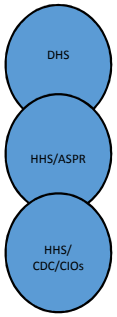
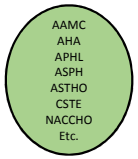
HPP and PHEP awardees use these inputs…

- HPP and PHEP funding
- Technical assistance
- Field staff
- Capability standards
- Legislative mandates (PHS Act, NHSS and PPD-8)
- Subject matter experts (clinicians, epi, lab etc.)
- Financial preparedness

Federal Partners



National Partners



Capabilities

HPP and PHEP awardees use capabilities to focus on these preparedness **Strategies and conduct these** Activities for the private health care system (HPP) and taxpayer-funded public health system (PHEP)….

Strengthen Community Resilience
- Partner with stakeholders by developing and maturing health care coalitions (HCCs)
- Characterize probable risk of the jurisdiction and the HCC
- Characterize populations at risk
- Engage communities and health care systems
- Operationalize response plans

Strengthen Incident Management
- Coordinate emergency operations
- Standardize incident command structures for public health
- Establish incident command structures for health care organizations and HCC
- Ensure HCC integration and collaboration with ESF-8
- Have expedited fiscal procedures are in place for ensuring funding reaches impacted communities during an emergency response

Strengthen Information Management
- Share situational awareness across health care and public health systems
- Share emergency information and warnings across disciplines and jurisdictions and HCCs and their members
- Conduct external communication with public

Strengthen Countermeasures and Mitigation
- Manage access to and administration of pharmaceutical/non-pharmaceutical interventions
- Ensure safety and health of responders
- Operationalize response plans

Strengthen Surge Management

To manage public health surge:
- Address mass care needs: e.g., shelter monitoring
- Address surge needs: e.g., family reunification
- Coordinate volunteers
- Prevent /mitigate injuries and fatalities

To manage medical surge:
- Conduct health care facility evacuation planning and execute evacuations
- Address emergency department and inpatient surge
- Develop alternate care systems
- Address specialty surge including pediatrics, chemical/radiation, burn/trauma, behavioral health, and highly infectious diseases

Strengthen Biosurveillance
- Conduct epidemiological surveillance and investigation
- Detect emerging threats/injury
- Conduct laboratory testing

to work together to produce these readiness ***Outputs***…

- Assessments conducted: e.g., risk/HVA, JRA, resource, supply chain
- Established HCC and public and private partnerships
- Preparedness plans that address community-specific needs and vulnerable populations
- Coordinated trainings and exercises and continuous quality improvement

- Risk communication systems
- Emergency operation centers primary/alternate
- Incident management systems
- Response plans
- Recovery plans
- Continuity of operations (COOP) plans

- Information sharing platforms for HCC members
- Defined essential elements of information
- Risk communication materials
- Social media monitors
- Health care situational awareness protocols and systems
- Trained risk communication staff
- Message and report templates

- Storage and distribution centers
- Inventory management systems
- Points of dispensing (PODs)/alternate nodes
- Trained POD staff
- Stockpiled personal protective equipment (PPE)
- Safety and "just in time" trainings

- Electronic volunteer registry systems
- Coordinated public health and health care agencies
- Patient tracking systems
- Population monitoring systems
- Real time monitoring of patient acuity for rapid decompression
- Medical surge plans at the systems level
- Coordinated patient distribution and movement based on patient needs
- Plan for implementing crisis standards of care

- Electronic disease surveillance systems
- Laboratory response networks
- Laboratory testing capability
- Integrated laboratory and epidemiology systems

to achieve these ***Outcomes*** *that could not be achieved alone during public health and health care responses as a result of improved public health and health care system capabilities….*

Timely assessment and sharing of essential elements of information

Earliest possible identification and investigation of an incident

Timely implementation of intervention and control measures

Timely communication of situational awareness and risk information

Continuity of emergency operations management throughout the surge of an emergency or incident

Timely coordination and support of response activities with partners

Continuous learning and improvements are systematic

Reduced exposure to risk

Established public health recommendations and control measures in place for all hazards

Institutionalized preparedness and response capabilities

Prioritized emergency public health and health care services and resources sustained throughout all phases of emergencies and public health and medical incidents

Continuity of essential public health and health care services and supply chain during an emergency response and recovery

Immediate care for incoming patients and continuity of care for existing patients during an incident

Prevent or reduce morbidity and mortality from public health incidents whose scale, rapid onset, or unpredictability stresses the public health and health care systems

Earliest possible recovery and return of the public health and health care systems to pre-incident levels or improved functioning

2017-2022 Health Care Preparedness and Response Capabilities

Office of the Assistant Secretary for Preparedness and Response

November 2016

ASPR
ASSISTANT SECRETARY FOR PREPAREDNESS AND RESPONSE

DEPARTMENT OF HEALTH & HUMAN SERVICES · USA

Table of Contents

Introduction

The U.S. Department of Health and Human Services (HHS) Office of the Assistant Secretary for Preparedness and Response (ASPR) leads the country in preparing for, responding to, and recovering from the adverse health effects of emergencies and disasters. This is accomplished by supporting the nation's ability to withstand adversity, strengthening health and emergency response systems, and enhancing national health security. ASPR's Hospital Preparedness Program (HPP) enables the health care delivery system to save lives during emergencies and disaster events that exceed the day-to-day capacity and capability of existing health and emergency response systems. HPP is the only source of federal funding for health care delivery system readiness, intended to improve patient outcomes, minimize the need for federal and supplemental state resources during emergencies, and enable rapid recovery. HPP prepares the health care delivery system to save lives through the development of health care coalitions (HCCs) that incentivize diverse and often competitive health care organizations with differing priorities and objectives to work together.

ASPR developed the *2017-2022 Health Care Preparedness and Response Capabilities* guidance to describe what the health care delivery system, including HCCs, hospitals, and emergency medical services (EMS), have to do to effectively prepare for and respond to emergencies that impact the public's health. Each jurisdiction, including emergency management organizations and public health agencies, provides key support to the health care delivery system.

Individual health care organizations, HCCs, jurisdictions, and other stakeholders that develop the capabilities outlined in the *2017-2022 Health Care Preparedness and Response Capabilities* document will:

- Help patients receive the care they need at the right place, at the right time, and with the right resources, during emergencies
- Decrease deaths, injuries, and illnesses resulting from emergencies
- Promote health care delivery system resilience in the aftermath of emergencies

The intended audience for this document is any health care delivery system organization, HCC, or state or local agency that supports the provision of care during emergencies, including but not limited to:

- Behavioral health services and organizations
- Child care providers (e.g., daycare centers)
- Community Emergency Response Teams (CERT)[1] and Medical Reserve Corps (MRC)[2]
- Dialysis centers and regional Centers for Medicare & Medicaid Services (CMS)-funded end-stage renal disease (ESRD) networks[3]
- EMS (including inter-facility and other non-EMS patient transport systems)
- Emergency management organizations
- Faith-based organizations
- Federal facilities (e.g., U.S. Department of Veterans Affairs (VA) Medical Centers, Indian Health Service facilities, military treatment facilities)
- Home health agencies, including home and community-based services

[1] "Community Emergency Response Teams." *FEMA*, 31 Aug. 2016. Web. Accessed 7 Sept. 2016. www.fema.gov/community-emergency-response-teams.
[2] "Medical Reserve Corps." *MRC,* 22 Sept. 2016. Web. Accessed 26 Sept. 2016. https://mrc.hhs.gov.
[3] "ESRD Networks." *KCER*, 2016. Web. Accessed 7 Sept. 2016. http://kcercoalition.com/en/esrd-networks/.

- Hospitals (e.g., acute care hospitals, trauma centers, burn centers, children's hospitals, rehabilitation hospitals)
- Infrastructure companies (e.g., utility and communication companies)
- Cities, counties, parishes, townships, and tribes
- Local chapters of health care professional organizations (e.g., medical societies, professional societies, hospital associations)
- Local public safety agencies (e.g., law enforcement and fire services)
- Medical equipment and supply manufacturers and distributors
- Non-governmental organizations (e.g., American Red Cross, voluntary organizations active in disasters, amateur radio operators, etc.)
- Outpatient health care delivery (e.g., ambulatory care, clinics, community and tribal health centers, Federally Qualified Health Centers (FQHCs),[4] urgent care centers, freestanding emergency rooms, stand-alone surgery centers)
- Primary care providers, including pediatric and women's health care providers
- Public health agencies
- Schools and universities, including academic medical centers
- Skilled nursing, nursing, and long-term care facilities
- Social work services
- Support service providers (e.g., clinical laboratories, pharmacies, radiology, blood banks, poison control centers)

Planning for and responding to emergencies varies depending on a number of factors, including existing resources, geography (e.g., urban, suburban, rural, or frontier settings), type of health care delivery system (e.g., private sector, government), types of threats and hazards, and demographics. While the goals and objectives of these capabilities are intended for all communities across the nation, ASPR recognizes that the pathways to achieve them will differ based on the factors noted above and acknowledges the importance of flexibility and scalability.

Purpose of the 2017-2022 Health Care Preparedness and Response Capabilities

The *2017-2022 Health Care Preparedness and Response Capabilities* document outlines the high-level objectives that the nation's health care delivery system, including HCCs and individual health care organizations, should undertake to prepare for, respond to, and recover from emergencies. These capabilities illustrate the range of preparedness and response activities that, if conducted, represent the ideal state of readiness in the United States. ASPR recognizes that there is shared authority and accountability for the health care delivery system's readiness that rests with private organizations, government agencies, and Emergency Support Function-8 (ESF-8, Public Health and Medical Services) lead agencies. Given the many public and private entities that must come together to ensure community preparedness, HCCs serve an important communication and coordination role within their respective jurisdiction(s).

These capabilities may not be achieved solely with the funding provided to HPP awardees and sub-awardees (including HCCs and health care organizations) through the HPP Cooperative Agreement. ASPR will present clear expectations and priorities, as well as performance measures for assessing HPP

[4] "What are Federally qualified health centers (FQHCs)?" *HRSA*, n.d. Web. Accessed 7 Sept. 2016. www.hrsa.gov/healthit/toolbox/RuralHealthITtoolbox/Introduction/qualified.html.

awardees' and sub-awardees' progress toward building the capabilities, in the HPP funding opportunity announcement for the five-year project period that begins in July 2017.

The Four Capabilities

The four Health Care Preparedness and Response Capabilities are:

Capability 1: Foundation for Health Care and Medical Readiness

Goal of Capability 1: The community's[5] health care organizations and other stakeholders—coordinated through a sustainable HCC—have strong relationships, identify hazards and risks, and prioritize and address gaps through planning, training, exercising, and managing resources.

Capability 2: Health Care and Medical Response Coordination

Goal of Capability 2: Health care organizations, the HCC, their jurisdiction(s), and the ESF-8 lead agency plan and collaborate to share and analyze information, manage and share resources, and coordinate strategies to deliver medical care to all populations during emergencies and planned events.

Capability 3: Continuity of Health Care Service Delivery

Goal of Capability 3: Health care organizations, with support from the HCC and the ESF-8 lead agency, provide uninterrupted, optimal medical care to all populations in the face of damaged or disabled health care infrastructure. Health care workers are well-trained, well-educated, and well-equipped to care for patients during emergencies. Simultaneous response and recovery operations result in a return to normal or, ideally, improved operations.

Capability 4: Medical Surge

Goal of Capability 4: Health care organizations—including hospitals, EMS, and out-of-hospital providers—deliver timely and efficient care to their patients even when the demand for health care services exceeds available supply. The HCC, in collaboration with the ESF-8 lead agency, coordinates information and available resources for its members to maintain conventional surge response. When an emergency overwhelms the HCC's collective resources, the HCC supports the health care delivery system's transition to contingency and crisis surge response[6] and promotes a timely return to conventional standards of care as soon as possible.

These four capabilities were developed based on guidance provided in the *2012 Healthcare Preparedness Capabilities: National Guidance for Healthcare System Preparedness* document. They support and cascade from guidance documented in the *National Response Framework*,[7] *National Preparedness Goal*,[8] and the *National Health Security Strategy*[9] to build community health resilience and

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[5] As the HCC defines in Capability 1, Objective 1, Activity 1 – Define HCC Boundaries

[6] Altevogt, Bruce M., et al. "Guidance for Establishing Crisis Standards of Care for Use in Disaster Situations." *The National Academies Press,* 2009. Web. Accessed 26 Oct. 2016. www.nap.edu/read/12749/chapter/1.

[7] "National Response Framework." *FEMA*, ed. 3, Jun. 2016. PDF. Accessed 24 Aug. 2016. www.fema.gov/media-library-data/1466014682982-9bcf8245ba4c60c120aa915abe74e15d/National_Response_Framework3rd.pdf.

[8] "National Preparedness Goal." *FEMA*, ed. 2. 5 Jul. 2016. PDF. Accessed 26 Oct. 2016. https://www.fema.gov/media-library-data/1443799615171-2aae90be55041740f97e8532fc680d40/National_Preparedness_Goal_2nd_Edition.pdf

[9] "National Health Security Strategy and Implementation Plan." *ASPR, HHS,* 2015-2018. PDF. Accessed 26 Oct. 2016. http://www.phe.gov/Preparedness/planning/authority/nhss/Documents/nhss-ip.pdf

integrate health care organizations, emergency management organizations, and public health agencies. See Appendix 1 for more details on the process ASPR followed to revise the capabilities.

The Value of Health Care Coalitions in Preparedness and Response

HCCs—groups of individual health care and response organizations (e.g., hospitals, EMS, emergency management organizations, public health agencies, etc.) in a defined geographic location—play a critical role in developing health care delivery system preparedness and response capabilities. HCCs serve as multiagency coordination groups that support and integrate with ESF-8 activities in the context of incident command system (ICS) responsibilities. HCCs coordinate activities among health care organizations and other stakeholders in their communities; these entities comprise HCC members that actively contribute to HCC strategic planning, operational planning and response, information sharing, and resource coordination and management. As a result, HCCs collaborate to ensure each member has what it needs to respond to emergencies and planned events, including medical equipment and supplies, real-time information, communication systems, and educated and trained health care personnel.

The value of participating in an HCC is not limited to emergency preparedness and response. Day-to-day benefits[10] may include:

- Meeting regulatory and accreditation requirements
- Enhancing purchasing power (e.g., bulk purchasing agreements)
- Accessing clinical and non-clinical expertise
- Networking among peers
- Sharing leading practices
- Developing interdependent relationships
- Reducing risk
- Addressing other community needs, including meeting requirements for tax exemption through community benefit[11]

Using the Capabilities Document

The *2017-2022 Health Care Preparedness and Response Capabilities* document is organized into four sections—one for each capability. Each capability has a goal and a set of objectives with associated activities. Definitions of capability goal, objective, and activity are defined below.

- Goal: The outcome of developing the capability
- Objective: Overarching component of the capability that, when completed, helps achieve the goal
- Activity: A task critical for achieving an objective

The capabilities are a high-level overview of the objectives and activities that the nation's health care delivery system, including HCCs and individual health care organizations, should undertake to prepare for, respond to, and recover from emergencies. ASPR encourages HCCs, health care organizations, and

[10] Priest, Chad and Benoit Stryckman. "Identifying Indirect Benefits of Federal Health Care Emergency Preparedness Grant Funding to Coalitions: A Content Analysis." *Disaster Medicine and Public Health Preparedness*, vol. 9, no. 6, 2015.

[11] "Instructions for Schedule H (Form 990)." *IRS*, 2015. Web. Accessed 18 Jul. 2016. https://www.irs.gov/pub/irs-pdf/i990sh.pdf.

other stakeholders supporting the provision of care during emergencies to use ASPR's Technical Resources, Assistance Center, and Information Exchange (TRACIE)[12] to receive assistance and resources for developing the capabilities.

[12] "Welcome to ASPR TRACIE." *ASPR TRACIE*, 24 Aug. 2016. Web. Accessed 24 Aug. 2016. https://asprtracie.hhs.gov/.

Capability 1. Foundation for Health Care and Medical Readiness

The foundation for health care and medical readiness enables the health care delivery system and other organizations that contribute to responses to coordinate efforts before, during, and after emergencies; continue operations; and appropriately surge as necessary. This is primarily accomplished through health care coalitions (HCCs) that incentivize diverse and often competitive health care organizations with differing priorities and objectives to work together. HCCs should collaborate with a variety of stakeholders to ensure the community has the necessary medical equipment and supplies, real-time information, communication systems, and trained and educated health care personnel to respond to an emergency. These stakeholders include core HCC members—hospitals, emergency medical services (EMS), emergency management organizations, and public health agencies—additional HCC members, and the Emergency Support Function-8 (ESF-8, Public Health and Medical Services) lead agency. (For more information, see Capability 1, Objective 1, Activity 2 – Identify Health Care Coalition Members.)

Goal for Capability 1: Foundation for Health Care and Medical Readiness

The community's[13] health care organizations and other stakeholders—coordinated through a sustainable HCC—have strong relationships, identify hazards and risks, and prioritize and address gaps through planning, training, exercising, and managing resources.

Objective 1: Establish and Operationalize a Health Care Coalition

HCCs should coordinate with their members to facilitate:

- Strategic planning
- Identification of gaps and mitigation strategies
- Operational planning and response
- Information sharing for improved situational awareness
- Resource coordination and management

HCCs serve as multiagency coordination groups that support and integrate with other ESF-8 activities. Coordination between the HCC and the ESF-8 lead agency can occur in a number of ways. Some HCCs serve as the ESF-8 lead agency for their jurisdiction(s). Others integrate with their ESF-8 lead agency through an identified designee at the jurisdiction's Emergency Operations Center (EOC) who represents HCC issues and needs and provides timely, efficient, and bi-directional information flow to support situational awareness. (See Capability 2 – Health Care and Medical Response Coordination for details on ESF-8 and situational awareness.)

HCCs serve as a public-private partnership. As stated in the *National Response Framework*:

> "…private sector organizations contribute to response efforts through partnerships with each level of government….During an incident, key private sector partners should have a direct link to

[13] As the HCC defines in Capability 1, Objective 1, Activity 1 – Define HCC Boundaries

> emergency managers and, in some cases, be involved in the decision making process….Private sector entities can assist in delivering the response core capabilities by collaborating with emergency management personnel before an incident occurs to determine what assistance may be necessary and how they can support local emergency management organizations during response operations…."[14]

Activity 1. Define Health Care Coalition Boundaries

The HCC should define its boundaries based on daily health care delivery patterns—including those established by corporate health systems—and organizations within a defined geographic region, such as independent organizations and federal health care facilities. Additionally, the HCC may consider boundaries based on defined catchment areas, such as regional EMS councils, trauma regions, accountable care organizations, emergency management regions, etc. Defined boundaries should encompass more than one of each member type (e.g., hospitals, EMS) to enable coordination and enhance the HCC's ability to share the load during an emergency. HCC boundaries may span several jurisdictional or political boundaries, and the HCC should coordinate with all ESF-8 lead agencies within its defined boundaries.

The HCC should:

- Include enough members to ensure adequate resources; however, at the same time, having too many members may make the HCC unmanageable
- Consider existing regional service areas, as they define common and known health care delivery patterns and emergency response activities
- Consider HCC boundaries that cross state borders where appropriate
- Engage the jurisdiction's public health agency to ensure all health care facilities, including independent facilities, belong to an HCC and that there are no geographic gaps in HCC coverage

Activity 2. Identify Health Care Coalition Members

An HCC member is defined as an entity within the HCC's defined boundaries that actively contributes to HCC strategic planning, identification of gaps and mitigation strategies, operational planning and response, information sharing, and resource coordination and management. In cases where there are multiple entities of an HCC member type, there may be a subcommittee structure that establishes a lead entity to communicate common interests to the HCC (e.g., multiple dialysis centers forming a subcommittee). HCC membership does not begin or end with attending meetings.

The HCC should include a diverse membership to ensure a successful whole community response. If segments of the community are unprepared or not engaged, there is greater risk that the health care delivery system will be overwhelmed. As such, the HCC should liaise with the broader response community on a regular basis (see Introduction for a list of stakeholders). The list is recreated below, delineating core and additional HCC members.

- Core HCC members should include, at a minimum, the following:
    - Hospitals
    - EMS (including inter-facility and other non-EMS patient transport systems)

[14] "National Response Framework." *FEMA*, ed. 3, Jun. 2016, pp. 10, 29. PDF. Accessed 24 Aug. 2016. https://www.fema.gov/media-library-data/1466014682982-9bcf8245ba4c60c120aa915abe74e15d/National_Response_Framework3rd.pdf.

  - Emergency management organizations
  - Public health agencies

- Additional HCC members may include but are not limited to the following:
  - Behavioral health services and organizations
  - Community Emergency Response Team (CERT)[15] and Medical Reserve Corps (MRC)[16]
  - Dialysis centers and regional Centers for Medicare & Medicaid Services (CMS)-funded end-stage renal disease (ESRD) networks[17]
  - Federal facilities (e.g., U.S. Department of Veterans Affairs (VA) Medical Centers, Indian Health Service facilities, military treatment facilities)
  - Home health agencies (including home and community-based services)
  - Infrastructure companies (e.g., utility and communication companies)
  - Jurisdictional partners, including cities, counties, and tribes
  - Local chapters of health care professional organizations (e.g., medical society, professional society, hospital association)
  - Local public safety agencies (e.g., law enforcement and fire services)
  - Medical and device manufacturers and distributors
  - Non-governmental organizations (e.g., American Red Cross, voluntary organizations active in disasters, amateur radio operators, etc.)
  - Outpatient health care delivery (e.g., ambulatory care, clinics, community and tribal health centers, Federally Qualified Health Centers (FQHCs),[18] urgent care centers, freestanding emergency rooms, stand-alone surgery centers)
  - Primary care providers, including pediatric and women's health care providers
  - Schools and universities, including academic medical centers
  - Skilled nursing, nursing, and long-term care facilities
  - Support service providers (e.g., clinical laboratories, pharmacies, radiology, blood banks, poison control centers)
  - Other (e.g., child care services, dental clinics, social work services, faith-based organizations)

Specialty patient referral centers (e.g., pediatric, burn, trauma, and psychiatric centers) should ideally be HCC members within their geographic boundaries. They may also serve as referral centers to other HCCs where that specialty care does not exist. In such cases, referral centers' support of HCC planning, exercises, and response activities can be mutually beneficial.

Urban and rural HCCs may have different membership compositions based on population characteristics, geography, and types of hazards. For example, in rural and frontier areas—where the distance between hospitals may exceed 50 miles and where the next closest hospitals are also critical access hospitals with limited services—tribal health centers, referral centers, or support services may play a more prominent role in the HCC.

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[15] "Community Emergency Response Teams." *FEMA*, 31 Aug. 2016. Web. Accessed 7 Sept. 2016. www.fema.gov/community-emergency-response-teams/.
[16] "Medical Reserve Corps." *MRC,* 22 Sept. 2016. Web. Accessed 26 Sept. 2016. https://mrc.hhs.gov.
[17] "ESRD Networks." *KCER*, 2016. Web. Accessed 7 Sept. 2016. http://kcercoalition.com/en/esrd-networks/.
[18] "What are Federally qualified health centers (FQHCs)?" *HRSA*, n.d. Web. Accessed 7 Sept. 2016. www.hrsa.gov/healthit/toolbox/RuralHealthITtoolbox/Introduction/qualified.html.

Activity 3. Establish Health Care Coalition Governance

The HCC should define and implement a structure and processes to execute activities related to health care delivery system readiness and coordination. The elements of governance include organizational structures, roles and responsibilities, mechanisms to provide guidance and direction, and processes to ensure integration with the ESF-8 lead agency. The HCC should specify how structure, processes, and policies may shift during a response, as opposed to a steady state. HCC members should adopt these elements and be part of regular reviews.

The HCC should document the following information related to its governance:

- HCC membership
- An organizational structure to support HCC activities, including executive and general committees, election or appointment processes, and any necessary administrative rules and operational functions (e.g., bylaws)
- Member guidelines for participation and engagement that consider each member and region's geography, resources, and other factors
- Policies and procedures, including processes for making changes, orders of succession, and delegations of authority
- HCC integration within existing state, local, and member-specific incident management structures and specified roles—such as a primary point of contact who serves as the liaison to the ESF-8 lead agency and EOCs during an emergency

Objective 2: Identify Risk and Needs

The HCC should identify and plan for risks, in collaboration with the ESF-8 lead agency, by conducting assessments or using and modifying data from existing assessments for health care readiness purposes. These assessments can determine resource needs and gaps, identify individuals who may require additional assistance before, during, and after an emergency, and highlight applicable regulatory and compliance issues. The HCC and its members may use the information about these risks and needs to inform training and exercises and prioritize strategies to address preparedness and response gaps in the region.

Activity 1. Assess Hazard Vulnerabilities and Risks

A hazard vulnerability analysis (HVA) is a systematic approach to identifying hazards or risks that are most likely to have an impact on the demand for health care services or the health care delivery system's ability to provide these services. This assessment may also include estimates of potential injured or ill survivors, fatalities, and post-emergency community needs based on the identified risks.

General principles for the HVA process include but are not limited to the following:

- HCC members should participate in the HVA process, using a variety of HVA tools[19]
- The HVA process should be coordinated with state and local emergency management organization assessments (e.g., Threat and Hazard Identification and Risk Assessment [THIRA][20])

[19] "ASPR TRACIE Evaluation of Hazard Vulnerability Assessment Tools." *ASPR TRACIE,* 19 Jul. 2016. PDF. Accessed 24 Aug. 2016. asprtracie.hhs.gov/documents/tracie-evaluation-of-HVA-tools.pdf.
[20] "Threat and Hazard Identification and Risk Assessment." *FEMA*, Mar. 2015. Web. Accessed 19 Jul. 2016. www.fema.gov/threat-and-hazard-identification-and-risk-assessment.

and any public health hazard assessments (e.g., jurisdictional risk assessment). The intent is to ensure completion, share risk assessment results, and minimize duplication of effort
- Health care facilities, EMS, and other health care organizations should provide input into the development of the regional HVA based on their facilities' or organizations' HVAs
- The assessment components should include regional characteristics, such as risks for natural or man-made disasters, geography, and critical infrastructure
- The assessment components should address population characteristics (including demographics), and consider those individuals who might require additional help in an emergency, such as children; pregnant women; seniors; individuals with access and functional needs, including people with disabilities; and others with unique needs
- The HCC should regularly review and share the HVA with all members

Activity 2. Assess Regional Health Care Resources

HCC members should perform an assessment to identify the health care resources and services that are vital for continuity of health care delivery during and after an emergency. The HCC should then use this information to identify resources that could be coordinated and shared. This information is critical to uncovering resource vulnerabilities relative to the HVA that could impede the delivery of medical care and health care services during an emergency.

The resource assessment will be different for various HCC member types, but should address resources required to care for all populations during an emergency. The resource assessment should include but is not limited to the following:

- Clinical services – inpatient hospitals, outpatient clinics, emergency departments, private practices, skilled nursing facilities, long-term care facilities, behavioral health services, and support services (see Capability 4 – Medical Surge)
- Critical infrastructure supporting health care (e.g., utilities, water, power, fuel, information technology [IT] services, communications, transportation networks)
- Caches (e.g., pharmaceuticals and durable medical equipment)
- Hospital building integrity
- Health care facility, EMS, corporate health system, and HCC information and communications systems and platforms (e.g., electronic health records [EHRs], bed and patient tracking systems) and communication modalities (e.g., telephone, 800 MHz radio, satellite telephone)
- Alternate care sites
- Home health agencies (including home and community-based services)
- Health care workforce
- Health care supply chain
- Food supply
- Medical and non-medical transportation system
- Private sector assets that can support emergency operations

Activity 3. Prioritize Resource Gaps and Mitigation Strategies

A comparison between available resources and current HVA(s) will identify gaps and help prioritize HCC and HCC member activities. Gaps may include a lack of, or inadequate, plans or procedures, staff, equipment and supplies, skills and expertise, services, or any other resources required to respond to an emergency. Just as the resource assessment will be different for different member types, so will efforts to prioritize identified gaps. HCC members should prioritize gaps based on consensus and determine

mitigation strategies based on the time, materials, and resources necessary to address and close gaps. Gaps may be addressed through coordination, planning, training, or resource acquisition. Ultimately, the HCC should focus its time and resource investments on closing those gaps that affect the care of acutely ill and injured patients.

Certain response activities may require external support or intervention, as emergencies may exceed the preparedness thresholds the HCC, its members, and the community have deemed reasonable. Thus, during the prioritization process, planning to access and integrate external partners and resources (i.e., federal, state, and/or local) is a key part of gap closure.

Activity 4. Assess Community Planning for Children, Pregnant Women, Seniors, Individuals with Access and Functional Needs, Including People with Disabilities, and Others with Unique Needs

Certain individuals may require additional assistance before, during, and after an emergency. The HCC and its members should conduct inclusive planning for the whole community, including children; pregnant women; seniors; individuals with access and functional needs, such as people with disabilities; individuals with pre-existing, serious behavioral health conditions; and others with unique needs.[21]

The HCC should:

- Support public health agencies with situational awareness and IT tools already in use that can help identify children; pregnant women; seniors; and individuals with access and functional needs, including people with disabilities; and others with unique needs (e.g., the U.S. Department of Health and Human Services emPOWER map,[22] which provides information on Medicare beneficiaries who rely on electricity-dependent medical and assistive equipment, such as ventilators, at-home dialysis machines, and wheelchairs)
- Support public health agencies in developing or augmenting existing response plans for these populations, including mechanisms for family reunification
- Identify potential health care delivery system support for these populations (pre- and post-event) that can reduce stress on hospitals during an emergency
- Assess needs and contribute to medical planning that may enable individuals to remain in their residences. When that is not possible, coordinate with the ESF-8 lead agency to support the ESF-6 (Mass Care, Emergency Assistance, Housing, and Human Services) lead agency with inclusion of medical care at shelter sites
- Coordinate with the ESF-8 lead agency to assess medical transport needs for these populations
- Assess specific treatment and access to care needs; incorporate how to address needs into individual HCC member Emergency Operations Plans (EOPs) and the HCC response plan (see Capability 2, Objective 1 – Develop and Coordinate Health Care Organization and Health Care Coalition Response Plans)
- Coordinate with the U.S. Department of Veterans Affairs (VA) Medical Center to identify veterans in the HCC's coverage area (if applicable)

[21] Public Health Service Act § 2802, 42 U.S.C. 300hh–1 (2013).
[22] "HHS emPOWER Map." *ASPR*, 2016. Web. Accessed 19 Jul. 2016. www.phe.gov/empowermap/Pages/default.aspx.

Activity 5. Assess and Identify Regulatory Compliance Requirements

The HCC, in collaboration with the ESF-8 lead agency and state authorities, should assess and identify regulatory compliance requirements that are applicable to day-to-day operations and may play a role in planning for, responding to, and recovering from emergencies.

The HCC should:

- Understand federal statutory, regulatory, or national accreditation requirements that impact emergency medical care, including:
    - Centers for Medicare & Medicaid Services (CMS) conditions of participation, (including CMS-3178-F Medicare and Medicaid Programs; Emergency Preparedness Requirements for Medicare and Medicaid Participating Providers and Suppliers)[23]
    - Clinical Laboratory Improvement Amendments (CLIA)[24]
    - Health Insurance Portability and Accountability Act (HIPAA) Privacy Rule requirements[25] and circumstances when covered entities can disclose protected health information (PHI) without individual authorization including to public health authorities and as directed by laws (e.g., state law)[26]
    - Emergency Medical Treatment & Labor Act (EMTALA) requirements[27]
    - Licensing and accrediting agencies for hospitals, clinics, laboratories, and blood banks (e.g., Joint Commission,[28] DNV GL – Healthcare[29])
    - Federal disaster declaration processes[30,31] and public health authorities
    - Available federal liability protections for responders (e.g., Public Readiness and Emergency Preparedness (PREP) Act[32])
    - Environmental Protection Agency (EPA) requirements[33]
    - Occupational Safety and Health Administration (OSHA) requirements[34] (e.g., general duty clause, blood-borne pathogen standard)

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[23] See "Medicare and Medicaid Programs; Emergency Preparedness Requirements for Medicare and Medicaid Participating Providers and Suppliers." 81 Fed. Reg. 63859. (16 Sept. 2016.) *Federal Register: The Daily Journal of the United States*. Web. Accessed 26 Oct. 2016.

[24] See "Clinical Laboratory Improvement Amendments (CLIA)." *CMS*, May 2016. Web. Accessed 18 Aug. 2016. https://www.cms.gov/Regulations-and-Guidance/Legislation/CLIA/index.html.

[25] See "Emergency Situations: Preparedness, Planning, and Response." *HHS*, 2016. Web. Accessed 19 Jul. 2016. www.hhs.gov/hipaa/for-professionals/special-topics/emergency-preparedness/index.html.

[26] "HIPAA and Disasters: What Emergency Professionals Need to Know." *ASPR TRACIE*, 31 Aug. 2016. PDF. Accessed 21 Oct. 2016. https://asprtracie.hhs.gov/documents/aspr-tracie-hipaa-emergency-fact-sheet.pdf

[27] See "Emergency Medical Treatment & Labor Act (EMTALA)." CMS. 2012. Web. Accessed 19 Jul. 2016. https://www.cms.gov/Regulations-and-Guidance/Legislation/EMTALA/.

[28] "Emergency Management Resources." *The Joint Commission*, 24 Aug. 2016. Web. Accessed 24 Aug. 2016. www.jointcommission.org/emergency_management.aspx.

[29] "DNV GL Healthcare." *DNV GL Healthcare,* 2016. Web. Accessed 19 Jul. 2016. dnvglhealthcare.com/.

[30] See "The Disaster Declaration Process." *FEMA*, 3 Jun. 2016. Web. Accessed 19 Jul. 2016. www.fema.gov/disaster-declaration-process.

[31] See "Legal Authority of the Secretary." *ASPR*, 2016. Web. Accessed 19 Jul. 2016. www.phe.gov/preparedness/support/secauthority/Pages/default.aspx.

[32] See "Public Readiness and Emergency Preparedness Act." *ASPR,* Dec. 2015. Web. Accessed 14 Aug. 2016. http://www.phe.gov/preparedness/legal/prepact/pages/default.aspx.

[33] See "EPA Laws and Regulations." *EPA*, Jun. 2016. Web. Accessed 19 Jul. 2016. www.epa.gov/laws-regulations.

[34] See "OSHA laws and regulations." *OSHA*, 2016. Web. 19 Jul. 2016. www.osha.gov/law-regs.html.

- Understand state or local regulations or programs that impact emergency medical care, including:
    - Scope and breadth of emergency declarations
    - Regulations for health care practitioner licensure, practice standards, reciprocity, scope of practice limitations, and staff-to-patient ratios
    - Legal authorization to allocate personnel, resources, equipment, and supplies among health care organizations
    - Laws governing the conditions under which an individual can be isolated or quarantined
    - Available state liability protections for responders
- Understand the process and information required to request necessary waivers and suspension of regulations, including:
    - Processes for emergency resource acquisition (this may require coordination with the federal, state, and/or local government)
    - Special waiver processes (e.g., section 1135 of the Social Security Act waivers[35]) of key regulatory requirements pursuant to emergency declarations
    - Process and implications for Food and Drug Administration (FDA) issuance of emergency use authorizations for use of non-approved drugs or devices or use of approved drugs or devices for unapproved uses
    - Legal resources[36] related to hospital legal preparedness, such as the deployment and use of volunteer health practitioners
    - Legal and regulatory issues related to alternate care sites and practices
    - Legal issues regarding population-based interventions, such as mass prophylaxis and vaccination
    - Processes for emergency decision making from state or local legislature
- Support crisis standards of care planning,[37] including the identification of appropriate legal authorities and protections necessary when crisis standards of care are implemented (see Capability 4 – Medical Surge)
- Maintain awareness of standing contracts for resource support during emergencies

Objective 3: Develop a Health Care Coalition Preparedness Plan

The HCC preparedness plan enhances preparedness and risk mitigation through cooperative activities based on common priorities and objectives. In collaboration with the ESF-8 lead agency, the HCC should develop a preparedness plan that includes information collected on hazard vulnerabilities and risks, resources, gaps, needs, and legal and regulatory considerations (as collected in Capability 1, Objective 2, Activities 1-5 above). The HCC preparedness plan should emphasize strategies and tactics that promote communications, information sharing, resource coordination, and operational response planning with HCC members and other stakeholders. The HCC should develop its preparedness plan to include core HCC members and additional HCC members so that, at a minimum, hospitals, EMS, emergency

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[35] See "1135 Waivers." *ASPR,* 2 May 2013. Web. Accessed 12 Sept. 2016. http://www.phe.gov/Preparedness/legal/Pages/1135-waivers.aspx.

[36] "Hospital Legal Preparedness: Relevant Resources." *CDC*, 20 Apr. 2015. Web. Accessed 19 Jul. 2016. www.cdc.gov/phlp/publications/topic/hospital.html.

[37] Altevogt, Bruce M., et al. "Guidance for Establishing Crisis Standards of Care for Use in Disaster Situations." *The National Academies Press,* 2009. Web. Accessed 26 Oct. 2016. www.nap.edu/read/12749/chapter/1.

management organizations, and public health agencies are represented. The plan can be presented in various formats (e.g., a subset of strategic documents, annexes, or a portion of the HCC's concept of operations plans [CONOPS]).

The HCC preparedness plan should:

- Incorporate the HCC's and its members' priorities for planning and coordination based on regional needs and gaps
    - Priorities will depend on multiple factors, including perceived risk, emergencies occurring in the region, available funds, applicable laws and regulations, supporting personnel, HCC member facilities and organizations involved, and time constraints
- Draw from and address gaps identified in HCC members' existing preparedness plans as required by CMS-3178-F Medicare and Medicaid Programs; Emergency Preparedness Requirements for Medicare and Medicaid Participating Providers and Suppliers
- Be developed by HCC leadership with broad input from HCC members and other stakeholders
- Outline strategic and operational objectives for the HCC as a whole and for each HCC member
- Include short-term (e.g., within the year) and longer-term (e.g., three- to five-year) objectives
- Include a recurring objective to develop and review the HCC response plan, which details the responsibilities and roles of the HCC and its members, including how they share information, coordinate activities and resources during an emergency, and plan for recovery (see Capability 2 – Health Care and Medical Response Coordination)
- Include and inform training, exercise, and resource and supply management activities during the year
- Include a checklist of each HCC member's proposed activities, methods for members to report progress to the HCC, and processes to promote accountability and completion

HCC members should approve the initial plan and maintain involvement in regular reviews. Following reviews, the HCC should update the plan as necessary after exercises and real-world events. The review should include identifying gaps in the preparedness plan and working with HCC members to define strategies to address the gaps.

The HCC should also develop a complementary HCC response plan in collaboration with the ESF-8 lead agency (see Capability 2 – Health Care and Medical Response Coordination).

Objective 4: Train and Prepare the Health Care and Medical Workforce

Training, drills, and exercises help identify and assess how well a health care delivery system or region is prepared to respond to an emergency. These activities also develop the necessary knowledge, skills, and abilities of an HCC member's workforce. Trainings can cover a wide range of topics including clinical subject matter, incident management, safety and protective equipment, workplace violence, psychological first aid, or planning workshops. The HCC should promote these activities and participate in training and exercises with its members, and in coordination with the ESF-8 lead agency, emphasizing consistency, engagement, and demonstration of regional coordination.

Activity 1. Promote Role-Appropriate National Incident Management System Implementation

The HCC should assist its health care organization members and other HCC members with National Incident Management System (NIMS)[38] implementation.

The HCC should:

- Ensure HCC leadership receives NIMS training
- Promote NIMS implementation, including training and exercises, among HCC members to facilitate operational coordination with public safety and emergency management organizations during an emergency using an incident command system (ICS)
- Assist HCC members with incorporating NIMS components into their EOPs
- For those members not bound by NIMS implementation, the HCC should consider training on response planning techniques, organizational structure, and other incident management practices that will prepare members for their roles during a response

Activity 2. Educate and Train on Identified Preparedness and Response Gaps

HCC members should support education and training to address health care preparedness and response gaps identified through strategic planning, development of the HCC preparedness and response plans, or other assessments. Whenever possible, training should be standardized at the HCC level to ensure efficiency and consistency.

The HCC should:

- Promote understanding of every HCC member's specific roles and responsibilities in the health care delivery system's emergency response
- Base training on specific gaps and needs identified by HCC members
- Promote and support training for health care providers, laboratorians, non-clinical staff, and ancillary workforce in:
    - Clinical management (e.g., chemical, biological, radiological, nuclear and explosives [CBRNE][39,40], burn, trauma, and other recognized hazards) for all populations
    - Responder safety and health requirements (see Capability 3, Objective 5 – Protect Responders' Safety and Health)
    - Management of patients in a resource-scarce environment, including the implementation of crisis standards of care
- Ensure health care organization leadership is aware of and engaged in HCC activities[41] (see Capability 1, Objective 5, Activity 2 – Engage Health Care Executives below)

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[38] "NIMS Implementation for Healthcare Organizations Guidance." *ASPR HPP,* Jan. 2015. PDF. Accessed 7 Sept. 2016. www.phe.gov/Preparedness/planning/hpp/reports/Documents/nims-implementation-guide-jan2015.pdf.
[39] "Decontamination Guidance for Chemical Incidents." *HHS, 2016.* Web. Accessed 11 Oct. 2016. https://www.medicalcountermeasures.gov/barda/cbrn/decontamination-guidance-for-chemical-incidents/.
[40] Cibulsky, Susan M., et al. "Patient Decontamination in a Mass Chemical Exposure Incident: National Planning Guidance for Communities." *HHS, DHS, Dec. 2014.* PDF. Accessed 11 Oct. 2016. http://www.phe.gov/Preparedness/responders/Documents/patient-decon-natl-plng-guide.pdf.
[41] Browning, Henry W., et al. "Collaborative Healthcare Leadership: A Six-Part Model for Adapting and Thriving during a Time of Transformative Change." *Center for Creative Leadership*, Mar. 2016. PDF. Accessed 7 Sept. 2016. insights.ccl.org/wp-content/uploads/2015/04/CollaborativeHealthcareLeadership.pdf.

- Develop and implement training plans, including those that support appropriate health care providers and first responders. Training plans may include but are not limited to, initial education, continuing education, appropriate certifications, and just-in-time training
- Employ a variety of modalities (e.g., online, classroom, etc.)

Activity 3. Plan and Conduct Coordinated Exercises with Health Care Coalition Members and Other Response Organizations

The HCC, in collaboration with its members, should plan and conduct coordinated exercises to assess the health care delivery system's readiness. The HCC should focus exercises on the outcomes of HVAs and other assessments that identify resource needs and gaps, identify individuals who may require additional assistance before, during, and after an emergency, and highlight applicable regulatory and compliance issues.

