include open PODs, CPODs, vaccination clinics, pharmacies, and other sites in the community that meet requirements for dispensing/administration sites.

Disposition of human remains: For the purposes of Capability 5: Fatality Management, disposition refers to individual burial, state-sponsored individual burial, entombment, mass burial, voluntary cremation, and involuntary cremation.

Distribution assets: Resources needed to transport medical materiel during an incident or event response, such as personnel, equipment, supplies, and technology.

Distribution site: Locations that receive medical countermeasures for eventual transport to dispensing/administration sites. These locations include receipt, stage, store (RSS) sites, regional distribution sites, local distribution sites, hospitals, or other sites. Distribution sites must be validated as appropriate to receive, store, and distribute medical countermeasure assets. This may include assessments of the physical facility and surrounding area, security considerations, staffing information, and environmental controls including cold chain management.

Durable medical equipment: Equipment that can withstand repeated use, provides therapeutic benefits to a patient in need because of certain medical conditions or illnesses, and can be recovered after an emergency, such as ventilators.

Emergency Management Assistance Compact (EMAC): An all-hazards, all-disciplines, mutual-aid compact that serves as the cornerstone of the nation's mutual aid system. EMAC is the first national disaster-relief compact since the Civil Defense and Disaster Compact of 1950 to be ratified by the U.S. Congress. EMAC offers assistance during governor-declared states of emergency or disaster through a responsive, straightforward

system that allows states to send personnel, equipment, and commodities to assist with response and recovery efforts in other states. Through EMAC, states also can transfer services, such as shipping newborn blood from a disaster-impacted laboratory to a laboratory in another state, and conduct virtual missions, such as GIS mapping. Since ratification and signing into law in 1996 (Public Law 104-321), 50 states, the District of Columbia, Puerto Rico, Guam, and the U.S. Virgin Islands have enacted legislation to become EMAC members.

Emergency Prescription Assistance Program (EPAP): Provides an efficient mechanism for more than 70,000 enrolled retail pharmacies nationwide to process claims for certain kinds of prescription drugs, specific medical supplies, vaccines, and some forms of durable medical equipment for eligible individuals in a federally identified disaster area.

Emergency Support Functions (ESFs): Grouping of governmental and certain private sector capabilities into an organizational structure to provide support, resources, program implementation, and services that are most likely needed to save lives, protect property and the environment, restore essential services and critical infrastructure, and help victims and communities return to normal following domestic incidents. The 15 ESFs are annexes to the United States National Response Framework (NRF). While the primary ESF supported by public health agencies is ESF #8—Public Health and Medical Services, public health agencies also may support other ESFs in coordination with jurisdictional partners and stakeholders.

Essential elements of information (EEI): Discrete types of reportable public health or health care-related, incident-specific knowledge communicated or received concerning a particular fact or circumstance, preferably reported in a standardized manner or format, which assists in generating situational awareness for decision-making purposes. EEI are often coordinated and agreed upon before an incident, and communicated to local partners as part of information collection request templates and emergency response playbooks.

Essential Public Health Services: Public health activities that all communities should undertake. The Core Public Health Functions Steering Committee developed the framework for the Essential Services in 1994. The committee included representatives from U.S. Public Health Service agencies and other major public health organizations. The 10 Essential Public Health Services are

1. Monitor health status to identify and solve community health problems
2. Diagnose and investigate health problems and health hazards in the community
3. Inform, educate, and empower people about health issues
4. Mobilize community partnerships and action to identify and solve health problems
5. Develop policies and plans that support individual and community health efforts
6. Enforce laws and regulations that protect health and ensure safety
7. Link people to needed personal health services and assure the provision of health care when otherwise unavailable
8. Assure competent public and personal health care workforce
9. Evaluate effectiveness, accessibility, and quality of personal and population-based health services
10. Research for new insights and innovative solutions to health problems

Event: A planned, non-emergency activity, such as a concert, convention, parade, or sporting event.

Gridding: The process of establishing the exact location of any item based on the slope and distance from an established point.

Health alert network: A primary method of sharing cleared information about urgent public health incidents with public information officers; federal, state, local, tribal, and territorial health practitioners; clinicians; and public health laboratories.