The HCC should:

- Plan and conduct health care delivery system-wide exercises that incorporate hospitals, EMS, emergency management organizations, public health agencies, and additional HCC member participation
- Base exercises on specific gaps and needs identified by HCC members, including emerging infectious diseases and CBRNE threats
- Update an exercise schedule annually or in accordance with jurisdictional needs
- Provide opportunities for clinical laboratory participation
- Assess readiness to support emergencies involving children across the age and developmental trajectory; children represent nearly 25 percent of the population[42] and have unique response needs during emergencies, including special medical equipment and treatment needs and family reunification considerations
- Assess readiness to support other individuals who have special health needs and may require additional assistance before, during, and after an emergency (e.g., pregnant women, seniors, individuals who depend on electricity-dependent medical and assistive equipment, etc.)
- Exercise Continuity of Operations (COOP) plans (see Capability 3, Objective 2, Activity 1 – Develop a Health Care Organization Continuity of Operations Plan and Capability 3, Objective 2, Activity 2 – Develop a Health Care Coalition Continuity of Operations Plan)
- Exercise medical surge capacity and capability,[43] including decisions leading to the implementation of crisis standards of care (see Capability 4 – Medical Surge)
    - Assess the mobilization of beds, personnel, and key resources, including equipment, supplies, and pharmaceuticals
- Coordinate exercises with other response organizations (e.g., Federal Emergency Management Agency [FEMA], National Guard, etc.)
- When appropriate, include federal, state, and local response resources in exercises (e.g., National Disaster Medical System [NDMS] Disaster Medical Assistance Teams [DMAT],[44] NDMS

[42] Lofquist, Daphne, et al. "Households ad Families: 2010." *2010 Census Briefs,* Apr. 2012. PDF. Accessed 26 Aug. 2016. www.census.gov/prod/cen2010/briefs/c2010br-14.pdf.
[43] "Health Care Coalition Surge Evaluation Tool." *ASPR,* Jun. 2016. Web. Accessed 19 Jul. 2016. www.phe.gov/Preparedness/planning/hpp/Pages/coaltion-tool.aspx.
[44] "Disaster Medical Assistance Team." *ASPR,* 25 Sept. 2015. Web. Accessed 15 Sept. 2016. www.phe.gov/preparedness/responders/ndms/teams/pages/dmat.aspx.

Federal Coordinating Centers [FCCs],[45] Emergency System for Advance Registration of Volunteer Health Professionals [ESAR-VHP],[46] state medical teams, MRC, and other federal, state, local, and tribal assets)
- Collect information about HCC member operating status and resource availability during exercises and disseminate the information to other members
- Develop an after-action report (AAR) and improvement plan (IP) that incorporates lessons learned from exercises and a follow-up process, including steps to overcome the identified gaps in the AAR/IP (see Capability 1, Objective 4, Activity 5 – Evaluate Exercises and Responses to Emergencies below)

Activity 4. Align Exercises with Federal Standards and Facility Regulatory and Accreditation Requirements

The HCC should consider the following when developing and executing exercises:

- Apply Homeland Security Exercise and Evaluation Program (HSEEP) fundamentals[47] to both the exercise program and the execution of individual exercises
- Integrate current health care accreditation requirements such as the Joint Commission Emergency Management Standards, and health care regulatory requirements such as CMS-3178-F Medicare and Medicaid Programs; Emergency Preparedness Requirements for Medicare and Medicaid Participating Providers and Suppliers
- Use a stepwise progression of exercise complexity for a variety of emergency response scenarios (e.g., workshop to tabletop to functional to full-scale exercises)

Activity 5. Evaluate Exercises and Responses to Emergencies

The HCC should coordinate with its members and other response organizations to complete an AAR and an IP after exercises and real-world events. The same exercise or response may generate facility, member type, HCC, and community AAR/IPs – each with a somewhat different focus and level of detail.

The AAR should document gaps in HCC member composition, planning, resources, or skills revealed during the exercise and response evaluation processes. The IP should detail a plan for addressing the identified gaps, including responsible entities and the required time and resources to address the gaps. The IP should also recommend processes to retest the revised plans and capabilities. Facility and organization evaluations should follow a similar process. AARs may also reveal leading practices that can be shared with HCC members and other HCCs.

Successful HCC maturation depends on integrating AAR/IP findings into the next planning, training, exercise, and resource allocation cycle.

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[45] "National Disaster Medical System: Federal Coordinating Center Guide." *NDMS,* Apr. 2014. PDF. Accessed 12 Sept. 2016. http://www.dmrti.army.mil/01_FCC%20Guide%20Apr%202014.pdf.
[46] "The Emergency System for Advance Registration of Volunteer Health Professionals." *ASPR,* n.d. Web. Accessed 7 Sept. 2016. http://www.phe.gov/esarvhp/pages/default.aspx.
[47] "Homeland Security Exercise and Evaluation Program (HSEEP)*." FEMA*, Apr. 2013. pp. 1-1. Web. Accessed 19 Jul 2016. http://www.fema.gov/media-library-data/20130726-1914-25045-8890/hseep_apr13_.pdf.

Activity 6. Share Leading Practices and Lessons Learned

The HCC should coordinate with its members, government partners, and other HCCs to share leading practices and lessons learned. Sharing information between HCCs will improve cross-HCC coordination during an emergency and will help further improve coordination efforts.

The HCC should employ the following principles when sharing leading practices and lessons learned:

- Ensure information is shared among HCCs after real-world events and exercises to identify gaps, leading practices, and lessons learned
- Incorporate lessons learned from real-world events and exercises into HCC plans, training, and exercises
- Utilize mechanisms to rapidly acquire and share new clinical knowledge for a wide range of hazards and threats during exercise scenarios and real-world events. Examples include:
    - Utilizing the Office of the Assistant Secretary for Preparedness and Response (ASPR) Technical Resources, Assistance Center, and Information Exchange (TRACIE)[48]
    - Sharing hazardous material (HAZMAT) information from poison control centers
    - Using virtual telemedicine platforms (e.g., Project ECHO[49])
    - Obtaining information from federal alert systems (e.g., Centers for Disease Control and Prevention [CDC], FDA, FEMA)
    - Coordinating clinical treatment information on conference calls or webinars (e.g., CDC Clinician Outreach and Communication Activity [COCA][50])

Objective 5: Ensure Preparedness is Sustainable

Sustainability planning is a critical component to HCC development. Strong governance mechanisms, constant regional stakeholder engagement, and sound financial planning help form the foundation to continue HCC activities well into the future. Sustainability should emphasize HCC processes and activities that support member needs and regulatory requirements (e.g., exercises and evacuation planning).

Activity 1. Promote the Value of Health Care and Medical Readiness

The HCC, with support from its health care organization members, should be able to articulate its mission, including its role in community preparedness and how that provides benefit (both direct and indirect) to the region. The HCC has a duty to plan for a full range of emergencies and both planned and unplanned events that could affect its community. It is essential that the HCC has leaders who can serve as primary points of contact to promote preparedness and response needs to community leaders. Additionally, members have a shared responsibility to ensure the HCC has visibility into their activities in the region.

The HCC should:

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[48] "ASPR TRACIE Evaluation of Hazard Vulnerability Assessment Tools." *ASPR TRACIE,* 19 Jul. 2016. PDF. Accessed 24 Aug. 2016. asprtracie.hhs.gov/documents/tracie-evaluation-of-HVA-tools.pdf.
[49] "Project ECHO." *UNM School of Medicine*, 2016. Web. 19 Jul. 2016. echo.unm.edu/.
[50] "Clinician Outreach and Communication Activity (COCA)." *CDC,* 18 Aug. 2016. Web. Accessed 7 Sept. 2016. http://emergency.cdc.gov/coca/.

- Develop materials that identify and articulate the benefits of HCC activities to its members and additional stakeholders
- Engage champions among its members and other response organizations to promote HCC preparedness efforts to health care executives, clinicians, community leaders, and other key audiences

Activity 2. Engage Health Care Executives

The HCC should communicate the direct and indirect benefits of HCC membership to health care executives to advance their engagement in preparedness and response. Executives can promote buy-in across all facility and organization types, clinical departments, and non-clinical support services. The benefits of HCC participation are not limited to emergency preparedness and response.

Day-to-day benefits may include:

- Meeting regulatory and accreditation requirements
- Enhancing purchasing power (e.g., bulk purchasing agreements)
- Accessing clinical and non-clinical expertise
- Networking among peers
- Sharing leading practices
- Developing interdependent relationships
- Reducing risk
- Addressing other community needs, including meeting requirements for tax exemption through community benefit[51]

Health care executives should formally endorse their organization's participation in an HCC. This can take the form of letters of support, memoranda of understanding, or other agreements. Health care executives should be engaged in their facilities' response plans and provide input, acknowledgement, and approval regarding HCC strategic and operational planning.

The HCC should regularly inform health care executives of HCC activities and initiatives through reports and invitation to participate in meetings, training, and exercises. The HCC should engage health care executives in debriefs ("hotwashes") related to exercises, planned events, and real-world events.

Activity 3. Engage Clinicians

The HCC should engage health care delivery system clinical leaders to provide input, acknowledgement, and approval regarding strategic and operational planning. Clinicians from a wide range of specialties should be included in HCC activities on a regular basis to validate medical surge plans and to provide subject matter expertise to ensure realistic training and exercises. Clinicians with relevant expertise should lead health care provider training for assessing and treating various types of illnesses and injuries. Clinicians should be engaged in strategic and operational planning, contribute to committees and advisory boards, and participate in training and education sessions. Additional engagement can include active participation in planning, exercise, and response activities.

[51] "Instructions for Schedule H (Form 990)." *IRS*, 2015. Web. Accessed 18 Jul. 2016. https://www.irs.gov/pub/irs-pdf/i990sh.pdf.

Activity 4. Engage Community Leaders

Consistent with a whole community approach to preparedness, the HCC should actively work with and engage community leaders outside of its members. The HCC should identify and engage community members, businesses, charitable organizations, and the media in health care preparedness planning and exercises to promote the resilience of the entire community. Community engagement creates greater awareness of the HCC's role and emergency preparedness activities, promotes community resilience, and speeds the recovery process following emergencies.

Activity 5. Promote Sustainability of Health Care Coalitions

There are a variety of ways to promote greater community effectiveness and organizational and financial sustainability. Full investment in readiness includes in-kind donation of time, resources, support, and continued engagement with HCC members and the community. Financial strategies, including cost-sharing techniques and other funding options, enhance stability and sustainment.

The HCC should:

- Offer HCC members technical assistance or consultative services in meeting CMS-3178-F Medicare and Medicaid Programs; Emergency Preparedness Requirements for Medicare and Medicaid Participating Providers and Suppliers
- Explore ways to meet individual member's requirements for tax exemption through community benefit[52]
- Analyze critical functions to preserve, and identify financial opportunities beyond federal funding (e.g., foundation, and private funding, dues, and training fees) to support or expand HCC functions
- Develop a financing structure, and document the funding models that support HCC activities
- Determine ways to cost share (e.g., required exercises may be coordinated with public health agencies, emergency management organizations, and other organizations with similar requirements)
- Incorporate leadership succession planning into the HCC governance and structure
- Leverage group buying power to obtain consistent equipment across a region and allow for sharing or emergency allocation of equipment

HCC members should be aware of the HCC's sustainability activities, including any requirements established by HCC leadership, so they can plan their future investments accordingly.

[52] Instructions for Schedule H (Form 990)." *IRS*, 2015. Web. Accessed 18 Jul. 2016. https://www.irs.gov/pub/irs-pdf/i990sh.pdf.

Capability 2. Health Care and Medical Response Coordination

Health care and medical response coordination enables the health care delivery system and other organizations to share information, manage and share resources, and integrate their activities with their jurisdictions' Emergency Support Function-8 (ESF-8, Public Health and Medical Services) lead agency and ESF-6 (Mass Care, Emergency Assistance, Housing, and Human Services) lead agency at both the federal and state levels.

Private health care organizations and government agencies, including those serving as ESF-8 lead agencies, have shared authority and accountability for health care delivery system readiness, along with specific roles. In this context, health care coalitions (HCCs) serve a communication and coordination role within their respective jurisdiction(s). This coordination ensures the integration of health care delivery into the broader community's incident planning objectives and strategy development. It also ensures that resource needs that cannot be managed within the HCC itself are rapidly communicated to the ESF-8 lead agency. HCC coordination may occur at its own coordination center, the local Emergency Operations Center (EOC), or by virtual means – all of which are intended to interface with the ESF-8 lead agency.

Coordination between the HCC and the ESF-8 lead agency can occur in a number of ways. Some HCCs serve as the ESF-8 lead agency for their jurisdiction(s). Others integrate with their ESF-8 lead agency through an identified designee at the jurisdiction's EOC who represents HCC issues and needs and provides timely, efficient, and bi-directional information flow to support situational awareness. Regardless, HCCs connect the elements of medical response and provide the coordination mechanism among health care organizations—including hospitals and emergency medical services (EMS)—emergency management organizations, and public health agencies.

Goal for Capability 2: Health Care and Medical Response Coordination

Health care organizations, the HCC, their jurisdiction(s), and the ESF-8 lead agency plan and collaborate to share and analyze information, manage and share resources, and coordinate strategies to deliver medical care to all populations during emergencies and planned events.

Objective 1: Develop and Coordinate Health Care Organization and Health Care Coalition Response Plans

Health care organizations respond to emergent patient care needs every day. During an emergency response, health care organizations and other HCC members contribute to the coordination of information exchange and resource sharing to ensure the best patient care outcomes possible. HCCs and their members can best achieve enhanced coordination and improved situational awareness when there is active participation from hospitals, EMS, emergency management organizations, and public health agencies and by documenting roles, responsibilities, and authorities before, during, and immediately after an emergency.

Every individual health care organization must have an Emergency Operations Plan (EOP) per federal and state regulations and multiple accreditation standards. The HCC, in collaboration with the ESF-8 lead agency, should have a collective response plan that is informed by its members' individual EOPs. In cases where the HCC serves as the ESF-8 lead agency, the HCC response plan may be the same as the ESF-8 response plan. The purpose of coordinating response plans is not to supplant existing ESF-8 structures, but to enhance effective response in accordance with the wide array of existing federal, state, and municipal legal authorities in which HCC members operate (e.g., Emergency Medical Treatment & Labor Act [EMTALA][53], communicable disease reporting, and the Health Insurance Portability and Accountability Act [HIPAA] Privacy Rule).

Activity 1. Develop a Health Care Organization Emergency Operations Plan

Each health care organization should have an EOP to address a wide range of emergencies. The EOP should detail the use of incident management—including specific indicators for plan activation, alert, and notification processes, response procedures, and resource acquisition and sharing—and a process that delineates the thresholds to demobilize and begin the transition to recovery and the restoration of normal operations (see Capability 3, Objective 7 – Coordinate Health Care Delivery System Recovery). The plan should define the internal and external sources of information that will be necessary to assess the impact of the emergency on the health care organization. The plan should also address how the individual HCC member communicates this information to the HCC and to key health care organization leadership.

Critical elements of the health care organization's EOP include:

- Identification of triggers to activate the plan
- Communications (internal and external)
- Information management
- Access to resources and supplies
- Safety and security measures
- Delineation of staff roles and responsibilities within the incident command system (ICS)
- Utility readiness (e.g., back-up generator, water supplies)
- Provision of clinical care
- Support activities

The EOP should summarize the actions required to initiate and sustain a response to an emergency. Health care organizations' departmental plans should provide specific information for each unit or area. Employees should have a clear understanding of their actions and how to communicate with the facility or organization's EOC during a response. The EOP should include plans for caring for employees and their dependents during and after an emergency in an effort to promote their return to work[54] (see Capability 3, Objective 5 – Protect Responders' Safety and Health).

During an emergency, the EOP should inform the HCC's expectations related to sharing information, attaining situational awareness, and managing and sharing resources, at a minimum. The HCC may help

[53] See "Emergency Medical Treatment & Labor Act (EMTALA)." CMS. 2012. Web. Accessed 19 Jul. 2016. https://www.cms.gov/Regulations-and-Guidance/Legislation/EMTALA/.
[54] "Tips for Retaining and Caring for Staff after a Disaster." *ASPR TRACIE,* 10 Sep. 2016. PDF. Accessed 26 Oct. 2016. https://asprtracie.hhs.gov/documents/tips-for-retaining-and-caring-for-staff-after-disaster.pdf.

health care organizations facilitate patient and resource distribution (or re-distribution) during a surge emergency (see Capability 4 – Medical Surge).

The EOP may contain annexes that document specific planning actions for various types of medical responses (e.g., evacuation and relocation, hazardous material (HAZMAT), burn mass casualty, pediatric mass casualty). Additionally, the EOP may contain provisions, including an annex, regarding actions required by the health care organization if it is a member of the National Disaster Medical System (NDMS) in a Federal Coordinating Center's (FCC)[55] patient receiving area.

In coordination with their HCC, health care organizations should review and update their EOPs regularly, and after exercises and real-world events. The review should involve identifying gaps in the health care organization's response plan. Health care organization leadership, supported by the HCC, should take steps to define strategies and tactics that address those gaps to ensure a more robust response in the next emergency. The HCC should continuously monitor the health care organization's progress toward gap closure and offer assistance to help close the gaps as appropriate.

Activity 2. Develop a Health Care Coalition Response Plan

The HCC, in collaboration with the ESF-8 lead agency, should have a collective response plan that is informed by its members' individual plans. In cases where the HCC serves as the ESF-8 lead agency, the HCC response plan may be the same as the ESF-8 response plan. Regardless of the HCC structure, the HCC response plan should describe HCC operations that support strategic planning, information sharing, and resource management. The plan should also describe the integration of these functions with the ESF-8 lead agency to ensure information is provided to local officials and to effectively communicate and address resource and other needs requiring ESF-8 assistance.

The HCC should develop a response plan that clearly outlines:

- Individual HCC member organization and HCC contact information
- Locations that may be used for multiagency coordination
- Brief summary of each individual member's resources and responsibilities
- Integration with appropriate ESF-8 lead agencies
- Emergency activation thresholds and processes
- Alert and notification procedures
- Essential Elements of Information (EEIs) agreed to be shared, including information format (e.g., bed reporting, resource requests and allocation, patient distribution and tracking procedures, processes for keeping track of unidentified [John Doe/Jane Doe] patients)
- Communication and information technology (IT) platforms and redundancies for information sharing
- Support and mutual aid agreements
- Evacuation and relocation processes
- Policies and processes for the allocation of scarce resources and crisis standards of care,[56] including steps to prevent crisis standards of care without compromising quality of care (e.g., conserve supplies, substitute for available resources, adapt practices, etc.) (See Capability 4, Objective 1, Activity 1 – Incorporate Medical Surge into the HCC Response Plan)

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[55] "National Disaster Medical System: Federal Coordinating Center Guide." *NDMS,* Apr. 2014. PDF. Accessed 12 Sept. 2016. http://www.dmrti.army.mil/01_FCC%20Guide%20Apr%202014.pdf.

[56] Altevogt, Bruce M., et al. "Guidance for Establishing Crisis Standards of Care for Use in Disaster Situations." *The National Academies Press,* 2009. Web. Accessed 26 Oct. 2016. www.nap.edu/read/12749/chapter/1.

- Additional HCC roles and responsibilities as determined by state and/or local plans and agreements (e.g., staff sharing, alternate care site support, shelter support)

The HCC should coordinate the development of its response plan by involving core members and other HCC members so that, at a minimum, hospitals, EMS, emergency management organizations, and public health agencies are represented. While the interests of all members and stakeholders should be considered in the plan, those of hospitals and EMS are paramount given these entities' roles in patient distribution across the HCC's geographic area during an emergency.

In coordination with its members, the HCC should review and update its response plan regularly, and after exercises and real-world events. The review should include identifying gaps in the response plan and working with HCC members to define strategies and tactics to address the gaps. In addition, the HCC should review and recommend updates to the state and/or local ESF-8 response plan regularly.

The HCC response plan can be presented in various formats, including the placement of information described above in a supporting annex.

Objective 2: Utilize Information Sharing Procedures and Platforms

Effective response coordination relies on information sharing to establish a common operating picture. Information sharing is the ability to share real-time information related to the emergency, the current-state of the health care delivery system, and situational awareness across the various response organizations and levels of government (federal, state, local). The HCC's development of information sharing procedures and use of interoperable and redundant platforms is critical to successful response.

Activity 1. Develop Information Sharing Procedures

Individual HCC members should be able to easily access and collect timely, relevant, and actionable information about their own organizations and share it with the HCC, other members, and additional stakeholders according to established procedures and predefined triggers and in accordance with applicable laws and regulations.

HCC information sharing procedures, as documented in the HCC response plan, should:

- Define communication methods, frequency of information sharing, and the communication systems and platforms available to share information during an emergency response and steady state
- Identify triggers that activate alert and notification processes
- Define the EEIs that HCC members should report to the HCC, and coordinate with other HCC members and with federal, state, local, and tribal response partners during an emergency (e.g., number of patients, severity and types of illnesses or injuries, operating status, resource needs and requests, bed availability)
- Identify the platform and format for sharing each EEI
- Describe a process to validate health care organization status and requests during an emergency, including in situations where reports are received outside of HCC communications systems and platforms (e.g., media reports, no report when expected, rumors of distress, etc.)
- Define processes for functioning without electronic health records (EHRs) and document issues related to interoperability

Activity 2. Identify Information Access and Data Protection Procedures

The HCC may coordinate with state and local authorities to identify information access and data protection procedures, including:

- Access to public or private systems
- Authorization to receive and share data
- Types of information that can and will be shared (e.g., EEIs)
- Data use and re-release parameters for sensitive information
- Data protections
- Legal, statutory, privacy, and intellectual property issues, as appropriate

Activity 3. Utilize Communications Systems and Platforms

The HCC should utilize existing primary and redundant communications systems and platforms—often provided by state government agencies—capable of sending EEIs to maintain situational awareness.

The HCC should:

- Identify reliable, resilient, interoperable, and redundant information and communication systems and platforms (e.g., incident management software; bed and patient tracking systems and naming conventions; EMS information systems; municipal, hospital, and amateur radio systems; satellite telephones; etc.), and provide access to HCC members and other stakeholders
- Use these systems to effectively coordinate information during emergencies and planned events, as well as on a regular basis to ensure familiarity with these tools
- Maintain ability to communicate among all HCC members, health care organizations, and the public (e.g., among hospitals, EMS, public safety answering points, emergency managers, public health agencies, skilled nursing facilities, and long-term care facilities)
- Restore emergency communications quickly during disruptions through alternate communications methods
- Leverage communications abilities of health information exchanges (HIEs) and capabilities of EHR vendors where they exist

Objective 3: Coordinate Response Strategy, Resources, and Communications

The HCC should coordinate its response strategies, track its members' resource availability and needs, and clearly communicate this information to all HCC members, other stakeholders, and the ESF-8 lead agency. In addition, the HCC, in collaboration with its members, should provide coordinated, accurate, and timely information to health care providers and the public in order to ensure a successful emergency response.

Activity 1. Identify and Coordinate Resource Needs during an Emergency

The HCC and all of its members—particularly emergency management organizations and public health agencies —should have visibility into member resources and resource needs (e.g., personnel, teams, facilities, equipment, and supplies) to meet the community's clinical care needs during an emergency.

Outlined below are the general principles when coordinating resource needs during emergencies:

- HCC members should inform the HCC of their operational status, actions taken, and resource needs. The HCC should relay this information to the jurisdiction's EOC and the ESF-8 lead agency
- Resource management should include logging, tracking, and vetting resource requests across the HCC and in coordination with the ESF-8 lead agency
- Ideally, systems should track beds available by bed type[57] (ideally, common bed types are defined across the jurisdiction), resource requests, and resources shared between HCC members, from HCC-controlled or other resource caches
- The HCC should work with distributors to understand and communicate which health care organizations and facilities should receive prioritized deliveries of supplies and equipment (e.g., personal protective equipment [PPE]) depending on their role in the emergency. HCC members should collectively determine the prioritization of limited resources provided by distributors, reflecting needs at the time of the emergency (see Capability 3, Objective 3, Activity 1 – Assess Supply Chain Integrity)

Activity 2. Coordinate Incident Action Planning During an Emergency

During an emergency or planned event, each health care organization should develop an Incident Action Plan (IAP)[58] and utilize incident action planning cycles to identify and modify objectives and strategies. The HCC should develop an IAP based on its individual HCC members' plans, with its own focus on planning cycles, objectives, and strategies. Ultimately, the HCC's IAP should be integrated into the jurisdiction's IAP, via the ESF-8 lead agency. This will enable a consistent, transparent, and scalable approach to establishing strategies and tactics that will govern the response to an emergency or planned event. Keeping response strategies (e.g., implementing alternate care sites, allocating resources, and developing policies on visitors during infectious disease outbreaks) consistent across HCC members requires coordinated discussion and joint decision making. The IAP can address both response and recovery or a separate recovery plan may be developed in accordance with existing plans at the state or local level (see Capability 3, Objective 7 – Coordinate Health Care Delivery System Recovery).

Activity 3. Communicate with Health Care Providers, Non-Clinical Staff, Patients, and Visitors during an Emergency

Sharing accurate and timely information is critical during an emergency. Health care organizations should have the ability to rapidly alert and notify their employees, patients, and visitors to update them on the situation, protect their health and safety (see Capability 3, Objective 5 – Protect Responders' Safety and Health), and facilitate provider-to-provider communication.

The HCC, in coordination with its public health agency members, should develop processes and procedures to rapidly acquire and share clinical knowledge among health care providers and among health care organizations during responses to a variety of emergencies (e.g., chemical, biological, radiological, nuclear or explosive [CBRNE], trauma, burn, pediatrics, or highly infectious disease) in order to improve patient management, particularly at facilities that may not care for these patients regularly.

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[57] Bed types include but are not limited to: adult ICU, adult medical/surgical, burn, pediatric ICU, pediatric medical/surgical, psychiatric, airborne infection isolation, operating rooms

[58] "FEMA Incident Action Planning Guide." *FEMA,* Jan. 2012. PDF. Accessed 18 Jul. 2016. http://www.fema.gov/media-library-data/20130726-1822-25045-1815/incident_action_planning_guide_1_26_2012.pdf.

Activity 4. Communicate with the Public during an Emergency

HCC members should coordinate relevant health care information with the community's Joint Information System (JIS) to ensure information is accurate, consistent, linguistically and culturally appropriate, and disseminated to the community using one voice.

Coordinated health care information that could be shared with the JIS includes but is not limited to:

- Current health care facility operating status
- When and where to seek care
- Alternate care site locations
- Screening or intervention sites
- Expected health and behavioral health effects related to the emergency
- Information to facilitate reunification of families
- Other relevant health care guidance, including preventive strategies for the public's health

The HCC and its members should agree upon the type of information that will be disseminated by either the HCC or individual members.

The HCC should provide Public Information Officer (PIO) training (including health risk communication training) to those designated to act in that capacity during an emergency.

Capability 3. Continuity of Health Care Service Delivery

Optimal emergency medical care relies on intact infrastructure, functioning communications and information systems, and support services. The ability to deliver health care services is likely to be interrupted when internal or external systems such as utilities, electronic health records (EHRs), and supply chains are compromised. Disruptions may occur during a sudden or slow-onset emergency or in the context of daily operations. Historically, continuity of operations planning has focused on business continuity and ensuring information technology (IT) redundancies. However, health care organizations and health care coalitions (HCCs) should take a broader view and address all risks that could compromise continuity of health care service delivery. Continuity disruptions may range from an isolated cyberattack on a single hospital's IT system to a long-term, widespread infrastructure disruption impacting the entire community and all of its health care organizations.

A safe, prepared, and healthy workforce and comprehensive recovery plans will bolster the health care delivery system's ability to continue services during an emergency and return to normal operations more rapidly.

Goal for Capability 3: Continuity of Health Care Service Delivery

Health care organizations, with support from the HCC and the Emergency Support Function-8 (ESF-8) lead agency, provide uninterrupted, optimal medical care to all populations in the face of damaged or disabled health care infrastructure. Health care workers are well-trained, well-educated, and well-equipped to care for patients during emergencies. Simultaneous response and recovery result in a return to normal or, ideally, improved operations.

Objective 1: Identify Essential Functions for Health Care Delivery

There are key health care functions (e.g., Mission Essential Functions [MEFs]) that should be continued after a disruption of normal activities and are a priority for restoration should any be compromised.[59] Health care organizations should first determine its key functions when planning for continuity of health care service delivery. The HCC may play an important role in assessing and supporting the maintenance of these functions.

These key health care functions include clinical services and infrastructure:

- Pre-hospital care
- Inpatient services
- Outpatient care
- Skilled nursing facilities and long-term care facilities
- Home care
- Laboratory
- Radiology

[59] "Healthcare: COOP & Recovery Planning: Concepts, Principles, Templates & Resources." *ASPR HPP,* Jan. 2015. PDF. Accessed 12 Sept. 2016. www.phe.gov/Preparedness/planning/hpp/reports/Documents/hc-coop2-recovery.pdf.

- Pharmacy
- Supply chain management (leasing, purchasing, and delivery of critical equipment and supplies such as medical devices, blood products, personal protective equipment (PPE), and pharmaceuticals)
- Facility infrastructure
- Utilities (water, electricity, gas, sewer, and fuel)
- Medical gases
- Air handling systems (heating, ventilation, and air conditioning [HVAC])
- Telecommunications and internet services
- Information technology (e.g., software and hardware for EHRs and patient billing)
- Central supply
- Transportation services
- Nutrition and dietary services
- Security
- Laundry
- Human resources

Health care and administrative personnel are a critical component of continuity. More information is included in Capability 3, Objective 5 – Protect Responders' Safety and Health.

Objective 2: Plan for Continuity of Operations

The foundation for safe medical care delivery includes a robust, redundant infrastructure and availability of essential resources. Health care organizations should determine their priorities for ensuring key functions are maintained during an emergency, including the provision of care to existing and new patients. Facilities should determine those services that are critical to patient care and those that could be suspended (e.g., closing a hospital's outpatient clinics to preserve staff to manage an elevated inpatient census). In addition, the HCC should have a plan to maintain its own operations.

During continuity preparedness activities, health care organizations and the HCC should consider what disaster risk reduction strategies should be implemented in order to lessen the likelihood of complete and total failure. The HCC should facilitate each individual member's approach to risk reduction to promote a regional approach to addressing critical infrastructure (e.g., utilities, telecommunications, and supply chain).

Activity 1. Develop a Health Care Organization Continuity of Operations Plan

Continuity of Operations (COOP) planning ensures the ability to continue essential business operations, patient care services, and ancillary support functions across a wide range of potential emergencies. The health care organization's COOP plan may be an annex to the organization's Emergency Operations Plan (EOP) and during a response should be addressed under the incident command system (ICS).

Regardless of the format, the COOP plan should include the following:

- Activation and response functions
- Supervisor and managerial points of contact for each department
- Orders of succession and delegations of authority
- Immediate actions and assessments to be performed in case of disruptions
- Safety assessment and resource inventory to determine whether the health care organization can continue to operate

- Redundant, replacement, or supplemental resources
- Strategies and priorities for addressing disruptions

Multiple employees from each HCC member organization should understand and have access to the HCC's information sharing platforms to ensure the continuity of information flow and coordination activities.

The HCC and governmental partners (including the ESF-8 lead agency) should be engaged when one or more health care organizations has lost capacity or ability to provide patient care or when a disruption to a health care organization requires evacuation.

The HCC and its members should incorporate COOP into their routine exercises (see Capability 1, Objective 4, Activity 3 – Plan and Conduct Coordinated Exercises with HCC Members and Other Response Organizations).

Activity 2. Develop a Health Care Coalition Continuity of Operations Plan

HCC COOP plans may be an annex to the HCC's response plan or may take another form. In addition to the topics covered in Capability 3, Objective 2, Activity 1 – Develop a Health Care Organization Continuity of Operations Plan, the HCC COOP plan should include strategies for communications and leadership continuity.

The HCC, in coordination with the ESF-8 lead agency, should ensure that communication and coordination systems that are used for incident management are adequately secured, backed up, and have redundant power and server protections. In addition, redundant or backup systems should be identified in case the usual means of coordination (e.g., internet software platform) is unavailable. Backup plans for communications should be understood prior to an emergency and documented in the HCC response plan.

HCC leadership may not be available to assist with coordination during an emergency due to illness, injury, or commitments external to the HCC. The HCC COOP plan should detail orders of succession and delegations of authority, and a suitable number of personnel (ideally not from the same organization) should be trained to carry out HCC coordination activities.

Activity 3. Continue Administrative and Finance Functions

Health care organizations and the HCC should maintain administrative and financial functions during and after an emergency even if these functions need to continue at an off-site location. This includes essential business processes used to maintain financial security (e.g., registration, billing, access to health records, payroll, and human resource systems).

Activity 4. Plan for Health Care Organization Sheltering-in-Place

The decision to shelter-in-place is based on the nature and timing of the emergency (e.g., tornado, flooding, active shooter, or improvised nuclear device detonation), the potential effects on patient care delivery, and the status of critical infrastructure in the surrounding community.[60]

Health care organizations should consider the following when developing their shelter-in-place plans:

[60] Zane R, Biddinger, et. al. "Hospital Evacuation Decision Guide." *AHRQ,* May 2010. PDF. Accessed 19 Jul. 2016. http://archive.ahrq.gov/prep/hospevacguide/hospevac.pdf.

- Decision-making criteria and authorities
- Identification of patient and non-patient care locations to provide protection from the external environment
- Operational procedures for shutting down HVAC, lock-down, and access control
- Assessment of internal capabilities and needs
- Acquisition of supplies, equipment, pharmaceuticals, and other necessary resources for sustainment (e.g., water and food), as well as materials that may be important for children and others during extended sheltering (e.g., books and games)
- Internal and external communications plans, including plans for communicating with patients' and workforce's families
- Triggers for lifting shelter-in-place orders

Objective 3: Maintain Access to Non-Personnel Resources during an Emergency

Critical equipment and supplies for all populations should be available to ensure the ongoing delivery of patient care services. HCC members should assess equipment and supply needs that will likely be in demand during an emergency and develop strategies to address potential shortfalls.

Activity 1. Assess Supply Chain Integrity

Each individual HCC member should examine its supply chain vulnerabilities by collaborating with manufacturers and distributors to determine access to critical supplies, amounts available in regional systems, and potential alternate delivery options in the case that access or infrastructure is compromised. The HCC should then collect and use this information to coordinate effectively within the region, in collaboration with the ESF-8 lead agency.

The supply chain integrity assessment should include the following:

- Blood banks
- Medical gas suppliers
- Fuel suppliers
- Nutritional suppliers and food vendors
- Pharmaceutical vendors
- Leasing entities for biomedical (monitors, ventilators, etc.) and other durable medical equipment and beds
- Manufacturers and distributors for disposable supplies
- Manufacturers and distributors for PPE
- Hazardous waste removal services

The HCC should collaborate with health care organization members and other stakeholders to develop joint understanding and strategies to address supply chain vulnerabilities.

These vulnerabilities may be addressed at a health care organization and/or HCC level by decisions and mitigation strategies including but not limited to:

- Accessing stockpile (or maintain and rotate higher stock levels)
- Accessing vendor- and/or distributor-managed inventory/stockpile
- Establishing secondary vendors
- Developing 'push' or pre-event disaster supply procedures and triggers for activation

- Identifying alternate modes of delivery
- Using bulk purchasing to benefit from advantages in pricing and availability across HCC members

Health care organizations will need to determine whether additional new contracts or other agreements are needed prior to an emergency. In many cases, there is little redundancy in available vendors and little available inventory, which may contribute to rapid exhaustion of supplies in a major emergency. HCC agreements to share supplies may provide a critical resource during emergencies. These agreements should be developed and documented prior to an emergency (see Capability 1, Objective 2, Activity 2 – Assess Regional Health Care Resources). The HCC and its members should also be aware of the need for redundancies in backup planning (e.g., in events affecting all HCC members, individual facilities may plan for the same vendors to provide backup supplies or utilities).

When these strategies fail, health care organizations and the HCC should consider implementing contingency plans, which may include conservation, substitution, adaptation, reuse, or reallocation.[61] Additional strategies may include transferring resources from other HCCs and/or coordinating with the ESF-8 lead agency to request assets from the Strategic National Stockpile (SNS).[62]

Activity 2. Assess and Address Equipment, Supply, and Pharmaceutical Requirements

Pharmaceuticals and medical materiel are needed for both emergency treatment and to maintain the health of patients, health care providers, and first responders. Health care organizations should maintain awareness of critical medications and materiel they have on hand and how to obtain additional supplies through their established procurement processes, their HCC, and any state/local stockpiles.

Certain categories of pharmaceuticals and medical materiel are more likely to be required during a patient surge, such as:

- Pharmaceuticals
    - Analgesia and sedation medications (including oral and injectable)
    - Anesthesia medications (e.g., paralytics)
    - Antibiotics (including oral and injectable)
    - Antivirals (e.g., oseltamivir)
    - Tetanus vaccine
    - Pressor medications
    - Antiemetics
    - Respiratory medications (e.g., albuterol)
    - Anticonvulsant drugs
    - Antidotes (e.g., atropine, hydroxocobalamin) – based on community risks and resources
    - Psychotropic medications
- Medical supplies and equipment
    - Blood products
    - Intravenous fluids and infusion pumps

[61] Altevogt, Bruce M., et al. "Guidance for Establishing Crisis Standards of Care for Use in Disaster Situations." *The National Academies Press,* 2009. Web. Accessed 26 Oct. 2016. www.nap.edu/read/12749/chapter/1.
[62] "Strategic National Stockpile." *CDC,* Jun. 17, 2016. Web. Accessed 26 Aug. 2016. www.cdc.gov/phpr/stockpile/stockpile.htm.

- Ventilators
- Bedside monitors
- Airway suction for all populations, including children
- Surgical equipment and supplies
- Supplies needed to administer pharmaceuticals, blood products, and intravenous fluids (e.g., needles, syringes, etc.)

Health care organizations should ensure access to formulations appropriate for dosing all patient types, including children and other special populations.

For most health care organizations, small increases above baseline levels of common, inexpensive medications will provide a buffer, particularly when organizations can share resources with HCC members during an emergency. Decisions to stockpile medications are complex and rely on a risk assessment and resource commitments by health care organizations, the HCC, and other stakeholders. Acquisition, storage, rotation, activation, use, and disposal decisions should all be considered and documented.

All health care organizations and the HCC should understand the SNS distribution plan for their jurisdiction(s). Health care organizations and HCCs in jurisdictions participating in the CHEMPACK[63] program, the Cities Readiness Initiative (CRI),[64] and local and state-based plans that maintain treatment or prophylaxis caches should be engaged in the development, training, and exercising of those distribution plans.

Objective 4: Develop Strategies to Protect Health Care Information Systems and Networks

Cyberattacks on health care organizations have had significant effects on every aspect of patient care and organizational continuity. With increasing reliance on information systems, including EHRs, administrative and payment systems, mobile technology, communication systems, and networked medical devices, there is a potential risk to their integrity and safety. To combat these risks, health care organizations should implement cybersecurity leading practices and conduct robust planning and exercising for cyber incident response and consequence management. As the number of cyberattacks on the health care sector increases, health care practitioners, executives, IT professionals, legal and risk management professionals, and emergency managers should remain current on the ever-changing nature and type of threats to their organizations, systems, patients, and staff.[65]

Health care organizations, assisted by the HCC, should explore industry cybersecurity standards, guidelines, and leading practices necessary to protect these systems (e.g., National Institute of Standards and Technology Cybersecurity Framework - *Framework for Improving Critical Infrastructure Cybersecurity*), [66] and have a plan in place for response and recovery should they be compromised.

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[63] *"*CHEMPACK." *HHS,* 25 Jun. 2011. Web. Accessed 19 Jul. 2016. chemm.nlm.nih.gov/chempack.htm.
[64] "Cities Readiness Initiative.*" CDC,* 17 Jun. 2016. Web. Accessed 19 Jul. 2016. www.cdc.gov/phpr/stockpile/cri/.
[65] "Cybersecurity Topic Collection: 6/16/2016." *ASPR TRACIE*, 16 Jun.2016. PDF. Accessed 16 Sept. 2016. asprtracie.hhs.gov/documents/cybersecurity.pdf.
[66] "Framework for Improving Critical Infrastructure Cybersecurity." *NIST*, 12 Feb. 2014. PDF. Accessed 26 Oct. 2016. https://www.nist.gov/sites/default/files/documents/cyberframework/cybersecurity-framework-021214.pdf

Some industry-recognized leading practices[67] for protecting health care information systems and networks include but are not limited to:

- Conducting a computer network assessment to obtain the information necessary to develop a cybersecurity plan to reduce cyberattacks and reduce breaches
- Encrypting all computers and mobile devices
- Pre-approving the use of any devices not issued by the organization
- Implementing role-based access to any systems to ensure employees only have access to programs and applications necessary to perform functions of their jobs
- Configuring any EHR system or database to require specific access permissions to each user; inquiring with the EHR vendor to determine how they provide updates and technical support
- Developing security policies for the use of virtual private network (VPN) or private connections
- Implementing staff cybersecurity training and enforcement policies
- Including cybersecurity and continuity of information systems considerations in the organization's hazard vulnerability analysis (HVA)
- Including appropriate IT personnel and considerations in EOPs, training, and exercises
- Engaging outside partners (e.g., law enforcement, regulatory agencies, and IT security providers/vendors) for assistance with cybersecurity incidents
- Developing mechanisms for IT personnel to obtain needed cybersecurity information through law enforcement partnerships
- Becoming a member in information sharing and analysis organizations (ISAOs)[68] or other means

Objective 5: Protect Responders' Safety and Health

The safety and health of clinical and non-clinical personnel are high priorities for preparedness and continuity as effective care cannot be delivered without available staff. Health care organizations, in coordination with the HCC, should develop processes to protect responders' safety and health and align with various requirements, certifications, and standards (e.g., Occupational Safety and Health Administration [OSHA],[69] Joint Commission, etc.). Those processes should be implemented to equip, train, and provide resources necessary to protect responders, employees, and their families from hazards during response and recovery operations. PPE, medical countermeasures (MCMs), workplace violence training, psychological first aid training, and other interventions specific to an emergency are all necessary to protect health care workers from illness or injury and should be readily available to the health care workforce. This section addresses selected aspects of workforce safety and protection relevant to emergencies, but does not include the much broader spectrum of health care worker safety during routine operations.

Activity 1. Distribute Resources Required to Protect the Health Care Workforce

It is important to keep patients, responders, employees, and their families safe during emergencies. The health care organization should be prepared to distribute MCMs, using a closed point of dispensing

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[67] "Protecting the Healthcare Digital Infrastructure: Cybersecurity Checklist." *ASPR CIP Healthcare & Public Health Sector Coordinating Councils Public Private Partnership,* 2016. PDF. Accessed 19 Jul. 2016. www.phe.gov/Preparedness/planning/cip/Documents/cybersecurity-checklist.pdf.

[68] "Information Sharing and Analysis Organizations." *DHS,* 13 Apr. 2016. Web. Accessed 20 Sept. 2016. https://www.dhs.gov/isao.

[69] "OSHA: Regulations (Standards – 29 CFR)." *OSHA,* 2012. Web. Accessed 12 Sept. 2016. www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=STANDARDS&p_id=10051.

(POD) or other model, when there is potential or confirmed exposure to any chemical, biological, radiological, nuclear, and explosives (CBRNE) hazard for which MCMs exist. Access to such MCMs should be coordinated and planned for with the local public health department. This approach allows for organized and timely MCM distribution.

In addition, PPE (e.g., respirators, protective clothing, gloves, face shields, etc.) should be available to response personnel across varying job functions to offer protection from a wide range of threats such as infectious diseases, radiation, chemical exposure, and various physical hazards. In certain situations, staff exposures may warrant pharmaceutical prophylaxis, which should be managed according to the health care organization's infection control policies. Exposures may result from PPE failure, emerging infectious disease outbreaks, industrial accidents, natural disasters, or terrorist attacks. Providing access to food and sleeping arrangements is also key to protecting responders' safety and health, increasing their ability and willingness to work during an emergency.

The HCC should promote regional PPE procurement that could offer significant advantages in pricing and consistency for staff, especially when PPE is shared across health care organizations in an emergency. In circumstances where HCC members are part of a larger corporate health system, a balance between corporate procurement and regional procurement could be considered (see Capability 3, Objective 3, Activity 1 – Assess Supply Chain Integrity).

Activity 2. Train and Exercise to Promote Responders' Safety and Health

Training, drills, and exercises develop the knowledge, skills, and abilities of an HCC members' workforce to effectively respond to emergencies (see Capability 1, Objective 4 – Train and Prepare the Health Care and Medical Workforce).

Health care organizations, in collaboration with other HCC members, should:

- Integrate responder safety and health policy development, training, and program implementation with existing occupational health and infection control programs (e.g., PPE including respiratory protection, MCMs, workplace violence, psychological first aid)
- Plan for pre-hospital decontamination, and ensure coordination among fire, emergency medical services (EMS), and other health care organizations
- Create hazardous material (HAZMAT) plans that include appropriate staff training requirements and PPE to perform decontamination per OSHA guidance for first receivers[70] (see Capability 4 – Medical Surge for more information on HAZMAT response)
- Provide training for health care providers, laboratorians, and support staff for contact, droplet, airborne infectious diseases, including those that may be classified as highly pathogenic and transmissible
- Work with human resources departments and health care unions, as applicable, to develop policies and procedures to ensure health care worker readiness and safety associated with caring for patients
- Maintain PPE in a state of readiness, and ensure inventory is updated and adequate for staffing demands and needs

[70] "OSHA Best Practices for Hospital-based First Receivers of Victims from Mass Casualty Incidents Involving the Release of Hazardous Substances." *OSHA*, Jan. 2005. Web. Accessed 19 Jul. 2016. www.osha.gov/dts/osta/bestpractices/html/hospital_firstreceivers.html.

Activity 3. Develop Health Care Worker Resilience

A resilient workforce is critical to successful emergency response and recovery.

The HCC and its members should consider the following:

- Pre-emergency resilience building, such as encouraging healthy lifestyles; developing family emergency plans; conducting staff training for active shooter events and psychological first aid; and instituting workplace violence reduction strategies
- Emergency resilience support, such as rotating staff to limit fatigue; providing support to staff and families (e.g., child care); providing accurate and timely updates during an emergency; providing opportunities for interacting with health care organization leadership; and providing just-in-time training relative to the emergency
- Post-emergency support, [71] such as providing psychological first aid; distributing information on expected stress responses; conducting self- and peer-assessment and monitoring activities; providing access to employee assistance programs, including professional behavioral health services; and modifying duty assignments. Post-emergency activities may continue for months and even years beyond the emergency
- Ongoing health and safety monitoring activities, such as determining which groups of responders should be included in a health care or disease registry program to monitor their long-term physical and behavioral health; establishing and implementing long-term tracking of responder health, and where appropriate, community health; and providing technical assistance to help determine the appropriate duration and content of long-term health tracking

The HCC can disseminate information and promote these programs and initiatives to all HCC members.

Objective 6: Plan for and Coordinate Health Care Evacuation and Relocation

Health care organizations should evacuate or relocate when continuity planning efforts cannot sustain a safe working environment or when a government entity orders a health care organization to evacuate. The HCC should ensure all members and other stakeholders are included in evacuation and relocation planning including but not limited to, skilled nursing facilities and long-term care facilities. The HCC plays a critical role in coordinating the various elements of patient evacuation and relocation.

Activity 1: Develop and Implement Evacuation and Relocation Plans

The HCC and its members should prepare for evacuation or relocation with little or no warning. Evacuation and relocation plans assist health care organizations with the safe and effective care of patients, use of equipment, and utilization of staff when relocating to another part of the facility or when evacuating patients to another facility. Health care organizations may rely on the HCC and their affiliated corporate health systems to assist in planning, evacuation, and relocation processes.

The HCC and its members, in coordination with the ESF-8 lead agency, should consider the following when planning and coordinating patient evacuation and relocation:

- Planning considerations:

[71] "Tips for Retaining and Caring for Staff after a Disaster." *ASPR TRACIE,* 10 Sep. 2016. PDF. Accessed 26 Oct. 2016. https://asprtracie.hhs.gov/documents/tips-for-retaining-and-caring-for-staff-after-disaster.pdf.

  - Establish authorities for decision-making processes, including triggers for evacuation
  - Ensure internal and external communications
  - Identify appropriate relocation and evacuation staging areas within the facility
  - Integrate health care organization evacuation planning with local and regional patient movement plans
  - Identify situations for early discharge
  - Identify available destination facilities and their ability to expand existing services to receive patients from evacuating facilities
  - Establish processes for when patients cannot be moved (see Capability 3, Objective 2, Activity 4 – Plan for Health Care Organization Sheltering-in-Place)
  - Establish procedures for facility closure

- Evacuation and relocation considerations:
  - Prioritize the order and category of patients chosen for evacuation and relocation
  - Obtain section 1135 of the Social Security Act waivers;[72] these waivers can be obtained retroactively in certain emergency situations
  - Match patient needs with available transport resources (including non-EMS transportation assets)
  - Move and track patients and their belongings, staff, and medical records; ensure vital patient medications and equipment (e.g., mechanical ventilators, monitors, intravenous [IV] poles, etc.) are brought with the patient during patient transport and are returned to the facility of origin
  - Notify families, and initiate reunification

Planning, training, and exercising these activities are critical to the success of evacuation and relocation. High risk patients should be given special consideration during evacuation and relocation. These patients include adults, children, and neonates in critical care units, current operative cases, psychiatric (including memory/dementia care) patients, and other patients who may need specialized care during evacuation and relocation.

Activity 2. Develop and Implement Evacuation Transportation Plans

The HCC and its members, in collaboration with the ESF-8 lead agency, should develop and implement transportation plans for evacuating patients from one health care facility to another.

The plans should:

- Articulate the HCC's role in coordinating EMS assistance
- Include a process to appoint a transport manager or similar position under the ICS operations section
- Identify a coordinating entity for public and private EMS agencies, including both ground and air medical services
- Identify transportation assets including non-medical transportation partners, such as commercial bus companies
- Identify processes to access specialized transportation assets through emergency management organizations (e.g., National Guard [State Active Duty], tractors, boats)

[72] See "1135 Waivers." *ASPR,* 2 May 2013. Web. Accessed 12 Sept. 2016. http://www.phe.gov/Preparedness/legal/Pages/1135-waivers.aspx.

- Consider age- and size-related transportation equipment needs
- Develop processes to track patients and staff during transport
- Establish processes for transport partners to communicate with sending and receiving facilities
- Establish processes to communicate with patients' families when transferring patients to the next health care provider

Objective 7: Coordinate Health Care Delivery System Recovery

Effective recovery and reconstitution of the health care delivery system includes pre-incident planning and implementation of recovery processes that begin at the outset of a response. The HCC can play an important role in monitoring and facilitating the recovery processes of the health care delivery system disrupted by an emergency. These efforts are intended to promote an effective and efficient return to normal or, ideally, improved operations for the provision of and access to health care in the community.

Activity 1. Plan for Health Care Delivery System Recovery

Recovery processes can be integrated into existing plans (e.g., annex to EOPs) or be developed as a separate stand-alone plan. The HCC and its members should participate in state and local pre-emergency recovery planning activities as described in the *National Disaster Recovery Framework*[73] in order to leverage existing recovery resources, programs, projects, and activities.

Response, continuity operations, and recovery are overlapping, interdependent, and often conducted concurrently. Therefore, identifying connected functions, tasks, or activities in the post-emergency environment will facilitate a coordinated transition from response to recovery.

Key considerations to recovery planning include:

- Goals and strategic priorities for the continued delivery of essential health care services, including behavioral health, and opportunities for improvement after an emergency
- Flexible operational objectives and tactics to accommodate different recovery approaches
- Integration with pre-incident assessments and plans (e.g., community health needs assessments, community health improvement plans, organizational capital improvement plans)
- Critical infrastructure dependencies (e.g., public utilities, IT, transportation, etc.)
- Workforce retention issues essential to operations (e.g., access to child or adult dependent care)

Activity 2. Assess Health Care Delivery System Recovery after an Emergency

The HCC may assist its members' assessment of emergency-related structural, functional, and operational impacts.

The HCC can assist its members with the following activities:

- Data collection and analysis to identify priorities in the reconstitution and delivery of community health care services at the outset of an emergency

[73] "National Disaster Recovery Framework." *FEMA*, ed. 2, Jun. 2016. PDF. Accessed 12 Sept. 2016. www.fema.gov/media-library-data/1466014998123-4bec8550930f774269e0c5968b120ba2/National_Disaster_Recovery_Framework2nd.pdf

- Collaboration with federal infrastructure assessment teams[74] to enhance knowledge of disaster impacts on physical infrastructure and inform future risk mitigation strategies
- Implementation of emergency management organizations' disaster impact assessments to assess post-disaster community health concerns

Activity 3. Facilitate Recovery Assistance and Implementation

The HCC, in coordination with its government partners, supports its members in the post-emergency recovery process by facilitating patient repatriation and system operations restoration.

The HCC should:

- Assist HCC members with government processes for reimbursement, reconstitution, and resupply in concert with its emergency management organizations and ESF partners
- Convene a platform to identify long-term health care and community health recovery gaps, and develop potential strategies to address them
- Develop and communicate short- and long-term priorities to the jurisdiction's government and emergency management functions (e.g., ESF-6 [Mass Care, Emergency Assistance, Housing, and Human Services], ESF-8, and the Health and Social Services Recovery Support Function)
- Collaborate with emergency management organizations and government officials to identify opportunities for future mitigation strategies or initiatives to enhance the resilience of the physical health care infrastructure

Health care organizations should ensure that their ICS prepares for a return to normal operations by:

- Identifying and preparing documentation necessary for government assistance
- Assessing damaged infrastructure and impacted patient care services to restore functionality
- Supporting the physical and behavioral health needs of affected patients, staff, and families
- Connecting patients and staff with case management and financial services[75]
- Planning the after-action learning and improvement processes

Successful reconstitution and recovery should be guided by efforts to build back better.

[74] "Mitigation Assessment Team Program." *FEMA,* 16 Feb. 2016. Web. Accessed 12 Sept. 2016. www.fema.gov/mitigation-assessment-team-program.
[75] "Tips for Retaining and Caring for Staff after a Disaster." *ASPR TRACIE,* 10 Sep. 2016. PDF. Accessed 26 Oct. 2016. https://asprtracie.hhs.gov/documents/tips-for-retaining-and-caring-for-staff-after-disaster.pdf.

Capability 4. Medical Surge

Medical surge is the ability to evaluate and care for a markedly increased volume of patients that exceeds normal operating capacity. Providing an effective medical surge response is dependent on the planning and response capabilities developed in Capability 1 – Foundation for Health Care and Medical Readiness, Capability 2 – Health Care and Medical Response Coordination, and Capability 3 – Continuity of Health Care Service Delivery. Developing health care coalitions (HCCs) is especially important to support the coordination of the medical response across health care organizations.

Medical surge requires building capacity and capability:

- Surge capacity is the ability to manage a sudden influx of patients. It is dependent on a well-functioning incident command system (ICS) and the variables of space, supplies, and staff.[76] The surge requirements may extend beyond placing patients into beds, and should include all aspects related to clinical services (e.g., laboratory studies, radiology exams, operating rooms)[77]
- Surge capability is the ability to manage patients requiring very specialized medical care. Surge requirements span a range of medical and health care services (e.g., expertise, information, procedures, or personnel) that are not normally available at the location where they are needed (e.g., pediatric care provided at non-pediatric facilities or burn care services at a non-burn center). Surge capability also includes special interventions in response to uncommon and resource intensive patient diagnoses (e.g., Ebola, radiation sickness) to protect medical providers, other patients, and the integrity of the medical care facility[78]

Although these terms are not mutually exclusive (e.g., an emergency with large numbers of burn patients results in a need for both capacity and capability), they provide context for medical surge planning and can assist the HCC in developing regional approaches to providing care to patients with specific illnesses or injuries resulting from a wide variety of emergencies (e.g., regional viral hemorrhagic fever plan, regional mass burn plan, and regional mass pediatric plan).

HCCs and their members that coordinate during a medical surge response are more likely to be able to manage the emergency without state or federal assets or employing crisis care strategies.[79] However, it is not possible to plan for all worst case scenarios, and there may be times when the health care delivery system is stressed beyond its maximum surge capacity. For those scenarios, crisis care strategies[80] may be employed and planned well in advance. Planning for medical surge should follow the Medical Surge

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[76] "Health Care System Surge Capacity Recognition, Preparedness, and Response." *American College of Emergency Physicians,* 2014. Web. Accessed 19 Jul. 2016. www.acep.org/Clinical---Practice-Management/Health-Care-System-Surge-Capacity-Recognition,-Preparedness,-and-Response/.

[77] "ICDRM/GWU Emergency Management Glossary of Terms." *The George Washington University Institute for Crisis, Disaster, and Risk Management,* 30 Jun. 2010. pp. 14. PDF. Accessed 19 Jul. 2016. www.gwu.edu/~icdrm/publications/PDF/GLOSSARY - Emergency Management ICDRM 30 JUNE 10.pdf.

[78] Ibid.

[79] Altevogt, Bruce M., et al. "Guidance for Establishing Crisis Standards of Care for Use in Disaster Situations." *The National Academies Press,* 2009. Web. Accessed 26 Oct. 2016. www.nap.edu/read/12749/chapter/1.

[80] Ibid.

Capacity and Capability (MSCC)[81] tiered approach, where successive levels of assistance are activated as the emergency evolves.

Goal for Capability 4: Medical Surge

Health care organizations—including hospitals, emergency medical services (EMS), and out-of-hospital providers—deliver timely and efficient care to their patients even when the demand for health care services exceeds available supply. The HCC, in collaboration with the Emergency Support Function-8 (ESF-8) lead agency, coordinates information and available resources for its members to maintain conventional surge response. When an emergency overwhelms the HCC's collective resources, the HCC supports the health care delivery system's transition to contingency and crisis surge response and promotes a timely return to conventional standards of care as soon as possible.

Objective 1: Plan for a Medical Surge

Health care organizations can most effectively implement and manage medical surge when appropriate information sharing systems and procedures have been established, appropriate plans for all levels of care and populations have been developed, and personnel have been trained in their use.

Activity 1. Incorporate Medical Surge Planning into a Health Care Organization Emergency Operations Plan

An emergency event will require the HCC and its members to share information, attain and maintain situational awareness, and manage and share resources, at a minimum. The HCC may help facilitate patient and resource distribution (or re-distribution) during a surge emergency. The health care organization's Emergency Operations Plan (EOP) will help inform these efforts.

The health care organization EOP should summarize the actions to initiate a response to a medical surge. The EOP should include individual departmental sections that provide specific surge strategies for each unit or service line. Further, employees should clearly know how to communicate with the organization's Emergency Operations Center (EOC). The EOP should include a process for the health care organization to request waivers and emergency use authorizations. As the response evolves and situational awareness is enhanced, the health care organization can refine its response strategies according to the scope of the emergency.

For more information on the health care organization's EOP, see Capability 2 – Health Care and Medical Response Coordination.

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[81] Barbera, Joseph. A., Macintyre, Anthony. G., M.D. "Medical Surge Capacity and Capability: A Management System for Integrating Medical and Health Resources During Large-Scale Emergencies." *HHS*, Second Edition. Sept. 2007. PDF. Accessed 24 Aug. 2016. www.phe.gov/preparedness/planning/mscc/handbook/documents/mscc080626.pdf.

Activity 2. Incorporate Medical Surge into an Emergency Medical Services Emergency Operations Plan

EMS organizations, the HCC, and its members support each other during medical surge. The EMS EOP should incorporate information on dispatch, response, pre-hospital triage and treatment, transportation, supplies, and equipment. Like the health care organization EOP, the EMS EOP will help inform the overarching HCC response.

The EMS EOP should detail the implementation of a stepwise approach to medical surge, including the use of conventional, contingency, and crisis care strategies, as well as state (e.g., request for National Guard) and interstate (e.g., Emergency Management Assistance Compact [EMAC][82]) resources to address potential shortfalls. Ultimately, EMS organizations should strive to return to normal operations as quickly as possible. EMS providers should develop and consistently implement common strategies within the HCC. EMS medical directors and managers should develop and activate surge procedures appropriate for the emergency that enable their employees to make informed decisions in the field so they can provide the best care possible, given limited resources and staff. Table 1 below outlines key elements to incorporate into an EMS EOP.

Table 1 Medical Surge Elements to Incorporate into an EMS Emergency Operations Plan

Category	Elements to incorporate into an EMS EOP
Dispatch	• Identify procedures to: ▪ Alert hospitals of an emergency ▪ Communicate hospital capacity and capability to EMS providers ▪ Track patient distribution (or redistribution) ▪ Change emergency dispatch processes (e.g., not dispatching EMS to motor vehicle crashes until police or fire report significant injuries) ▪ Assign low priority calls to other resources or alternative forms of transport
Response	• Match appropriate specialized providers and equipment with the nature of the emergency (e.g., hazardous materials [HAZMAT] trained crews during a chemical spill) • Consider surge strategies such as changing shift lengths or crew configurations, using alternate vehicles, using community paramedicine, or other non-ambulance responses in coordination with dispatch priorities

[82] "Emergency Management Assistance Compact." *EMAC,* 2015. Web. Accessed 15 Sept. 2016. http://www.emacweb.org/.

Category	Elements to incorporate into an EMS EOP
Pre-hospital triage and treatment	• Implement disaster triage procedures and other standard operating procedures (e.g., eliminate requirement for verbal orders) • Consider processes that allow for expanded scope of practice • Plan for specialty responses, such as HAZMAT, highly infectious disease, mass burn, mass trauma, and mass pediatric emergencies
Transportation	• Identify procedures to surge the numbers of patients transported per vehicle or aircraft • Identify procedures for changing preferred destination facilities (e.g., trauma center, pediatric hospital) or not using the closest hospital • Identify procedures for type and level of pre-hospital care delivery and mode of transport (ground and air medical) • Develop and implement EMS patient distribution strategies to avoid overloading any single hospital • Identify procedures for transporting patients to alternate care sites
Supplies and equipment	• Utilize physical resources including supplies, equipment, and cached materials to support a medical surge

Activity 3. Incorporate Medical Surge into a Health Care Coalition Response Plan

The HCC response plan as described in Capability 2 – Health Care and Medical Response Coordination should detail the activation and notification processes for initiating medical surge response coordination among HCC members, including ESF-8 partners. The HCC response plan should include the following elements related to medical surge:

- Strategies to implement if the emergency overwhelms regional capacity or specialty care (e.g., trauma, burn, pediatric) capability, including the execution of crisis standards of care plans; plans should also address steps to prevent crisis standards of care without compromising quality of care (e.g., conserve supplies, substitute for available resources, adapt practices, etc.)
- Strategies for patient tracking, including a process for keeping track of unidentified (John Doe/Jane Doe) patients
- Strategies for initial patient distribution (or re-distribution) in the event a facility becomes overwhelmed (e.g., across proximal geographic region among local hospitals)
- Strategies for definitive patient movement out of the affected region coordinated with U.S. Department of Defense (DoD) or U.S. Department of Veterans Affairs (VA) Federal Coordinating Centers (FCCs),[83] including the establishment of aerial ports of embarkation and debarkation for patient movement (e.g., deployable U.S. Department of Health and Human Services [HHS] response teams, definitive medical care in National Disaster Medical System [NDMS] civilian hospitals)

[83] "National Disaster Medical System: Federal Coordinating Center Guide." *NDMS,* Apr. 2014. PDF. Accessed 12 Sept. 2016. http://www.dmrti.army.mil/01_FCC%20Guide%20Apr%202014.pdf.

- Processes for joint decision making and engagement among the HCC, HCC members, and the ESF-8 lead agency to avoid crisis conditions based on proactive decisions about resource utilization

Objective 2: Respond to a Medical Surge

Health care organizations and the HCC will need to respond to a surge in demand for health care services as a result of an emergency. This will require a coordinated approach to share information and resources, including staff, and ensure the stewardship of beds, medical equipment, supplies, pharmaceuticals, and other key items to provide the best possible care under such conditions.

Certain emergencies require a specialized response, either because of the type of event or specific vulnerabilities of different patient populations. The HCC facilitates these responses through timely information and resource sharing (e.g., Essential Elements of Information (EEIs), expertise that exists within the HCC, etc.).

Activity 1. Implement Emergency Department and Inpatient Medical Surge Response

Hospitals should activate their EOP to rapidly develop a medical surge response proportionate to the emergency. While the goal of immediate bed availability (IBA) [84] is to create capacity within hospitals, other health care organization partners (e.g., home care, skilled nursing facilities, long-term care facilities, clinics, and community and tribal health centers) can meet the needs of patients who are discharged early as part of the surge response. DoD military treatment facilities and VA Medical Centers should be included in surge planning and response.[85] Hospitals should engage HCC members with the end goal of returning to normal operations as quickly as possible by either acquiring additional resources or sharing the patient load. Hospitals should develop medical surge capacity and capability for all populations across a number of areas (as described in Table 2 below).

Table 2 Areas to Develop Emergency Department and Inpatient Medical Surge Capacity and Capability

Area	Description
Emergency Department	• Make beds and surge spaces rapidly available for initial triage and stabilization, and obtain additional staff, equipment, and supplies
General medical, general surgical, and monitored beds	• Ensure IBA (at least 20 percent additional acute hospital inpatient capacity within the first four hours following an emergency) by rapidly prioritizing patients for discharge, maximizing the use of staffed beds, and using non-traditional spaces (e.g., observation areas)

[84] Hick, John L, et al. "Health Care Facility and Community Strategies for Patient Care Surge Capacity." 15 Jul. 2004. PDF. Accessed 15 Sept. 2016. www.aha.org/content/00-10/Hick.pdf.

[85] DoD military treatment facilities and VA Medical Centers provide medical care for active duty service members, other military health care beneficiaries, and their families. In an emergency, DoD military treatment facilities may provide lifesaving (e.g., emergency department) care for non-military health care beneficiaries and transfer them at the appropriate time (e.g., patient is stable) to a civilian hospital for inpatient care.

Area	Description
Critical care	• Rapidly expand capacity (for those facilities that provide it) by adapting procedural, pre- and post-operative, and other areas for critical care • Assess staff, equipment, and supply needs for these spaces to facilitate requests
Surgical intervention	• Secure resources, such as operating rooms, surgeons, anesthesiologists, operating room nurses, and surgical equipment and supplies to provide time-sensitive, immediate surgical interventions to patients with life threatening injuries
Clinical laboratory and radiology	• Rapidly expand basic laboratory services (e.g., hematology, chemistries, Gram stain, blood cultures), including mechanisms for staff augmentation and rapid reporting • Consider use of point-of-care testing • Rapidly expand radiology services (e.g., diagnostic radiology, ultrasound, computed tomography [CT]), including mechanisms for staff augmentation and rapid reporting
Staffing	• Call back clinical and non-clinical staff; utilize staff in non-traditional roles • Adjust staffing ratios and shifts as required, and implement HCC member staff sharing plans
Health care volunteer management	• Identify situations that would necessitate the need for volunteers in hospitals • Identify processes to assist with volunteer coordination • Estimate the anticipated number of volunteers and health professional roles based on identified situations and resource needs of the facility • Identify and address volunteer liability issues, scope of practice issues, and third party reimbursement issues that may deter volunteer use • Leverage existing government and non-governmental volunteer registration programs (e.g., Emergency System for Advance Registration of Volunteer Health Professional [ESAR-VHP][86] and Medical Reserve Corps [MRC][87]) • Develop rapid credential verification processes to facilitate emergency response
Equipment and supplies	• Implement emergency equipment, supplies and stocking strategies, and HCC resource sharing agreements

Activity 2. Implement Out-of-Hospital Medical Surge Response

Patient care settings outside of hospitals may be impacted during an emergency. For example, structural impacts from natural disasters or increased demand during epidemics may compromise an outpatient

[86] "The Emergency System for Advance Registration of Volunteer Health Professionals." *Public Health Emergency,* n.d. Web. Accessed 7 Sept. 2016. www.phe.gov/esarvhp/pages/default.aspx.
[87] "Medical Reserve Corps." *MRC,* 22 Sept. 2016. Web. Accessed 26 Sept. 2016. https://mrc.hhs.gov.

clinic's ability to provide care. If not adequately addressed, the demand for out-of-hospital care will usually fall on hospitals and EMS, further overloading an already burdened system. Safe, continued operations of a community's out-of-hospital care resources are critical to an effective medical surge response. Therefore, HCC out-of-hospital members should share staff and resources and fully integrate with the region's surge response activities. Out-of-hospital members include but are not limited to, ambulatory care (including primary care providers), Federally Qualified Health Centers (FQHCs),[88] community and tribal health centers, stand-alone surgical and specialty centers, skilled nursing facilities, long-term care facilities, clinics, private practitioners, and home care.

Activity 3. Develop an Alternate Care System

An alternate care system—the utilization of non-traditional settings and modalities for health care delivery—may be required when demand overwhelms a region or the nation's health care delivery system for a prolonged period, or an emergency has significantly damaged infrastructure and limited access to health care. In these situations, the ESF-8 lead agency, in collaboration with health care organizations and the HCC, should work together to meet patient care needs. Public health agencies and emergency management organizations have leadership roles in selecting, establishing, and operating the sites, though the health care delivery system may provide support, including personnel and supplies.

Initial efforts for staffing an alternate care system should not disrupt health care delivery services (see Capability 3 – Continuity of Health Care Service Delivery). Communities should utilize MRCs and other staffing augmentation efforts (e.g., nursing and medical students) to staff an alternate care system whenever possible. When these resources are no longer available, request for additional assistance (e.g., federal and state assistance, etc.) may be required. Table 3 below outlines key elements to consider when developing an alternate care system.

Table 3 Key Considerations to Develop an Alternate Care System

Category	Key considerations
Telemedicine/virtual medicine	• Use telephone, internet, telemedicine consultations, or other virtual platforms to provide consultation between providers • Provide access to specialty care expertise where it does not exist within the HCC to allow for remote triage and initial patient stabilization • Establish call centers to offer scripted patient support

[88] "What are Federally qualified health centers (FQHCs)?" *HRSA*, n.d. Web. Accessed 7 Sept. 2016. www.hrsa.gov/healthit/toolbox/RuralHealthITtoolbox/Introduction/qualified.html.

Category	Key considerations
Screening/early treatment	• Ensure that a section 1135 of the Social Security Act waiver[89] is in place if required • Establish assessment and screening centers that allow the health care delivery system to respond to increased demand for screening and early treatment (e.g., during a pandemic) • Preferentially manage patients with minor symptoms and those who might require limited medical intervention as these patients might otherwise overwhelm emergency departments
Medical care at shelters	• Provide medical care support at community-established shelters (may involve ESAR-VHP, MRC, state disaster medical teams, nursing home staff, or a variety of ambulatory care providers)
Disaster alternate care facilities selection and operation	• Be able to provide non-ambulatory care for patients when hospital beds are not available • Select sites for out-of-hospital patient care management based on recommended guidance[90] • Identify the process to assist with multiagency volunteer coordination to organize, assemble, dispatch, and properly out-process volunteers (e.g., Volunteer Reception Center) • Integrate with Federal Medical Stations (FMS)

Activity 4. Provide Pediatric Care during a Medical Surge Response

All hospitals should be prepared to receive, stabilize, and manage pediatric patients. However, given the limited number of pediatric specialty hospitals, an emergency affecting large numbers of children may require HCC and ESF-8 lead agency involvement to ensure those children who can most benefit from pediatric specialty services receive priority for transfer. Additionally, pediatric practitioners may be able to help identify patients who are appropriate for transfer to non-pediatric facilities. EMS resources, including providers with appropriate training and equipment, should be prepared to transport pediatric patients.

The HCC should promote its members' planning for pediatric medical emergencies and foster relationships and initiatives with emergency departments that are able to stabilize and/or manage pediatric medical emergencies.

Activity 5. Provide Surge Management during a Chemical or Radiation Emergency Event

Communities should be prepared to manage exposed or potentially exposed patients during a chemical or radiation emergency. During such events, individuals may go to various health care facilities, police and fire stations, and other locations for assistance.

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[89] See "1135 Waivers." *ASPR,* 2 May 2013. Web. Accessed 12 Sept. 2016. http://www.phe.gov/Preparedness/legal/Pages/1135-waivers.aspx.

[90] "Disaster Alternate Care Facilities: Selection and Operation." *AHRQ,* Oct. 2009. PDF. Accessed 19 Jul. 2016. archive.ahrq.gov/prep/acfselection/dacfreport.pdf.

To ensure successful surge management, HCC members should be prepared to do the following:

- Provide wet and dry decontamination by personnel trained and equipped according to the Occupational Safety and Health Administration (OSHA) guidance for first receivers[91] and the *Patient Decontamination in a Mass Chemical Exposure Incident: National Planning Guidance for Communities*[92]
- Ensure involvement and coordination with regional HAZMAT resources (where available), including EMS, fire service, health care organizations, and public health agencies (for public messaging)
- Distribute and administer available antidotes, including mobilization of CHEMPACKs[93] when necessary
- Screen to differentiate exposed from unexposed patients, especially in radiation emergency events
- Develop a process for radiation triage, treatment, and transport (RTR response)[94]
- Manage behavioral health consequences for these types of emergency events (see Capability 4 Objective 2, Activity 8 – Respond to Behavioral Health Needs during a Medical Surge Response below)

Activity 6. Provide Burn Care during a Medical Surge Response

All hospitals should be prepared to receive, stabilize, and manage burn patients. However, given the limited number of burn specialty hospitals, an emergency resulting in large numbers of burn patients may require HCC and ESF-8 lead agency involvement to ensure those patients who can most benefit from burn specialty services receive priority for transfer. Additionally, burn surgeons may be able to help identify patients who do not require burn center care and who are appropriate for transfer to other health care facilities.

Activity 7. Provide Trauma Care during a Medical Surge Response

The HCC and its members should coordinate a response to large-scale trauma emergencies with all trauma system partners. All hospitals should be prepared to receive, stabilize, and manage trauma patients. However, given the limited number of trauma centers, an emergency resulting in large numbers of trauma patients may require HCC and ESF-8 lead agency involvement to ensure those patients who can most benefit from trauma services receive priority for transfer. Health care facilities should ensure sufficient availability of operating rooms, surgeons, anesthesiologists, operating room nurses, and surgical equipment and supplies to provide immediate surgical interventions to patients with life threatening injuries.

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[91] "OSHA Best Practices for Hospital-based First Receivers of Victims from Mass Casualty Incidents Involving the Release of Hazardous Substances." *OSHA,* Jan. 2005. Web. Accessed 19 Jul. 2016. https://www.osha.gov/dts/osta/bestpractices/html/hospital_firstreceivers.html.

[92] Cibulsky, Susan M., et al. "Patient Decontamination in a Mass Chemical Exposure Incident: National Planning Guidance for Communities." *HHS, DHS,* Dec. 2014. PDF. Accessed 15 Sept. 2016. www.dhs.gov/sites/default/files/publications/Patient%20Decon%20National%20Planning%20Guidance_Final_December%202014.pdf.

[93] "CHEMPACK." *HHS,* 25 Jun. 2011. Web. Accessed 19 Jul. 2016. chemm.nlm.nih.gov/chempack.htm.

[94] "Radiation Triage, Treat, and Transport System (RTR) after a Nuclear Detonation: Venues for the Medical Response." *HHS REMM,* 16 Aug. 2016. Web. Accessed 15 Sept. 2016. www.remm.nlm.gov/RTR.htm.

Activity 8. Respond to Behavioral Health Needs during a Medical Surge Response

Emergencies may have severe emotional impact on survivors, their families, and responders and also cause substantial destabilization of patients with existing behavioral health issues. Hospitals and outpatient care providers, including behavioral health professionals, should identify a regional approach to assess and address the needs of the community. Behavioral health organizations are valuable HCC members and can provide needed support to survivors, responders, and people with pre-existing behavioral health concerns.

HCC members should promote a robust behavioral health response that include the following elements:

- A proportional behavioral health response, addressing the unique behavioral health needs of children, implemented according to the impact of emergencies on the community
- The development and use of behavioral health support and strike teams to support the affected population
- Ongoing support for inpatient and outpatient care of psychiatric patients
- Widespread information dissemination to help providers, patients, family, and the community understand the symptoms and signs of acute stress responses and when and where to seek treatment
- Behavioral health professionals increasing contact with clients
- Provision of psychological first aid to those impacted (including health care workers)

Activity 9. Enhance Infectious Disease Preparedness and Surge Response

Both health care organizations and the HCC have roles in planning for and responding to infectious disease outbreaks that stress either the capacity and/or capability of the health care delivery system.

Health care organizations should:

- Screen patients for signs, symptoms, and relevant travel and exposure history
- Support treatment protocol and algorithm use in clinical care by deploying clinical decision support (CDS) where electronic health records (EHRs) are in use
- Document exposure information in EHRs, and ensure it is communicated to the entire care team and state and local health departments (by electronic means, if available)
- Rapidly isolate patients
- Provide personal protective equipment (PPE) and prophylaxis to their employees and visitors while awaiting either comprehensive evaluation, definitive diagnosis, or transfer
- Utilize tertiary care facilities, when possible, or designated facilities to assess, manage, and treat patients with suspected highly pathogenic transmissible infections (e.g., severe acute respiratory syndrome [SARS]/Middle East respiratory syndrome [MERS]) or non-transmissible infections (e.g., anthrax)
- Define and implement visitor policies for infectious disease emergencies, in collaboration with the HCC, to ensure uniformity

The HCC, in collaboration with the ESF-8 lead agency, should:

- Expand existing Ebola concept of operations plans (CONOPs) to enhance preparedness and response for all infectious disease emergencies that stress the health care delivery system
- Ensure jurisdictional public health infection control and prevention programs (including healthcare-associated infections [HAI] programs) participate in developing infectious disease

response plans, and include HCC members for management of individual cases and larger emerging infectious disease outbreaks
- Develop HCC and regional trainings and strategies for the consistent use of PPE
- Manage PPE resources, including stockpiling considerations, vendor managed inventory, and the potential reuse of equipment. This includes consistent policies regarding the type of PPE necessary for various infectious pathogens and sharing information about PPE supplies across HCCs, EMS, public health agencies, and other HCC members
- Include HAI coordinators and quality improvement professionals at the facility and jurisdiction levels in HCC activities, including planning, training, and exercises/drills; include HCC leaders in state HAI coordination work groups
- Develop and/or integrate a uniform process of continuous screening, integrated with EHRs where possible, throughout HCC member facilities and organizations
- Coordinate patient distribution for highly pathogenic respiratory viruses and other highly transmissible infections when tertiary care facilities or designated facilities are not available
- Provide real-time information through coordinated HCC and jurisdictional public health information sharing systems (see Capability 2, Objective 3, Activity 4 – Communicate with the Public during an Emergency)
- Partner with relevant public health and health care delivery system informatics initiatives, including electronic laboratory reporting, electronic test ordering, electronic death reporting, and syndromic surveillance as it relates to the submission of emergency department visit data to the public health agency
- Identify, utilize, and share leading practices to optimize infectious disease preparedness and response; support the use of these practices with CDS in EHRs whenever possible

Activity 10. Distribute Medical Countermeasures during Medical Surge Response

In coordination with public health agencies, the HCC and its member organizations should be prepared to receive and dispense medical countermeasures (MCMs) to patients, responders, and employees and their household members during a medical surge emergency (e.g., radiation, botulism, anthrax, and other category A bioterrorism agents[95]).

Where possible, health care organizations should coordinate with local public health agencies prior to an emergency to establish a closed point of dispensing (POD) in their facility. In the event of a public health emergency requiring mass dispensing of MCMs to local populations, available MCMs may exist in HCC or individual HCC member's caches or be provided by local public health agencies to established closed PODs. Establishing closed PODs prior to an emergency allows for organized and timely distribution of medication or vaccines to hospital patients, employees, and their families.

Activity 11. Manage Mass Fatalities

Mass fatality management may involve emergency management organizations, public health agencies, coroners, medical examiners, and other stakeholders depending on the nature of the emergency. Hospitals should be able to manage an increase in decedents at their facilities. Hospitals should be aware of community plans and authorities for an emergency resulting in mass fatalities.

Health care organizations, in collaboration with public health agencies and other stakeholders, should:

[95] "NIAID Emerging Infectious Diseases/Pathogens." *NIAID,* 25 Jan. 2016. Web. Accessed 20 Jul. 2016. https://www.niaid.nih.gov/research/emerging-infectious-diseases-pathogens.

- Prepare for a surge in initial storage of decedents, including those who will not become medical examiner cases (e.g., pandemic)
- Manage large numbers of family members and friends of decedents who may come to the hospital
- Facilitate the identification of temporary, ad hoc mass fatality storage sites in the community (e.g., parking decks, ice rinks) when refrigerated trailers and other conventional storage means are not immediately available
- Manage contagious, chemically, or radiologically contaminated remains

Glossary

Term	Definition
Access and functional needs	Access-based needs: All people must have access to certain resources, such as social services, accommodations, information, transportation, medications to maintain health, and so on. Function-based needs: Function-based needs refer to restrictions or limitations an individual may have that requires assistance before, during, and/or after a disaster or public health emergency.[96]
Alternate care sites	Substitute non-medical physical locations converted to provide health care services when existing health care facilities are compromised by a hazard impact, or the volume of patients exceeds the capacity and/or capabilities of everyday health care facilities. They may be managed by private health care or public agencies.[97] In some instances, these sites may be located on hospital campuses or other health care facilities.
Alternate care system	Encompasses a full array of organizations outside the hospital in which health care can be delivered in a health care emergency, including nursing homes, home care, skilled nursing facilities, and long-term care facilities, etc.[98]
Category A bioterrorism agents	Category A bioterrorism agents (pathogens) are those organisms/biological agents that pose the highest risk to national security and public health because they: • Can be easily disseminated or transmitted from person to person • Result in high mortality rates and have the potential for major public health impact • Might cause public panic and social disruption • Require special action for public health preparedness[99]

[96] "At-Risk Individuals." *ASPR*, 8 Sept. 2016. Web. Accessed 16 Sept. 2016. http://www.phe.gov/Preparedness/planning/abc/Pages/atrisk.aspx.

[97] "ICDRM/GWU Emergency Management Glossary of Terms." *The George Washington University Institute for Crisis, Disaster, and Risk Management,* 30 Jun. 2010. pp. 6. PDF. Accessed 19 Jul. 2016. www.gwu.edu/~icdrm/publications/PDF/GLOSSARY - Emergency Management ICDRM 30 JUNE 10.pdf.

[98] Hanfling, Dan, et al., "Crisis Standards of Care: A Systems Framework for Catastrophic Disaster Response." *National Academies Press,* 2012 Mar. 21. 8, Out-of-Hospital and Alternate Care Systems. Web. Accessed 12 Sep. 2016. https://www.ncbi.nlm.nih.gov/books/NBK201069/.

[99] "NIAID Emerging Infectious Diseases/Pathogens." *NIAID,* 25 Jan. 2016. Web. Accessed 20 Jul. 2016. https://www.niaid.nih.gov/research/emerging-infectious-diseases-pathogens.

Term	Definition
CHEMPACK	The CHEMPACK program is an ongoing initiative of the Centers for Disease Control and Prevention's (CDC) Division of Strategic National Stockpile (SNS) launched in 2003, which provides antidotes (three countermeasures used concomitantly) to nerve agents for pre-positioning by state, local, and/or tribal officials throughout the U.S. The CHEMPACK program is envisioned as a comprehensive capability for the effective use of medical countermeasures in the event of an attack on civilians with nerve agents.[100]
Cities Readiness Initiative (CRI)	A federally funded program designed to enhance preparedness in the nation's largest population centers where more than 50% of the U.S. population resides. Using CRI funding, state and large metropolitan public health departments develop, test, and maintain plans to quickly receive and distribute life-saving medicine and medical supplies from the nation's Strategic National Stockpile (SNS) to local communities following a large-scale public health emergency.[101]
Clinical decision support (CDS)	A process for enhancing health-related decisions and actions with pertinent, organized clinical knowledge and patient information to improve health and health care delivery.[102]
Closed point of dispensing (POD)	A specific business or organization that has the ability to dispense medical countermeasures to a defined population, as opposed to the general public (e.g., private sector workplace, hospital, etc.)[103]
Community Emergency Response Teams (CERT)	An organization of volunteer emergency workers who have received specific training in basic disaster response skills and who agree to supplement existing emergency responders in the event of an emergency or disaster.[104]

[100] "CHEMPACK." *HHS,* 25 Jan. 2011. Web. Accessed 12 Sept. 2016. https://chemm.nlm.nih.gov/chempack.htm.

[101] "Cities Readiness Initiative." *CDC*, 17 Jun. 2016. Web. Accessed 20 Jul. 2016. www.cdc.gov/phpr/stockpile/cri/.

[102] "How to Implement EHRs: Clinical Decision Support (CDS)." *ONC*, 28 Mar. 2016. Web. Accessed 26 Oct. 2016. healthit.gov/providers-professionals/clinical-decision-support-cds.

[103] Stroud, C., et al. "Prepositioning Antibiotics for Anthrax." *National Academies Press,* 30 Sept. 2011. pp. 14. Web. Accessed 16 Sep. 2016. http://www.ncbi.nlm.nih.gov/books/NBK190049/.

[104] "Community Emergency Response Teams." *FEMA*, 31 Aug. 2016. Web. Accessed 7 Sept. 2016. https://www.fema.gov/community-emergency-response-teams/.

Term	Definition
Community paramedicine	An organized system of services, based on local need, which are provided by emergency medical technicians and paramedics integrated into the local or regional health care delivery system and overseen by emergency and primary care physicians. This not only addresses gaps in primary care services, but enables the presence of emergency medical services (EMS) personnel for emergency response in low call-volume areas by providing routine use of their clinical skills and additional financial support from these non-EMS activities.[105]
Corporate health system	An organized, coordinated, and collaborative network that (1) links various health care providers, via common ownership or contract, across three domains of integration – economic, noneconomic, and clinical – to provide a coordinated, vertical continuum of services to a particular patient population or community, and (2) is accountable both clinically and fiscally for the clinical outcomes and health status of the population or community served, and has systems in place to manage and improve them.[106]
Critical care	Critical care helps people with life-threatening injuries and illnesses. It might treat problems such as complications from surgery, accidents, infections, and severe breathing problems. It involves close, constant attention by a team of specially-trained health care providers. Critical care usually takes place in an intensive care unit (ICU) or trauma center.[107]
Disaster	A hazard impact causing adverse physical, social, psychological, economic or political effects that challenges the ability to respond rapidly and effectively. Despite a stepped-up capacity and capability (call-back procedures, mutual aid, etc.) and change from routine management methods to an incident command/management process, the outcome is lower than expected compared with a smaller scale or lower magnitude impact (see "emergency" for important contrast between the two terms).[108]

[105] "Community Paramedicine Evaluation Tool." *HRSA,* Mar. 2012. PDF. Accessed 20 Sep. 2016. http://www.hrsa.gov/ruralhealth/pdf/paramedicevaltool.pdf.
[106] "Integrated Delivery Systems: The Cure for Fragmentation." *AJMC,* 15 Dec. 2009. Web. Accessed 20 Jul. 2016. www.ajmc.com/journals/supplement/2009/a264_09dec_hlthpolicycvrone/a264_09dec_enthovens284to290/.
[107] "Critical Care." *MedlinePlus,* 2 Apr. 2015. Web. Accessed 16 Sept. 2016. medlineplus.gov/criticalcare.html.
[108] "ICDRM/GWU Emergency Management Glossary of Terms." *The George Washington University Institute for Crisis, Disaster, and Risk Management,* 30 Jun. 2010. pp. 30. PDF. Accessed 19 Jul. 2016. www.gwu.edu/~icdrm/publications/PDF/GLOSSARY - Emergency Management ICDRM 30 JUNE 10.pdf.