Hierarchy of controls: A framework used as a means of determining how to implement feasible and effective control solutions.

Homeland Security Exercise and Evaluation Program (HSEEP): A capabilities- and performance-based exercise program that provides a standardized policy, methodology, and language for designing, developing, conducting, and evaluating all exercises.

Homeland Security Information Network (HSIN): The trusted network for Department of Homeland Security (DHS) mission operations to share sensitive, but unclassified information. Federal, state, local, territorial, tribal, international, and private sector homeland security partners use HSIN to manage operations, analyze data, send alerts and notices, and, in general, share the information they need to do their jobs.

Human impact: Refers to indicators, such as number of fatalities resulting from a particular hazard, injuries requiring emergency medical services transport, outpatient injuries, and hospital emergency department visits due to injury or illness.

Human services: For the purposes of the capabilities document, the definition of human services draws from ESF #6—Mass Care, Emergency Assistance, Temporary Housing, and Human Services Annex. Human services refers to the implementation by public health agencies and their partners and stakeholders of disaster assistance programs that help survivors address unmet disaster-caused needs or non-housing losses through loans and grants, supplemental nutrition assistance, crisis counseling, disaster case management, disaster unemployment, disaster legal services, and other state and federal human services programs and benefits to survivors. ESF #6—Mass Care, Emergency Assistance, Temporary Housing, and Human Services Annex also coordinates closely with the Health and Social Services Recovery Support Function to ensure continuous support for social services needs in the impacted communities.

Hygiene: Behaviors that can improve cleanliness and lead to good health, such as frequent hand washing, face washing, and bathing with soap and water.

Incident: An occurrence, either human-caused or naturally occurring, that requires action to prevent or minimize loss of life or damage to property or natural resources. In the context of the capability standards, the term "incident" is used to describe any scenario, threat, disaster, or other public health emergency.

Incident Command System (ICS): ICS is a management system designed as part of the Federal Emergency Management Agency's (FEMA's) National Incident Management System (NIMS) to enable effective and efficient domestic incident management by integrating a combination of facilities, equipment, personnel, procedures, and communications operating within a common organizational structure. ICS is normally structured to facilitate activities in five major functional areas: command, operations, planning, logistics, intelligence and investigations, finance, and administration. It is a fundamental form of management, with the purpose of enabling incident managers to identify the key concerns associated with the incident—often under urgent conditions—without sacrificing attention to any component of the command system.

Intermediary/intermediate distribution sites: Any facility between the initial receiving site and the final delivery location where medical countermeasures are dispensed to the public. These sites could include regional distribution sites (RDSs), local distribution sites (LDSs), or any other facility noted in the jurisdiction's planning documents.

Inventory Management and Tracking System (IMATS): A CDC information technology (IT) platform developed with input from state and local jurisdictions that allows public health agencies to track medical countermeasure inventory down to the local level during an event, monitor reorder thresholds, and support warehouse operations,

including receiving, staging, and storing inventory. IMATS also supports data exchange and allows state public health agencies to collect inventory totals from local jurisdictions.

Isolation: The separation of persons who have a specific infectious illness from those who are healthy and the restriction of their movement to stop the spread of that illness. Isolation allows for the focused delivery of specialized health care to people who are ill and protects healthy people from getting sick.

Joint Information Center (JIC): A facility established to coordinate all incident-related public information activities. It is the central point of contact for all news media at the scene of the incident. Public information officials from all participating agencies should collocate at the JIC.

Joint Information System (JIS): Integrates incident information and public affairs into a cohesive organization designed to provide consistent, coordinated, timely information during crisis or incident operations. The mission of the JIS is to provide a structure and system for developing and delivering coordinated interagency messages; developing, recommending, and executing public information plans and strategies on behalf of the incident commander; advising the incident commander concerning public affairs issues that could affect a response effort; and controlling rumors and inaccurate information that could undermine public confidence in the emergency response effort.

Jurisdictions: Planning areas, such as cities, counties, states, regions, territories, and freely associated states.

Laboratory Information Management System (LIMS): A software program that enables laboratories to fulfill data exchange needs for the Laboratory Response Network using their own systems.