Term	Definition
Disaster Medical Assistance Team (DMAT)	A component of the National Disaster Medical System (NDMS) Response Teams. A DMAT is a group of professional and para-professional medical personnel (supported by a cadre of logistical and administrative staff) designed to provide medical care during a disaster or other event. NDMS recruits personnel for specific vacancies, plans for training opportunities, and coordinates the deployment of the teams.[109]
Emergency	A hazard impact causing adverse physical, social, psychological, economic or political effects that challenges the ability to respond rapidly and effectively. It requires a stepped-up capacity and capability (call-back procedures, mutual aid, etc.) to meet the expected outcome, and commonly requires change from routine management methods to an incident command process to achieve the expected outcome (see "disaster" for important contrast between the two terms).[110]
Emergency Management Assistance Compact (EMAC)	A congressionally ratified organization that provides form and structure to interstate mutual aid. Through EMAC, a disaster impacted state can request and receive assistance from other member states quickly and efficiently, resolving two key issues upfront: liability and reimbursement. [111]
Emergency Operations Center (EOC)	The physical location at which the coordination of information and resources to support incident management (on-scene operations) activities normally takes place. An EOC may be a temporary facility or may be located in a more central or permanently established facility, perhaps at a higher level of organization within a jurisdiction. EOCs may be organized by major functional disciplines (e.g., fire, law enforcement, medical services), by jurisdiction (e.g., federal, state, regional, tribal, city, county), or by some combination thereof.[112]
Emergency Operations Plan (EOP)	The "response plan" that an entity (organization, jurisdiction, state, etc.) maintains that describes intended response to any emergency situation. It provides action guidance for management and emergency response personnel during the response phase.[113]

[109] "Disaster Medical Assistance Team (DMAT)."*ASPR*, 25 Sept. 2015. Web. Accessed 16 Sept. 2016. http://www.phe.gov/preparedness/responders/ndms/teams/pages/dmat.aspx.
[110] "ICDRM/GWU Emergency Management Glossary of Terms." *The George Washington University Institute for Crisis, Disaster, and Risk Management,* 30 Jun. 2010. pp. 32. PDF. Accessed 19 Jul. 2016. www.gwu.edu/~icdrm/publications/PDF/GLOSSARY - Emergency Management ICDRM 30 JUNE 10.pdf.
[111] Ibid., 33.
[112] Ibid., 34.
[113] Ibid., 34.

Term	Definition
Emergency Support Function-6 (ESF-6) – Mass Care, Emergency Assistance, Temporary Housing, and Human Services Annex	ESF-6 (Mass Care, Emergency Assistance, Housing, and Human Services) coordinates the delivery of federal mass care, emergency assistance, housing, and human services when local, tribal, and state response and recovery needs exceed their capabilities.[114]
Emergency Support Function-8 (ESF-8) – Public Health and Medical Services Annex	ESF-8 (Public Health and Medical Services) provides the mechanism for coordinated federal assistance to supplement state, tribal, and local resources in response to the following: • Public health and medical care needs • Veterinary and/or animal health issues in coordination with the U.S. Department of Agriculture (USDA) • Potential or actual incidents of national significance • A developing potential health and medical situation[115]
Emergency System for Advance Registration of Volunteer Health Professionals (ESAR-VHP)	ESAR-VHP is a federal program created to support states and territories in establishing standardized volunteer registration programs for disasters and public health and medical emergencies. The program, administered on the state level, verifies health professionals' identification and credentials so that they can respond more quickly when disaster strikes.[116]
Emergency use authorization	This authority allows U.S. Food and Drug Administration (FDA) to help strengthen the nation's public health protections against chemical, biological, radiological, nuclear or explosive (CBRNE) threats by facilitating the availability and use of medical countermeasures (MCMs) needed during public health emergencies. Under section 564 of the Federal Food, Drug, and Cosmetic Act, the FDA Commissioner may allow unapproved medical products or unapproved uses of approved medical products to be used in an emergency to diagnose, treat, or prevent serious or life-threatening diseases or conditions caused by CBRNE threat agents when there are no adequate, approved, and available alternatives.[117]

[114] "Emergency Support Function #6 – Mass Care, Emergency Assistance, Housing, and Human Services Annex." *FEMA,* Jan. 2008. PDF. Accessed 20 Jul. 2016. www.fema.gov/pdf/emergency/nrf/nrf-esf-06.pdf.
[115] "Emergency Support Function #8 – Public Health and Medical Services Annex." *FEMA,* Jan. 2008. Web. Accessed 20 Jul. 2016. www.fema.gov/media-library-data/20130726-1825-25045-8027/emergency_support_function_8_public_health___medical_services_annex_2008.pdf
[116] "The Emergency System for Advance Registration of Volunteer Health Professionals." *ASPR*, n.d. Web. Accessed 20 Jul. 2016. www.phe.gov/esarvhp/Pages/about.aspx.
[117] "Emergency Use Authorization." *FDA,* 7 Sept. 2016. Web. Accessed 16 Sept. 2016. www.fda.gov/EmergencyPreparedness/Counterterrorism/ucm182568.htm.

Term	Definition
ESF-8 lead agency	ESF-8 language distinguishes between lead and supporting agencies to conduct an emergency response.[118] Within the context of Emergency Support Functions (ESF), primary agencies have significant authorities, roles, resources, and capabilities for a particular function within an ESF.
Essential Elements of Information (EEI)	Important and standard information items needed to make timely and informed decisions. EEIs also provide context and contribute to analysis. EEIs are also included in situation reports.[119]
Federal Coordinating Center (FCC)	A federal facility (U.S. Department of Defense or U.S. Department of Veterans Affairs) located in a metropolitan area of the United States, responsible for day-to-day coordination of planning, training, and operations in one or more assigned geographic National Disaster Medical System (NDMS) Patient Reception Areas (PRA). NDMS participating medical treatment facilities (MTF) should be within 5 miles of the managing FCC.[120]
Federal Medical Station (FMS)	A U.S. Department of Health and Human Services (HHS)- deployable health care facility that can provide surge beds to support health care systems anywhere in the U.S. that are impacted by disasters or public health emergencies. FMS are not mobile and cannot be relocated once established.[121]
Hazard vulnerability analysis (HVA)	A systematic approach to identifying all hazards that may affect an organization and/or its community, assessing the risk (probability of hazard occurrence and the consequence for the organization) associated with each hazard, and analyzing the findings to create a prioritized comparison of hazard vulnerabilities. The consequence, or "vulnerability," is related to both the impact on organizational function and the likely service demands created by the hazard impact.[122]

[118] "Emergency Support Functions." *ASPR,* 2 Jun. 2015. Web. Accessed 12 Sept. 2016. http://www.phe.gov/Preparedness/support/esf8/Pages/default.aspx#eme.
[119] "FEMA Incident Action Planning Guide." *FEMA*, Jan. 2012. PDF. Accessed 18 Jul. 2016. http://www.fema.gov/media-library-data/20130726-1822-25045-1815/incident_action_planning_guide_1_26_2012.pdf.
[120] "National Disaster Medical System: Federal Coordinating Center Guide." *NDMS,* Apr. 2014. PDF. Accessed 12 Sept. 2016. http://www.dmrti.army.mil/01_FCC%20Guide%20Apr%202014.pdf.
[121] "Medical Assistance." *ASPR*, 8 May 2015. Web. Accessed 16 Sept. 2016. http://www.phe.gov/Preparedness/support/medicalassistance/Pages/default.aspx#fms.
[122] "ICDRM/GWU Emergency Management Glossary of Terms." *The George Washington University Institute for Crisis, Disaster, and Risk Management,* 30 Jun. 2010. pp. 48. PDF. Accessed 19 Jul. 2016. www.gwu.edu/~icdrm/publications/PDF/GLOSSARY - Emergency Management ICDRM 30 JUNE 10.pdf.

Term	Definition
Hazardous material (HAZMAT)	Any material that is explosive, flammable, poisonous, corrosive, reactive, or radioactive (or any combination) and requires special care in handling because of the hazards posed to public health, safety, and/or the environment.[123]
Health and Social Services Recovery Support Function	Assists locally-led recovery efforts in the restoration of the public health, health care and social services networks to promote the resilience, health and well-being of affected individuals and communities.[124]
Healthcare-associated infections (HAI)	Healthcare-associated infections (HAIs) are infections people get while they are receiving health care for another condition. HAIs can happen in any health care facility, including hospitals, ambulatory surgical centers, end-stage renal disease facilities, and long-term care facilities. HAIs can be caused by bacteria, fungi, viruses, or other less common pathogens.[125]
Health care coalition (HCC)	A group of individual health care and response organizations (e.g., hospitals, emergency medical services (EMS), emergency management organizations, public health agencies, etc.) in a defined geographic location. HCCs play a critical role in developing health care delivery system preparedness and response capabilities. HCCs serve as multiagency coordinating groups that support and integrate with ESF-8 activities in the context of incident command system (ICS) responsibilities.
Health care coalition (HCC) member	An HCC member is defined as an entity within the HCC's defined boundaries that actively contributes to HCC strategic planning, operational planning and response, information sharing, and resource coordination and management.
Health care executive	Health care organization senior executives with institutional decision-making authority. Titles of health care executives may include but are not limited to, President, Chief Executive Officer, Chief Operating Officer, Chief Medical Officer, Chief Nursing Officer, and Medical Director.

[123] "ICDRM/GWU Emergency Management Glossary of Terms." *The George Washington University Institute for Crisis, Disaster, and Risk Management,* 30 Jun. 2010. pp. 48. PDF. Accessed 19 Jul. 2016. www.gwu.edu/~icdrm/publications/PDF/GLOSSARY - Emergency Management ICDRM 30 JUNE 10.pdf.
[124] "Health and Social Services Recovery Support Function." *ASPR,* 27 Apr. 2015. Web. Accessed 12 Sept. 2016. http://www.phe.gov/about/oem/recovery/Pages/hss-rsf.aspx.
[125] "Overview – Heath Care-Associated Infections." *ODPHP*, 16 Sept. 2016. Web. Accessed 16 Sept. 2016. health.gov/hcq/prevent-hai.asp.

Term	Definition
Health care facility	Any asset where point-of-service medical care is regularly provided or provided during an incident. It includes hospitals, integrated health care systems, private physician offices, outpatient clinics, nursing homes, and other medical care configurations. During an emergency response, alternative medical care facilities and sites where definitive medical care is provided by emergency medical services (EMS) and other field personnel would be included in this definition.[126]
Health Insurance Portability and Accountability Act (HIPAA)	Public Law 104-191 (August 21, 1996) addresses many aspects of health care practice and medical records. This federal act most notably addresses the privacy of protected health information (PHI), and directs the development of specific parameters as to how PHI may be shared.[127]
Homeland Security Exercise and Evaluation Program (HSEEP)	Doctrine and policy provided by the U.S. Department of Homeland Security for design, development, conduct, and evaluation of preparedness exercises. The terminology and descriptions related to exercise in this document is a Homeland Security industry application of emergency management concepts and principles.[128]
Immediate bed availability (IBA)	[The ability of a hospital] to provide no less than 20 percent bed availability of staffed beds within four hours of a disaster. It is built on three pillars: continuous monitoring across the health system; off-loading of patients who are at low risk for untoward events through reverse triage; and on-loading of patients from the disaster.[129]
Incident Action Plan (IAP)	An oral or written plan containing general objectives reflecting the overall strategy for managing an incident. It may include the identification of operational resources and assignments. It may also include attachments that provide direction and important information for management of the incident during one or more operational periods.[130]

[126] "ICDRM/GWU Emergency Management Glossary of Terms." *The George Washington University Institute for Crisis, Disaster, and Risk Management,* 30 Jun. 2010. pp. 48. PDF. Accessed 19 Jul. 2016. www.gwu.edu/~icdrm/publications/PDF/GLOSSARY - Emergency Management ICDRM 30 JUNE 10.pdf.
[127] Ibid., 49.
[128] Ibid., 49.
[129] Hick, John L., et al. "Health Care Facility and Community Strategies for Patient Care Surge Capacity." *Annals of Emergency Medicine.* 15 Jul. 2004. PDF. Accessed 15 Sept. 2016. http://www.aha.org/content/00-10/Hick.pdf.
[130] "ICDRM/GWU Emergency Management Glossary of Terms." *The George Washington University Institute for Crisis, Disaster, and Risk Management,* 30 Jun. 2010. pp. 51. PDF. Accessed 19 Jul. 2016. www.gwu.edu/~icdrm/publications/PDF/GLOSSARY - Emergency Management ICDRM 30 JUNE 10.pdf.

Term	Definition
Incident action planning cycles	The flux in incident and response conditions is best managed using a deliberate planning process that is based on regular, cyclical reevaluation of the incident objectives. Commonly known in the incident command system (ICS) as the planning cycle, this iterative process enhances the integration of public health and medical assets with other response agencies that operate planning cycles.[131]
Incident command system (ICS)	The combination of facilities, equipment, personnel, procedures, and communications operating within a common organizational structure, designed to aid in the management of resources during incidents. It is used for all kinds of emergencies and is applicable to small as well as large and complex incidents. ICS is used by various jurisdictions and functional agencies, both public and private, to organize field-level incident management operations.[132]
Joint Commission	The Joint Commission is an independent, not-for-profit organization that accredits and certifies health care organizations and programs in the United States. Joint Commission accreditation and certification standards are the basis of an objective evaluation process designed to help health care organizations measure, assess, and improve performance.[133]
Joint Information System (JIS)	A structure that integrates incident information and public affairs into a cohesive organization designed to provide consistent, coordinated, accurate, accessible, timely, and complete 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 (IC); advising the IC 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.[134]

[131] "The Incident Command Process." *ASPR,* 14 Feb. 2012. Web. Accessed 12 Sept. 2016. http://www.phe.gov/preparedness/planning/mscc/handbook/chapter1/pages/theincidentcommand.aspx.
[132] "ICDRM/GWU Emergency Management Glossary of Terms." *The George Washington University Institute for Crisis, Disaster, and Risk Management,* 30 Jun. 2010. pp. 48. PDF. Accessed 19 Jul. 2016. www.gwu.edu/~icdrm/publications/PDF/GLOSSARY - Emergency Management ICDRM 30 JUNE 10.pdf.
[133] "About the Joint Commission." *The Joint Commission*, 2016. Web. Accessed 20 Jul. 2016. www.jointcommission.org/about_us/about_the_joint_commission_main.aspx.
[134] "ICDRM/GWU Emergency Management Glossary of Terms." *The George Washington University Institute for Crisis, Disaster, and Risk Management,* 30 Jun. 2010. pp. 58. PDF. Accessed 19 Jul. 2016. www.gwu.edu/~icdrm/publications/PDF/GLOSSARY - Emergency Management ICDRM 30 JUNE 10.pdf.

Term	Definition
Medical countermeasures (MCMs)	Medical countermeasures, or MCMs, are Food and Drug Administration (FDA)-regulated products (biologics, drugs, devices) that may be used in the event of a potential public health emergency stemming from a terrorist attack with a biological, chemical, or radiological/nuclear material, a naturally occurring emerging disease, or a natural disaster. MCMs can be used to diagnose, prevent, protect from, or treat conditions associated with chemical, biological, radiological, nuclear, and explosives (CBRNE) threats, or emerging infectious diseases.[135]
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.[136]
Medical Surge Capacity and Capability (MSCC)	A management methodology based on valid principles of emergency management and the incident command system (ICS). Medical and public health disciplines may apply these principles to coordinate effectively with one another and to integrate with other response organizations that have established ICS and emergency management systems (fire service, law enforcement, etc.). This promotes a common management system for all response entities—public and private—that may be brought to bear in an emergency. In addition, the MSCC Management System guides the development of public health and medical response that is consistent with the National Incident Management System (NIMS).[137]
Member type	A category of health care coalition (HCC) members that represents a type of facility or organization (e.g., all nursing facilities, all hospitals, or all emergency medical services [EMS] agencies within one HCC).
Mission Essential Functions (MEFs)	Functions that are required to be performed by statute, Executive Order, or otherwise deemed essential by the heads of principal organizational elements to meet mission requirements.[138]

[135] "What are Medical Countermeasures?" *FDA*, 29 Apr. 2016. Web. Accessed 20 Jul. 2016. www.fda.gov/EmergencyPreparedness/Counterterrorism/MedicalCountermeasures/AboutMCMi/ucm431268.htm

[136] "Medical Reserve Corps." *MRC,* 22 Sept. 2016. Web. Accessed 26 Sept. 2016. https://mrc.hhs.gov.

[137] Barbera, Joseph. A., Macintyre, Anthony. G., M.D. "Medical Surge Capacity and Capability: A Management System for Integrating Medical and Health Resources During Large-Scale Emergencies." HHS, ed. 2, Sept. 2007. PDF. Accessed 24 Aug. 2016. www.phe.gov/preparedness/planning/mscc/handbook/documents/mscc080626.pdf.

[138] "ICDRM/GWU Emergency Management Glossary of Terms." *The George Washington University Institute for Crisis, Disaster, and Risk Management,* 30 Jun. 2010. pp. 37. PDF. Accessed 19 Jul. 2016. www.gwu.edu/~icdrm/publications/PDF/GLOSSARY - Emergency Management ICDRM 30 JUNE 10.pdf.

Term	Definition
Multiagency coordination group	A multiagency coordination group functions within a broader multiagency coordination system. It may establish the priorities among incidents and associated resource allocations, deconflict procedures, and provide strategic guidance and direction to support incident management activities.[139]
National Disaster Medical System (NDMS)	The National Disaster Medical System (NDMS) is a federally coordinated health care system and partnership of the U.S. Departments of Health and Human Services, Homeland Security, Defense, and Veterans Affairs. The purpose of the NDMS is to support state, local, tribal, and territorial authorities following disasters and emergencies by supplementing health and medical systems and response capabilities. The NDMS hospital network also supports the military and U.S. Department of Veterans Affairs (VA) Medical Centers in a military health emergency.[140]
National Incident Management System (NIMS)	A systematic, proactive approach to guide departments and agencies at all levels of government, nongovernmental organizations, and the private sector to work together seamlessly and manage incidents involving all threats and hazards—regardless of cause, size, location, or complexity—in order to reduce loss of life, property, and harm to the environment.[141]
Personal protective equipment (PPE)	Equipment worn to minimize exposure to a variety of hazards. Examples of PPE include such items as gloves, masks, foot and eye protection, protective hearing devices (earplugs, muffs) hard hats, respirators, and full body suits.[142]
Psychological first aid	An evidence-informed modular approach for assisting people in the immediate aftermath of disaster and terrorism to reduce initial distress and to foster short- and long-term adaptive functioning.[143]

[139] "ICDRM/GWU Emergency Management Glossary of Terms." *The George Washington University Institute for Crisis, Disaster, and Risk Management,* 30 Jun. 2010. pp. 66. PDF. Accessed 19 Jul. 2016. www.gwu.edu/~icdrm/publications/PDF/GLOSSARY - Emergency Management ICDRM 30 JUNE 10.pdf.
[140] "National Disaster Medical System." *ASPR*, 1 Jul. 2016. Web. Accessed 20 Jul. 2016. www.phe.gov/Preparedness/responders/ndms/Pages/default.aspx.
[141] "National Incident Management System." *FEMA,* 28 Jun. 2016. Web. Accessed 12 Sept. 2016. http://www.fema.gov/national-incident-management-system.
[142] "Personal Protective Equipment." *OSHA*, n.d. Web. Accessed 20 Jul. 2016. https://www.osha.gov/SLTC/personalprotectiveequipment.
[143] Jacobs A., Brymer M., et. al. "Psychological First Aid: Field Operations Guide." *National Child Traumatic Stress Network & National Center for PTSD*. ed. 2, 2006. Web. Accessed 26 Oct. 2016. www.ptsd.va.gov/professional/manuals/manual-pdf/pfa/PFA_2ndEditionwithappendices.pdf.

Term	Definition
Public Information Officer (PIO)	As part of the incident response team, responsible for communicating with the public, media, and/or coordinating with other agencies, as necessary, with incident-related information requirements. The PIO is responsible for developing and releasing information about the incident to the news media, incident personnel, and other appropriate agencies and organizations.[144]
Public safety answering points (PSAPs)	9-1-1 call centers, also known as public safety answering points (PSAPs), are the public's first line of contact to public safety authorities in an emergency.[145]
Section 1135 of the Social Security Act waivers	When the President declares a major disaster or an emergency under the Stafford Act or an emergency under the National Emergencies Act, and the HHS Secretary declares a public health emergency, the Secretary is authorized to take certain actions in addition to his/her regular authorities under section 1135 of the Social Security Act. [The Secretary] may waive or modify certain Medicare, Medicaid, Children's Health Insurance Program (CHIP) and Health Insurance Portability and Accountability Act (HIPAA) requirements as necessary to ensure to the maximum extent feasible that, in an emergency area during an emergency period, sufficient health care items and services are available to meet the needs of individuals enrolled in Social Security Act (SSA) programs and that providers of such services in good faith who are unable to comply with certain statutory requirements are reimbursed and exempted from sanctions for noncompliance other than fraud or abuse.[146]
Strategic National Stockpile (SNS)	Strategic National Stockpile (SNS) has large quantities of medicine and medical supplies to protect the American public if there is a public health emergency (e.g., terrorist attack, flu outbreak, earthquake) severe enough to cause local supplies to run out. Once federal and local authorities agree that the SNS is needed, medicines will be delivered to any state in the U.S. in time for them to be effective.[147]

[144] "Basic Guidance for Public Information Officers (PIOs)." *FEMA,* Nov. 2007. Web. Accessed 20 Jul. 2016. www.fema.gov/media-library-data/20130726-1623-20490-0276/basic_guidance_for_pios_final_draft_12_06_07.pdf.
[145] "9-1-1 Call Centers/PSAPs." *FCC*, n.d. Web. Accessed 18 Sept. 2016. https://transition.fcc.gov/pshs/psaps.html.
[146] See "1135 Waivers." *ASPR,* 2 May 2013. Web. Accessed 12 Sept. 2016. http://www.phe.gov/Preparedness/legal/Pages/1135-waivers.aspx.
[147] "Strategic National Stockpile (SNS)." *CDC,* 17 Jun. 2016. Web. Accessed 12 Sept. 2016. http://www.cdc.gov/phpr/stockpile/stockpile.htm.

Term	Definition
Threat and Hazard Identification and Risk Assessment (THIRA)	A four-step common risk assessment process that helps the whole community—including individuals, businesses, faith-based organizations, nonprofit groups, schools, and academia and all levels of government—understand its risks and estimate capability requirements.[148]
Whole community	A means by which residents, emergency management practitioners, organizational and community leaders, and government officials can collectively understand and assess the needs of their respective communities and determine the best ways to organize and strengthen their assets, capacities, and interests.[149]

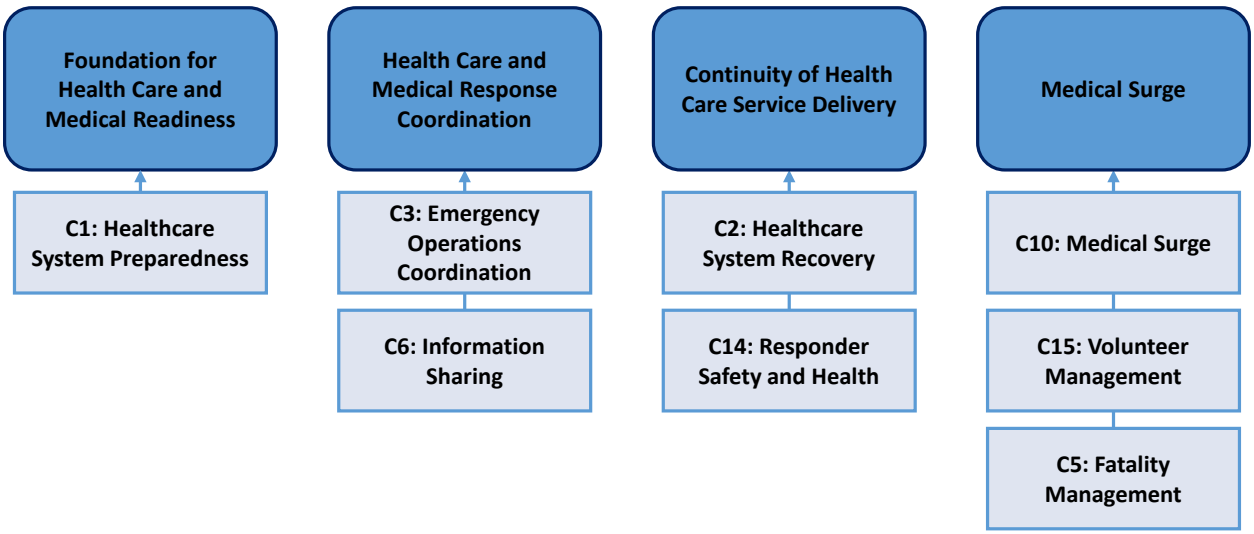
[148] "Threat and Hazard Identification and Risk Assessment." *FEMA*, 19 Mar. 2016. Web. Accessed 20 Jul. 2016. www.fema.gov/threat-and-hazard-identification-and-risk-assessment.
[149] "Whole Community." *FEMA*, 10 Jun. 2016. Web. Accessed 20 Jul. 2016. www.fema.gov/whole-community.

Appendix 1: The 2017-2022 Health Care Preparedness and Response Capabilities Revision Process

The *2017-2022 Health Care Preparedness and Response Capabilities* document improves upon the 2012 version titled *Healthcare Preparedness Capabilities: National Guidance for Healthcare System Preparedness.* The Office of the Assistant Secretary for Preparedness and Response (ASPR) incorporated lessons learned from previous responses to emergencies and extensive stakeholder engagement into the revised capabilities. Stakeholder feedback included a Capability Needs Assessment in 2015, which involved surveys and facilitated discussions with awardees, health care coalitions (HCCs), and other stakeholders, to obtain their reactions to the capability content, structure, and level of detail in the 2012 version, and suggested areas for revision. ASPR also solicited and considered input from more than 50 national associations whose members have an interest in emergency preparedness and response. Finally, ASPR facilitated discussions at emergency preparedness and response conferences, solicited public feedback on ASPR's Technical Resources, Assistance Center, and Information Exchange (TRACIE) website, and consulted preparedness and response and health care subject matter experts. ASPR also conducted a thorough review of relevant preparedness and response literature and researched recent past events to inform the revision process.

Based on process described above, ASPR streamlined the eight capabilities in the 2012 version into four capabilities. While the number of capabilities have decreased, the concepts from all of the capabilities in the 2012 version can be found within the new set of four capabilities. As seen in Figure 1 below, the 2017 capabilities were informed by the content found in the 2012 capabilities. Foundation for Health Care and Medical Readiness aligns with the 2012 capability 1 (Healthcare System Preparedness). Health Care and Medical Response Coordination aligns with the 2012 capabilities 3 (Emergency Operations Coordination) and 6 (Information Sharing). Continuity of Health Care Service Delivery aligns with the 2012 capabilities 2 (Healthcare System Recovery) and 14 (Responder Safety and Health). Finally, Medical Surge aligns with the 2012 capabilities 10 (Medical Surge), 15 (Volunteer Management) and 5 (Fatality Management).

Figure 1: Crosswalk of the 2012 and 2017-2022 Capabilities



Appendix 2: Health Care Preparedness and Response Capabilities and Public Health Preparedness Capabilities Areas for Alignment

This appendix will be developed upon the completion of the Public Health Preparedness Capabilities in 2017. The appendix will include a crosswalk of 2017-2022 Health Care Preparedness and Response Capabilities, the 2017-2022 Public Health Preparedness Capabilities, and National Preparedness Goal core capabilities.

2017-2022 Hospital Preparedness Program (HPP) - Public Health Emergency Preparedness (PHEP) Cooperative Agreement CDC-RFA-TP17-1701

Contents

Part I. Overview

Applicants must go to the synopsis page of this announcement at www.grants.gov and click on the "Send Me Change Notifications Emails" link to ensure they receive notifications of any changes to CDC-RFA-TP17-1701. Applicants also must provide an e-mail address to www.grants.gov to receive notifications of changes.

A. Federal Agency Names:

Office of the Assistant Secretary for Preparedness and Response (ASPR) and Centers for Disease Control and Prevention (CDC) / Agency for Toxic Substance and Disease Registry (ATSDR)

B. Funding Opportunity Title:

Hospital Preparedness Program (HPP) - Public Health Emergency Preparedness (PHEP) Cooperative Agreement.

C. Announcement Type: New - Type 1

This announcement is only for non-research activities supported by ASPR and CDC. If research is proposed, the application will not be considered. For this purpose, research is defined at https://www.gpo.gov/fdsys/pkg/CFR-2007-title42-vol1/pdf/CFR-2007-title42-vol1-sec52-2.pdf. Guidance on how CDC interprets the definition of research in the context of public health can be found at http://www.cdc.gov/od/science/integrity/docs/cdc-policy-distinguishing-public-health-research-nonresearch.pdf.

D. Agency Funding Opportunity Number:

CDC-RFA-TP17-1701

E. Catalog of Federal Domestic Assistance (CFDA) Number:

93.074

F. Dates

1. Due Date for Letter of Intent (LOI):

N/A

2. Due Date for Applications:

04/04/2017

Applications must be electronically submitted no later than 5 p.m. EST on the application due date.

3. Due Date for Informational Conference Call:

Wednesday, February 8, 1:30 p.m. to 3 p.m. EST
Monday, February 13, 1:30 p.m. to 3 p.m. EST

G. Executive Summary

1. Summary Paragraph

This FOA is for the continued purpose of strengthening and enhancing the capabilities of state, local, and territorial public health and health care systems to respond effectively (mitigate the loss of life and reduce the threats to the community's health and safety) to evolving threats and other emergencies within the United States and territories and freely associated states. This announcement provides clear expectations and priorities for awardees and health care coalitions (HCCs) to strengthen and enhance the readiness of the public health and the health care delivery system to save lives during emergencies that exceed the day-to-day capacity and capability of the public health and medical emergency response systems. This announcement provides funds to ensure that HPP awardees focus on activities that advance progress toward meeting the goals of the *2017-2022 Health Care Preparedness and Response Capabilities* and document progress in establishing or maintaining ready health care systems through strong HCCs and to ensure that PHEP awardees continue to advance development of effective public health emergency management and response programs as outlined in the *Public Health Preparedness Capabilities: National Standards for State and Local Planning*. Awardees must develop strategies and activities based on the HPP-PHEP Logic Model and use findings from their jurisdictional risk assessments, capability self-assessments, National Health Security Preparedness Index, and incident after-action reports to inform their strategic priorities and preparedness investments.

a. Eligible Applicants:

Government Organizations:

- States
- Local governments or their bona fide agents: Chicago, Los Angeles County, New York City, and Washington, D.C.
- Territorial governments or their bona fide agents and freely associated states: American Samoa, Commonwealth of the Northern Mariana Islands, Federated States of Micronesia, Guam, Puerto Rico, Republic of the Marshall Islands, Republic of Palau, and U.S. Virgin Islands

b. FOA Type:

Cooperative Agreement

c. Approximate Number of Awards:

62

d. Total Project Period Funding:

$4,201,250,000

Subject to availability of funds

e. Average One-Year Award Amount:

HPP: $5.7 million
PHEP: $10 million

f. Total Project Period Length:

5 years

g. Estimated Award Date:

July 1, 2017

h. Cost Sharing and / or Matching Requirements:

Yes.

ASPR and CDC may not award a cooperative agreement to a state or consortium of states under these programs unless the awardee agrees that, with respect to the amount of the cooperative agreements awarded by ASPR and CDC, the state will make available nonfederal contributions in the amount of 10% ($1 for each $10 of federal funds provided in the cooperative agreement) of the award. Match may be provided directly or through donations from public or private entities and may be in cash or in kind, fairly evaluated, including plant, equipment or services. Amounts provided by the federal government or services assisted or subsidized to any significant extent by the federal government may not be included in determining the amount of such nonfederal contributions.

Please refer to 45 CFR § 75.306 for match requirements, including descriptions of acceptable match resources. Documentation of match, including methods and sources, must be included in the Budget Period 1 application for funds, follow procedures for generally accepted accounting practices, and meet audit requirements.

<u>Exceptions to Matching Funds Requirement</u>

- The match requirement does not apply to the political subdivisions of New York City, Los Angeles County, or Chicago.
- Pursuant to department grants policy implementing 48 U.S.C. 1469a(d), any required matching (including in-kind contributions) of less than $200,000 is waived with respect to cooperative agreements to the governments of American Samoa, Guam, the U.S. Virgin Islands, or the Northern Mariana Islands (other than those consolidated under other provisions of 48 U.S.C. 1469). For instance, if 10% (the match requirement) of the award is less than $200,000, then the entire match requirement is waived. If 10% of the award is greater than $200,000, then the first $200,000 is waived, and the rest must be paid as match.
- Matching does not apply to future contingent emergency response awards that may be authorized under 311, 317(a), and 317(d) of the Public Health Service (PHS) Act unless such a requirement were imposed by statute or administrative process at the time.

Part II. Full Text

A. Funding Opportunity Description

1. Background

a. Overview

Recent public health threats of potentially catastrophic proportion underscore the importance of effective planning and response capabilities that can be applied to all hazards. As new threats, including novel infectious diseases, emerge, ASPR and CDC programs must ensure that both medical and public health systems are not only integral parts of emergency response activities but also part of emergency preparedness planning with all relevant partners. Increased cooperation among responders, including state and local public health officials, emergency medical services (EMS), health care coalitions (HCCs), and private health care organizations, ensure the nation is better prepared to respond to all hazards. Governmental public health departments and the mostly private sector health care delivery systems are now recognized as essential partners in emergency response, increasing their ability to identify and mitigate potential threats to the public's health. During the 2012-2017 project period, the aligned HPP-PHEP cooperative agreement provided technical assistance and resources to support state, local, and territorial public health departments, along with HCCs and health care organizations, to show measurable and sustainable progress toward achieving the preparedness and response capabilities that promote prepared and resilient communities. Alignment of these two distinct federal preparedness programs continues through this FOA. Although each program focuses on readiness for two discrete sectors, the public health enterprise for PHEP and the mostly private health care and medical systems for HPP, alignment offers opportunities for these sectors to coordinate and collaborate. This facilitates improved community preparedness and response nationwide, reduces awardee burden, and increases federal efficiency.

This 2017-2022 funding opportunity provides funds to continue those efforts. Awardees must increase or maintain their levels of effectiveness across six key preparedness domains: community resilience, incident management, information management, countermeasures and mitigation, surge management, and biosurveillance. These domains build on the efforts to strengthen the public health and health care capabilities from the previous project period. Addressing these domains allows awardees and local and tribal public health and health care subawardees to focus efforts on strengthening their preparedness capabilities and preventing or reducing morbidity and mortality from public health incidents whose scale, rapid onset, or unpredictability stresses the public health and health care systems. Additionally, this funding opportunity supports efforts to establish and maintain capacities to detect, assess, report and respond to domestic public health incidents as obligated by the International Health Regulations (2005) [IHR(2005)}.This will ensure the earliest possible recovery and return of the public health and health care systems to pre-incident levels or improved functioning.

Improved planning and response coordination across all levels will present new opportunities to leverage resources while maximizing effort, resulting in increased efficiency. While cooperative agreement funding to the contiguous United States and its territories and freely associated states will continue to build and sustain core public health and health care preparedness capabilities, awardees

must demonstrate measurable and sustainable progress toward achieving effectiveness across the preparedness and response capabilities.

Subject to the availability of funding, ASPR and CDC may introduce a future project that supports advanced development of key public health and health care preparedness capabilities in high population cities during the 2017-2022 project period funding cycle. This future project will support these cities with identifying gaps and strengthening radiological laboratory and other preparedness capabilities

b. Statutory Authorities

Hospital Preparedness Program (HPP): section 319C-2 of the Public Health Service (PHS) Act (42 USC § 247d-3b), as amended.

Contingent Emergency Response Funding (HPP only): section 311 of the PHS Act ((42 USC § 243)), subject to available funding and other requirements and limitations.

Public Health Emergency Preparedness (PHEP): section 319C-1 of the PHS Act (47 USC § 247d-3a), as amended.

Contingent Emergency Response Funding (PHEP Only): 317(a) and 317(d) of the PHS Act [42 USC § 247b(a) and (d)], subject to available funding and other requirements and limitations.

c. Healthy People 2020

This FOA addresses the "Healthy People 2020" focus area of Preparedness: https://www.healthypeople.gov/2020/topics-objectives/topic/preparedness

Preparedness objectives for HP 2020: https://www.healthypeople.gov/2020/topics-objectives/topic/preparedness/objectives

d. Other National Public Health Priorities and Strategies

- *2017-2022 Health Care Preparedness and Response Capabilities*
- 2017 HPP and PHEP Performance Measures Guidance
- 2017-2022 HPP-PHEP Supplemental Guidelines
- *Public Health Preparedness Capabilities: National Standards for State and Local Planning*
- Receiving, Distributing, and Dispensing Strategic National Stockpile Assets: A Guide for Preparedness, Version 11
- Sections 319C-1 and 319C-2 of the PHS Act
- HHS Pandemic Influenza Plan
- Homeland Security Presidential Directives (HSPD) 5 and 21;
- PPD 8
- NHSS

- CMS-3178-F
- HSEEP
- International Health Regulation Monitoring and Evaluation Framework
- National Incident Management System

e. Relevant Work

This FOA builds upon relevant current and emergent ASPR- and CDC-supported programmatic priorities, goals, guidance, and recommendations. For a detailed listing of relevant work, please visit http://www.cdc.gov/phpr/coopagreement.htm.

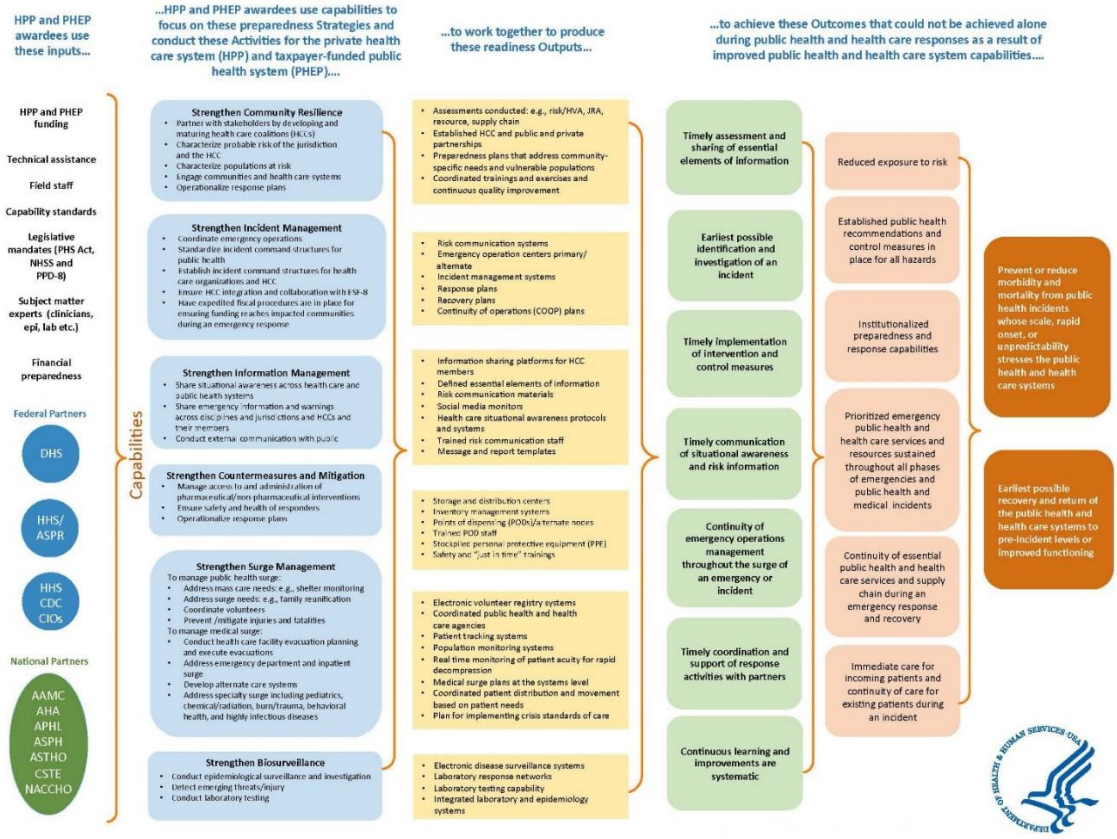
2. ASPR-CDC Project Description

a. Approach

The HPP-PHEP Cooperative Agreement logic model is an organizing framework that guides the use of inputs, production of outputs, and specifies intended outcomes. It should be used to identify program boundaries and responsibilities. Through the implementation of the logic model, short-term or system outcomes will be achieved through strategies that strengthen community resilience, surveillance, epidemiological investigations, laboratory testing, countermeasures and mitigation activities, surge management for public health and health care services, information management targeting the public and partners, and coordination of system responses through effective incident management.

The following section describes the detail of each domain strategy, domain activity, and subsequent awardee requirements. Awardees should focus HPP and PHEP program implementation activities on program requirements within each of the domains. At the time of application, awardees must summarize how they will address program requirements within each of the six domains. In addition to meeting joint and program-specific requirements, all 2017-2022 HPP-PHEP Cooperative Agreement awardees are expected to work with their local and other pertinent partners to develop and strengthen the six domains. For additional information regarding the HPP program requirements, please refer to the *2017-2022 Health Care Preparedness and Response Capabilities* and the 2017-2022 HPP-PHEP Supplemental Guidelines. For additional information regarding the PHEP program requirements, recommendations, and guidelines, please refer to the *Public Health Preparedness Capabilities: National Standards for State and Local Planning* and the 2017-2022 HPP-PHEP Supplemental Guidelines.

CDC-RFA-TP17-1701 Logic Model: HPP-PHEP Cooperative Agreement
Bold indicates project period outcome



i. Purpose

The purpose of 2017-2022 HPP-PHEP cooperative agreement is to strengthen and enhance the capabilities of the public health and health care systems to respond to evolving threats and other emergencies. Effective responses will enable jurisdictions to prevent or reduce morbidity and mortality from public health incidents whose scale, rapid onset, or unpredictability stresses the public health and health care systems and to ensure the earliest possible recovery and return of the public health and health care systems to pre-incident levels or improved functioning.

ii. Outcomes

ASPR and CDC will monitor and evaluate progress across all six domains. ASPR and CDC expect awardees to demonstrate and improve response outcomes during exercises and real incidents.

By the end of the project period, ASPR expects HPP awardees to strengthen and enhance the readiness of the health care system for activities that advance and document progress toward meeting the goals of the four capabilities detailed in the 2017-2022 Health Care Preparedness and Response Capabilities.

ASPR also expects awardees to document progress across five key domains in establishing or maintaining ready health care systems through strong health care coalitions.

HPP awardee strategies, activities, and related outputs indicated in the logic model will lead to achieving these response and program outcomes during the project period:

- Timely assessment and earliest possible sharing of essential elements of information,
- Earliest possible identification and investigation of an incident,
- Earliest possible implementation of intervention and control measures,
- Earliest possible communication of situational awareness and risk information,
- Continuity of emergency operations management throughout the surge of an emergency or incident,
- Timely and situationally appropriate coordination and support of response activities with partners, and
- Continuous learning and improvements are systematic.

ASPR will monitor process outputs and performance measures to determine each awardees level of performance.

By the end of the project period, PHEP awardees should build or maintain the necessary elements identified in the *Public Health Preparedness Capabilities: National Standards for State and Local Planning* to achieve substantial, measurable progress in each of the funded public health preparedness capabilities across the six domains. To achieve this goal, the Strategies and Activities section of the logic model focuses on 1) areas for which improvement has been identified in drills, exercises, and incident responses across each of the public health preparedness capabilities and medical countermeasure (MCM) technical assistance action plans and 2) program requirements for the project period, both of which are described in more detail in the Strategies and Activities section.

PHEP awardee strategies, activities, and related outputs indicated in the logic model will lead to progress in the development and maintenance of **established** (CDC's expected level of effectiveness) state, local, and territorial public health emergency management and response programs during the project period. Ultimately, CDC expects awardees to achieve the following response and program outcomes.

- Timely assessment and sharing of essential elements of information,
- Earliest possible identification and investigation of an incident with public health impact,
- Timely implementation of intervention and control measures,
- Timely communication of situational awareness and risk information,
- Continuity of emergency operations management throughout the surge of an emergency or incident,
- Timely coordination and support of response activities with partners, and
- Continuous learning and improvements are systematic.

iii. Strategies and Activities

HPP enables the health care delivery system to decrease morbidity and mortality during emergencies and disaster events that exceed the day-to-day capacity and capability of existing health and emergency response systems. HPP prepares the health care delivery system to save lives, in part, through the development of HCCs that incentivize diverse and often competitive health care organizations with differing priorities and objectives to work together. The purpose of HPP funds is to ensure that HPP awardees focus on activities that advance progress toward meeting the goals of the four capabilities detailed in the 2017-2022 Health Care Preparedness and Response Capabilities and document progress in establishing or maintaining ready health care systems through strong HCCs.

The goal of the PHEP program is to develop effective public health emergency management and response programs nationwide. By the end of the project period, awardees should build or maintain the necessary elements identified in the *Public Health Preparedness Capabilities: National Standards for State and Local Planning* to achieve substantial, measurable progress in each of the funded public health preparedness capabilities across the six domains. To achieve this goal, the PHEP strategies and activities focus on 1) areas for which improvement has been identified in drills, exercises, and incident responses across each of the public health preparedness capabilities and medical countermeasure (MCM) technical assistance action plans and 2) program requirements for the project period.

For the 2017-2022 project period, HPP and PHEP awardees must address and comply with joint, HPP-specific, and PHEP-specific programmatic requirements for the strategies and activities listed below, as well as other requirements associated with statute and HHS grant guidance. In completing the program requirements segment of the funding application, awardees must provide updates on joint, HPP-specific, and PHEP- specific requirements.

Joint requirements apply to all HPP and PHEP awardees, including territories and freely associated states. However, ASPR and CDC will provide additional guidance and technical assistance that describe modified requirements for American Samoa, the Commonwealth of the Northern Mariana Islands, Guam, the U.S. Virgin Islands, and the freely associated states including the Federated States of Micronesia, the Republic of the Marshall Islands, and the Republic of Palau. Please refer to the 2017-2022 HPP-PHEP Supplemental Guidelines for these modified requirements as well as specific assurances, program, and administrative requirements for the HPP and PHEP programs.

Awardees are expected to develop and strengthen six domains through the implementation of the following strategies and activities during the project period.

Domain 1 Strategy: Strengthen Community Resilience

Resilient communities develop, maintain, and leverage collaborative relationships among government, community organizations, and individual households that enable them to more effectively respond to and recover from disasters and emergencies. Awardees must conduct the following activities that sustain or expand community resilience. These activities must be actionable, realistic, and support the achievement of readiness outputs and intended outcomes.

- Partner with stakeholders by developing and maturing health care coalitions
- Characterize the probable risks to the jurisdiction and the HCC
- Characterize populations at risk
- Engage communities and health care systems
- Operationalize response plans.

Activity 1: Partner with Stakeholders by Developing and Maturing Health Care Coalitions

HPP Requirements

Establish a Health Care Coalition

For the purposes of this FOA, ASPR defines a health care coalition (HCC) as a coordinating body that incentivizes diverse and often competitive health care organizations and other community partners with differing priorities and objectives and reach to community members to work together to prepare for, respond to, and recover from emergencies and other incidents that impact the public's health. HCCs should coordinate with their HCC members to facilitate:

- Strategic planning
- Identification of gaps and mitigation strategies
- Operational planning and response
- Information sharing for improved situational awareness
- Resource coordination and management.

All awardees **must** develop and/or mature their HCCs by the end of Budget Period 1. With funding provided, HPP expects awardees to refine and/or sustain HCCs through the end of the five-year project period. Further, awardees **must** work collaboratively with each HCC and its members including by defining all HCC boundaries in their jurisdictions by the end of Budget Period 1. The following are Budget Period 1 requirements.

- When defining the HCC boundaries, awardees and HCCs **must** consider daily health care delivery patterns, corporate health systems, and defined catchment areas, such as regional emergency medical services (EMS) councils, trauma regions, accountable care organizations, emergency management regions, etc.
- Awardees **must** ensure partnership and engagement with their local health departments within identified HCC boundaries.
- Awardees **must** ensure that there are no geographic gaps in HCC coverage and that all interested health care facilities, including independent facilities, are able to join an HCC, if desired.

Following are additional factors that awardees and their HCCs should consider when defining HCC boundaries for Budget Period 1 and the entire project period.

- HCC boundaries may span several jurisdictional or political boundaries. Please note that due to cooperative agreement restriction, funding must be limited HCCs within awardees' jurisdictional boundary.
- HCC boundaries should encompass more than one of each member type, such as hospitals and EMS, to enable coordination and enhance the HCC's ability to share the load during an emergency (see also HCC member requirements below).

Once boundaries are established, HCCs **must** coordinate with all ESF-8 lead agencies within those defined boundaries. HCCs serve as multiagency coordination groups that should support and integrate with ESF-8 activities.

Coordination between the HCC and the ESF-8 lead agency can occur in a number of ways. Some HCCs serve as the ESF-8 lead agency for their jurisdiction(s). Others integrate with their ESF-8 lead agency through an identified designee at the jurisdiction's emergency operations center (EOC) who represents HCC issues and needs and provides timely, efficient, and bidirectional information flow to support situational awareness.

More information about defining HCC boundaries can be found in Capability 1, Objective 1, Activity 1 of the *2017-2022 Health Care Preparedness and Response Capabilities*.

Identify HCC Members

ASPR defines an HCC member as an entity within the HCC's defined boundaries that contributes to HCC strategic planning, identification of gaps and mitigation strategies, operational planning and response, information sharing, and resource coordination and management.

HCCs **must** collaborate with a variety of stakeholders to ensure the community has the necessary medical equipment and supplies, real-time information, communication systems, and trained and educated health care personnel to respond to an emergency. These stakeholders include core HCC members and additional HCC members. HCCs should include a diverse membership to ensure a successful whole community response.

HCCs **must** ensure the following core membership.

- Hospitals (a minimum of two acute care hospitals)
- EMS (including interfacility and other non-EMS patient transport systems)
- Emergency management organizations
- Public health agencies.

Further, awardees are **not permitted** to use HPP funds to make subawards to any HCC that does not meet the core membership requirements. ASPR understands that urban and rural HCCs may have

different membership compositions based on population characteristics, geography, and types of hazards, but each funded HCC **must** include, at least, the core members.

Awardees and HCCs should expand HCC membership to include additional types of members. In cases where there are multiple entities of an HCC member type, there may be a subcommittee structure that establishes a lead entity to communicate common interests to the HCC. The awardee **must** make available a listing or provide access to a listing of additional coalition members as defined in the *2017-2022 Health Care Preparedness and Response Capabilities*. HCC membership does not begin or end with attending meetings (see also HCC governance requirements below).

HCCs also should include specialty patient referral centers such as pediatric, burn, trauma, and psychiatric centers, as HCC members within its geographic boundaries. They may also serve as referral centers to other HCCs where that specialty care does not exist.

More information about identifying HCC membership can be found in Capability 1, Objective 1, Activity 2 of the *2017-2022 Health Care Preparedness and Response Capabilities*.

Establish HCC Governance

Each HCC funded by the awardee **must** define and implement a governance structure and necessary processes to execute activities related to health care delivery system readiness and coordination by the end of Budget Period 1. HCC governance should include organizational structures, roles and responsibilities, mechanisms to provide guidance and direction, and processes to ensure integration with the ESF-8 lead agency.

The HCC **must** document the following information related to its governance and **must** be prepared to submit the documentation to an HPP field project officer (FPO) upon request:

- HCC membership
- An organizational structure to support HCC activities
- Member guidelines for participation and engagement
- Policies and procedures
- Integration within existing state, local, and member-specific incident management structures and specifies roles.

Information about using HPP funds to establish a HCC legal entity can be found ASPR Grant Directive-02(A). “Use of Grant Funds for Setting up a HCC as a Separate Legal Entity” is available in the HPP-PHEP Supplemental Guidelines More information about establishing HCC governance can be found in Capability 1, Objective 1, Activity 3 of the *2017-2022 Health Care Preparedness and Response Capabilities*.

ASPR will implement an HPP-provided tool that the HCC, in coordination with their awardee and HCC members, must use to self-assess its progress toward meeting program requirements and the 2017-2022 Health Care Preparedness and Response Capabilities. The tool will allow HCCs and their members

to better plan and prioritize activities, help awardee and HCC leadership identify risks and issues earlier, and enable HPP to provide more targeted assistance.

Develop a Preparedness Plan for Each HCC

Each HCC funded by the awardee **must** develop a preparedness plan and submit the plan to ASPR by the end of Budget Period 1 with the annual progress report (APR). The HCC **must** develop its preparedness plan to include core HCC members and additional HCC members so that, at a minimum, hospitals, EMS, emergency management organizations, and public health agencies are represented. The HCC preparedness plan must emphasize strategies and tactics that promote communications, information sharing, resource coordination, and operational response planning with HCC members and other stakeholders.

HCC members should approve the initial preparedness plan and maintain involvement in no less than annual reviews. The final preparedness plan **must** be approved by all its core member organizations. The review should include identifying gaps in the preparedness plan and working with HCC members to define strategies to address the gaps. Following reviews, the HCC **must** update the plan as necessary after exercises and real incidents. All of the HCC's additional member organizations **must** be given an opportunity to provide input into the preparedness plan, and all member organizations **must** receive a final copy of the plan.

Each preparedness plan can be presented in various formats, including a subset of strategic documents, annexes, or a portion of the HCC's concept of operations (CONOPS) plans; however, at a minimum the HCC preparedness plan **must**:

- Incorporate the HCC's and its associated members' priorities for planning and coordination based on regional needs and gaps. Priorities will depend on multiple factors including perceived risk, emergencies occurring in the region, available funds, applicable laws and regulations, supporting personnel, HCC member facilities and organizations involved, and time constraints
- Leverage HCC members' existing facility preparedness plans as required by the CMS Emergency Preparedness Rule: Medicare and Medicaid Programs; Emergency Preparedness Requirements for Medicare and Medicaid Participating Providers and Suppliers
- Be developed by HCC leadership with broad input from HCC members and other stakeholders
- Outline strategic and operational objectives for the HCC as a whole and for each HCC member
- Include short-term – within the year – and longer-term – three- to five-year – objectives
- Include a recurring objective to develop and review the HCC response plan, which details the responsibilities and roles of the HCC and its members, including how they share information, coordinate activities and resources during an emergency, and plan for recovery
- Inform training, exercise, and resource and supply management activities during the year

- Include a checklist of each HCC member's proposed activities, methods for members to report progress to the HCC, and processes to promote accountability and completion.

More information about the HCC Preparedness Plan can be found in Capability 1, Objective 3 of the *2017-2022 Health Care Preparedness and Response Capabilities*.

Activity 2: Characterize the Probable Risks to the Jurisdiction and the HCC

Joint Requirements

Jurisdictional Risk Assessments

All HPP and PHEP awardees **must** participate in or complete a jurisdictional risk assessment (JRA) at least once every five years. The five-year period can extend from one project period to the next, but ASPR and CDC **require awardees conduct** at least one JRA in this project period. For instance, if a JRA was conducted in Budget Period 4 during the previous project period, one is not necessary until Budget Period 4 of this project period. HPP and PHEP awardees should coordinate risk assessment activities with each other and with relevant emergency management and homeland security programs in their jurisdictions. In addition, risk assessment activities must be coordinated as possible with relevant emergency management and homeland security programs to support jurisdictional Threat and Hazard Identification and Risk Assessment (THIRA) efforts.

HPP and PHEP awardees should use the JRA to identify the potential hazards, vulnerabilities, and risks facing their jurisdiction and their HCCs. Awardees should incorporate the impact from incidents that may have occurred since the last JRA. Awardees **must** ensure that all their funded HCCs have the opportunity to provide input into the JRA for this project period. Further, awardees **must** provide their HCCs with the date the JRA was completed or is projected to be completed.

ASPR and CDC recommend more frequent analyses of hazards and vulnerabilities to maintain progress toward improving community resilience. Awardees should incorporate impact from incidents that may have occurred since the last JRA for which public health or health care had a lead role in mitigating identified disaster health risks. If a JRA or equivalent was conducted less than five years before an incident, awardees should review risks and develop brief narratives describing how they have continued to engage critical partners to address vulnerable populations.

In addition, ASPR and CDC recommend awardees review current findings of the National Health Security Preparedness Index (NHSPI) and their respective State Preparedness Reports (SPR) to help gauge risks and gaps. NHSPI is intended to help guide efforts to improve state and local public health systems and achieve a higher level of health security preparedness. HPP and PHEP awardees should use NHSPI results to help them assess their jurisdictional strengths and weaknesses. The results should be analyzed, along with other data sources such as the HHS Capabilities Planning Guide, jurisdictional risk assessments, incident after-action reports and improvement plans, site visit observations, and other jurisdictional priorities and strategies, to help determine their strategic priorities, identify

program gaps, and, ultimately, prioritize preparedness investments. More information on the NHSPI can be found at http://www.nhspi.org/.

HPP Requirements

Assess Hazard Vulnerabilities and Risks

Each awardee-funded HCC **must** complete an annual hazard vulnerability analysis (HVA) to identify and plan for risks, in collaboration with the awardee. These assessments can determine resource needs and gaps, identify individuals who may require additional assistance before, during, and after an emergency, and highlight applicable regulatory and compliance issues. The HCC and its members should use the information about these risks and needs to inform training and exercises and prioritize strategies to close or mitigate preparedness and response gaps within their boundaries. The HCC **must** be prepared to submit documentation about its HVA to the HPP FPO upon request.

General principles for the HCC HVA process include, but are not limited to, the following.

- The HVA process should be coordinated with state and local emergency management organization assessments, such as THIRA, and any public health hazard assessments, including a jurisdictional risk assessment. The intent is to ensure completion, share risk assessment results, and minimize duplication of effort.
- The assessment components should include regional characteristics, such as risks for natural or manmade disasters, geography, and critical infrastructure.
- The assessment components should address population characteristics, including demographics, and consider those individuals who might require additional help in an emergency including children, pregnant women, seniors, and individuals with access and functional needs, including people with disabilities and others with unique needs.
- The HCC should regularly review and share the HVA with all members.

Assess Regional Health Care Resources

Each HCC funded by awardees **must** complete a resource assessment to identify health care resources and services at the jurisdictional and regional levels that could be coordinated and shared. This information is vital for continuity of health care delivery during and after an emergency. Further, this information is critical to uncovering resource vulnerabilities relative to the HCC's HVA that could impede the delivery of medical care and health care services during an emergency. To meet the community's clinical care needs during an emergency, HPP awardees **must** ensure that each HCC maintains visibility into their members' resources and resource needs, such as personnel, facilities, equipment, and supplies. HCCs **must** be capable of tracking this information and sharing it with all of their members by the end of Budget Period 2.

The HCC **must** be prepared to submit documentation about its resource assessment to the HPP FPO upon request.

Additionally, the HCC, in collaboration with its HCC members, should compare available resources and current HVA(s) to identify gaps and help prioritize HCC and HCC member activities. The HCC should

focus its time and resource investments on closing those gaps that will improve the care of acutely ill and injured patients.

More information about identifying risks and needs, assessing hazard vulnerabilities, assessing regional health care resources, and prioritizing resource gaps and mitigation strategies can be found in Capability 1, Objective 2, Activities 1, 2, and 3 of the *2017-2022 Health Care Preparedness and Response Capabilities*.

Activity 3: Characterize Populations at Risk

Joint Requirements

Certain individuals may require additional assistance before, during, and after an emergency. HPP and PHEP awardees **must** conduct inclusive risk planning for the whole community, including for children; pregnant women; senior citizens; individuals with access and functional needs, including people with disabilities; individuals with pre-existing, serious behavioral health conditions; and others with unique needs throughout the five year project period. In conducting this risk planning, HPP and PHEP awardees **must** involve each HPP-funded HCC and its HCC members. In addition, HPP and PHEP awardees are encouraged to involve experts in non-infectious diseases (chronic conditions and maternal and child health experts) in risk planning.

HPP and PHEP awardees **must** describe the structure or processes in place to integrate the access and functional needs of at-risk individuals. Recommended strategies involve inclusion in public health, health care, and behavioral health response activities; furthermore, these strategies should be identified and addressed in operational work plans. ASPR and CDC encourage HPP and PHEP awardees, subawardees, and HCCs to identify community partners with established relationships with diverse at-risk populations, such as social services organizations and Federally Qualified Health Centers.

HPP Requirements

HPP awardees and HCCs **must** obtain de-identified data from the U.S. Department of Health and Human Services emPOWER map every six months to identify populations with unique health care needs, such as dialysis and those with electricity-dependent medical and assistive equipment, such as ventilators and wheel chairs. ASPR strongly recommends that HPP awardees also use the Agency for Toxic Substances and Disease Registry (ATSDR)'s Social Vulnerability Index, which helps identify risk factors and at-risk populations by geographic area. Other demographic tools, such as the U.S. Census/American Community Survey, may help awardees, subawardees, and HCCs to better anticipate the potential access and functional needs of at-risk community members before, during, and after an emergency.

As part of inclusive planning for populations at risk conducted by HPP awardees, HPP-funded HCCs **must**:

- Support public health agencies with situational awareness and information technology (IT) tools already in use that can help identify children, seniors, pregnant women, people with disabilities, and others with unique needs

- Support public health agencies in developing or augmenting existing response plans for these populations, including mechanisms for family reunification
- Identify potential health care delivery system support for these populations (pre- and post-event) that can prevent stress on hospitals during an emergency
- Assess needs and contribute to medical planning that may enable individuals to remain in their residences during certain emergencies. When that is not possible, coordinate with the ESF-8 lead agency to support the ESF-6 (Mass Care, Emergency Assistance, Housing, and Human Services) lead agency with inclusion of medical care at shelter sites
- Coordinate with the ESF-8 lead agency to assess medical transport needs for these populations.

Resources to facilitate this work can be found in the 2017-2022 HPP-PHEP Supplemental Guidelines.

More information for HPP awardees and HCCs about assessing community planning for populations at risk can be found in Capability 1, Objective 2, Activity 4 of the *2017-2022 Health Care Preparedness and Response Capabilities*.

PHEP Requirements/Recommendations

In addition to the JRA assessment requirements, PHEP awardees **must** work with HCCs to meet the needs of those in the community with unique healthcare needs or those that have electricity-dependent medical devices. PHEP awardees should also have processes in place for identifying individuals with disabilities and others with access and functional needs that might require special assistance from the emergency management system. PHEP awardees **must** address the unique needs of these at-risk populations in their plans, exercises, and responses. CDC will provide PHEP awardees with specific tools, resources, and guidance documents for addressing the unique needs of at-risk populations. One planning resource is CDC's *Public Health Workbook to Define, Locate, and Reach Special, Vulnerable, and At-risk Populations in an Emergency.* Available at http://emergency.cdc.gov/workbook/pdf/ph_workbookfinal.pdf, the workbook identifies five categories that should be considered in planning:

- Economic Disadvantage (using poverty as a criteria may help reach a large number of people)
- Language and Literacy (includes people who have limited ability to read, speak, write or understand English or their native language)
- Medical Issues and/or Disability (Persons with any impairment that substantially limits a major life activity or physical, mental, cognitive, or sensory issues)
- Isolation (cultural, geographic, or social)
- Older adults (with chronic health issues or other impeding factors)
- Infants and children 18 years or younger can also be at risk, particularly if they are separated from their parents or guardians.

To address the needs of infants and children, awardees should collaborate with child-serving institutions such as schools and daycare centers to assure crisis preparedness plans are in place. In addition, CDC recommends awardees consider family reunification plans for schools and day cares centers, either as part of crisis preparedness plans or separate plans for reunification. CDC also strongly recommends that PHEP awardees use the Agency for Toxic Substances and Disease Registry (ATSDR)'s Social Vulnerability Index, which helps identify risk factors and at-risk populations by geographic area.

Community Assessment for Public Health Emergency Response (CASPER)

The Community Assessment for Public Health Emergency Response (CASPER) is a rapid needs assessment methodology designed to quickly gather household-based information from a community. Although originally designed for disaster response, CASPER is now used by health departments for preparedness activities such as assessments of chronic respiratory conditions, determining perceived health impact of proposed coal gasification plants, knowledge of mosquito prevention, and projected vaccination behaviors. As all jurisdictions are at risk for environmental emergencies, PHEP funding can be used for CASPER training and for conducting CASPER assessments. Subject to jurisdictional priorities and training availability, CDC recommends that PHEP awardees should either attend in-person CASPER trainings conducted by CDC subject matter experts (SME) or conduct a CASPER with technical assistance from CDC SMEs. Awardees can find more detailed information and resources at https://www.cdc.gov/nceh/hsb/disaster/casper/training.htm and in the 2017-2022 HPP-PHEP Supplemental Guidelines.

Environmental Public Health Tracking

PHEP awardees may use PHEP funds to collaborate with the state and local environmental tracking programs to support activities related to environmental public health tracking. Potential areas for collaboration between the PHEP program and environmental health programs include:

- Identifying and providing essential data (health and environmental), information, and tools and methodologies to help conduct environmental health surveillance, spatial temporal analysis, and data visualization to help key state and local emergency response partners facilitate situational awareness and mitigate negative environmental health effects before, during, and after an emergency response.
- Improving awareness of local environmental impacts on health among community members and responders before, during, and after an event.
- Identifying population groups at highest risk for natural, chemical, and radiological events to target preparedness strategies and monitor response and recovery impacts.

More information is available at http://www.cdc.gov/nceh/tracking/. Awardees can also find more detailed information and resources in the 2017-20122 HPP-PHEP Supplemental Guidelines.

Response Plans for Chemical, Biological, Radiological, Nuclear, and Explosive Threats

PHEP awardees must develop response plans for chemical, biological, radiological, nuclear, and explosive (CBRNE) threats. This includes conducting biosurveillance activities to develop or update response plans as necessary to meet preparedness goals with respect to CBRNE threats, whether naturally occurring, unintentional, or deliberate. Awardees should also consider active shooter and other threats. CDC encourages awardees to design response plans that focus on assessing medical surge needs and to work with HPP awardees and health care systems to coordinate activities and to provide surge support as needed. Plans should highlight the importance of using a "systems" approach to manage scarce resources, including limited medical countermeasures, decontamination and contamination control, staff, and medical resources.

Activity 4: Engage Communities and Health Care Systems

Joint Requirements

HPP and PHEP awardees **must** continue to build and sustain community partnerships to support health care preparedness and response to ensure that activities have the widest possible reach with the strongest possible ties to the community.

Awardees **must** describe the structure or processes in place to integrate the access and functional needs of at-risk individuals. Recommended strategies to integrate the access and functional needs of at-risk individuals involve inclusion in public health, healthcare, and behavioral health response strategies within work plans. ASPR and CDC recommend awardees, subawardees, and HCCs identify community partners with established relationships with diverse at-risk populations, such as social services organizations, and use available tools to better anticipate the potential access and functional needs of at-risk community members before, during, and after an emergency. Helpful tools include the CDC Public Health Workbook To Define, Locate, and Reach Special, Vulnerable, and At-risk Populations in an Emergency and ATSDR's Social Vulnerability Index (https://svi.cdc.gov/), which helps identify risk factors and at-risk populations by geographic area. Numerous additional resources to facilitate this work can be found in the 2017-2022 HPP-PHEP Supplemental Guidelines.

Local Health Department Participation in HCCs

HPP and PHEP awardees **must** ensure that local health departments participate in HCCs in their jurisdictions. PHEP awardees should also ensure partnership and engagement with fusion centers, poison control centers, and other community-based organizations. Additional guidance on recommendations can be found in the 2017-2022 HPP-PHEP Supplemental Guidelines.

HPP Requirements

Sustainability and HCC Value

Sustainability planning is a critical component in HCC development. Strong governance mechanisms, constant regional stakeholder engagement, and sound financial planning help form the foundation to continue HCC activities well into the future.

There are a variety of ways to promote greater community effectiveness and organizational and financial sustainability. Full investment in readiness includes in-kind donation of time, resources, support, and continued engagement with HCC members and the community. Financial strategies, including cost-sharing techniques and other funding options, enhance stability and sustainment. The HCC should:

- Offer HCC members technical assistance or consultative services in meeting the CMS Emergency Preparedness Rule: Medicare and Medicaid Programs; Emergency Preparedness Requirements for Medicare and Medicaid Participating Providers and Suppliers
- Develop materials that identify and articulate the benefits of HCC activities to its members and additional stakeholders and promote HCC preparedness efforts to health care executives, clinicians, community leaders, and other key audiences
- Explore ways to meet individual member's requirements for tax exemption through community benefit
- Analyze critical functions to preserve and identify financial opportunities beyond federal funding, such as foundations and private funding, dues, and training fees to support or expand HCC functions
- Develop a financing structure, and document the funding models that support HCC activities
- Determine ways to cost share, such as coordinating required exercises with public health agencies, emergency management organizations, and other organizations with similar requirements)
- Incorporate leadership succession planning into the HCC governance and structure
- Leverage group buying power to obtain consistent equipment across a region and allow for sharing or emergency allocation of equipment

Executive, Clinician, and Community Leader Engagement

Health care executives can promote coordination and buy-in across all health care facility and organization types, clinical departments, and nonclinical support services. To that end, the HCC should communicate the direct and indirect benefits of HCC membership to health care executives to advance their engagement in preparedness and response and to contribute to their understanding of other day-to-day benefits HCC membership offers.

Health care executives should provide input, acknowledgement, and approval regarding HCC strategic and operational planning. The HCC should regularly inform health care executives of HCC activities and initiatives through reports and regular invitations to participate in meetings, trainings, and exercises. At a minimum, the HCC **must** engage its members' health care executives in debriefs ("hot washes") related to exercises, planned events, and real incidents (See HPP 2017-2022 Performance Measures Implementation Guide).

Further, ASPR encourages HCCs to engage health care delivery system clinical leaders to provide input, acknowledgement, and approval regarding strategic and operational planning. Clinicians from a wide range of specialties should be included in HCC activities on a regular basis to validate medical surge plans and to provide subject matter expertise to ensure realistic training and exercises. Clinicians with relevant expertise should lead health care provider training for assessing and treating various types of illnesses and injuries. Clinicians should be engaged in strategic and operational planning, contribute to committees and advisory boards, and participate in training and education sessions. Additional engagement can include active participation in planning, exercise, and response activities.

More information about engaging health care executives and clinicians can be found in Capability 1, Objective 5, Activities 2 and 3 of the *2017-2022 Health Care Preparedness and Response Capabilities*.

Consistent with a whole community approach to preparedness, the HCC should actively work with and engage community leaders outside of its members. The HCC should identify and engage community members, businesses, charitable organizations, and the media in health care preparedness planning and exercises to promote the resilience of the entire community. Community engagement creates greater awareness of the HCC's role and emergency preparedness activities.

More information about engaging community leaders can be found in Capability 1, Objective 5, Activity 4 of the *2017-2022 Health Care Preparedness and Response Capabilities*.

More information about sustainability planning and promoting the value of health care coalitions can be found in Capability 1, Objective 5, Activities 1 and 5 of the *2017-2022 Health Care Preparedness and Response Capabilities.*

PHEP Requirements

Tribal Populations

PHEP awardees **must** describe how they obtain programmatic input from tribes, as applicable, regarding the content and implementation of jurisdictional public health emergency preparedness and response plans. CDC recommends PHEP awardees leverage existing advisory committees or similar organizational approaches to ensure tribal input is obtained.

Awardees with federally recognized tribes within their jurisdictions **must** provide a letter signed by the jurisdiction's senior health official or preparedness director on official agency letterhead confirming those tribes approve or have provided input on the approaches and priorities described in PHEP applications. Awardees unable to gain 100% input, despite good-faith efforts to do so, **must** submit a separate attachment with their applications describing the reasons why and the steps taken to address tribal input. CDC will work with awardees to help resolve issues as necessary. Additional guidance for working with tribes can be found in the 2017-2022 HPP-PHEP Supplemental Guidelines.

Activity 5: Operationalize Response Plans

Joint Requirements

HPP and PHEP awardees and each HCC, as part of a coordinated statewide effort, **must** conduct a joint statewide exercise (functional or full-scale exercise) once during the project period to test progress toward achieving the capabilities outlined in the *2017-2022 Health Care Preparedness and Response Capabilities* and the *Public Health Preparedness Capabilities: National Standards for State and Local Planning*, and in collaboration with cross-border metropolitan statistical area (MSA)/Cities Readiness Initiative (CRI) regions. Exercise requirement details are provided in the 2017-2022 HPP-PHEP Supplemental Guidelines.

Domain 2 Strategy: Strengthen Incident Management

HPP and PHEP awardees **must** conduct the following activities to strengthen emergency operations management throughout all phases of an incident.

- Coordinate emergency operations
- Standardize the incident command structure (ICS) for public health
- Establish incident command structures for health care organizations and HCCs
- Ensure HCC integration and collaboration with ESF-8
- Expedite fiscal and administrative preparedness procedures

Activity 1. Coordinate Emergency Operations

Joint Requirements

All-hazards Emergency Preparedness and Response Plan

HPP and PHEP awardees **must** maintain a current all-hazards public health and medical emergency preparedness and response plan. Awardees **must** submit their plans to ASPR and CDC when requested and make it available for review during site visits. Awardees **must** provide an opportunity for each HCC in their jurisdictions to review and provide updates to their preparedness and response plans. In addition, awardees **must** obtain public comment and input on public health and medical emergency preparedness and response plans and their implementation using existing advisory committees or a similar mechanism to ensure continuous input from other state, local, and tribal stakeholders, the health care delivery system, and the general public, including members of at-risk populations and those with an expertise integrating the access and functional needs of at-risk individuals.

Emergency Management Assistance Compact (EMAC)

Awardees **must** describe in their all-hazards public health and medical emergency preparedness and response plans how they will use EMAC or other mutual aid agreements for medical and public health mutual aid to support coordinated activities and to share resources, facilities, services, and other potential support required when responding to emergencies that impact the public's health. Awardees should work with state emergency management organizations and other related agencies to

incorporate EMAC into training and exercises as a way to gain familiarity with processes for requesting and deploying resources through the EMAC system**.**

Information regarding the ongoing development of public health mission ready packages (MRPs) can be found in the 2017-20122 HPP-PHEP Supplemental Guidelines.

HPP Requirements

HCCs in Response

HCCs serve a communication and coordination role within their respective jurisdictions. This coordination ensures the integration of health care delivery into the broader community's incident planning objectives and strategy development. It also ensures that resource needs that cannot be managed within the HCC itself are rapidly passed along to the ESF-8 lead agency. HCC coordination may occur at its own coordination center, the local EOC, or by virtual means – all of which are intended to interface with the ESF-8 lead agency.

Coordination between the HCC and the ESF-8 lead agency can occur in a number of ways. Some HCCs serve as the ESF-8 lead agency for their jurisdictions. Others integrate with their ESF-8 lead agency through an identified designee at the jurisdiction's EOC who represents HCC issues and needs and provides timely, efficient, and bidirectional information flow to support situational awareness. Regardless, HCCs connect the medical response elements and provide the coordination mechanism among health care organizations, including hospitals and EMS, emergency management organizations, and public health agencies.

HPP awardees **must** ensure by the end of Budget Period 2 that their HCCs are engaged when an emergency with the potential to impact the public's health occurs within their boundaries. The HCC and its members **must**, at a minimum, define and share essential elements of information (EEIs) to include elements of electronic health record and resource needs and availability. In particular, awardees **must** ensure the HCC is engaged when one or more health care organizations have lost capacity or ability to provide patient care or when a disruption to a health care organization requires evacuation.

See also HPP requirements under Strategy 2, Activity 4: *Ensure HCC Integration and Collaboration with ESF-8.*

PHEP Requirements/Recommendations

PHEP awardees **must** conduct training for incident command and support personnel and drill and exercise the public health jurisdictional incident command structure. When possible, such training should include emergency management partners. In addition, awardees must ensure that local jurisdictions are involved in drills and exercises to improve implementation of the incident command structure as it applies to responding to public health threats and emergencies.

Infectious Disease Response

CDC recommends that PHEP awardees develop and implement plans and protocols for rapid and appropriate public health actions, such as controlled movement, isolation, quarantine, or public health orders pursuant to applicable statutes and regulations. CDC also recommends that awardees collaborate with designing, developing, and distributing coordinated laboratory guidance, plans and protocols regarding laboratory biosafety during emergency responses to infectious diseases. This includes the safe handling and containment of infectious microorganisms and hazardous biological materials such as infectious waste. The 2017-2022 HPP-PHEP Supplemental Guidelines provides additional information.

Activity 2: Standardize Incident Command Structure for Public Health

PHEP Requirements/Recommendations

PHEP awardees must develop and establish an incident management framework consistent with the National Incident Management System (NIMS). Awardees **must** use the National Response Framework (NRF) to guide governments at all levels including state, local, territorial, and tribal government planning. All levels of government must be prepared under NRF to conduct an all-hazards incident response. Emergency operations plans should use incident command to implement elements of the NRF in scalable and flexible ways.

In addition, awardees must coordinate emergency operations with appropriate staff to address all potential hazards. In addition to command staff and support function staff, PHEP awardees must have available lists of staff who have been identified in advance for a medical or public health response. Awardees must also have operational plans or annexes that address resource management; communications and information management; emergency public warning and information; medical surge and non-pharmaceutical interventions; and first responder and volunteer management.

Activity 3: Establish Incident Command Structures for Health Care Organizations and HCCs

HPP Requirement

National Incident Management System Implementation

HPP awardees **must** ensure that HCCs assist their members with NIMS implementation throughout the project period. HCCs **must**:

- Ensure HCC leadership receives NIMS training based on evaluation of existing NIMS education levels and need.
- Promote NIMS implementation among HCC members, including training and exercises, to facilitate operational coordination with public safety and emergency management organizations during an emergency using an incident command structure (ICS)
- Assist HCC members with incorporating NIMS components into their emergency operations plans

For those HCC members not bound by NIMS implementation, the HCC should consider training on response planning techniques, organizational structure, and other incident management practices that will prepare members for their roles during a response.

More information about NIMS implementation can be found in Capability 1, Objective 4, Activity 1 of the *2017-2022 Health Care Preparedness and Response Capabilities*.

Activity 4: Ensure HCC Integration and Collaboration with Emergency Support Function-8 (ESF-8)

HCC Response Plan

Each HCC funded by the awardee **must** develop a response plan that is informed by its members' individual emergency operations plans and submit the plan to ASPR by the end of Budget Period 2 with annual progress reports. Each HCC's response plan **must** describe the HCC's operations that support strategic planning, information sharing, and resource management. The plan **must** also describe the integration of these functions with the ESF-8 lead agency to ensure information is provided to local officials and to effectively communicate and address resource and other needs requiring ESF-8 assistance. In cases where the HCC serves as the ESF-8 lead agency, the HCC response plan may be the same as the ESF-8 response plan.

The interests of all members and stakeholders should be considered in the response plan; however, each HCC **must** coordinate the development of its response plan by involving core members and other HCC members so that, at a minimum, hospitals, EMS, emergency management organizations, and public health agencies are represented in the plan. Each HCC **must** review and update its response plan regularly, and after exercises and real incidents.

The HCC response plan can be presented in various formats, including the placement of information described below in a supporting annex. Regardless of the format, each HCC's response plan **must** clearly outline:

- Individual HCC member organization and HCC contact information,
- Locations that may be used for multiagency coordination,
- Process for multiagency coordination if location is virtual,
- A brief summary of each individual member's resources and responsibilities,
- Integration with appropriate ESF-8 lead agencies,
- Emergency activation thresholds and processes
- Alert and notification procedures,
- EEIs agreed to be shared, including information format, such as bed reporting, resource requests and allocation, and patient distribution, and tracking procedures,

- Communication and IT platforms and redundancies for information sharing,
- Support and mutual aid agreements,
- Evacuation and relocation processes,
- Additional HCC roles and responsibilities as determined by state or local plans and agreements such as staff sharing, alternate care sites, and shelter support, and
- Activation and notification processes for initiating and implementing medical surge response coordination among HCC members and other topics related to medical surge, including:
    - Strategies to implement if the emergency overwhelms regional capacity or specialty care including trauma, burn, and pediatric capability,
    - Strategies for patient tracking,
    - Strategies for initial patient distribution (or redistribution) across the region,
    - among local hospitals in the event a facility becomes overwhelmed, and
    - Processes for joint decision making and engagement among the HCC, HCC members, state and local public health agencies, and emergency management organizations to avoid crisis conditions based on proactive decisions about resource utilization.

Each HCC should also monitor their members' progress toward closing gaps in their own plans and offer assistance to help close the gaps as appropriate.

More information about the HCC Response Plan can be found in Capability 2, Objective 1, Activity 2 of the 2017-2022 Health Care Preparedness and Response Capabilities.

HPP Awardee Recovery Plan

Each awardee **must** develop a health care system recovery plan and submit the plan to ASPR by the end of Budget Period 2 with annual progress reports. Recovery processes can be integrated into awardees' existing plans, such as an annex to the emergency operations plan, or developed as a separate, standalone plan. The awardee **must** ensure the HCCs and their members participate in the development of the state and local pre-emergency recovery planning activities as described in the National Disaster Recovery Framework to leverage recovery resources, programs, projects, and activities.

The health care system recovery plan **must** outline, at a minimum:

- Goals and strategic priorities for the continued delivery of essential health care services, including behavioral health, and opportunities for improvement after an emergency,
- Flexible operational objectives and tactics to accommodate different recovery approaches,
- Integration with pre-incident plans including community health improvement plans or organizational capital improvement plans,

- Critical infrastructure dependencies regarding public utilities, IT, transportation, etc., and
- Workforce retention issues essential to operations, including access to child or adult dependent care.

More information about planning, assessing and facilitating recovery for the health care system can be found in Capability 3, Objective 7, Activities 1, 2, and 3 of the *2017-2022 Health Care Preparedness and Response Capabilities*.

HCC Continuity of Operations Plan

Each HCC funded by the awardee **must** develop an HCC continuity of operations (COOP) plan that is informed by its members' COOP plans and submit the plan to ASPR by the end of Budget Period 3 with annual progress reports. HCC COOP plans may be an annex to the HCC's response plan or may take another form.

Each HCC's COOP plan should include, at a minimum:

- Activation and response functions,
- Multiple points of contact for each HCC member,
- Orders of succession and delegations of authority for leadership continuity,
- Immediate actions and assessments to be performed in case of disruptions,
- Safety assessment and resource inventory to determine whether or not the HCC can continue to operate,
- Redundant, replacement, or supplemental resources, including communication systems, and
- Strategies and priorities for addressing disruptions to mission critical systems that include but not limited to electricity, water, and medical gases.

Each HCC, in coordination with the awardee, should ensure that communication and coordination systems that are used for incident management are adequately secured, backed up, and have redundant power and server protections.

More information about COOP planning can be found in Capability 3, Objective 2, Activities 1 and 2 of the *2017-2022 Health Care Preparedness and Response Capabilities*.

Activity 5. Expedited Fiscal Procedures Are in Place for Ensuring Funding Reaches Impacted Public Health Departments, HCCs, and their Members during an Emergency Response

Joint Requirements

HPP and PHEP awardees **must** have expedited fiscal procedures that ensure the funding provided through the HPP and PHEP funding mechanisms reach the impacted communities in an expedited

manner, especially during an emergency response. HPP and PHEP awardees must ensure that these systems are routinely tested.

For the purposes of this FOA, fiscal preparedness is defined as the process of ensuring that fiscal and administrative authorities and practices that govern funding, procurement, contracting, hiring, and legal capabilities necessary to mitigate, respond to, and recover from public health emergencies can be accelerated, modified, streamlined, and accountably managed at all levels of government. The ultimate goal is to ensure that the funding reaches the impacted communities as quickly as possible to ensure that it has the greatest potential for a positive public health and health care impact. HPP and PHEP awardees must establish plans to effectively receive, obligate, and account for HPP and PHEP funds that are consistent with the purpose of the HPP and PHEP cooperative agreement. Plans **must** include the ability to move funding to the local level and to HCCs in a timely and effective manner.

It is critical that as awardees apply resources to achieve the public health and health care preparedness and response capabilities, they also plan how they will address the additional fiscal and administrative challenges they may face during a public health emergency. To ensure that these potential challenges are addressed, response plans should include emergency authorities and expedited fiscal processes that would likely differ from the awardees' standard procedures. As applicable, awardees should review incident action plans (IAPs), AARs/IPs, awardee capability self-assessment data, and JRAs when considering the actions taken or planned to overcome challenges and barriers within the scope of fiscal preparedness.

HPP and PHEP awardees **must** work with their local public health jurisdictions and HCCs to ensure that fiscal processes are in place to move funds efficiently between awardees and local public health departments and HCC fiscal entities (where they exist). ASPR has established a benchmark for awardees to execute subaward for routine grants within 90 days of the beginning of the budget period See ASPR-CDC Evaluation and Performance Measurement Strategy section.

At the time of application, HPP and PHEP awardees **must** identify whether their jurisdictions have:

- Tested expedited procedures as identified in their plans for:
    - receiving emergency funds during a real incident or exercise and
    - reducing the cycle time for contracting and procurement during a real incident or exercise.
- Implemented internal controls related to subrecipient monitoring and any negative audit findings resulting from suboptimal internal controls.
- Tested emergency authorities and mechanisms as identified in their plans to reduce time for hiring or reassignment of staff (workforce surge). If they were tested, awardees must identify which procedures were tested and describe the average times for recruitment and hiring of staff in routine and emergency circumstances.

PHEP Requirements/Recommendations

PHEP awardees **must** document the time it takes to move funds from the state to local public health, both during emergencies and during routine grant administration. In addition to the application project narrative, which describes the standard fiscal operating procedures, PHEP awardees **must** develop and submit plans to CDC no later than September 30, 2018, that address the following components.

Fiscal Planning: alignment of the HPP-PHEP administrative processes to describe how funds will be managed between the two programs, including processes for:

- Streamlining and consolidating contracting procedures; and
- Tracking HPP and PHEP funds separately as, according to federal appropriations law and HHS grant guidance, HPP and PHEP funds must maintain their unique identity and must be used for their intended purposes.

Emergency Legal Authority: describe and provide awardee citations for emergency legal authorities applicable to the Public Health Emergency Law Competency Model, including authorities addressing:

- Procedures for the declaration of disasters or emergencies and accompanying emergency authorities for designated officials;
- Expedited procedures for receiving, allocating, and spending emergency funds, including the ability to quickly move emergency funds from the state level to local governments;
- Powers and procedures for the use of public health interventions including isolation, quarantine, and the seizure and reallocation of supplies;
- Suspensions (http://lawatlas.org/datasets/emergency-powers), waivers, or similar legal processes that can be used to minimize the potential conflicts between federal authorities applicable to medical countermeasures and state-based pharmaceutical, prescribing, labeling, and other drug-related laws; if no waivers or similar legal processes exist, awardees must describe laws that may potentially conflict with Emergency Use Authorizations (EUA)s, Emergency Use Instructions (EUI), Investigational New Drug, and Investigational Device Exemption;
- Formal memoranda of understanding or agreement (MOU/MOA) between health authorities and other preparedness partners including law enforcement for implementation of public health activities, such as joint investigations of intentional threats or incidents that impact the public's health, signed and executed between the appropriate Federal Bureau of Investigation field office and state public health departments, including local public health departments where relevant (such as in home rule states); and
- Protection of volunteers against tort liability and licensure penalties, and the provision of Workers' Compensation claims (excluding federal mechanisms such as the Public Readiness and Emergency Preparedness Act). Awardees should distinguish between in-state and out-of-state volunteers and indicate whether the state can use EMAC to send or receive volunteers.