Laboratory Response Network (LRN): A coordinated network of public health and other laboratories for which CDC provides standard assays and protocols for testing biological and chemical terrorism agents. The categories of laboratories include LRN-C focusing on chemical threats and LRN-B focusing on biological threats. Although referenced in the capabilities document, LRN-R for radiological threats has not been established.

The LRN is charged with maintaining an integrated network of state and local public health, federal, military, and international laboratories that can respond to bioterrorism, chemical terrorism, and other public health emergencies. The LRN also links state and local public health, veterinary, agriculture, military, and water- and food-testing laboratories.

Local Emergency Planning Committee (LEPC): The Emergency Planning and Community Right-to-Know Act (EPCRA) establishes the LEPC as a local forum for discussions and a focus for action in matters pertaining to hazardous materials planning. LEPCs also help to provide local governments and the public with information about possible chemical hazards in their communities.

Medical countermeasures: Medicines and medical supplies that may be used to prevent, mitigate, or treat the adverse health effects of an intentional, accidental, or naturally occurring public health emergency. In the capabilities document

- **Capability 8:** Medical Countermeasure Dispensing and Administration focuses on the pharmaceutical medical countermeasures, such as biologic products, such as vaccines, blood products, or antibodies) and drugs for example, antimicrobial or antiviral drugs.
- **Capability 9:** Medical Materiel Distribution and Management discusses medical materiel, of which medical countermeasure is a subset. Medical materiel also covers personal protective equipment, ventilators, syringes, and other items
- **Capability 12:** Public Health Laboratory Testing covers diagnostics material to identify threat agents

Other items, such as window screens and insect repellents, may be considered as medical countermeasures, depending on the needs of the public health emergency.

Medical materiel: For the purposes of Capability 9: Medical Materiel Distribution and Management, any equipment, apparatus, or supplies that are needed to prevent, mitigate, or treat the adverse events of a public health incident. Medical materiel may include medicines, vaccines, durable medical equipment, ventilators, personnel protective equipment for responders, ancillary medical supplies, and laboratory supplies and assays.

Medical Reserve Corps (MRC): A national network of local groups of volunteers engaging local communities to strengthen public health, reduce vulnerability, build resilience, and improve preparedness, response, and recovery capabilities.

Medicolegal: Relating to both medicine and law.

MedWatch: FDA's safety information and adverse event reporting program. MedWatch is used for reporting an adverse event or sentinel event. Founded in 1993, this system of voluntary reporting allows such information to be shared with the medical community or the general public. The system includes publicly available databases and online analysis tools for professionals. MedWatch also disseminates medical product safety alerts, such as recalls and other clinical safety communications, via its website, e-mail list, Twitter, and RSS feed.

Memorandum of understanding (MOU): A document that describes a broad concept of mutual understanding, goals, and plans shared by the parties.

Mental/behavioral health: An overarching term to encompass behavioral, psychosocial, substance abuse, and psychological health.

Mission scoping assessment: A summary of findings and issues identified by the six federal recovery support functions supporting the National Disaster Recovery Framework mission.

National Voluntary Organizations Active in Disaster (NVOAD): An association of organizations that mitigate and alleviate the impact of disasters; provides a forum promoting cooperation, communication, coordination and collaboration; and fosters more effective delivery of services to communities affected by disaster.

National Disaster Medical System (NDMS): A cooperative asset-sharing program that augments local medical care when an emergency exceeds the scope of a community's hospital and health care resources. The emergency resources, which include approximately 8,000 medical and support personnel, come from federal, state and local governments, the private sector, and civilian volunteers.

National Emergency Medical Services Information System (NEMSIS): A national database that is used to store emergency medical services (EMS) data from U.S. states and territories. NEMSIS is a universal standard for how patient care information resulting from an emergency 911 call for assistance is collected. NEMSIS is a collaborative system to improve patient care through the standardization, aggregation, and utilization of point-of-care EMS data at local, state, and national levels.