Fiscal and Administrative Emergency Processes: describe expedited fiscal and other administrative processes and identify procedures to test fiscal preparedness planning for such activities, including:

- Emergency procurement and contracting authorities and processes and how they differ from day-to-day business processes;
- Receiving emergency funds during a real incident or exercise, as well as reducing the cycle time for contracting or procurement during a real incident or exercise;
- Emergency hiring processes (workforce surge) and how they differ from customary hiring processes;
- Reporting/monitoring methodology to ensure payment efficiency and funding accountability;
- Emergency procedures for allocating funds to local and tribal health departments and other subawardees; and
- Implemented internal controls related to subrecipient monitoring and any negative audit findings resulting from suboptimal internal controls.

CDC encourages PHEP awardees to exercise their fiscal processes at least once during the five-year project period. Awardees should identify priorities for exercising, considering examples such as:

- Receiving emergency funds,
- Reducing the cycle time for contracting and procurement,
- Hiring, and
- Financial reporting, budget management and administration systems, and regulations.

The 2017-2022 HPP-PHEP Supplemental Guidelines provide additional information.

Domain 3 Strategy: Strengthen Information Management

HPP and PHEP awardees **must** conduct the following activities to strengthen information sharing among public health and medical preparedness and response partners and enhance emergency public information and warning.

- Share situational awareness across the health care and public health systems
- Share emergency information and warnings across disciplines, jurisdictions, and HCCs and their members.
- Conduct external communication with the public.

Activity 1. Share Situational Awareness across the Health Care and Public Health Systems

Joint Requirements

Common Operating Picture

HPP and PHEP awardees **must** work together to establish a common operating picture, or situational awareness tool, that facilitates coordinated information sharing among all public health, health care, HCCs, and relevant stakeholders. This includes state, local and territorial public health agencies and

their respective preparedness programs, public health laboratories, communicable disease programs, and programs addressing healthcare-acquired infections. Information sharing is the ability to share real-time information related to the emergency, such as capacity, capability, and stress on health care facilities and situational awareness across the various response organizations and levels of government. Accomplishing these activities will enable the health care delivery systems, public health, and other organizations that contribute to responses to coordinate efforts before, during, and after emergencies; maintain situational awareness; and effectively communicate with the public.

Given the need to establish a common operating picture for effective response, HPP and PHEP awardees and HCCs **must** provide situational awareness data, including data on bed availability, to ASPR and CDC during emergency response operations and at other times, as requested.

Additionally, HPP and PHEP awardees, the HCCs, and their members **must** agree to participate in current and future federal health care situational awareness initiatives for the duration of the five-year project period.

HPP Requirements

Health Care Situational Awareness and Sharing

The development of information sharing procedures and the use of interoperable and redundant platforms is critical to a successful response. In particular, information sharing allows for the tracking of resource availability and needs and also allows HCC members, other stakeholders, and the ESF-8 lead agency to provide coordinated, accurate, and timely information to health care providers and the public. Information sharing requirements exist for both HPP awardees and HCCs to help ensure proper resource coordination and situational awareness.

HCCs also play an important role in sharing information with their HCC members, the ESF-8 lead agency, and additional stakeholders. HPP awardees **must** ensure that each HCC is able to access and collect timely, relevant, and actionable information about their members during emergencies.

HPP **requires** all funded HCCs to share pertinent emergency information with their HCC members, the ESF-8 lead agency, and other stakeholders. Information sharing procedures **must** be documented in each HCC's response plan by the end of Budget Period 2. When documenting information sharing procedures in response plans, HCCs should:

- Define communication methods, frequency of information sharing, and the communication systems and platforms available to share information during an emergency response and steady state
- Identify triggers that activate alert and notification processes
- Define the EEIs that HCC members should report to the HCC, and coordinate with other HCC members and with federal, state, local, and tribal response partners during an emergency to share information, such as the number of patients, severity and types of illnesses or injuries, operating status, resource needs and requests, and bed availability

- Identify the platform and format for sharing each EEI to include elements of the EHR
- Describe a process to validate health care organization status and requests during an emergency; this includes situations where reports are received outside of HCC communication systems and platform, such as media reports, no report when expected, rumors of distress, etc.

PHEP Requirements/Recommendations

Sustain or Enhance Public Health Information Systems

PHEP awardees using PHEP funding to sustain or enhance public health informatics **must** seek to increase interoperability and functionality by ensuring that properly functioning public health information systems are available. Such systems, whether they are internally managed or externally hosted or shared platforms, must be capable of supporting syndromic surveillance, integrated surveillance, public health registries, situational awareness dashboards, and other public health and preparedness activities. See Domain 6 - Biosurveillance for more information.

Activity 2. Share Emergency Information and Warnings across Disciplines, Jurisdictions, and HCCs and their Members

Joint Requirements

Coordinate Emergency Information Sharing between Public Health and Health Care

ASPR and CDC recognize and value the distinct roles and responsibilities of HPP and PHEP awardees, HCCs, and their members, as well as emergency management and other response partners.

HPP and PHEP awardees **must** identify reliable, resilient, interoperable, and redundant information and communication systems and platforms, including those for bed availability, EMS data, and patient tracking, and provide access to HCC members and other stakeholders.

The following are factors that HCCs, in coordination with HPP and PHEP awardees and other public health agency members, should consider when developing processes and procedures to rapidly acquire and share clinical knowledge.

- Processes and procedures should address a variety of emergencies such as chemical, biological, radiological, nuclear, or explosive (CBRNE), trauma, burn, pediatrics, or highly infectious disease outbreaks
- Approaches to improve patient management, particularly at facilities that may not care for certain types of patients regularly

Sharing accurate and timely information is critical during an emergency. Accordingly, by the end of the five-year project period each HCC **must** assist its members with developing the ability to rapidly alert and notify their employees, patients, and visitors. Alerts and notifications should update stakeholders on the emergency situation, protect stakeholders' health and safety, and facilitate provider-to-provider communication.

By the end of the five-year project period, the HCC, in coordination with its public health agency members and HPP and PHEP awardees, **must** also develop processes and procedures to rapidly acquire and share clinical knowledge between health care providers and between health care organizations during responses.

More information about sharing emergency information procedures and platforms can be found in Capability 2, Objectives 2 and 3 of the *2017-2022 Health Care Preparedness and Response Capabilities*.

HPP Requirements

HCC Redundant Communications Systems and Platforms

HCCs can use communication systems and platforms to assist in the collection and dissemination of timely, relevant, and actionable information. Accordingly, HPP awardees **must** ensure that each HCC has primary and redundant communications systems and platforms capable of sending EEIs by the end of Budget Period 1. Additionally, by the end of Budget Period 1, each HCC **must** be able to demonstrate its ability to use these systems to effectively coordinate information during emergencies, planned events, and on a regular basis. As part of this requirement and to ensure the continuity of information flow and coordination activities, multiple employees from each HCC member organization **must** understand and have access to the HCC's information sharing platforms.

More information about strengthening information management during an emergency can be found in Capability 2, Objectives 2 and 3 of the *2017-2022 Health Care Preparedness and Response Capabilities*

Activity 3: Conduct External Communication with the Public

Joint Requirements

Coordinate Public Messaging

Accurate and timely communication with the public is important during a response to a public health emergency. Accordingly, by the end of Budget Period 2, each HCC and its members, in collaboration with HPP and PHEP awardees, should agree upon and plan for the type of information that will be disseminated by either the HCC or its individual members to the public during an emergency.

Additionally, by the end of the five year project period, the HCC, in collaboration with HPP and PHEP awardees, should provide public information officer (PIO) training to those who are designated to act in that capacity during an emergency for HCC members and are in need of such training. This training should include health risk communication training.

Health care organizations, as well as HCCs and public health departments, should work with their community's Joint Information Center (JIC) to ensure information is accurate, consistent, linguistically and culturally appropriate, and disseminated to the community using one voice during an emergency.

Additionally, ASPR and CDC recommend that HPP and PHEP awardees coordinate public messaging and information sharing regarding monitoring and tracking of cases of persons under investigation during

infectious disease outbreaks with PIOs for various response partners to ensure maximum coordination and consistency of messaging.

More information about communicating with the public during an emergency can be found in Capability 2, Objective 3 of the *2017-2022 Health Care Preparedness and Response Capabilities*.

PHEP Requirements/Recommendations

PHEP awardees **must** ensure information sharing systems are in place. These systems **must** include redundant equipment, appropriately trained public health information officers (PIOs) and other personnel, procedures for media notification, message development, and plans describing how the public can contact the public health department for up-to-date information on incidents. This can include call centers, help desks, and other available communication platforms.

Domain 4 Strategy: Strengthen Countermeasures and Mitigation

HPP and PHEP awardees should conduct the following activities that strengthen access to and administration of medical and other countermeasures for pharmaceutical and non-pharmaceutical interventions and strengthen mitigation strategies.

- Manage access to and administration of pharmaceutical and non-pharmaceutical interventions
- Ensure safety and health of responders
- Operationalize response plans.

Activity 1: Manage Access to and Administration of Pharmaceutical and Non-Pharmaceutical Interventions

Joint Requirements

Following an emergency, effective care cannot be delivered without available staff and appropriate countermeasures. Accordingly, managing access to and administration of countermeasures and ensuring the safety and health of clinical and other personnel are important priorities for preparedness and continuity of operations. While PHEP funding plays an important role in medical countermeasure (MCM) planning and procuring and dispensing MCMs for the community, including at-risk populations, HPP funding assists in planning for closed points of dispensing (POD) and ensuring that health care workers and their families are protected during emergencies.

MCM Distribution and Dispensing Plans

A number of federally funded programs exist to enhance preparedness for and response to a public health emergency, including CDC's Strategic National Stockpile (SNS), CHEMPACK program, and Cities Readiness Initiative (CRI). HPP and PHEP awardees, including HCCs and their members, **must** understand their jurisdictional MCM distribution plans by the end of Budget Period 1, either through participation in jurisdictional MCM operational readiness reviews or briefings provided by the jurisdiction's MCM coordinator.

Additionally, in jurisdictions participating in the CHEMPACK program, CRI, or other local and state plans for maintaining treatment or prophylaxis caches, HPP and PHEP awardees and each HCC must be engaged in the development, training, and exercising of these MCM distribution and dispensing plans by the end of Budget Period 1. Additionally by the end of Budget Period 1, each HCC should collaborate with local public health departments and PHEP awardees to assist its members with closed points of dispensing (POD) plans. Local public health departments supported by PHEP funding are responsible for general population POD planning with assistance from the state.

HPP Requirements

Assess Supply Chain Integrity

Conducting an assessment of the supply chain's integrity is one strategy to help HPP awardees and HCCs identify equipment and supply needs that will be in demand during an emergency and develop strategies to address potential shortfalls. To ensure the ongoing delivery of patient care services following an emergency, critical equipment and supplies must be made available for all populations. For example, pharmaceuticals and medical materiel are needed for both emergency treatment and to maintain the health of patients, providers, and first responders.

By the end of the five-year project period, HPP awardees and HCCs **must** conduct a supply chain integrity assessment to evaluate equipment and supply needs that will be in demand during emergencies and develop strategies to address potential shortfalls. Upon request, HPP awardees **must** provide documentation of the assessment and corresponding mitigation strategies to an HPP FPO. As part of this supply chain integrity assessment, each HCC and its members should:

- Collaborate with manufacturers and distributors to collect information on access to critical supplies, availability in regional systems, and potential alternate delivery options in the case that access or infrastructure is compromised
- Collaborate with the ESF-8 lead agency when using this information to effectively coordinate equipment and supply needs within the region.

Completing a supply chain integrity assessment will likely highlight vulnerabilities in access to or availability of critical supplies. Accordingly, HPP awardees, HCCs, and HCC members may purchase pharmaceuticals and other medical materiel likely to be required during a patient surge. All HPP awardees, HCCs, or HCC members purchasing pharmaceuticals and other medical materiel with HPP funds **must** consider strategies for the acquisition, storage, rotation with day-to-day supplies to diminish waste due to expiring supplies, use including policies relating to the activation and deployment of their stockpile, and disposal. HPP awardees and HCCs **must** document such strategies and provide documentation to the FPO upon request.

More information about resources to consider during a supply chain integrity assessment, mitigation strategies, and acquisition of pharmaceuticals and medical materiel can be found in Capability 3, Objective 3 of the *2017-2022 Health Care Preparedness and Response Capabilities*.

PHEP Requirements/Recommendations

Public health departments coordinate medical material management and distribution when a public health emergency overwhelms the routine community supply chain. Public health's role includes:

- Formalizing partnerships with private and public warehouse facilities and shipping companies
- Planning for potential nonmedical and medical distribution, dispensing, and administration
- Distributing and dispensing nonmedical and medical countermeasures
- Ensuring availability of medical countermeasures to individuals at greatest risk of morbidity and mortality from an influenza pandemic

These activities are described in more detail in CDC's *Public Health Preparedness Capabilities: National Standards for State and Local Planning*, specifically, Capability 8: Medical Countermeasure Dispensing and Capability 9: Medical Materiel Management and Distribution.

As described in those capabilities, PHEP awardees **must** ensure they can support medical countermeasure distribution and dispensing (MCMDD) for all-hazards events ranging from a terrorist attack, an influenza pandemic, or an emerging infectious disease such as Ebola or Zika. CDC provides the 50 states and the four directly funded localities of Chicago, Los Angeles County, New York City, and Washington, D.C. with dedicated funding through CRI to ensure they have MCM distribution and dispensing plans in place and can effectively execute those plans in response to public health emergencies. Initially, CRI planning was specific to a large-scale biologic attack with anthrax as the primary threat consideration, which requires the dispensing of life-saving antibiotics or other countermeasures to affected populations within 48 hours. Current planning has evolved to encompass improved MCM planning and operational readiness for all hazards. Successfully executing an MCM mission is critical to ensuring the nation's public health security during any large public health emergency.

To improve all-hazards MCM distribution and dispensing planning and response capabilities, CDC strongly encourages that PHEP awardees make 75% of their CRI funds available to CRI jurisdictions within 90 days of the start of the budget period, beginning in Budget Period 2. CRI jurisdictions are independent planning jurisdictions that include the counties and municipalities within the defined metropolitan statistical area (MSA). CDC recognizes that this funding allocation may present challenges to some awardees and will consider exceptions on a case-by-case basis.

To comply with PAHPRA and the priority resource planning and other elements specified in Capabilities 8 and 9, all 62 PHEP awardees **must** have plans in place for demonstrating operational readiness to receive, stage, distribute, and dispense MCMs including medications and medical supplies received from the SNS. PHEP awardees are required to complete the following MCM activities.

MCM Operational Readiness Reviews

In 2012-2016, with involvement from 19 awardee jurisdictions, national partners, and CDC SMEs, CDC developed, piloted, and implemented a new MCM operational readiness review (ORR) process for assessing state, local, and territorial ability to successfully execute a major public health response requiring the rapid distribution and dispensing of life-saving MCMs. The MCM ORR is intended to identify programmatic strengths and operational gaps for medical countermeasure response planning and operational readiness. CDC has updated the MCM ORR tool based on feedback received during its first full year of implementation in 2015-2016.

Beginning with Budget Period 1, CDC will conduct MCM ORRs on a two-year cycle, reviewing half of the 62 PHEP awardee jurisdictions every year. This process is designed to support and enhance state and local public health departments across the nation in strengthening their MCM capacity. PHEP awardees and local CRI jurisdictions **must** submit initial ORR self-assessment data in Budget Period 1 using the updated ORR tool to assess their continued progress in advancing MCM capabilities.

State awardees **must** conduct operational reviews for all CRI planning jurisdictions within a two-year period, reviewing 50% of the CRI planning jurisdictions every other year. State awardees **must** submit the resulting MCM ORR data from their CRI reviews to CDC using a web-based data collection system. CDC's MCM regional field advisors will attend one MCM ORR per CRI MSA to observe and provide feedback.

As part of the operational readiness review process, awardees **must** provide CDC with supporting documentation regarding their public health preparedness capabilities, exercises, performance measures, program requirements, and other information relative to medical countermeasure distribution and dispensing. CDC encourages awardees to provide CDC with access to relevant documentation using their jurisdictions' internal shared systems. By Budget Period 3, awardees must develop processes to enable CDC to access jurisdictional documentation using shared systems.

MCM ORR data, including status levels for PHEP awardees and local CRI jurisdictions, may be publically released.

During interim years, CDC and awardees will address identified improvement areas based on the most recent MCM ORR findings. To help jurisdictions move toward "Established" status levels by June 30, 2022, CDC will work with all 62 PHEP awardees to complete the following activities designed to address identified planning and operational opportunities for improvement.

MCM Technical Assistance Action Plans

All PHEP awardees **must** submit updated MCM action plans twice each budget period and participate in quarterly conference calls with CDC to discuss action plan activities. The action plans focus on activities designed to address prioritized MCM operational gaps identified during the awardees' most recent ORRs.

In addition, state awardees **must** develop MCM action plans for all of their CRI local planning jurisdictions, conduct quarterly conference calls with the CRI jurisdictions, and submit updated MCM action plans to CDC twice each budget period. Each action plan **must** summarize completed activities in response to areas of improvement identified in the jurisdiction's most recent MCM ORR.

RSS Site Surveys

PHEP awardees **must** have updated receipt, stage, and store (RSS) site survey information available in CDC's Online Technical Resources Assistance Center (On-TRAC) data center. RSS site information is required for the primary and back-up RSS sites (a minimum of at least two locations) and all potential RSS sites in their jurisdictions. Awardees **must** update RSS site information each year, and the U.S. Marshal Service and CDC must validate each RSS site at least once every three years.

Critical Contacts

PHEP awardees **must** have available online in CDC's On-TRAC data center current operational information that identifies points of contact to facilitate time-sensitive, accurate information sharing before a public health emergency. Awardees **must** review and update the operational critical contact information that is in CDC's On-TRAC data center at least every six months or as changes occur.

Inventory Management Tracking System and Data Exchange Annual Tests

PHEP awardees **must** provide inventory counts to CDC during a public health emergency. Awardees may use either CDC's Inventory Management and Tracking System (IMATS) with the built-in reporting functionality or configure their own inventory management system (IMS) using the Inventory Data Exchange (IDE) Specification guide, enabling them to receive and respond to an inventory request from CDC. PHEP awardees **must** participate in annual tests that provide MCM inventory counts to CDC to ensure data reports of inventory levels are reliable. More specific details are provided in the 2017-2022 HPP-PHEP Supplemental Guidelines.

Non-Pharmaceutical Interventions

PHEP awardees should coordinate non-pharmaceutical interventions by developing and updating plans that include documentation of the applicable jurisdictional, legal, and regulatory authorities necessary for implementation in routing and incident-specific situations. Such plans must include necessary authorization for interventions with the following elements: individuals, groups, facilities, animals, food products, public works/utilities, and travel through ports of entry for state, local and territorial jurisdictions as appropriate. Plans should include consideration of the legal and planning issues for interventions such as isolation, quarantine, school and child care closures, workplace and community organization/event closure, and restrictions on movement.

Activity 2: Ensure the Safety and Health of Responders

Joint Requirements

HPP and PHEP awardees, HCCs, and their members **must** equip, train, and provide resources necessary to protect responders, employees, and their families from hazards during response and recovery operations. Personal protective equipment (PPE), MCMs, workplace violence training, psychological first aid training, and other interventions specific to an emergency are all necessary to protect responders and health care workers from illness or injury and should be readily available to the health care workforce.

Personal Protective Equipment

Awardees and HCCs should manage PPE resources, including stockpiling considerations, vendor-managed inventory, and the potential reuse of equipment; this includes consistent policies regarding the type of PPE necessary for various infectious pathogens, and sharing information about PPE supplies across HCCs, EMS, public health agencies, and other members.

HPP Requirements

Protecting the Health Care Workforce

The health care workforce needs readily available PPE, such as respirators, protective clothing, gloves, and face shields, for protection from a wide range of threats including infectious diseases, radiation, chemical exposure, and various physical hazards. Any HPP awardee, HCC, or HCC member purchasing PPE with HPP funds **must** consider and document acquisition, storage, rotation, activation, use, and disposal decisions and provide this documentation to the FPO upon request.

ASPR encourages, when possible, regional procurement of PPE. This procurement approach may offer significant advantages in pricing and consistency for staff, especially when PPE is shared across health care organizations in an emergency. Additionally, in circumstances where HCC members are part of a larger corporate health system, a balance between corporate procurement and regional procurement should be considered.

PHEP Requirements/Recommendations

PHEP awardees are responsible for ensuring the safety and health of public health department staff who respond to an incident, including a large-scale incident that may require significant personnel from outside the health department. More information is available in Capability 14: Responder Safety and Health in the *Public Health Preparedness Capabilities: National Standards for State and Local Planning* and in the 2017-2022 HPP-PHEP Supplemental Guidelines. Public health departments **must** ensure the health and safety of responders through the following activities.

- Distribute and dispense medical and nonmedical countermeasures to public health first responders.
- Purchase PPE, support fit testing, and maintain respiratory protection programs for public and health care sector workforce.
- Promote coordinated training and maintenance of competencies among public health first responders, health care providers (including EMS), and others as appropriate, on the use of PPE and environmental decontamination. Training should follow Occupational Safety and Health Administration (OSHA) guidelines and state regulations.
- Collaborate, develop, and implement strategies to ensure availability of effective supplies of PPE by working with suppliers and coalitions to develop plans for caching or redistribution/sharing.

- Public health agencies, health care organizations, and other HCC members should inform each other and integrate plans for purchasing, caching, and distributing PPE.

Activity 3: Operationalize Response Plans

Joint Requirements

Implementing MCM response plans requires sufficient staffing to set up and sustain prolonged dispensing operations, as well as security personnel to effectively secure assets, facilities, and personnel through all phases of MCM planning and operations. In recognition of the staffing challenges jurisdictions face as the public health workforce continues to shrink, awardees **must** consider other staffing resources to effectively mobilize MCM dispensing operations.

Awardees **must** proactively integrate all components of their state and local governments in MCM response planning and consider inclusion of the following strategies in their MCM plans.

- Consider using the National Guard as a potential resource for MCM distribution and dispensing operations and provide training for National Guard personnel designed to serve in this capacity;
- Consider voluntary reassignment of state and local employees to participate in MCM mission areas;
- In addition to state-funded personnel, the Pandemic and All-Hazards Preparedness Reauthorization Act of 2013 (PAHPRA) provides the Secretary of the Department of Health and Human Services (HHS) with discretion to authorize the temporary reassignment of federally funded state, tribal, and local personnel during a declared federal public health emergency upon request by a state or tribal organization; the temporary reassignment provision is applicable to state, tribal, and local public health department or agency personnel whose positions are funded, in full or part, under PHS programs and allows such personnel to immediately respond to the public health emergency in the affected jurisdiction; and
- Explore whether federal workers assigned to state or regional office may be eligible to serve temporary details to staff state and local MCM dispensing operations in their jurisdictions.

PHEP Requirements/Recommendations

Community Reception Centers (Radiation Preparedness)

As an option for exercising, CDC encourages all awardees to consider developing or enhancing Community Reception Center (CRC) plans/exercises for sheltering and monitoring those that were potentially exposed to radioactive material. See https://emergency.cdc.gov/radiation/toolkits.asp for more information. Awardees using PHEP funds to support CRC activities, **must** include these activities in their work plans.

Domain 5 Strategy: Strengthen Surge Management

Following a public health incident, HPP and PHEP awardees should coordinate to assess the public health and medical needs of the affected community, with PHEP awardees focusing on public health surge needs and HPP awardees and their HCCs focusing on medical surge needs. While the two programs may focus on different sectors within the community, HPP and PHEP awardees must coordinate these activities jointly.

The following four activities are used to manage *public health surge*.

- Address mass care needs, such as shelter monitoring
- Address surge needs, including family reunification
- Coordinate volunteers
- Prevent or mitigate injuries and fatalities

The following four activities are used to manage *medical surge*.

- Conduct health care facility evacuation planning and execute evacuations
- Address emergency department and inpatient surge
- Develop alternate care systems
- Address specialty surge, including pediatrics, chemical, radiation, burn, trauma, behavioral health, and highly infectious diseases.

Management of Public Health Surge

Activity 1: Address Mass Care Needs

Joint Requirements

Address Health Needs in Congregate Locations

PHEP awardees **must** coordinate with health care coalitions and their members to address the public health, medical, and mental health needs of those impacted by an incident at congregate locations. HPP awardees should serve as subject matter experts to PHEP awardees on the health care needs of those impacted by an incident. For example, HPP awardees, HCCs, and HCC members should serve as a planning resource to PHEP awardees and public health agencies as they develop mass shelters. In particular, HPP awardees and HCCs should provide their expertise on the inclusion of medical care at shelter sites.

Activity 2: Address Surge Needs

Joint Requirements

Family Reunification

During a public health incident or crisis, families are at risk for becoming disconnected. HPP awardees and HCCs must serve as planning resources and subject matter experts to PHEP awardees and public health agencies as they develop or augment existing response plans for affected populations, including mechanisms for family reunification. These plans should give consideration to:

- Information needed to facilitate reunification of families
- Reunification considerations for children
- Family notification and initiation of reunification processes.

Infectious Diseases

During an infectious disease outbreak, HPP and PHEP awardees, HCCs, and HCC members all have roles in planning for and responding to outbreaks that stress either the capacity or the capability of the public health or health care delivery systems. ASPR and CDC require that awardees and HCCs coordinate the following activities to ensure the ability to surge to meet the demands during a highly infectious disease response.

- Establish a common operating picture that facilitates coordinated infectious disease information sharing among all HCC members and relevant stakeholders, including state, local, and territorial public health agencies and their respective preparedness programs, state public health laboratories, communicable disease programs, and health care-associated infections (HAI) programs.
    - PHEP awardees should ensure infectious disease response planning includes state and local emergency management, partners responsible for airports and international points of entry into the United States, including CDC quarantine stations of jurisdiction, public safety, and other relevant agencies and community partners. Planning should include identification and management of potentially infected interstate and international travelers and acquisition and deployment of immunizations and prophylactic medication as appropriate.
- Develop or update plans to describe how jurisdictional public health departments will:
    - Monitor known cases or exposed persons including how surveillance will be shared,
    - Conduct short- and long-term follow-up of known or suspected households, and
    - Ensure the security of storage and retrieval of sensitive information.
- Establish key indicators, critical information requirements, and EEI that will assist with timing of notifications, alerting, and coordinating responses to emerging or re-emerging infectious disease outbreaks of significant public health and health care importance, including novel or high-consequence pathogens.
- Provide real-time information through coordinated information sharing systems (see Capability 2, Objective 3, Activity 4 of the *2017-2022 Health Care Preparedness and Response Capabilities* and Capability 6: *Public Health Preparedness Capabilities: National Standards for State and Local Planning)* and ensure that information is directed to the public and to the many disciplines that comprise the responder community.
- Coordinate public messaging and information sharing, including information related to monitoring and tracking of persons under investigation (PUIs), among PIOs for jurisdictional public health agencies, as well as PIOs at HCCs and health care organizations.
- Ensure infectious disease response planning includes state and local emergency management, transportation, public safety, and other relevant agencies and community partners.

- Continue planning with health care organizations and other stakeholders such as mortuary, autopsy personnel, and medical examiners, to coordinate the management of the deceased when bodies are considered infectious, including addressing the provision of body bags and other supplies, defining assistance, and developing relationships with crematoriums, funeral directors, and other partners to effectively plan for managing the deceased when bodies are considered infectious.
- Identify, leverage, and share leading practices to optimize infectious disease preparedness and response activities.

ASPR and CDC also recommend the following joint activities.

- HCCs and state HAI multidisciplinary advisory groups or similar infection control groups within the state should partner to develop a statewide plan for improving infection control within health care organizations.
- Jurisdictional public health infection control and prevention programs including HAI programs and HCC members should jointly develop infectious disease response plans for managing individual cases and larger emerging infectious disease outbreaks.
- HPP and PHEP awardees, HCCs, and their members should collaborate on informatics initiatives to include but are not limited to electronic laboratory reporting, electronic test ordering, electronic case reporting, electronic death reporting, and syndromic surveillance.
- HPP and PHEP awardees and HCCs should engage with the community to improve understanding of issues related to infection prevention measures, such as:
    - Changes in hospital visitation policies,
    - Social distancing, and
    - Infection control practices in hospitals, such as:
        - PPE use,
        - Hand hygiene,
        - Source control, and
        - Isolation of patients.
- HPP and PHEP awardees, HCCs, and their members should promote coordinated training and maintenance of competencies among public health first responders, health care providers, EMS, and others as appropriate, on the use of PPE, environmental decontamination, and management of infectious waste. Training should follow OSHA and state regulations.
- HPP and PHEP awardees, HCCs and their members should collaborate to develop and implement strategies to ensure availability of effective supplies of PPE, including:
    - Working with suppliers and coalitions to develop plans for caching or redistribution and sharing and
    - Informing each other and integrating plans for purchasing, caching, and distributing PPE.

- HPP and PHEP awardees, HCCs, and their members should sustain planning for the management of PUIs to:
    - Monitor health care personnel who may have had a risk exposure to a PUI by directly treating or caring for a PUI in a health care setting and
    - Clarify roles and responsibilities for key response activities related to the monitoring of PUIs, to include:
        - Assisting or assessing readiness of health care organizations in the event of a PUI and
        - Conducting AARs and testing plans for PUI management to identify opportunities to improve local, state, and national response activities.

More information about addressing specialty medical surge for infectious diseases can be found in Capability 4, Objective 9 of the *2017-2022 Health Care Preparedness and Response Capabilities*.

PHEP Requirements/Recommendations

Conduct Activities Based on State Plans to Manage Public Health Surge

CDC requires PHEP awardees to continuously assess and evaluate the medical and public health needs of the affected community and identify areas where the response effort is not meeting the demands. Awardees **must** then implement surge plans to address the gaps.

Activity 3: Coordinate Volunteers

Joint Requirements

HPP and PHEP awardees **must** coordinate the identification, recruitment, registration, training, and engagement of volunteers to support the jurisdiction's response to incidents. To develop competency in implementing plans involving volunteers, awardees should ensure volunteers are included in training, drills, and exercises throughout the five-year project period.

HPP awardees, including HCCs and their members, should work to manage volunteers in the hospital or other health care setting. This includes:

- Identifying situations that would require volunteers in hospitals. Leverage existing hospital volunteer services and staffing resource mechanisms;
- Identifying processes to assist with volunteer coordination, including protocols to handle walk-up volunteers and others who cannot participate due to state regulations;
- Estimating the anticipated number of volunteers and health professional roles based on identified situations and resource needs of the facility;
- Identifying and addressing volunteer liability, licensure, workers compensation, scope of practice, and third-party reimbursement issues that may deter volunteer use;

- Leveraging existing government and nongovernmental volunteer registration programs, such as Emergency System for Advance Registration of Volunteer Health Professionals (ESAR-VHP) and Medical Reserve Corps (MRC); and
- Developing rapid credential verification processes to facilitate emergency response.

PHEP Requirements/Recommendations

Conduct Activities Based on State Plans to Manage Public Health Surge

It is critical that PHEP awardees coordinate identification, recruitment, registration, training and engagement of volunteers to support the jurisdictional public health agency's response to incidents. Awardees **must** ensure volunteers are included in training, drills, and exercises to develop competency at implementing plans as described in the Emergency System for Advance Registration of Volunteer Health Professionals (ESAR-VHP) compliance requirements.

Awardees in jurisdictions that do not use spontaneous or other volunteers due to state regulations must describe in their plans how they plan to handle those types of volunteers during an incident.

Activity 4: Prevent or Mitigate Injuries and Fatalities

PHEP Requirements/Recommendations

Community Partnerships for Coordination

With regard to fatalities, PHEP awardees **must** coordinate with HCCs and other community partners, including law enforcement, emergency management, and medical examiners or coroners to ensure proper tracking, transportation, handling, and storage of human remains and ensure access to mental and behavioral health services for responders and families impacted by an incident.

Management of Medical Surge

Activity 1: Conduct Health Care Facility Evacuation Planning and Execute Evacuations

HPP Requirements

By the end of Budget Period 1, HPP awardees, HCCs, and HCC members **must** ensure all health care organizations, public health agencies, and emergency management organizations are included in evacuation, transportation, and relocation planning and execution during exercises and real incidents.

Further, HPP awardees, HCCs, and HCC members **must** sustain or further develop their evacuation planning and response activities throughout the remainder of the five-year project period.

Coalition Surge Test

To test the ability of the HCC to perform components of the *2017-2022 Health Care Preparedness and Response Capabilities*, each HCC **must** conduct an exercise using the *Coalition Surge Test* once each

budget period. Additional information on HPP exercise requirements and the Coalition Surge Test are provided in the 2017-2022 HPP-PHEP Supplemental Guidelines.

Activity 2: Address Emergency Department and Inpatient Surge

HPP Requirements

Crisis Care Strategies

HCCs and their members that coordinate during a medical surge response are more likely to effectively manage the emergency without state or federal assets or employing crisis care strategies. However, it is not possible to plan for all worst-case scenarios, and there may be times when the health care delivery system is stressed beyond its maximum surge capacity. During those scenarios, crisis care strategies may be employed and planned for well in advance. Planning for medical surge should follow the medical surge capacity and capability (MSCC) tiered approach, where successive levels of assistance are activated as the emergency evolves.

Accomplishing these activities will enable the health care delivery system and other organizations that contribute to responses to coordinate efforts before, during, and after emergencies; continue operations; and appropriately surge as necessary.

Immediate Bed Availability

Immediate bed availability (IBA) is defined as the ability of a hospital to provide at least 20 percent bed availability of staffed beds within four hours of a disaster. IBA is built on three pillars: continuous monitoring across the health system; off-loading of patients who are at low risk for untoward events through reverse triage; and on-loading of patients from the disaster. While the goal of IBA is to create capacity within hospitals, other health care partners including home care providers, skilled nursing facilities, long-term care facilities, clinics, and community and tribal health centers, can meet the needs of patients who are discharged early as part of the surge response.

HCCs and their members **must** plan and respond together to address emergency department and inpatient surge with the goal of ensuring IBA throughout the five-year project period. In particular, HCCs and their members should focus their hospital medical surge capability and IBA activities in these areas:

- Emergency department beds
- General medical, general surgical, and monitored beds
- Critical care beds
- Surgical intervention units
- Clinical laboratory and radiology services
- Health care volunteer management
- Equipment and supplies

- Staffing
- Coordination of ambulance transport with EMS System

Crisis Standards of Care

By the conclusion of the five-year project period, HPP awardees **must** document their processes to oversee jurisdictional crisis standards of care (CSC) planning and to coordinate all local or regional planning efforts. HPP awardees **must** be prepared to submit documentation to their FPOs and ASPR's Technical Resource, Assistance Center, and Information Exchange (TRACIE) detailing these processes upon request. Further, HPP awardees **must** ensure the documentation includes:

- Efforts undertaken to promote a uniform approach to establishing the ethical and legal frameworks necessary for CSC planning and implementation, for example, liability protections and specific rules and laws that might need modification or suspension to support CSC implementation, such as to broaden scope of practice or relax interstate licensure requirements
- Efforts undertaken to promote community engagement and discussion related to CSC planning
- Evidence of jurisdictional support of crisis surge response, including specific methodologies to allow for the expansion of health care service delivery, including establishment of alternate care facilities, adjustment of prescribing practices, and amendment of EMS protocols
- Efforts undertaken to socialize and describe CSC planning in a whole-of-government context, including discussions with elected officials and other government leaders
- The process used to ensure provision of consistent and uniform clinical guidance for scarce resource conditions

HCCs also play a role in CSC planning. By the end of the five-year project period, each HPP-funded HCC **must** document its plan for implementing CSC, integrating EMS, hospital, public health, and emergency management policies related to situations in which the usual delivery of health care services is not possible due to disaster conditions. HCCs **must** be prepared to submit the documentation regarding this plan to an HPP FPO upon request. HCCs **must** include in the documentation:

- The key stakeholders involved in the planning, including a description of how these stakeholders integrate with each other to ensure a coordinated response to crisis conditions
- Efforts undertaken to promote provider engagement in CSC planning
- Activities to support the implementation of crisis care decision-making by EMS agencies, including dispatch, transport, and treatment decisions
- Activities to support the implementation of crisis care decision-making by hospitals and other health care entities, especially as they relate to managing limited resources and the integration of crisis strategies into surge capacity planning and incident management

More information about addressing emergency department and inpatient medical surge can be found in Capability 4, Objective 2, Activity 1 of the *2017-2022 Health Care Preparedness and Response Capabilities*.

Activity 3: Develop Alternate Care Systems

HPP Requirements

Alternate Care Systems

An alternate care system, defined as the use of nontraditional settings and modalities for health care delivery, may be required when demand overwhelms a region or the nation's health care delivery system for a prolonged period, or an emergency has significantly damaged infrastructure and limited access to health care. HCCs should plan to provide support, including personnel and supplies, to public health agencies and emergency management organizations that have leadership roles in selecting, establishing, and operating alternative care sites.

Accordingly, HPP awardees and HCCs should plan for the development of alternate care systems, in collaboration with state and local public health agencies and emergency management organizations, prior to the conclusion of the five-year project period. However, the development of an alternate care *system* does not begin and end with identification of alternate care *sites*. HPP awardees and HCCs are encouraged to consider additional factors in their alternate care system activities prior to the conclusion of the five-year project period:

- Establishment of telemedicine or virtual medicine capabilities
- Establishment of assessment and screening centers for early treatment
- Provision of medical care at shelters
- Assisting with the selection and operation of alternate care sites

More information about the development of alternate care systems can be found in Capability 4, Objective 2, Activity 3 of the *2017-2022 Health Care Preparedness and Response Capabilities*.

Activity 4: Address Specialty Surge

HPP Requirements

Pediatric Care

Each HCC should promote its members' planning for pediatric medical emergencies and foster relationships and initiatives with emergency departments that are able to stabilize and manage pediatric medical emergencies.

HPP awardees **must** collaborate with the Emergency Medical Services for Children (EMSC) program within its jurisdiction to better meet the needs of children receiving emergency medical care. The Health Resources and Services Administration (HRSA) administers the EMSC program at the federal

level, and HRSA awardees may be state agencies or accredited schools of medicine. This program works to ensure that critically ill and injured children receive optimal pediatric emergency care.

Following are specific areas of collaboration.

- HPP awardees and the EMSC program awardees within their jurisdictions **must** provide a joint letter of support indicating that EMSC and HPP are linked at the awardee level. HPP awardees must provide the initial letter of support with their funding applications at the beginning of each budget period throughout the five-year project period.
- HPP awardees **must** work with HCCs and EMSC to ensure that all hospitals are prepared to receive, stabilize, and manage pediatric patients. At the end of each budget period, HRSA will provide HPP with data regarding each hospital's capability to manage pediatric medical emergencies to assist with this work.

EMSC awardee contact information is available in the PERFORMS Resource Library or via HPP FPOs.

Chemical or Radiation Emergency Incident

The health care system **must** be prepared to manage exposed or potentially exposed patients during a chemical or radiation emergency. To ensure successful surge management during chemical or radiation emergency events, HCCs and their members should complete the following activities prior to the conclusion of the five-year project period.

- Coordinate training for their members on the provision of wet and dry decontamination and screening to differentiate exposed from unexposed patients (especially in radiation emergency events)
- Ensure involvement and coordination with regional HAZMAT resources (where available) including EMS, fire service, health care organizations, and public health agencies (for public messaging)
- Assist members with the distribution of available, including mobilization of CHEMPACKs when necessary.
- Consider participating in a joint community reception center exercise with public health partners.

Burn and Trauma Care

HPP awardees, their HCCs, and HCC members **must** plan to coordinate a response to large burn and trauma emergencies in collaboration with all burn and trauma systems within their jurisdictions, boundaries, or that may partner with them. This **must** be noted in the HCC response plan by the end of Budget Period 2. HPP awardees **must** also be prepared to submit this documentation to an FPO upon request.

Given the limited number of burn specialty hospitals and trauma centers, an emergency affecting large numbers of burn or trauma patients will **require** HCC and awardee involvement to ensure those patients that can benefit the most from burn and trauma services receive priority for transfer. Additionally, HCCs can assist with patient distribution to coordinate the availability of critical trauma

and burn response resources, such as operating rooms, surgeons, anesthesiologists, operating room nurses, and surgical equipment and supplies.

Behavioral Health Needs

Emergencies may cause severe emotional impacts on survivors, their families, and responders and may additionally cause substantial destabilization of patients with existing behavioral health issues. Consequently, by the conclusion of the five-year project period, ASPR encourages HPP awardees to:

- Develop and use behavioral health support and strike teams to support affected populations
- Plan for widespread information dissemination to help providers, patients, families, and the community understand the symptoms and signs of acute stress responses and collaborate with HCCs to communicate when and where individuals should seek treatment
- Provide ongoing support to their inpatient and outpatient behavioral health members
- Assist with the provision of psychological first aid to those impacted, including health care workers

Infectious Diseases

HPP awardees, HCCs, and their members have roles in planning for and responding to infectious disease outbreaks that stress either the capacity or the capability of the health care delivery system. Prior to the end of the five year project period:

- Awardees, HCCs, and their members **must** expand existing Ebola concept of operations plans (CONOPs) to enhance preparedness and response for all infectious disease emergencies that stress the health care delivery system
- HCCs **must** include HAI coordinators and quality improvement professionals at the health care facility and jurisdictional levels in their activities, including planning, training, and exercises/drills; also include HCC leaders in state HAI coordination work groups
- HCCs should develop a uniform process of continuous screening for newly presenting, hospitalized, and other patients and integrate information with electronic health records (EHRs) where possible, throughout HCC member facilities and organizations
- HCCs should coordinate visitor policies for infectious disease emergencies at member facilities to ensure uniformity
- HCCs should develop and exercise plans to coordinate patient distribution for highly pathogenic respiratory viruses and other highly transmissible infections, including complicated and critically ill infectious disease patients, when tertiary care facilities or designated facilities are not available

More information about addressing specialty surge can be found in Capability 4, Objectives 4 through 9 of the *2017-2022 Health Care Preparedness and Response Capabilities*.

Domain 6 Strategy: Strengthen Biosurveillance (PHEP)

As defined by Homeland Security Presidential Directive 21 (HSPD-21), biosurveillance involves active data-gathering with appropriate analysis and interpretation of biosphere data that might relate to disease activity and threats to human or animal health — whether infectious, toxic, metabolic, or otherwise, and regardless of intentional or natural origin — to achieve early warning of health threats, early detection of health events, and overall situational awareness of disease activity. PHEP awardees must ensure coordination among preparedness, laboratory, and epidemiology programs through the following activities to strengthen biosurveillance.

- Conduct epidemiological surveillance and investigation
- Detect emerging threats and injuries
- Conduct laboratory testing

Activity 1: Conduct Epidemiological Surveillance and Investigation

PHEP Requirements/Recommendations

PHEP awardees must continue to create, maintain, support, and strengthen routine surveillance and detection systems and epidemiological processes. In addition, awardees must be able to surge these systems and processes in response to incidents of public health significance.