National Incident Management System (NIMS): A comprehensive, national approach to incident management developed by FEMA that is applicable at all jurisdictional levels and across functional disciplines. It is intended to

1. Be applicable across a full spectrum of potential incidents, hazards, and impacts, regardless of size, location or complexity
2. Improve coordination and cooperation between public and private entities in a variety of incident management activities
3. Provide a common standard for overall incident management

NIMS provides a consistent nationwide framework and approach to enable government at all levels (federal, state, local,

tribal, and territorial), the private sector, and nongovernmental organizations (NGOs) to work together to prepare for, prevent, respond to, recover from, and mitigate the effects of incidents regardless of the incident's cause, size, location, or complexity. Consistent application of NIMS lays the groundwork for efficient and effective responses, from a single agency fire response to a multiagency, multijurisdictional natural disaster or terrorism response.

National Preparedness Goal: Defines what is meant for the whole community to be prepared for all types of disasters and emergencies. It outlines core capabilities required across the whole community to prevent, protect against, mitigate, respond to, and recover from the threats and hazards that pose the greatest risk. These risks include events, such as natural disasters, disease pandemics, chemical spills and other human-caused hazards, terrorist attacks, and cyberattacks.

National Preparedness System: Outlines an organized process for everyone in the whole community to move forward with their preparedness activities and achieve the National Preparedness Goal. The National Preparedness System has six parts:

1. **Identifying and Assessing Risk**—involves collecting historical and recent data on existing, potential, and perceived threats and hazards. The results of these risk assessments form the basis for the remaining steps
2. **Estimating Capability Requirements**—includes determining the specific capabilities and activities to best address those risks. Some capabilities may already exist and some may need to be built or improved. FEMA provides a list of core capabilities related to prevention, protection, mitigation, response, and recovery, the five mission areas of preparedness
3. **Building and Sustaining Capabilities**—involves figuring out the best way to use limited resources to build capabilities. Risk assessments can be used to prioritize resources to address the highest probability or highest consequence threats
4. **Planning to Deliver Capabilities**—refers to coordinating plans with other organizations, which includes all parts of the whole community: individuals, businesses, nonprofits, community and faith-based groups, and all levels of government
5. **Validating Capabilities**—participating in exercises, simulations, real-incident events, or other activities helps to identify gaps in plans and capabilities. It also helps identify progress toward meeting preparedness goals
6. **Reviewing and Updating**—regularly reviewing and updating all capabilities, resources, and plans is important

Network of distribution sites: The jurisdiction-specific list of all sites that are used for the management and transportation of medical materiel. These include RSS sites, RDSs, LDSs, hospitals, or other sites. Distribution sites must be validated as appropriate to receive, store, and distribute medical countermeasure assets. This may include assessments of the physical facility and surrounding area, security considerations, staffing information, and environmental controls, including cold chain management.

Network of dispensing/administration sites: The jurisdiction-specific list of all sites where the targeted population can receive medical countermeasures, whether dispensing of pills or vaccine administration. Dispensing/administration sites are considered receiving sites, more specifically end receiving sites.

Network of receiving sites: The jurisdiction-specific list of all receiving sites, such as the list of distribution sites plus the list of dispensing/administration sites. The distribution sites are used for the management and transport of medical materiel. The dispensing/administration sites are used for the purpose of giving medical countermeasures to the targeted population. Together, all the distribution site and all the dispensing/administration sites constitute a network of receiving sites.

Pandemic influenza alert level: Pandemic influenza phases reflect the World Health Organization's risk assessment of the global situation regarding each influenza virus with pandemic potential that is infecting humans. These assessments are made initially when such viruses are identified and are updated based on evolving virological, epidemiological, and clinical data. The phases provide a high-level, global view of the evolving picture.

Partners and stakeholders: As referenced throughout the capabilities, partners and stakeholders refer to the diverse array of groups and individuals that public health agencies should engage to support the preparedness and response needs of the whole community. Many different kinds of communities, including communities of place, interest, belief, and circumstance can exist both geographically and virtually, such as online forums. A whole community approach attempts to engage the full capacity of the private and nonprofit sectors, including businesses, coalitions, faith-based organizations, disability organizations, and the public, in conjunction with the participation of federal, state, local, tribal, and territorial governmental partners.

Personal protective behaviors: Personal behaviors to prevent the transmission of infection, such as coughing into your elbow, cover sneezing, hand washing, and keeping your hands away from your face.

Ports of entry: Places where persons and goods are allowed to pass into and out of a country, such as airports, water ports, and land border crossings, and where U.S. Customs and Border Protection officers are stationed to inspect or appraise imported goods.