Public Health Informatics (Surveillance and Investigation)

PHEP awardees should consider updating essential systems that strengthen epidemiological surveillance and investigation capability with modern technological tools and make them more versatile in meeting the demands for timely, population-specific, and geographically specific surveillance information. To meet these expectations, CDC encourages PHEP awardees to consider two key strategies:

- **Enhance the public health information system workforce:** Prioritize implementation of targeted cross-cutting workforce training and development opportunities to maintain functionality and increase capacity of public health information systems, such as electronic death registration systems.
- **Advance electronic information exchange**: Public health informatics capacity includes specific actions to both receive and transmit data electronically using standards-based messaging; awardees should focus their efforts on improving information sharing and coordinate information technology goals, investments, and work plans with input from state laboratory directors, state epidemiologists, information technology or informatics directors, or specifically designated individuals empowered by these authorities by:
    - Participating in CDC's National Notifiable Diseases Surveillance System (NNDSS) Modernization to increase NNDSS case reports submitted electronically to CDC using HL7 messaging,

- Advancing ELR to improve overall surveillance, timeliness, and accuracy of case reporting, confirmation to state and local public health, and subsequent information sharing with CDC,
- Participating in the National Syndromic Surveillance Program (NSSP) to increase the proportion of emergency department visits monitored by jurisdictions,
- Implementing electronic test ordering (ETOR) to accept electronic test orders and to return findings electronically, and
- Implementing electronic case reporting (eCR) consistent with national standards to accept and process electronically transmitted reportable disease information from electronic health records.

The 2017-2022 HPP-PHEP Supplemental Guidelines includes additional information related to public health informatics.

Electronic Death Registration (EDR)

Awardees using PHEP funds for EDR **must** ensure they are developing or advancing state-based EDR systems that can provide more timely public health mortality surveillance information to CDC's National Center for Health Statistics (NCHS) and state epidemiologists. Awardees using PHEP funds to support existing EDR systems **must** prioritize goals and objectives in their work plans that advance the use and geographic coverage of current death reporting systems. Awardees using PHEP funds to build operational EDR systems **must** prioritize development of scalable plans designed to initially implement an EDR system. More information is available in the 2017-2022 HPP-PHEP Supplemental Guidelines.

Border Health Surveillance

PHEP awardees in jurisdictions located on the United States-Mexico border or the United States-Canada border **must** conduct activities that enhance border health, particularly regarding disease detection, identification, investigation, and preparedness and response activities related to emerging diseases and infectious disease outbreaks whether naturally occurring or due to bioterrorism. This focus on cross- border preparedness reinforces the U.S. public health and health system preparedness whole-of- community approach which is essential for local-to-global threat risk management and response to actual events regardless of source or origin.

Disaster Epidemiology Training

CDC recommends that PHEP awardees participate in disaster epidemiology training initiatives as determined by jurisdictional priorities. Following are recommended activities and tools.

- Rapid Response Registry (RRR): RRR is used to quickly register victims of disasters and provide services, information, or long-term monitoring. The RRR toolkit and technical support from SMEs with ATSDR are available to assist with implementation.
- Emergency Responder Health Monitoring and Surveillance System (ERHMS): ERHMS is designed to provide real-time data and recommendations on health and safety issues that arise among

responders involved in an emergency response. The system includes specific recommendations and tools for all phases of a response (pre-deployment, deployment, and post-deployment).

- Incorporate information from the ATSDR's Assessment of Chemical Exposures (ACE) into training initiatives. ACE can be used to conduct epidemiological assessments after a chemical incident. The ACE toolkit is a helpful resource to assist local authorities in responding to or preparing for a chemical release and has been implemented in several recent disasters.

More detailed information and resources are available in the 2017-2022 HPP-PHEP Supplemental Guidelines.

Collaborate with Poison Control Centers

CDC recommends that PHEP awardees implement processes for using poison control center data for public health surveillance. Such data can be particularly helpful in 1) providing situational awareness during a known public health threat, 2) identifying an emerging public health threat, 3) identifying unmet public health communication needs following a public health threat, or 4) providing surveillance for specific exposures or illnesses of concern to the health department. Detailed information and resources can be found in the 2017-2022 HPP-PHEP Supplemental Guidelines.

Activity 2: Detect Emerging Threats and Injuries

PHEP Requirements/Recommendations

Response Plans for Chemical, Biological, Radiological, Nuclear, and Explosive Threats

Awardees can use PHEP funding to maintain personnel needed to address chemical, biological, radiological, nuclear and explosive (CBRNE) threats through hiring, training, exercising, and otherwise implementing response plans. In addition, awardees should describe in their MYTEPs specific plans to address identified gaps during the project period, and collaborate with HPP awardees to coordinate joint training and exercise opportunities.

Senior Health Officer Input Letter

To ensure strong state systems for detection of threats and injuries, states must plan and coordinate their allocated resources across several domains. PHEP awardees **must** submit an application letter signed by the jurisdiction’s senior health official on official agency letterhead confirming the PHEP director, the epidemiology lead, and the public health laboratory director, or their designated representatives, have provided input into plans, strategies, and investment priorities within epidemiology, surveillance, and laboratory work plans. Awardees who are unable to obtain effective input from these stakeholders must submit a separate attachment with their funding applications describing the reasons why and the steps taken to address them. CDC will work with awardees to help resolve issues as necessary. An optional letter template is available in the PERFORMS Resource Library.

Activity 3: Conducting Laboratory Testing

PHEP Recommendations

Laboratory Response Network-Biological (LRN-B)

PHEP-funded LRN-B laboratories **must** adhere to the LRN-B requirements and maintain the tools and resources necessary for LRN-B participation. PHEP-funded standard reference LRN-B laboratories **must** meet requirements for:

- staffing, training, and equipment;
- proficiency testing;
- partnerships, for example with law enforcement agencies;
- attending national meetings;
- meeting CDC benchmark requirements;
- identifying and covering High Priority Areas;
- meeting the LRN-B standard laboratory checklist requirements;
- maintaining communications with sentinel laboratories; and
- providing support for the detection of emerging infectious diseases. In addition, standard reference laboratories must be able to perform multiple-agent screening on high-risk environmental samples.

Advanced reference laboratories are required to meet the standard reference level requirements, as well as maintain Select Agent certification, and, if requested, support the LRN-B program with assay development, evaluation of new technologies, proficiency testing remediation, and high throughput surge capacity. Additional information is available by contacting the LRN-B program office at LRN@cdc.gov. Awardees must describe planned activities to meet the program and membership requirements in their Budget Period 1 public health laboratory testing work plans and budgets. Description of the program and membership requirements are included in the 2017-2022 HPP-PHEP Supplemental Guidelines.

Laboratory Response Network-Chemical (LRN-C)

All PHEP-funded LRN-C Level 1, Level 2, and Level 3 laboratories **must** adhere to LRN-C requirements and standards and maintain the tools and resources necessary for LRN-C participation. These include:

- staffing, training, and equipment requirements;
- submission of success stories;
- proficiency testing;
- CDC benchmark requirements;
- emergency surge activities;
- logistical support and administrative activities; and
- meeting the LRN-C standard laboratory requirements.

The 10 awardees receiving dedicated Level 1 LRN-C funding **must** address objectives related to chemical emergency response surge capacity as outlined in Capability 12: Public Health Laboratory

Testing, including staffing and equipping the lab, maintaining critical instrumentation in a state of readiness, training and proficiency testing for staff, and participating in local, state, and national exercises. In addition, awardees must describe how they plan to increase their laboratory capabilities and capacities consistent with the LRN chemical terrorism program objectives, including the addition of new high-throughput sample preparation and analysis techniques and analytical capability for new threat agents.

Additional information is available by contacting the LRN-C technical program office at LRN-C_QA_Program@cdc.gov. Awardees must describe planned activities to meet the program and membership requirements in their Budget Period 1 public health laboratory testing work plans and budgets. Description of the program and membership requirements are included in the 2017-2022 HPP-PHEP Supplemental Guidelines.

LRN- C Equipment Requirements (Level 1 and Level 2 Laboratories Only)

LRN-C Level 1 laboratories and Level 2 laboratories **must** replace the inductively coupled plasma mass spectrometry (ICP-MS) equipment by 2018 and nerve agent metabolites (NAM) equipment by 2020 to maintain the LRN-C membership requirements. Awardees must describe their equipment replacement activities in their Budget Period 1 public health laboratory testing work plans and budgets in partnership with their laboratory directors and chemical threat program coordinators to assure the effective replacement of equipment.

In addition, laboratories must work with their project officers and grant management specialists as necessary when obtaining quotes and making procurement decisions. Beginning in Budget Period 1, 21 Level 2 laboratories are receiving PHEP funds specifically for completing the replacement of ICP-MS equipment. PHEP funds must be strictly used for equipment replacement. Level 1 labs will continue to receive dedicated PHEP funding. Subject to the availability of funds throughout ensuing budget periods, CDC expects to provide funds to support the LRN-C NAM equipment replacement requirement. CDC will actively monitor and assess the progress of the equipment replacement completion.

Federal Requirements

For the HPP-PHEP 2017-2022 project period, awardees must address and comply with other federal requirements that include joint, HPP-specific, and PHEP-specific programmatic requirements and assurances. In completing the Program Requirements segment of the funding application, awardees must provide updates on these programmatic requirements and assurances. In addition, HPP and PHEP awardees must summarize in their work plans how they will address the strategies and activities listed within each of the six domains of the HPP-PHEP Logic Model.

Joint program requirements and assurances apply to all HPP and PHEP awardees, including territories and freely associated states. However, ASPR and CDC will provide additional guidance and technical assistance that describe modified requirements for U.S. territories and freely associated states of

American Samoa, The Commonwealth of Northern Mariana Islands, Guam, Puerto Rico, the U.S. Virgin Islands, Federated States of Micronesia, the Republic of Palau, and the Republic of the Marshall Islands. Please refer to the 2017-2022 HPP-PHEP Supplemental Guidelines for specific assurances, program requirements, and any additional administrative requirements.

1. Coordinate exercise planning and implementation.

- Awardees must develop and update multiyear training and exercise plans (MYTEPs) to reflect planned activities. Updated MYTEPs must be submitted at the time of application.
- Awardees must conduct one joint statewide or regional full-scale exercise within the five-year project period to test public health and health care preparedness capabilities.
- Awardees must conduct an annual public health and medical preparedness exercise that specifically addresses the needs of people with disabilities and other at-risk individuals or populations (see www.phe.gov/Preparedness/planning/abc/Pages/atrisk.aspx) and report in the following year's funding application on the strengths and weaknesses identified and corrective actions taken to address weaknesses. HPP awardees should consider the access and functional needs of at-risk individuals and engage these populations as they plan the budget period's HCC-based exercises.
- Awardees must complete and submit AAR/IPs for all responses to real incidents and planned events and for exercises conducted to demonstrate compliance with HPP and PHEP program requirements. HPP and PHEP awardees should provide an AAR/IPs in accordance with Homeland Security Exercise and Evaluation Program (HSEEP) guidelines for each qualifying exercise within 120 days.
- Exercise requirements are provided in the 2017-2022 HPP-PHEP Supplemental Guidelines.

Below is a summary of the joint and program-specific exercise requirements.

Requirement	HPP	PHEP	Required and Optional Awardees
Annual Requirements			
2 Redundant Communication Drills *At least two drills per health care coalition (HCC)*	✓		**Required**: All 62 awardees
1 Coalition Surge Test: http://www.phe.gov/Preparedness/planning/hpp/Pages/coalition-tool.aspx *Each HCC in states, directly funded localities, Guam, and Puerto Rico must conduct 1 exercise; a real incident/event will be considered.*	✓		**Required**: States, directly funded localities, Guam, and Puerto Rico.
1 Hospital Surge Test-: http://www.phe.gov/preparedness/planning/hpp/surge/Pages/default.aspx	✓		**Required**: American Samoa, Commonwealth of Northern Mariana Islands, Federated States of Micronesia, Republic of Palau, Republic of the Marshall Islands, and U.S. Virgin Islands
After-action Report/Improvement Plan (AAR/IP) Submission	✓	✓	**Required**: All 62 awardees
1 Multiyear Training and Exercise Plan (MYTEP) Submission (joint plan)	✓	✓	**Required**: All 62 awardees

Requirement	HPP	PHEP	Required and Optional Awardees
			U.S. territories and freely associated states (excluding Puerto Rico) may use an Excel spreadsheet rather than PERFORMS to receive and respond to an inventory request from CDC.
3 MCM drills *All CRI local jurisdictions must complete **all** 3 drills annually: 1) staff notification and assembly; 2) facility set-up; and 3) site activation. Throughput estimation is now completed as part of the dispensing full-scale exercise (FSE). However, if a site does not participate in the dispensing FSE (for example, participates in immunization FSE in lieu of dispensing FSE), oral MCM throughput must be measured and information submitted at least once during the fiveyear period.*		✓	**Required:** All CRI local jurisdictions
1 Exercise or Real Incident		✓	**Required**: All 62 awardees
1 Inventory Management and Tracking System (IMATS) or Inventory Data Exchange (IDE) Test		✓	**Required**: All 62 awardees. However, to document compliance, American Samoa, Commonwealth of Northern Mariana Islands, Federated States of Micronesia, Guam, Republic of Palau, Republic of the Marshall Islands, and U.S. Virgin Islands may submit an Excel spreadsheet to respond to CDC inventory request, as opposed to IMATS or IDE.
Project Period Requirements			
1 Functional or Full-scale Exercise *Applies to states, directly funded localities, and Puerto Rico, who must participate in a joint, statewide exercise involving HPP/HCCs, PHEP, and emergency management agency/organization partners; a real incident/event will be considered*	✓	✓	**Required**: States, directly funded localities and Puerto Rico **Optional**: American Samoa, Commonwealth of Northern Mariana Islands, Federated States of Micronesia, Guam, Republic of Palau, Republic of the Marshall Islands, and U.S. Virgin Islands, who may focus exercise on any event type and may test the jurisdiction's Zika response plan to fulfill this requirement
1 Fiscal Preparedness Tabletop Exercise		✓	Optional: All 62 Awardees
1 Medical Countermeasure (MCM) Distribution Full-scale Exercise		✓	**Required**: States and directly funded localities **Optional**: CDC recommends all U.S. territories and freely associated states participate in HSEEP-based training for plan and exercise development; with implementation evaluated using the MCM ORR tool. CDC will follow up with these

Requirement	HPP	PHEP	Required and Optional Awardees
			awardees to determine specific exercise requirements. The intent of these requirements is to successfully conduct an MCM-related full-scale exercise.
1 MCM Dispensing Full-scale Exercise or 1 Mass Vaccination Full-scale Exercise		✓	**Required**: All 62 awardees 1 POD in each CRI local planning jurisdiction in each of the 72 MSAs and four directly funded localities must be exercised.
AAR/IP Submission	✓	✓	**Required**: All 62 awardees

2. **Submit pandemic influenza preparedness plans.**
   Awardees are required to have updated plans describing activities they will conduct with respect to pandemic influenza as required by Sections 319C-1 and 319C-2 of the PHS Act.
   - HPP awardees can satisfy the annual requirement through the submission of required program data such as the capability self-assessment and program measures that provide information on the status of state and local pandemic response readiness, barriers and challenges to preparedness and operational readiness, and efforts to address the needs of at-risk individuals.
   - PHEP awardees will meet this annual requirement through their participation in CDC's MCM operational readiness review process. CDC has incorporated pandemic influenza elements and mass vaccination requirements into the ORR tool. In addition, awardees must address pandemic influenza planning gaps as part of their medical countermeasure technical assistance action plans.
3. **Describe progress on capability development.**
   Awardees must:
   - Describe their top jurisdictional strategic priorities for the project period.
   - Develop strategies and activities based on the HPP-PHEP Logic Model
   - Identify the data sources used to inform their strategic priorities. Sources include but are not limited to jurisdictional risk assessments, capability self-assessments, NHSPI, and AAR/IPs.
   - List challenges or barriers that are anticipated for the project period, including any budgetary issues that might hinder the success or completion of the project as originally proposed and approved.

4. **Maintain a current all-hazards public health emergency preparedness and response plan and submit to ASPR or CDC when requested** and make available for review during site visits.

5. **Establish and maintain senior advisory committees.** Awardees must establish and maintain advisory committees or similar mechanisms of senior officials from governmental and nongovernmental organizations involved in homeland security, health care, public health, EMS, and behavioral health to help integrate preparedness efforts across jurisdictions and to maximize

funding streams. This will enable HPP and PHEP programs to better coordinate with relevant public health, health care, and preparedness programs.

6. **Obtain public comment and input on public health emergency preparedness and response plans and their implementation.** Awardees must obtain public comment and input on public health emergency preparedness and response plans and their implementation using existing advisory committees or a similar mechanism to ensure continuous input from other state, local, and tribal stakeholders and the general public, including members of at-risk populations and those with expertise at integrating the access and functional needs of at-risk individuals..

7. **Coordinate emergency public health and health care preparedness and response plans with educational agencies and state child care lead agencies**. Awardees must ensure emergency preparedness and response coordination with designated educational agencies and lead child care agencies in their jurisdictions.

8. **Engage State Unit on Aging or Equivalent Office.** HPP and PHEP awardees must engage the State Unit on Aging, Area Agency on Aging, or an equivalent office in addressing the public health emergency preparedness, response, and recovery needs of older adults. Awardees must provide evidence that this state office is engaged in the jurisdictional planning process.

9. **Meet Emergency System for Advance Registration of Volunteer Health Professionals (ESAR- VHP) compliance requirements.** The ESAR-VHP compliance requirements identify capabilities and procedures that state ESAR-VHP programs must have in place to ensure effective management and interjurisdictional movement of volunteer health personnel in emergencies. Awardees must coordinate with volunteer health professional entities and are encouraged to collaborate with the Medical Reserve Corps (MRC) to facilitate the integration of MRC units with the local, state, and regional infrastructure to help ensure an efficient response to a public health emergency. More information about the MRC program can be found at www.mrc.hhs.gov.

10. **Ensure cross-discipline coordination.** Awardees may use HPP and PHEP funding to support coordination activities, such as local health departments planning with health care coalitions, but must track accomplishments. Awardees should coordinate activities with state emergency management agencies, EMS providers (including the State Office of Emergency Medical Services), mental health agencies (including the State Mental Health Authority and the Disaster Behavioral Health Coordinator), HCCs, and educational agencies and state child care lead agencies.

11. **Comply with SAFECOM requirements.** Awardees and subawardees that use federal preparedness grant funds to support emergency communications activities must comply with current SAFECOM guidance for emergency communications grants. SAFECOM guidance is available at www.safecomprogram.gov.

12. Ensure compliance with the following cooperative agreement administrative requirements.

- Submit required progress reports and program and financial data, including budgets and work plans; progress in achieving evidence-based benchmarks and objective standards; performance measures data including data from local health departments; outcomes of annual preparedness exercises including strengths, weaknesses and associated corrective actions; and accomplishments highlighting the impact and value of the HPP and PHEP programs in their jurisdictions.

- Inform and educate hospitals and health care coalition*s* within the jurisdiction on their role in public health emergency preparedness and response.

- Submit an independent audit report every two years to the Federal Audit Clearinghouse within 30 days of receipt of the report.

- Provide situational awareness data during emergency response operations and other times as requested.

- Document Maintenance of Funding and Matching Funds.

- Have in place fiscal and programmatic systems to document accountability and improvement. The following are accountability processes designed to generate programmatic improvements:

    - Plan and participate in joint site visits at least once every 12-24 months. In addition to site visits, awardees are encouraged to invite HPP and PHEP project officers and senior ASPR and CDC staff to attend or observe events such as scheduled exercises, regional meetings, jurisdictional conferences, senior advisory committee meetings, and coalition meetings supported by HPP and PHEP funding to gain insight on strengths and challenges in preparedness planning.

    - Participate in mandatory meetings and trainings. The following meetings are considered mandatory, and awardees should budget travel funds accordingly:
        - Annual preparedness summit sponsored by the National Association of County and City Health Officials (NACCHO)
        - Directors of public health preparedness annual meeting sponsored by the Association of State and Territorial Health Officials
        - Health care coalition preparedness conference as specified by ASPR
        - Training for MCM coordinators sponsored by ASPR and CDC and other MCM regional workshops
        - Other mandatory training sessions that may be conducted via webinar or other remote meeting venues

- Maintain all program documentation for purposes of data verification and validation. ASPR and CDC strongly encourage awardees to develop internal electronic systems that allow jurisdictions to share documentation with HPP and PHEP project officers, including evidence of progress completing corrective actions for weaknesses identified during exercises and drills. In Budget Period 1, ASPR and CDC will strengthen the emphasis on verification and validation of requirements to identify strengths and potential gaps, better review and evaluate progress, and provide technical assistance.

- Engage in technical assistance planning. Awardees must actively work with their HPP and PHEP project officers to properly identify, manage, and update technical assistance plans at least quarterly to assess TA progress. ASPR encourages HCCs, health care organizations and other stakeholders supporting the provision of care during emergencies to use ASPR's TRACIE system. CDC encourages awardees to engage in technical assistance planning and to submit specific requests through the use of CDC's On-TRAC portal.

13. Obtain local health department concurrence. PHEP Requirement only, applicable to decentralized state health departments

PHEP awardees must consult with local public health departments or other subdivisions within the jurisdiction to reach consensus, approval, or concurrence on the overall strategies, approaches, and priorities described in their work plans and on the relative distribution of funding as outlined in the budgets associated with the work plans. Awardees do not need to obtain concurrence on the specific funding amounts but rather the process and formula used to determine local health department amounts. Awardees must describe the process used to obtain concurrence, including any nonconcurrence issues encountered, and plans to resolve issues identified.

State awardees must provide signed letters of concurrence on official agency letterhead from local health departments or representative entities upon request. Awardees who are unable to gain 100% concurrence must submit a PDF document with their applications describing the reasons for lack of concurrence and the steps taken to address them. CDC will investigate instances where awardees are unable to gain concurrence and attempt to identify means to resolve nonconcurrence issues.

1. Collaborations

a. With other ASPR and CDC programs and ASPR- and CDC-funded organizations:

Awardees must provide evidence of proposed or existing key collaborations. Memorandums of agreement (MOA), memorandums of understanding (MOU), letters of commitment, or service agreements may be used to formally document the scope of work, intensity, and duration of collaborations with partners. Each document should thoroughly describe the proposed collaboration

and specific activities, which parties are responsible for what, and the intended outcomes and benefits for the overall proposed program. PHEP awardees are required to collaborate with CDC's Division of State and Local Readiness, Division of Healthcare Quality Promotion, and ELC and LRN program offices to ensure that activities and funding are complementary and not duplicative. Awardees are encouraged to collaborate with their jurisdictional laboratory, surveillance, and epidemiology leads, maternal-child health programs, immunization programs, environmental health programs, occupational health programs, legal counsel, health care providers, blood safety organizations, and emergency management partners. In addition, awardees are encouraged to partner with other federal programs. Letters from state health officials are required in some instances. The Strategies and Activities section of this FOA outlines the anticipated collaborations for the implementation of the cooperative agreement. For additional details, please see the 2017-2022 HPP-PHEP supplemental Guidelines.

PHEP awardees **must** provide the following with their applications.

- Letters signed by their jurisdictional senior health officials confirming the PHEP director, the epidemiology lead, and the public health laboratory director, or their designated representatives have provided input into plans, strategies, and investment priorities within epidemiology, surveillance, and laboratory work plans.
- Letters signed by their jurisdictional senior health officials or PHEP Directors confirming that tribes approve or have provided input on the approaches and priorities described in PHEP applications. (Applies to awardees with federally recognized tribes within their jurisdictions.)
- Letters of concurrence from local health departments or representative entities upon request. (Applies to decentralized state health departments.)

b. With organizations not funded by ASPR or CDC:

Consistent with a whole community approach to preparedness, HPP awardees and HCCs should actively work with and engage community leaders outside of its members. Community engagement creates greater awareness of the HCC’s role and emergency preparedness activities, promotes community resilience.

HPP awardees and the EMSC program awardees within their jurisdictions **must** provide a joint letter of support indicating that EMSC and HPP are linked at the awardee level. HPP awardees must provide the initial letter of support with their funding applications at the beginning of each budget period throughout the five-year project period.

PHEP awardees are expected to establish, build, and sustain strategic and meaningful collaborative partnerships. Toward the implementation of the plans, training, exercising, and technical assistance, applicants should also consider working relationships with other federal agencies and key partners such as educational entities; other state and local public health departments; community health care centers; community- and faith-based organizations; stakeholders; law enforcement; national organizations, such as the poison control centers; and other entities interested in promoting improved public health emergency preparedness outcomes. Formal MOUs may be established as needed to help formalize partnerships.

For additional details, please see the 2017-2022 HPP-PHEP Supplemental Guidelines. Please note: Funding cannot be used for activities already covered by other federal grants or cooperative agreements.

Federal agencies participating in the Emergency Preparedness Grant Coordination process are working to identify current preparedness activities and areas for collaboration across federal grants with public health and healthcare preparedness components. The participating federal agencies include:

- Department of Health and Human Services (HHS) Assistant Secretary for Preparedness and Response (ASPR)
- Department of Homeland Security (DHS) Federal Emergency Management Agency (FEMA)
- HHS Centers for Disease Control and Prevention (CDC)
- HHS Health Resources and Services Administration (HRSA)
- Department of Transportation (DOT) National Highway Traffic Safety Administration (NHTSA)

Federal agencies are actively coordinating guidance and technical assistance and encourage all recipients to actively coordinate preparedness activities for their jurisdictions. More information on the Emergency Preparedness Grant Coordination process can be found at http://www.phe.gov/Preparedness/planning/hpp/Pages/emergency-prep-grant.aspx.

2. Target Populations

This FOA targets, in broad terms, the entire U.S. population and the public health and health care systems within the United States and its territories and freely associated states. Specifically, funds are intended to support the needs of any community impacted by a public health emergency or disaster and to ensure that the public health and health care systems are ready and capable of keeping their communities safe and mitigating the impacts of any public health emergency. Additionally, there is a special emphasis on ensuring the health needs of at-risk populations, including tribal entities, and to ensure that plans and processes are in place pre-event and during an event to address the unique needs of this population. Additionally, there is a special emphasis on integrating the access and functional needs of at-risk populations that may interfere with their ability to access or receive medical care before, during, or after a disaster or emergency.

a. Health Disparities

Awardees **must** show evidence that they are integrating the access and functional needs of at-risk and vulnerable population(s) as indicated in their planning. Awardees **must** describe the structure or processes in place to integrate the access and functional needs of at-risk individuals, including but not limited to children, pregnant women, older adults, people with disabilities, and people with limited English proficiency and non-English speaking populations. Strategies to integrate the access and functional needs of at-risk individuals involve inclusion in public health, health care, and behavioral health response strategies; furthermore, these strategies are identified and addressed in operational work plans. Awardees, subawardees, and HCCs are encouraged to identify community partners with established relationships with diverse at-risk populations, such as social services organizations, and to use demographic tools such as the Social Vulnerability Index and the U.S. Census/American Community

Survey to better anticipate the potential access and functional needs of at-risk community members before, during, and after an emergency. Applicants must also ensure inclusive planning with tribes.

Applicants **must** also ensure inclusive planning with tribes.

iv. Funding Strategy

The distribution of HPP and PHEP funds is calculated using a formula established under section 319C-1(h) of the PHS Act, as amended. States and U.S. territories and freely associated states receive the greater of a minimum amount prescribed by the formula or a base amount, as determined by the Secretary, supplemented by a population-based formula, and possible additional funding based on findings about significant unmet needs or high degree of risk. Eligible political subdivisions receive an amount determined by the Secretary and possible additional funding based on findings about significant unmet needs or high degree of risk.

b. Evaluation and Performance Measurement

i. ASPR and CDC Evaluation and Performance Measurement Strategy

Awardees must use both the health care preparedness and response capabilities and the public health preparedness capabilities to guide the implementation of their strategic plans. Accordingly, the ASPR and CDC strategy for monitoring and evaluating program and awardee performance will include several activities, spanning both process and short-term outcome evaluation. Specific requirements and recommended activities are detailed in the Strategies and Activities section of this FOA. For additional information regarding the health care preparedness and response capabilities and domains, see *2017-2022 Health Care Preparedness and Response Capabilities.* For additional information regarding the public health preparedness capabilities, please see *Public Health Preparedness Capabilities: National Standards for State and Local Planning*.

Performance measures are derived directly from ASPR's *2017-2022 Health Care Preparedness and Response Capabilities* and *CDC's Public Health Preparedness Capabilities: National Standards for State and Local Planning* and the respective budget period's performance measure specifications and implementation guidance.

The HPP-PHEP evaluation and performance measure approach includes *process measures and outputs* to track implementation of the strategies and outcome measures to monitor achievement of the outcomes expected in the project period. Evaluation findings and performance measures will be reviewed routinely to identify:

- Areas for program improvement, and
- Programs demonstrating substantial progress in specific program areas.

Evidence-based Benchmarks

ASPR and CDC have specified a subset of measures and select program requirements as benchmarks as mandated by Sections 319C-1 and 319C-2 of the PHS Act as amended. Awardees must achieve,

maintain, and report on benchmarks throughout the five-year project period. Substantial failure to meet the benchmarks may result in potential funding penalties. To substantially meet a benchmark, awardees must provide complete and accurate information describing how the benchmark was met.

Accountability Provisions

Awardees that fail to "substantially meet" the benchmarks required by this funding opportunity announcement are subject to withholding of a statutorily mandated percentage of the award if an awardee fails substantially to meet established benchmarks for the immediately preceding fiscal year or fails to submit a satisfactory pandemic influenza plan.

HHS is required to treat each failure to substantially meet all the benchmarks and each failure to submit a satisfactory pandemic influenza plan as a separate withholding action. For example, an awardee failing substantially to meet benchmarks AND who fails to submit a satisfactory pandemic influenza plan could have 10% withheld for each failure for a total of 20% for the first year this happens. If this situation remained unchanged, HHS would then be required to assess 15% for each failure for a total of 30% for the second year this happens. Alternatively, if one of the two failures is corrected in the second year but one remained, HHS is required to withhold 15% of the second year funding.

HPP Evaluation and Performance Measurement Strategy

To measure and evaluate HPP performance, a variety of measures were developed at the input-, activity-, output-, or outcome-level. The 2017-2022 HPP performance measures target output and outcome measures to address the information needs of various stakeholders.

ASPR will review and evaluate HPP awardees based on a number of sources of information including performance measure data, information gathered during site visits, produced AAR/IPs, and HCC preparedness and response plans developed. This information will also be used to identify program areas to be improved, program successes, and key areas of technical assistance to provide to awardees and their HCCs. The HPP performance measures monitor implementation of the program, and are intended to help assess an HCC's readiness to respond in an emergency.

American Samoa, Commonwealth of the Northern Mariana Islands, Federated States of Micronesia, Republic of the Marshall Islands, Republic of Palau, and the U.S. Virgin Islands will not be required to respond to a subset of the first 22 listed performance measures due to differences in how they are structured and function. In these cases, the measure is followed with "Does not apply to select U.S Territories and Freely Associate States" or, in one instance, specifically "Does not apply to Federated States of Micronesia, Republic of Palau, and Republic of the Marshall Islands only." U.S. Territories and Freely Associated States-specific requirements can be found in HPP 2017-2022 Supplemental Guidance document. Additionally, performance measures 23 through 28 only apply to these awardees.

Following are the 22 HPP performance measures and the six measures (23-28) for select U.S. territories and freely associated states.

- Percent of funding each HCC receives from the awardee, other federal sources, and non-federal sources.

- Number of calendar days from start of budget period for awardees to execute subawards with each HCC's fiduciary agent. (Does not apply to select U.S. Territories and Freely Associated States).
- Membership representation rate of HCC core (acute care Hospitals, EMS, Emergency Management, Public Health) and additional member organizations by member type.
- Percent of HCCs that have a complete and approved Preparedness Plan.
- Percent of HCCs that have a complete and approved Response Plan.
- Percent of awardees that obtain de-identified data from emPOWER at least once every six months to identify numbers of individuals with electricity-dependent medical and assistive equipment for planning purposes. (Does not apply to Federated States of Micronesia, Republic of Palau, and Republic of the Marshall Islands.)
- Percent of HCCs that obtain de-identified data from emPOWER at least once every six months to identify numbers of individuals with electricity-dependent medical and assistive equipment for planning purposes. (Does not apply to Federated States of Micronesia, Republic of Palau, and Republic of the Marshall Islands.)
- Percent of awardees that obtain data from the Social Vulnerability Index to estimate the populations with a higher likelihood of having access and functional needs for planning purposes at least once per year. (Does not apply to select U.S. Territories and Freely Associated States.)
- Percent of HCCs that obtain data from the Social Vulnerability Index to estimate the populations with a higher likelihood of having access and functional needs for planning purposes at least once per year. (Does not apply to select U.S. Territories and Freely Associated States.)
- Percent of hospitals with an Emergency Department (ED) recognized through a statewide, territorial, or regional standardized system that are able to stabilize and/or manage pediatric medical emergencies.
- Percent of awardees that have provided an opportunity for each HCC to review and provide input to the awardee's ESF-8 preparedness and response plan.
- Percent of HCCs engaged in their awardee's jurisdictional risk assessment.
- Percent of HCCs that have drilled their redundant communications plans and systems and platforms at least once every six months.
- Percent of HCC member organizations that responded during a redundant communications drill by system and platform type used.
- Percent of HCC core member organizations participating in Phase 1: Table Top Exercise with Functional Elements and Facilitated Discussion of the Coalition Surge Test. (Does not apply to select U.S. Territories and Freely Associated States.)
- Percent of HCC core member organizations' executives participating in Phase 2: After Action Review of the Coalition Surge Test. (Does not apply to select U.S. Territories and Freely Associated States.)
- Time [in minutes] for evacuating facilities in the HCC to report the total number of evacuating patients. (Does not apply to select U.S. Territories and Freely Associated States.)
- Time [in minutes] for receiving facilities in the HCC to report the total number of beds available to receive patients. (Does not apply to select U.S. Territories and Freely Associated States.)
- Time [in minutes] for the HCCs to identify an appropriate mode of transport for the last evacuating patient. (Does not apply to select U.S. Territories and Freely Associated States.)
- Percent of patients at the evacuating facilities that are identified as able to be: a) discharged safely to home or b) evacuated to receiving facilities during Phase 1: Tabletop Exercise with Functional Elements

and Facilitated Discussion of the Coalition Surge Test. (Does not apply to select U.S. territories and Freely Associated States.)

- Percent of evacuating patients with an appropriate bed identified at a receiving health care facility in 90 minutes. (Does not apply to select U.S. Territories and Freely Associated States.)
- Percent of evacuating patients with acceptance for transfer to another facility that have an appropriate mode of transport identified in 90 minutes. (Does not apply to select U.S. Territories and Freely Associated States.)
- Percent of HCCs where areas for improvement have been identified from HCC and member organizations' own exercises or real-world events and the HCCs' preparedness and response plans have been revised to reflect improvements.
- Percent of awardees with a complete, jurisdiction-wide protocol that delineates a) the appropriate allocation of scarce resources during crises and b) local and regional crisis standards of care (CSC) planning and implementation efforts.
- Percent of HCC core member organizations participating in the Command Center Tabletop and Emergency Department Tabletop during the Hospital Surge Test. (Only applies to select U.S. Territories and Freely Associated States.)
- Percent of HCC core member organizations' executives participating in the After Action Review of the Hospital Surge Test. (Only applies to select U.S. Territories and Freely Associated States.)
- Percentage of ICU beds made available during the Hospital Surge Test. (Only applies to select U.S. Territories and Freely Associated States.)
- Percentage of non-ICU beds made available during the Hospital Surge Test. (Only applies to select U.S. Territories and Freely Associated States.)
- Percentage of emergency department beds made available during the Hospital Surge Test. (Only applies to select U.S. Territories and Freely Associated States.)
- Percentage of patients with a bed identified in the emergency department during the Hospital Surge Test. (Only applies to select U.S. Territories and Freely Associated States.)

HPP Budget Period 1 Benchmarks Subject to Withholding

Program Benchmarks

HPP Benchmarks	Requirements
HPP - Program 1	Awardees must execute subawards with each HCC within 90 calendar days from the start of each budget period.
HPP - Program 2	Awardees must submit quarterly Federal Financial Reports (FFRs) within 30 calendar days of Notice of Award deadlines during each budget period.
HPP - Program 3	Awardees must submit a joint MYTEP with each budget period application package.
HPP - Program 4	Awardees must have a draft preparedness plan completed by April 1, 2018, and final plans submitted with the Budget Period 1 Annual Progress Report.
HPP – Program 5	HPP awardees must satisfy the annual requirement to submit a pandemic influenza preparedness plan through the submission of required program data such as the capability self-assessment and program measures that provide information on the status of state and local pandemic response readiness, barriers and challenges to preparedness and operational readiness, and efforts to address the needs of at-risk individuals.

Criteria to Determine Potential Withholding of HPP Fiscal Year 2018 Funds

	Benchmark Measure	Yes	No	Possible % Withholding
1.	Awardees must execute subawards with each HCC within 90 calendar days from the start of each budget period.			10%
2.	Awardees must submit quarterly Federal Financial Reports (FFRs) within 30 calendar days of Notice of Award deadlines during each budget period.			
3.	Awardees must submit a joint MYTEP with each budget period application package.			
4.	100% of awardee HCCs must have a draft preparedness plan completed by April 1, 2018, and final plans submitted with the Budget Period 1 Annual Progress Report.			
5.	100% of awardees must submit required program data such as the capability self-assessment and program measures that provide information on the status of state and local pandemic response readiness, barriers and challenges to preparedness and operational readiness, and efforts to address the needs of at-risk individuals.			10%
	Total Potential Withholding Percentage			20%

Scoring Criteria

The four program benchmarks are weighted the same, so failure to substantially meet any one of the benchmarks during each fiscal year will count as one failure and result in withholding of 10% of the following fiscal year's HPP award. Failure to submit the required program data outlined in the fifth benchmark regarding the annual pandemic influenza preparedness plan requirement will count as one failure and result in withholding of 10% of the following fiscal year's HPP award. More information on enforcement actions and disputes is available in the withholding and repayment guidance available in the 2017-2022 HPP-PHEP Supplemental Guidelines.

PHEP Evaluation and Performance Measurement Strategy

CDC's evaluation and performance monitoring strategy will assess progress made across the six domains, and their related strategies, activities, and outcomes described in this announcement. CDC will deploy several methods for assessing awardee performance throughout this five-year project period, including collection of process measures, reports, and program and performance measures.

Process Measurement

CDC will measure PHEP awardee progress using a variety of standard reports and systematic approaches. These include but are not be limited to the following elements.

1. **Annual CPG status reports:** Awardee self-assessments report three process measures for each capability function:
    - Function importance
    - Function status
    - Function challenges and barriers

2. **MCM ORR data:** Information will inform operational process measures related, but not limited, to:
    - Staffing
        - Core staff plans, vacancies, and training
        - First responder plans, staffing, and training
        - Volunteer plans, staffing, and training
    - Planning and performance resources
        - JRA process, timeframe, and plans
        - At-risk population risk assessment and plans
        - Drills, Exercises, and Incidents
    - Equipment
        - Inventory and function

CDC plans to expand the ORR to encompass measurement of all hazards for all public health preparedness capabilities. Implementation of the ORR for all hazards will be introduced over the project period. PHEP awardees will be expected to achieve or make substantial progress toward achieving a status level of "established." CDC will provide assistance as necessary to assure that awardees conduct assessments and submit data for all local CRI planning jurisdictions within the required time-frame.

3. **Annual technical assistance plans.** Developed in consultation with PHEP and MCM specialists, technical assistance plans will be used to evaluate progress in addressing gaps identified through the MCM ORR process, including gaps in pandemic influenza preparedness. Periodic updates will be required to track progress on addressing identified gaps and to ensure that awardees meet the CDC standard of achieving an overall status level of "established" by the end of this five-year project period.

4. Additional **Process measures:** CDC requires timely submission of all required progress reports, financial reports, and other program deliverables. In addition, awardees will report on the following specific process measures on key program requirements and deliverables.
    - Number of times a year that a jurisdiction activated (partial or full activation) the public health emergency operations center (EOC) or state EOC (when public health is involved)
    - Percent of funds that are allocated to local and tribal health departments
    - Successful completion of a jurisdictional JRA
    - Number of days from the start of the budget period to execution of subawardee contracts to local/tribal public health if applicable (not during an emergency)
    - Number of days from the start of the budget period to execution of subawardee contracts to local/tribal public health during a public health incident where there is CDC emergency supplemental funding (if applicable)
    - Number of days from CDC funding for Ebola and Zika response to executing subawardee contracts to local/tribal public health (if applicable)
    - Development and submission of a jurisdictional plan that ensures emergency funding moves quickly through the state (or local) fiscal systems and reaches the impacted population in time to achieve the maximum public health impact.
    - Percent of funds that are left unspent by the end of the two-year budget spend-down period.
    - Successful completion and submission of MYTEPs, ARR/IPs, and pandemic influenza requirements.

Outcome Measurement

In addition to the process performance measures and reports described, PHEP awardees must submit outcome performance measures over the five-year project period. These are measures related to the short-term outcomes depicted in the logic model and described in the narrative approach. CDC will aggregate selected outcome measures reported by awardees into a program measure that presents a national picture of preparedness to include (but not limited to:

- **Timely assessment and sharing of essential elements of information**
    - **Joint Program Measure 1:** Percent of awardees effectively using information sharing to respond to an emergency or exercise.
        - **PHEP Performance Measure:** Percent of awardees that receive requested updates about **E. coli lab data** (required to test epidemiology and laboratory communication) or a related real incident.

          Target time for requested information: 45 minutes (*New measure*).
- **Earliest possible identification and investigation of an incident**
    - **Program Measure 1:** Percent of awardees that receive reports for E. coli STEC (shiga toxin-producing E. coli) within seven days.

        - **PHEP Performance Measure**: Percentage of E. coli STEC reports received by a public health agency within seven days (PHEP 13.1).
    - **Program Measure 2:** Percent of awardees that meet target response time of 45 minutes or less for laboratory/epidemiologist emergency on-call contact drill.
        - **PHEP Performance Measure:** Time to complete notification in both directions between CDC, on-call laboratorian, and on-call epidemiologist (PHEP 12.2).
    - **Program Measure 3:** Percent of awardees that pass all biological laboratory samples.
        - **PHEP Performance Measure:** Proportion of LRN-B proficiency tests successfully passed by PHEP-funded laboratories (PHEP 12.11, **PHEP Benchmark**).
- **Timely implementation of intervention and control measures**
    - **Program Measure 4:** Percent of awardees that initiate control measures for *E. coli,* within three days of initial case identification.
        - **PHEP Performance Measure:** Percentage of *E. coli* reports that met the target for initiating control measures within three days of initial case identification (PHEP 13.2).
- **Timely communication of situational awareness and risk information by partners**
    - **Program Measure 5:** Percent of awardees that use partners as channels of distribution for emergency information.
        - **PHEP Performance Measure:** TBD
- **Continuity of emergency operations throughout the surge of an emergency or incident**
    - **Program measure 6:** Percent of awardees that assemble pre-identified staff required to cover a public health incident in 60 minutes or less.
        - **PHEP Performance Measure:** 60 minutes or less for pre-identified staff covering activated public health agency incident management lead roles to report for duty (PHEP 3.1).
    - **Potential Additional Program Measure:** TBD
- **Timely coordination and support of response activities with healthcare and other partners**
    - **Program Measure 7:** Percent of awardees that have plans, processes, and procedures in place to manage volunteers supporting an emergency or incident.
        - **PHEP Performance Measure:** Plans, processes, and procedures are in place to manage volunteers who support an emergency or health incident.
    - **Joint Program Measure 2:** Percent of awardees able to request, activate, and deploy volunteers appropriately within requested time (HPP-PHEP 15.1).

- **PHEP Performance Measure:** Percentage of volunteers deployed in appropriate time to support an incident or exercise (formerly HPP-PHEP 15.1).