Postmortem: Done, occurring, or collected after death.

Preparedness cycle: A continuous cycle of planning, organizing, training, equipping, exercising, evaluating, and taking corrective action in an effort to ensure effective coordination during incident response. This cycle is one element of a broader National Preparedness System to prevent, respond to, and recover from natural disasters, acts of terrorism, and other disasters.

Priority resource element: For the purposes of this document, resource elements identified as priorities are potentially the most critical for completing capability tasks based on jurisdictional risk assessments and other forms of community input. These resource elements are relevant to both routine public health activities and essential public health services.

Procedures in place: For the purposes of this document, this phrase refers to documented agreements or processes, such as a written plan, a policy, a memorandum of understanding or agreement, a contract, or any other type of written agreement that verifies that a procedure is formally in place.

Proficiency testing challenges: Determines the performance of individual laboratories for specific tests or measurements to monitor the laboratories' continuing performance. Along with requirements for personnel qualifications and quality control testing, proficiency testing is one of the central safeguards of laboratory quality under the Clinical Laboratory Improvement Amendments (CLIA) of 1988 and its regulations.

Psychological first aid: A set of skills that helps community residents care for their families, friends, neighbors, and themselves by providing basic psychological support in the aftermath of traumatic events.

Public health system: Public health systems are commonly defined as "all public, private, and voluntary entities that contribute to the delivery of essential public health services within a jurisdiction." This concept ensures that all entities' contributions to the health and well-being of the community or state are recognized in assessing the provision of public health services. The public health system includes

1. Public health agencies at state and local levels
2. Health care providers

3. Public safety agencies
4. Human service and charity organizations
5. Education and youth development organizations
6. Recreation and arts-related organizations
7. Economic and philanthropic organizations
8. Environmental agencies and organizations

Quarantine: The separation and restriction of movement of people who were exposed to a contagious disease to see if they become sick.

RealOpt©: A software enterprise system that consists of various decision support capabilities for modeling and optimizing the public health infrastructure for all hazard emergency response and has been used in the areas of biological or radiological terrorism preparedness, infectious disease outbreaks planning, and natural disasters response. RealOpt© allows users to enter different parameters into the system to support planning for resource allocation within medical facilities. The enterprise system consists of stand-alone software and decision support systems.

Receipt, stage, store (RSS) facility: Acts as the hub of the distribution system of the state or local jurisdiction to which SNS assets are deployed.

Receive: For the purposes of Capability 8: Medical Countermeasure Dispensing and Administration, this term refers to taking receipt of medical materiel on behalf of the dispensing/administration site. For the purposes of Capability 9: Medical Materiel Distribution and Management, this term refers to taking receipt of medical materiel on behalf of the jurisdiction.

Recovery Support Functions (RSFs): A coordinating structure for key functional areas of assistance in the National Disaster Recovery Framework (NDRF). Their purpose is to support local governments by facilitating problem solving, improving access to resources, and fostering coordination among state and federal agencies, nongovernmental partners, and stakeholders. The six RSFs include

1. Community Planning and Capacity Building (CPCB) Recovery Support Function
2. Economic Recovery Support Function
3. Health and Social Services Recovery Support Function
4. Housing Recovery Support Function
5. Infrastructure Systems Recovery Support Function
6. Natural and Cultural Resources Recovery Support Function

Reference laboratories: LRN reference laboratories are responsible for investigation or referral of specimens. They are made up of more than 150 state and local public health, military, international, veterinary, agriculture, food, and water testing laboratories. In addition to laboratories located in the United States, facilities located in Australia, Canada, the United Kingdom, Mexico, and South Korea serve as reference laboratories abroad.

Regional distribution site (RDS)/local distribution site (LDS): A site or facility selected to receive medical countermeasures from the RSS facility for apportionment and distribution to determined dispensing sites, such as PODs.

Responders: Any individual responding to the public health task or mission, as determined by the jurisdiction. For the purposes of Capability 14: Responder Safety and Health, responders are defined as public health agency personnel. Dependent on the jurisdiction, the definition of responder may also include first receivers in the form of hospital and medical personnel.

Sample: For the purposes of the capabilities document, this term is used generally to refer to anything that can be termed a sample or specimen for testing or analysis.

Secure Access Management Services (SAMS): A CDC portal that allows public health partners and providers to access information and computer applications operated by CDC. Some of the applications or information made available through SAMS may be sensitive or non-public. The SAMS Partner Portal is one of the ways CDC controls and protects this information. For access to SAMS,

users must register online and be approved by a CDC program administrator. In cases where you might be exposed to non-public information, you may also be required to provide proof of your identity as part of your registration.

Sentinel laboratories: LRN sentinel laboratories play a key role in the early detection of biological agents. Sentinel laboratories provide routine diagnostic services, rule-out, and referral steps in the identification process. While these laboratories may not be equipped to perform the same tests as LRN reference laboratories, they can test samples.

Service animal: Any guide dog, signal dog, or other animal individually trained to provide assistance to an individual with a disability including guiding individuals with impaired vision, alerting individuals with impaired hearing to intruders or sounds, providing minimal protection or rescue work, pulling a wheelchair, or fetching dropped items.

Situational awareness: 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.

Social connectedness: For the purposes of Capability 1: Community Preparedness, social connectedness refers to the personal relationships, such as family, friend, and neighbor, and professional relationships, such as service provider or community leader, among community residents. It is a core component that is integral to the community's ability to marshal resources, communicate with residents, and plan for infrastructure and human recovery.

Social distancing: Within the workplace, social distancing measures could take the form of

- Modifying the frequency and type of face-to-face employee encounters, such as placing moratoriums on hand-shaking, substituting teleconferences for face-to-face meetings, staggering breaks, and posting infection control guidelines
- Establishing flexible work hours or work sites, such as telecommuting
- Maintaining three-feet spatial separation between individuals
- Implementing strategies that request and enable employees with influenza to stay home at the first sign of symptoms

Special Event Assessment Rating (SEAR): A DHS system that rates events. DHS requests jurisdictions to submit all event data, from which an algorithm is used to rate the risk from Tier I to Tier V, with Tier I being the highest and with Tier V being the lowest. SEAR events are specifically below the level of National Special Security Events. The majority of these events are state and local events that may require additional support from the federal government.

Spontaneous volunteers: Unaffiliated or unregistered volunteers with known participating volunteer organizations during an incident or event.

Stafford Act: A United States federal law designed to bring an orderly and systematic means of federal natural disaster assistance for state and local governments in carrying out their responsibilities to aid citizens. The Stafford Act was signed into law on November 23, 1988, as an amendment to the Disaster Relief Act of 1974 (Public Law 93-288). The Stafford Act constitutes the statutory

authority for most federal disaster response activities, especially as they pertain to the FEMA and FEMA programs, and gives FEMA the responsibility for coordinating government-wide relief efforts.

Throughput: The number of people receiving medical countermeasures at a POD during a certain period of time. For example, if 6,000 people visit a POD over a 12-hour operational period, then the throughput is 6,000 persons/12 hours = 500 people/hour.

Vaccine Adverse Events Reporting System (VAERS): A national early warning system established in 1990 to detect possible safety problems in U.S.-licensed vaccines. VAERS is co-managed by CDC and FDA. VAERS accepts and analyzes reports of adverse events (possible side effects) after a person has received a vaccination. Anyone can report an adverse event to VAERS. Health care professionals are required to report certain adverse events and vaccine manufacturers are required to report all adverse events that come to their attention.

Virtual structure: A software solution, such as WebEOC or a just-in-time modular "go kit" style solution, to create virtual or remote connections among emergency responders and other relevant stakeholders during emergency operations.

Volunteer reception center (VRC): An operation in which spontaneous, unaffiliated disaster volunteers are registered and referred to local agencies to assist with relief efforts.

World Health Organization (WHO) public health emergencies of international concern (PHEIC) declarations: Defined in the International Health Regulations (IHR) (2005) as an extraordinary event that is determined

- To constitute a public health risk to other states through the international spread of disease
- To potentially require a coordinated international response

This definition implies a situation that is serious, unusual or unexpected; carries implications for public health beyond the affected state's national border; and may require immediate international action.

Written agreements: For the purposes of the capability standards, written agreements may refer to MOUs, contracts, or other letters of agreements used at the discretion of the jurisdiction.

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Notes

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