  Target time for volunteers to activate and deploy: TBD

- **Continuous learning and improvements are systematic**
  - **Program/Process Measure 8:** Percent of awardees with a progressive planning, drill and exercise review process using HSEEP principles in place.
    - **PHEP Performance Measure:** TBD

PHEP Budget Period 1 Benchmarks Subject to Withholding

Based on the process measures and outcome measures presented earlier, CDC will continue to set PHEP benchmarks and collect data accordingly; CDC may revise the PHEP benchmarks over the course of the project period. Additionally, CDC will continue to collect data for the Government Performance and Results act (GPRA) measures, which may also be revised during this project period. These include PHEP 3.1 (GPRA); PHEP 12.5 (PHEP Benchmark), 12.6 (PHEP Benchmark), 12.7 (PHEP Benchmark), 12.14 (GPRA), and 12.15.

CDC has identified the following fiscal year 2017 benchmarks for Budget Period 1 to be used as a basis for withholding of fiscal year 2018 funding for PHEP awardees. Awardees that fail to "substantially meet" the benchmarks are subject to withholding penalties to be applied the following fiscal year. Awardees that demonstrate achievement of these requirements are not subject to withholding of funds.

PHEP Budget Period 1 Benchmarks Subject to Withholding	
PHEP Benchmark 1	Awardees must demonstrate capability to receive, stage, store, distribute, and dispense material during a public health emergency. This benchmark applies to all 62 awardees. In Budget Period 1: 100% of PHEP awardees must complete and submit: • MCM operational readiness review self-assessment data; • Status reports demonstrating significant annual progress in mitigating MCM gaps identified through the MCM ORR process, including gaps in pandemic influenza preparedness; and • Review 50% of local CRI planning jurisdictions and provide ORR data for each review. Such updates are required to track progress on addressing identified gaps. In subsequent budget periods, 100% of PHEP awardees must submit annual status reports that demonstrate they continue to make measurable progress in mitigating MCM gaps identified through their most recent MCM ORR findings, including gaps in pandemic influenza preparedness to ensure that awardees meet the CDC standard of achieving an overall status level of "established" by the end of this five-year project period.

	PHEP Budget Period 1 Benchmarks Subject to Withholding
	By the end of Budget Period 5, June 30, 2022, 100% of PHEP awardees must achieve an overall status level of "established" for MCM operational readiness.
PHEP Benchmark 2	Awardees must demonstrate that Laboratory Response Network laboratories biological (LRN-B) can pass proficiency testing which includes the ability to receive, test, and report on one or more suspected biological agents. This benchmark applies to the 50 states and Los Angeles County, New York City, and Washington, D.C. PHEP-funded LRN-B laboratories cannot fail more than one proficiency test challenge during Budget Period 1. Successful demonstration of this capability is defined by the LRN-B proficiency testing policy. CDC will use these elements to determine if the awardee met this benchmark: • Number of LRN-B proficiency tests successfully passed by the PHEP-funded laboratory during any attempt, including remediation, if applicable • Number of LRN-B proficiency tests participated in by the PHEP-funded laboratory, including remediation, if applicable CDC's LRN-B program office requires state public health laboratories to participate in all available proficiency testing challenges specific to each laboratory's testing capability; if a laboratory has testing capability for a specific agent and a proficiency testing challenge for that agent is being offered, the PHEP-funded laboratory must participate in that proficiency testing challenge. PHEP-funded laboratories that are offline for extended periods, undergoing renovation, or have other special circumstances are not expected to have their proficiency testing challenges completed by partner or back-up labs (such as municipal labs or labs in neighboring states). Instead, those laboratories are expected to report to the LRN-B program office what they would do in real situations had the proficiency testing challenge been associated with a true emergency event. In such a circumstance, this will not adversely affect an awardee in terms of determining whether this benchmark has been met.
PHEP Benchmark 3	Awardees must ensure that at least one LRN chemical (LRN-C) laboratory in their jurisdictions passes the LRN-C specimen packaging, and shipping (SPaS) exercise. This benchmark applies to the 50 states and the directly funded localities of Los Angeles County, New York City, and Washington, D.C.; • This annual exercise evaluates the ability of a laboratory to collect relevant samples for clinical chemical analysis and ship those samples in compliance with International Air Transport Association regulations. Awardees must ensure at least one LRN-C laboratory passes CDC's SPaS exercise. If a laboratory fails the exercise on its first attempt but passes on the second attempt, then the awardee will meet the benchmark. If a PHEP awardee has multiple laboratories, at least one laboratory must participate and pass. To pass, a laboratory must score at least 90% on a SPaS exercise.

	PHEP Budget Period 1 Benchmarks Subject to Withholding
PHEP Benchmark 4	Awardees must demonstrate that Laboratory Response Network laboratories chemical (LRN-C) can pass proficiency testing. This benchmark applies to the 10 awardees with Level 1 laboratories: California, Florida, Massachusetts, Michigan, Minnesota, New Mexico, New York, South Carolina, Virginia, and Wisconsin. • Awardees must ensure that LRN-C laboratories pass 90% of the proficiency testing in core and additional analysis methods to meet the CDC benchmark requirement. Although this benchmark does not apply to awardees with Level 2 laboratories, awardees with Level 2 laboratories must report on LRN-C proficiency testing performance measures as specified in PHEP performance measure and specifications guidance. Successful demonstration of this capability is defined by the LRN-C proficiency testing policy. CDC will use these elements to determine if awardees met this benchmark: o Number of LRN-C proficiency tests successfully passed by the PHEP-funded laboratory, during any attempt, including remediation, if applicable o Number of LRN-C proficiency tests participated in by the PHEP-funded laboratory, including remediation, if applicable The LRN-C conducts proficiency testing for all Level 1 and Level 2 chemical laboratories to support meeting the regulatory requirements for the reporting of patient results as part of an emergency response program. Each high complexity test is proficiency tested three times per budget period and each laboratory is evaluated on the ability to report accurate and timely results through secure electronic reporting mechanisms.
Pandemic Influenza Planning	All 62 PHEP awardees must have updated plans describing activities they will conduct with respect to pandemic influenza as required by Sections 319C-1 of the PHS Act. PHEP awardees must meet this annual requirement through their participation in CDC's MCM operational readiness review process, which will incorporate pandemic influenza elements and mass vaccination requirements into the ORR tool. In addition, awardees must address pandemic influenza planning gaps as part of their medical countermeasure technical assistance action plans.

Criteria to Determine Potential Withholding of PHEP Fiscal Year 2018 Funds

Benchmark Measure	Yes	No	Possible % Withholding
Did the awardee (all awardees) demonstrate capability to receive, stage, store, distribute, and dispense material during a public health emergency?			
Did the applicable awardee demonstrate proficiency in public health laboratory testing and/or exercises for biological agents?			10%
Did the applicable awardee demonstrate proficiency in public health laboratory specimen packaging, and shipping exercises for chemical agents?			
Did the applicable awardee demonstrate proficiency in public health laboratory testing for chemical agents?			
Did the awardee (all awardees) meet the 2017 pandemic influenza plan requirement?			10%
Total Potential Withholding Percentage			20%

Scoring Criteria

The first four benchmarks are weighted the same, so failure to substantially meet any one of the four benchmarks will count as one failure and result in withholding of 10% of the fiscal year 2018 PHEP award. Failure to meet the pandemic influenza preparedness planning requirement may result in withholding of 10% of the fiscal year 2018 PHEP award.

ii. Applicant Evaluation and Performance Measurement Plan

At the time of application, awardees must include in their project narrative a brief description of how they plan to fulfill the requirements described in the ASPR-CDC Evaluation and Performance Measurement and Project Description sections of this FOA, Awardees also must briefly outline the scope of work, planned activities, and intended outcomes of work performed via subawardee contracts, per domain. This document should be approved by the local jurisdictions whose work it represents.

Awardees are required to submit, within the first six months of award, a brief evaluation and performance measurement plan, including a DMP, as described in the Reporting section of this FOA. ASPR and CDC do not require awardees to follow a specific evaluation template and will provide more specific guidance prior to the deadline. ASPR and CDC recommend that awardees develop a five-year evaluation plan that will evaluate interim progress including subawardee and local monitoring annually.

c. Organizational Capacity of Awardees to Implement the Approach

Awardees **must** indicate their organizational capacity to implement the required activities, providing information that:

- Demonstrates the organizational capacity and skills to implement the award including public health emergency management, incident management and response leadership, program planning, program evaluation, performance monitoring, financial reporting, budget management and administration, and personnel management.
- Demonstrates existing organizational capacity, for example, program and staffing management; performance measurement and evaluation systems; financial reporting systems; communication, technological, and data systems required to implement the activities in an effective manner; physical infrastructure and equipment; and workforce capacity, to successfully execute all proposed strategies and activities to meet the program requirements.
- Demonstrates the organizational capacity to manage partnerships with local health departments and tribal entities in the jurisdiction regarding preparedness activities.
- Describes their current status in applying for public health department accreditation or evidence of accreditation. Information on accreditation may be found at http://www.phaboard.org.

In addition, awardees **must** provide current organizational charts for the HPP and PHEP programs.

d. Work Plan

Awardees **must** develop and submit detailed work plans for the first year of the project and a high-level work plan for subsequent years. The high-level plan should crosswalk to the strategies and activities, outcomes, and evaluation and performance measures described in the FOA. Awardees must describe in their HPP and PHEP Budget Period 1 domain work plans their planned activities for addressing the Strategies and Activities described in the ASPR-CDC Project Description, including:

- Domains and aligned capabilities
- Strategies and proposed activities
- Program requirements and recommendations

Domains and Aligned Capabilities

ASPR and CDC expect HPP and PHEP awardees to continue efforts to build and sustain the public health and health care preparedness capabilities through a revised format that groups the capabilities into domains. Domains are groupings of capabilities that highlight significant dependencies between capabilities for preparedness and response. Awardees can strengthen a domain by selecting domain activities that align to strategies, which are derived from the HPP-PHEP logic model; or awardees can add new and unique activities that will assist them in strengthening or sustaining a strategy. ASPR and CDC expect that these core domain activities, at a minimum, will help awardees to achieve

preparedness and response outputs and outcomes. ASPR and CDC recommend awardees approach the development of their work plans based on the most recently completed CPG self-assessment that incorporates their current jurisdictional risk assessments and priorities (jurisdictional HVA, JRA, or THIRA as well as state-specific data in the NHSPI). Awardees must also ensure planned activities adhere to PHS Act, HPP, PHEP, and joint program requirements. ASPR and CDC encourage awardees to build and sustain each capability to the scale that best meets their jurisdictional needs, so they are fully capable of responding to public health emergencies, regardless of size or scenario.

A completed work plan for Budget Period 1 requires awardees to select each *Domain Summary*; the related *Strategy*; provide a *Planned Activity Type*; and, if funds are associated, then select and add the *Associated Planned Activities*. The following section describes the work plan components.

1) A chosen planned activity type for each capability, using one of the following options:
    - Build
    - Sustain
    - Scale back
    - No planned activities for Budget Period 1

If "sustain" is selected, awardees must identify in the short-term goal what level of sustainment or target is desired during Budget Period 1.

2) If there are no planned activities, awardees must:
    - Identify any challenges or barriers that may have led to having no planned activities for Budget Period 1.
    - Indicate and describe, if applicable, any self-identified technical assistance needs for the capability.
3) Funding information

Awardees must select one of the following sources of funding for each capability with planned activities:

- HPP
- PHEP
- Other funding source (state, local, DHS, other)

Any capability with functions or objectives supported by HPP or PHEP funding must have at least one line item associated with that function or objective in the budget.

4) Domain strategies and activities

Awardees should select the domain activities that best represent their approach to strengthening the domain.

- Select from the predefined list of domain activities or create jurisdiction-specific activities (see Domain Activities section).
- From there, awardees list the specific steps they plan to conduct to complete the domain activity with associated timelines (see Planned Activities section).
- Select capability functions or objectives to guide planned activities
- List proposed outputs resulting from the planned activities.
- Select the requirement(s) or recommendation(s) addressed by this domain activity.

Planned activities should describe specific actions that support the completion of a domain activity. When reading the planned activities, the following should be easily determined: what will be completed and by what quarter. Not all activities should be completed in the fourth quarter. It is expected that if the activity will be conducted by local health agencies that assist the awardee in reaching or sustaining a strategy then those activities should be aggregated and documented in this section. Planned activities should lead to measurable outputs linked to program activities and outcomes.

5) Proposed outputs
   Awardees must provide at least one proposed output. The proposed outputs should directly relate to the expected results of completing the planned activities.

6) Function/Objective association
   Awardees must associate planned activities with functions or objectives for the related strategy.

7) Technical assistance
   Awardees should indicate if technical assistance is requested for the strategy.

Awardees must submit the following work plan components.

- Program Requirements Summary: Awardees must complete the HPP and PHEP Program Requirements sections in the funding application module. See the strategies and activities section of this FOA (and the 2017-2022 HPP-PHEP Supplemental Guidelines for more information.
- Subawardee Contracts (if applicable)

Work plans should address all CDC-RFA-TP17-1701 program outcomes, strategies, and activities and reflect incorporation of all CDC-RFA-TP17-1701 general program requirements. Awardees must describe how they plan to address and monitor each program outcome, strategy, and activity. ASPR and CDC encourage awardees to build and sustain each capability to the scale that best meets their jurisdictional needs, so they are fully capable of responding to public health emergencies, regardless of size or scenario.

PHEP awardees have the flexibility to choose the specific capabilities they address in a single budget period. The overarching PHEP program goal is to achieve the greatest degree of readiness to respond using their available resources. CDC encourages awardees to build and maintain each capability to the scale that best meets their jurisdictional needs, so they are fully capable of responding to public health emergencies, regardless of size or scenario.

HPP awardees are expected to build and sustain capability-based HPP or joint requirements within the domain structure as described in this FOA. Awardees have some flexibility to choose the specific requirements to work on during each budget period. However, awardees must plan activities accordingly to meet FOA requirements, including product submissions and performance measure due dates as described.

e. ASPR and CDC Monitoring and Accountability Approach

Monitoring activities include routine and ongoing communication between ASPR, CDC and awardees, site visits, and awardee reporting (including work plans, performance, and financial reporting). Consistent with applicable grants regulations and policies, ASPR and CDC expect the following to be included in post-award monitoring for grants and cooperative agreements:

- Tracking awardee progress in achieving the desired outcomes.
- Ensuring the adequacy of awardee systems that underlie and generate data reports.
- Creating an environment that fosters integrity in program performance and results.

Monitoring may also include the following activities deemed necessary to monitor the award:

- Ensuring that work plans are feasible based on the budget and consistent with the intent of the award.
- Ensuring that awardees are performing at a sufficient level to achieve outcomes within stated timeframes.
- Working with awardees on adjusting the work plan based on achievement of outcomes, evaluation results and changing budgets.
- Monitoring performance measures (both programmatic and financial) to assure satisfactory performance levels.

Monitoring and reporting activities also assist grants management staff (e.g., grants management officers and specialists, and project officers) in the identification, notification, and management of high-risk awardees.

In addition to the general approach noted above, HPP and PHEP program staff specifically:

- Monitor adherence to all relevant PHS, HHS, ASPR, and CDC rules, regulations and policies regarding cooperative agreements.
- Identify, coordinate, and provide technical assistance planning and consultation.

ASPR and CDC staff will actively work with HPP and PHEP awardees to develop individualized technical assistance plans using standardized formats and processes. The plans will focus on technical assistance

needs identified jointly by awardees and program staff, as well as strategies for addressing those needs. Project officers and awardees will monitor technical assistance plans on a regular basis. Technical assistance can be provided on a variety of topics, including but not limited to:

- Facilitating access to ASPR and CDC preparedness subject matter experts in areas such as medical surge, volunteer management, laboratory testing, epidemiology and surveillance, environmental health, emergency operations management, and medical countermeasure logistics.
- Translating promising or useful practices for dissemination to the field.
- Providing technical assistance on achievement of performance measures and benchmarks.
- Providing guidance on demonstrating achievement of capabilities and using quality improvement-focused processes to document the process, especially for MCM-related capabilities.
- Cooperative agreement fiscal management.

The strategy for monitoring and technical assistance planning requires regular contact such as monthly conference calls, email conversations, and site visits every 12 months to 24 months. HPP and PHEP project officers will conduct scheduled site visits to assess the strategies used to reach and maintain capability in the domains. This includes noting the progress and challenges of awardees, and their subawardees and providing technical assistance. HPP and PHEP site visits will be coordinated with ASPR's regional emergency coordinators (RECs) and conducted jointly whenever possible. Awardees must be actively involved in the planning and execution of site visits and make available all program documentation that substantiates achievement of capabilities and other programmatic requirements, including all-hazards public health emergency preparedness and response plans.

f. ASPR and CDC Program Support to Awardees

In a cooperative agreement, ASPR and CDC staff are substantially involved in the program activities, above and beyond routine grant monitoring. Project officers and subject matter experts will review applications to ensure activities are in scope and do not duplicate those funded by other grants and cooperative agreements. ASPR and CDC will use application submission information to identify strengths and weaknesses, to update work plans, and to establish priorities for site visits and technical assistance. To assist recipients in achieving the purpose of this award, ASPR and CDC will conduct the following activities.

- Provide ongoing guidance, programmatic support, and training and technical assistance as related to health care and public health emergency preparedness.
- Provide ongoing guidance, programmatic support, and training and technical assistance as related to activities outlined in this FOA. Technical assistance resources include 2017-2022 HPP-PHEP Supplemental Guidelines, Budget Period 1 application instructions, spend plan templates, and other resources as needed.
- Facilitate communication among awardees to advance the sharing of expertise on preparedness and response activities.

- ASPR's (TRACIE) provides ongoing technical assistance and resources for developing the capabilities.
- CDC's (On-TRAC) facilitates technical assistance for public health preparedness planning and response.
- The Health Care Coalition Response Leadership Course sponsored by the Centers for Domestic Preparedness in Anniston, Ala., will be available to HCCs to provide guidance and training. Travel, lodging, and training costs will be covered by the Center for Domestic Preparedness. Awardees and HCCs do not need to budget for these travel and training costs.

B. Award Information

1. Funding Instrument Type:

Cooperative Agreement

ASPR's and CDC's substantial involvement in this program appears in the ASPR and CDC Program Support to Awardees section.

2. Award Mechanism:

U90

3. Fiscal Year:

2017

4. Approximate Total Fiscal Year Funding:

Hospital Preparedness Program: $228,500,000

Public Health Emergency Preparedness Program: $611,750,000

5. Approximate Project Period Funding:

$4,201,250,000, subject to the availability of funds.

6. Total Project Period Length:

Five years

7. Expected Number of Awards:

62

62 awardees includes:

- States: 50

- Localities: (4) Chicago, Los Angeles County, New York City, and Washington, D.C.
- Territories and freely associated states: (8) American Samoa, Commonwealth of the Northern Mariana Islands, Federated States of Micronesia, Guam, Puerto Rico, Republic of the Marshall Islands, Republic of Palau, and U.S. Virgin Islands

8. Approximate Average Award:

PHEP: Approximately $10 million
HPP: Approximately $5.7 million

These amounts are for the first 12-month budget period and include both direct and indirect costs

9. Award Ceiling:

This amount is subject to the availability of funds.

10. Award Floor:

Set by formula established under section 319C-1(h) of the PHS Act.

11. Estimated Award Date:

July 1, 2017

12. Budget Period Length:

12 months.
Throughout the project period, ASPR and CDC will continue the award based on the availability of funds, the evidence of satisfactory progress by the awardee (as documented in required reports), and the determination that continued funding is in the best interest of the federal government. The total number of years for which federal support has been approved (project period) will be shown in the "Notice of Award." This information does not constitute a commitment by the federal government to fund the entire period. The total project period comprises the initial competitive segment and any subsequent non-competitive continuation award(s).

13. Direct Assistance

Direct assistance (DA) is available through this FOA. Consistent with the cited authority for this announcement, direct assistance may be available in the form of equipment, supplies and materials, and/or federal personnel. If DA is provided as a part of your award, CDC will reduce the financial assistance award amount provided directly to you as a part of your award. The amount by which your award is reduced will be used to provide DA; the funding shall be deemed part of the award and as having been paid to you, the awardee.

Awardees planning to request DA in lieu of financial assistance should complete and submit the DA request form no later than November 16, 2017. Note that DA may be requested for personnel, such as public health advisors, Career Epidemiology Field Officers, informatics specialists, or other technical

consultants), provided the work is within scope of the cooperative agreements and is financially justified. DA also may be requested for any Statistical Analysis Software (SAS) licenses desired for future budget periods.

C. Eligibility Information

1. Eligible Applicants

Government Organizations:

- States: 50
- Local governments or their bona fide agents: (4) Chicago, Los Angeles County, New York City, and Washington, D.C.
- Territorial governments or their bona fide agents and freely associated states: (8) American Samoa, Commonwealth of the Northern Mariana Islands, Federated States of Micronesia, Guam, Puerto Rico, Republic of the Marshall Islands, Republic of Palau, and U.S. Virgin Islands

2. Additional Information on Eligibility

Eligible applicants for this funding opportunity announcement are limited to those currently funded under CDC-RFA-TP12-1201, the Hospital Preparedness Program (HPP) and Public Health Emergency Preparedness (PHEP) Cooperative Agreement.

3. Justification for Less than Maximum Competition

As defined in sections 319C-1 and 319C-2 of the PHS Act, eligible applicants for this funding opportunity are states, a consortium of states, or eligible political subdivisions that prepare and submit a sufficient application compliant with the statutory and administrative requirements described in this document. For the purposes of this announcement, the term "state" may include a state, territory, or freely associated state.

4. Cost Sharing or Matching

ASPR and CDC may not award a cooperative agreement to a state or consortium of states under these programs unless the awardee agrees that, with respect to the amount of the cooperative agreements awarded by ASPR and CDC, the state will make available nonfederal contributions in the amount of 10% ($1 for each $10 of federal funds provided in the cooperative agreement) of the award.

Match may be provided directly or through donations from public or private entities and may be in cash or in kind, fairly evaluated, including plant, equipment or services. Amounts provided by the federal government or services assisted or subsidized to any significant extent by the federal government may not be included in determining the amount of such nonfederal contributions. Please refer to 45 CFR § 75.306 for match requirements, including descriptions of acceptable match resources. Documentation of match, including methods and sources, must be included in the Budget Period 1 application for funds, follow procedures for generally accepted accounting practices, and meet audit requirements

Exceptions to Matching Funds Requirement

- The match requirement does not apply to the political subdivisions of Chicago, Los Angeles County, or New York City.
- Pursuant to department grants policy implementing 48 U.S.C. 1469a(d), any required matching (including in-kind contributions) of less than $200,000 is waived with respect to cooperative agreements to the governments of American Samoa, Guam, U.S. Virgin Islands, or Northern Mariana Islands (other than those consolidated under other provisions of 48 U.S.C. 1469). For instance, if 10% (the match requirement) of the award is less than $200,000, then the entire match requirement is waived. If 10% of the award is greater than $200,000, then the first $200,000 is waived, and the rest must be paid as match.
- Matching does not apply to future contingent emergency response awards that may be authorized under 311, 317(a), and 317(d) of the Public Health Service Act unless such a requirement were imposed by statute or administrative process at the time.

5. Maintenance of Effort

Awardees must maintain expenditures for health care preparedness and public health security at a level that is not less than the average level of such expenditures maintained by the awardee for the preceding two-year period. This represents an awardee's historical level of contributions or expenditures (money spent) related to federal programmatic activities that have been made prior to the receipt of federal funds. The maintenance of effort (MOE) is used as an indicator of nonfederal support for public health security and health care preparedness before the infusion of federal funds. These expenditures are calculated by the awardee without reference to any federal funding that also may have contributed to such programmatic activities in the past. The definition of eligible state expenditures for public health security and health care preparedness includes:

- Appropriations specifically designed to support health care or public health emergency preparedness as expended by the entity receiving the award; and
- Funds not specifically appropriated for health care or public health emergency preparedness activities but which support health care or public health emergency preparedness activities, such as personnel assigned to health care or public health emergency preparedness responsibilities or supplies or equipment purchased for health care or public health emergency preparedness from general funds or other lines within the operating budget of the entity receiving the award.

Awardees must stipulate the total dollar amount in their cooperative agreement funding applications. Awardees must be able to account for MOE separate from accounting for federal funds and separate from accounting for any matching funds requirements; this accounting is subject to ongoing monitoring, oversight, and audit. MOE may not include any subawardee matching funds requirement where applicable.

MOE does not apply to future contingent emergency response awards that may be authorized under 311, 317(a), and 317(d) of the Public Health Service Act unless such a requirement were imposed by statute or administrative process at the time.

Note: This funding opportunity announcement uses one term that applies to both maintenance of funding (MOF) and maintaining state funding (MSF). Section 319C-1 requires PHEP awardees to maintain expenditures for public health security. Section 319C-2 requires HPP awardees to maintain expenditures for health care preparedness. This provision addresses both requirements.

D. Application and Submission Information

1. Required Registrations

An organization must be registered at the three following locations before it can submit an application for funding at www.grants.gov.

a. Data Universal Numbering System:

All applicant organizations must obtain a Data Universal Numbering System (DUNS) number. A DUNS number is a unique nine-digit identification number provided by Dun & Bradstreet (D&B). It will be used as the Universal Identifier when applying for federal awards or cooperative agreements. The applicant organization may request a DUNS number by telephone at 1-866-705-5711 (toll free) or internet at http://fedgov.dnb.com/webform/displayHomePage.do. The DUNS number will be provided at no charge. If funds are awarded to an applicant organization that includes subawardees, those subawardees must provide their DUNS numbers before accepting any funds.

b. System for Award Management (SAM):

The SAM is the primary registrant database for the federal government and the repository into which an entity must submit information required to conduct business as an awardee. All applicant organizations must register with SAM, and will be assigned a SAM number. All information relevant to the SAM number must be current at all times during which the applicant has an application under consideration for funding by CDC. If an award is made, the SAM information must be maintained until a final financial report is submitted or the final payment is received, whichever is later. The SAM registration process can require 10 or more business days, and registration must be renewed annually. Additional information about registration procedures may be found at *www.SAM.gov*.

c. Grants.gov:

The first step in submitting an application online is registering your organization at www.grants.gov, the official HHS E-grant Web site. Registration information is located at the "Get Registered" option at www.grants.gov.

All applicant organizations must register at www.grants.gov. The one-time registration process usually takes not more than five days to complete. Applicants should start the registration process as early as possible.

Step	System	Requirements	Duration	Follow Up
1	Data Universal Number System (DUNS)	1. Click on http://fedgov.dnb.com/webform 2. Select Begin DUNS search/request process 3. Select your country or territory and follow the instructions to obtain your DUNS 9-digit # 4. Request appropriate staff member(s) to obtain DUNS number, verify & update information under DUNS number	1-2 Business Days	To confirm that you have been issued a new DUNS number check online at (http://fedgov.dnb.com/webform) or call 1-866-705-5711
2	System for Award Management (SAM) formerly Central Contractor Registration (CCR)	1. Retrieve organizations DUNS number 2. Go to www.sam.gov and designate an E-Biz POC (note CCR username will not work in SAM and you will need to have an active SAM account before you can register on grants.gov)	3-5 Business Days but up to 2 weeks and must be renewed once a year	For SAM Customer Service Contact https://fsd.gov/fsd-gov/home.do Calls: 866-606-8220
3	Grants.gov	1. Set up an individual account in Grants.gov using organization new DUNS number to become an authorized organization representative (AOR) 2. Once the account is set up the E-BIZ POC will be notified via email 3. Log into grants.gov using the password the E-BIZ POC received and create new password 4. This authorizes the AOR to submit applications on behalf of the organization	Same day but can take 8 weeks to be fully registered and approved in the system (note, applicants MUST obtain a DUNS number and SAM account before applying on grants.gov)	Register early! Log into grants.gov and check AOR status until it shows you have been approved

2. Request Application Package

Applicants may access the application package at www.grants.gov.

3. Application Package

Applicants must download the SF-424, Application for Federal Assistance, package associated with this funding opportunity at www.grants.gov. If Internet access is not available, or if the online forms cannot be accessed, applicants may call the CDC OGS staff at 770-488-2700 or e-mail OGS ogstims@cdc.gov for assistance. Persons with hearing loss may access CDC telecommunications at TTY 1-888-232-6348.

4. Submission Dates and Times

If the application is not submitted by the deadline published in the FOA, it will not be processed. Office of Grants Services (OGS) personnel will notify the applicant that their application did not meet the deadline. The applicant must receive pre-approval to submit a paper application (see Other Submission Requirements section for additional details). If the applicant is authorized to submit a paper application, it must be received by the deadline provided by OGS.

a. Letter of Intent Deadline (must be emailed or postmarked by)

N/A

b. Application Deadline

March 17, 2017, 11:59 p.m. U.S. Eastern Standard Time, at www.grants.gov. If Grants.gov is inoperable and cannot receive applications, and circumstances preclude advance notification of an extension, then applications must be submitted by the first business day on which grants.gov operations resume.

Date for Information Conference Call
Wednesday, February 8, 1:30 p.m. to 3 p.m. EST
Monday, February 13, 1:30 p.m. to 3 p.m. EST

5. CDC Assurances and Certifications

All applicants are required to sign and submit "Assurances and Certifications" documents indicated at http://wwwn.cdc.gov/grantassurances/(S(mj444mxct51lnrv1hljjjmaa))/Homepage.aspx.
Applicants may follow either of the following processes:

- Complete the applicable assurances and certifications with each application submission, name the file "Assurances and Certifications" and upload it as a PDF file with at www.grants.gov
- Complete the applicable assurances and certifications and submit them directly to CDC on an annual basis at http://wwwn.cdc.gov/grantassurances/(S(mj444mxct51lnrv1hljjjmaa))/Homepage.aspx

Assurances and certifications submitted directly to CDC will be kept on file for one year and will apply to all applications submitted to CDC by the applicant within one year of the submission date.

6. Content and Form of Application Submission

Applicants are required to include all of the following documents with their application package at www.grants.gov.

7. Letter of Intent

LOI is not requested or required as part of the application for this FOA.

8. Table of Contents

(There is no page limit. The table of contents is not included in the project narrative page limit.): The applicant must provide, as a separate attachment, the "Table of Contents" for the entire submission package.

Provide a detailed table of contents for the entire submission package that includes all of the documents in the application and headings in the "Project Narrative" section. Name the file "Table of Contents" and upload it as a PDF file under "Other Attachment Forms" at www.grants.gov.

9. Project Abstract Summary

(Maximum 1 page)
A project abstract is included on the mandatory documents list and must be submitted at www.grants.gov. The project abstract must be a self-contained, brief summary of the proposed project including the purpose and outcomes. This summary must not include any proprietary or confidential information. Applicants must enter the summary in the "Project Abstract Summary" text box at www.grants.gov.

10. Project Narrative

(Unless specified in the "H. Other Information" section, maximum of 20 pages, single spaced, 12 point font, 1-inch margins, number all pages. This includes the work plan. Content beyond the specified page number will not be reviewed.)

Applicants must submit a Project Narrative with the application forms. Applicants must name this file "Project Narrative" and upload it at www.grants.gov. The Project Narrative must include **all** of the following headings (including subheadings): Background, Approach, Applicant Evaluation and Performance Measurement Plan, Organizational Capacity of Applicants to Implement the Approach, and Work Plan. The Project Narrative must be succinct, self-explanatory, and in the order outlined in this section. It must address outcomes and activities to be conducted over the entire project period as identified in the ASPR-CDC Project Description section. Failure to follow the guidance and format may negatively impact scoring of the application.

a. Background
Applicants must provide a description of relevant background information that includes the context of the problem (See ASPR-CDC Background).

b. Approach
i. Purpose

Applicants must describe in 2-3 sentences specifically how their application will address the public health problem as described in the ASPR-CDC Background section.

ii. Outcomes
Applicants must clearly identify the outcomes they expect to achieve by the end of the project period, as identified in the logic model in the Approach section of the ASPR-CDC Project Description. Outcomes are the results that the program intends to achieve and usually indicate the intended direction of change (e.g., increase, decrease).

iii. Strategies and Activities
Applicants must provide a clear and concise description of the strategies and activities they will use to achieve the project period outcomes. Applicants must select existing evidence-based strategies that meet their needs, or describe in the Applicant Evaluation and Performance Measurement Plan how these strategies will be evaluated over the course of the project period. See the Strategies and Activities section of the ASPR-CDC Project Description.

1. Collaborations
Applicants must describe how they will collaborate with programs and organizations either internal or external to ASPR and CDC. Applicants must address the Collaboration requirements as described in the ASPR-CDC Project Description.

2. Target Populations and Health Disparities
Applicants must describe the specific target population(s) in their jurisdiction and explain how such a target will achieve the goals of the award and/or alleviate health disparities. The applicants must also address how they will include specific populations that can benefit from the program that is described in the Approach section. Applicants must address the Target Populations and Health Disparities requirements as described in the ASPR-CDC Project Description.

c. Applicant Evaluation and Performance Measurement Plan
At the time of application, awardees must include in their project narrative a brief description of how they plan to fulfill the requirements described in the ASPR-CDC Evaluation and Performance Measurement and Project Description sections of this FOA. Awardees also must briefly outline the scope of work, planned activities, and intended outcomes of work performed via subawardee contracts, per domain. This document should be approved by the local jurisdictions whose work it represents.

Awardees are required to submit, within the first six months of award, a brief evaluation and performance measurement plan, including a DMP, as described in the Reporting section of this FOA. ASPR and CDC do not require awardees to follow a specific evaluation template and will provide more specific guidance prior to the deadline. ASPR and CDC recommend that awardees develop a five-year evaluation plan that will evaluate interim progress including subawardee and local monitoring annually.

d. Organizational Capacity of Applicants to Implement the Approach
Applicants must address the organizational capacity requirements as described in the ASPR-CDC Project Description, as well as provide copies of organizational charts for their HPP and PHEP programs.

Applicants must name this file “HPP Organizational Chart” and “PHEP Organizational Chart” and upload them as PDF files at www.grants.gov.

11. Work Plan

(Included in the Project Narrative’s page limit)
Awardees **must** prepare a high-level work plan consistent with the ASPR-CDC Project Description Work Plan section. The work plan integrates and delineates more specifically how the awardee plans to achieve the project period outcomes, strategies and activities, evaluation and performance measurement. Awardees must name this file “Work Plan” and upload it as a PDF file at www.grants.gov.

In addition, awardees **must** submit more detailed HPP and PHEP Budget Period 1 work plans that describe their planned activities for addressing the Strategies and Activities described in the ASPR-CDC Project Description. Awardees **must** name these files HPP Domain Work Plan and PHEP Domain Work Plan and upload as PDF flies at www.grants.gov.

12. Budget Narrative

Applicants must submit an itemized budget narrative. When developing the budget narrative, applicants must consider whether the proposed budget is reasonable and consistent with the purpose, outcomes, and program strategy outlined in the project narrative. The budget must include:

- Salaries and wages
- Fringe benefits
- Consultant costs
- Equipment
- Supplies
- Travel
- Other categories
- Contractual costs
- Total Direct costs
- Total Indirect costs

Indirect costs could include the cost of collecting, managing, sharing and preserving data.
Indirect costs will not be reimbursed under grants to foreign organizations, international organizations, and foreign components of grants to domestic organizations (does not affect indirect cost reimbursement to the domestic entity for domestic activities).

Expanded Authority for Unobligated Funds

In accordance with 45 CFR § 75.308(d), awardees are given expanded authority to carry forward unobligated balances to the successive budget period without receiving prior approval from CDC’s Office of Grants Services. The following restrictions apply with this authority.

1. The expanded authority can only be used to carry over unobligated balances from one budget period to the next successive budget period. Any unobligated funds not expended in the successive budget period must be deobligated and returned to the Treasury as required.
2. Extensions will not be allowed for the last 12 months of the budget/project period.
3. The recipient must report the amount carried over on the Federal Financial Report for the period in which the funds remained unobligated.
4. This authority does not diminish or relinquish ASPR and CDC administrative oversight of the HPP and PHEP programs. The ASPR and CDC program offices will continue to provide oversight and guidance to the award recipients to ensure they are in compliance with statutes, regulations, and internal guidelines.
5. The roles and responsibilities of the ASPR and CDC project officers will remain the same as indicated in the terms and conditions of the award.
6. The roles and responsibilities of the grants management specialists in CDC's Office of Grants Services will remain the same as indicated in the terms and conditions of the award.
7. All other terms and conditions remain in effect throughout the budget period unless otherwise changed in writing by the CDC grants management officer.

Note: Awardees are responsible for ensuring that all costs allocated and obligated are allowable, reasonable, and allocable and in line with the goals and objectives outlined in CDC-RFA-TP17-1701 and approved work plans.

Support for Accreditation Standards

PHEP awardees may use funds for activities as they relate to the intent of this FOA to meet national standards or seek health department accreditation through the Public Health Accreditation Board (see: http://www.phaboard.org).

- Applicant entities to whom this provision applies include state, local, territorial governments (including the District of Columbia, the Commonwealth of Puerto Rico, the Virgin Islands, the Commonwealth of the Northern Marianna Islands, American Samoa, Guam, the Federated States of Micronesia, the Republic of the Marshall Islands, and the Republic of Palau), or their bona fide agents, political subdivisions of states (in consultation with states), federally recognized or state-recognized American Indian or Alaska Native tribal governments, and American Indian or Alaska Native tribally designated organizations.
- Activities include those that enable a public health organization to deliver public health services such as activities that ensure a capable and qualified workforce, up-to-date information systems, and the capability to assess and respond to public health needs. Use of these funds must focus on achieving a minimum of one national standard that supports the intent of the FOA. Proposed activities must be included in the budget narrative and must indicate which standards will be addressed.

Applicants **must** name this file "Budget Narrative" and upload it as a PDF file at www.grants.gov. If

requesting indirect costs in the budget, a copy of the indirect cost-rate agreement is required. If the indirect costs are requested, include a copy of the current negotiated federal indirect cost rate agreement or a cost allocation plan approval letter for those Grantees under such a plan. Applicants must name this file "Indirect Cost Rate" and upload it at www.grants.gov.

For guidance on completing a detailed budget, see Budget Preparation Guidelines at: http://www.cdc.gov/grants/interestedinapplying/applicationresources.html.

13. Funds Tracking

Proper fiscal oversight is critical to maintaining public trust in the stewardship of federal funds. Effective October 1, 2013, a new HHS policy on subaccounts requires the CDC to set up payment subaccounts within the Payment Management System (PMS) for all new grant awards. Funds awarded in support of approved activities and drawdown instructions will be identified on the Notice of Award in a newly established PMS subaccount (P subaccount). Grantees will be required to draw down funds from award-specific accounts in the PMS. Ultimately, the subaccounts will provide grantees and CDC a more detailed and precise understanding of financial transactions. The successful applicant will be required to track funds by P-accounts/sub accounts for each project/cooperative agreement awarded.

Applicants are encouraged to demonstrate a record of fiscal responsibility and the ability to provide sufficient and effective oversight. Financial management systems must meet the requirements as described 2 CFR 200 which include, but are not limited to, the following:

- Records that identify adequately the source and application of funds for federally-funded activities.
- Effective control over, and accountability for, all funds, property, and other assets.
- Comparison of expenditures with budget amounts for each Federal award.
- Written procedures to implement payment requirements.
- Written procedures for determining cost allowability.
- Written procedures for financial reporting and monitoring.

14. Intergovernmental Review

Executive Order 12372 does not apply to this program.

15. Pilot Program for Enhancement of Employee Whistleblower Protections

Pilot Program for Enhancement of Employee Whistleblower Protections: All applicants will be subject to a term and condition that applies the terms of 48 Code of Federal Regulations (CFR) section 3.908 to the award and requires that grantees inform their employees in writing (in the predominant native language of the workforce) of employee whistleblower rights and protections under 41 U.S.C. 4712.

16. Copyright Interests Provisions

This provision is intended to ensure that the public has access to the results and accomplishments of

public health activities funded by ASPR and CDC. Pursuant to applicable grant regulations and CDC's Public Access Policy, awardees agree to submit into the National Institutes of Health (NIH) Manuscript Submission (NIHMS) system an electronic version of the final, peer-reviewed manuscript of any such work developed under this award upon acceptance for publication, to be made publicly available no later than 12 months after the official date of publication. Also at the time of submission, awardees and/or the submitting authors must specify the date the final manuscript will be publicly accessible through PubMed Central (PMC). Awardees and or submitting authors must also post the manuscript through PMC within twelve (12) months of the publisher's official date of final publication; however the author is strongly encouraged to make the subject manuscript available as soon as possible. The awardee must obtain prior approval from the CDC for any exception to this provision.

The author's final, peer-reviewed manuscript is defined as the final version accepted for journal publication, and includes all modifications from the publishing peer review process, and all graphics and supplemental material associated with the article. Awardees and submitting authors working under this award are responsible for ensuring that any publishing or copyright agreements concerning submitted articles reserve adequate right to fully comply with this provision and the license reserved by CDC. The manuscript will be hosted in both PMC and the CDC Stacks institutional repository system. In progress reports for this award, awardees must identify publications subject to the CDC Public Access Policy by using the applicable NIHMS identification number for up to three (3) months after the publication date and the PubMed Central identification number (PMCID) thereafter.

17. Funding Restrictions

Restrictions that must be considered while planning the programs and writing the budget are:

- Awardees may not use funds for research.
- Awardees may not use funds for clinical care except as allowed by law. For the purposes of this FOA, clinical care is defined as "directly managing the medical care and treatment of patients."
- Awardees may use funds only for reasonable program purposes, including personnel, travel, supplies, and services.
- Generally, awardees may not use funds to purchase furniture or equipment. Any such proposed spending must be clearly identified in the budget.
- Reimbursement of pre-award costs generally is not allowed, unless the CDC provides written approval to the awardee.
- Other than for normal and recognized executive-legislative relationships, no funds may be used for:
    - publicity or propaganda purposes, for the preparation, distribution, or use of any material designed to support or defeat the enactment of legislation before any legislative body
    - the salary or expenses of any grant or contract recipient, or agent acting for such recipient, related to any activity designed to influence the enactment of legislation, appropriations, regulation, administrative action, or Executive order proposed or pending before any legislative body

- See Additional Requirement (AR) 12 for detailed guidance on this prohibition and additional guidance on lobbying for CDC awardees (http://www.cdc.gov/grants/documents/Anti-Lobbying_Restrictions_for_CDC_Grantees_July_2012.pdf).

- The direct and primary recipient in a cooperative agreement program must perform a substantial role in carrying out project outcomes and not merely serve as a conduit for an award to another party or provider who is ineligible.
- Awardees may not use funds for construction or major renovations.
- Awardees may supplement but not supplant existing state or federal funds for activities described in the budget.
- Payment or reimbursement of backfilling costs for staff is not allowed.
- None of the funds awarded to these programs may be used to pay the salary of an individual at a rate in excess of Executive Level II or $187, 000 per year.
- Awardees may use funds only for reasonable program purposes, including travel, supplies, and services.
- Awardees may purchase basic (non-motorized) trailers with prior approval from the CDC OGS.
- HPP and PHEP funds may not be used to purchase clothing such as jeans, cargo pants, polo shirts, jumpsuits, sweatshirts, or T-shirts
- HPP and PHEP funds may not be used to purchase or support (feed) animals for labs, including mice. Any requests for such must receive prior approval of protocols from the Animal Control Office within CDC and subsequent approval from the CDC OGS.
- Recipients may not use funds to purchase a house or other living quarters for those under quarantine.
- HPP and PHEP awardees may (with prior approval) use funds for overtime for individuals directly associated (listed in personnel costs) with the award.
- PHEP awardees cannot use funds to purchase vehicles to be used as means of transportation for carrying people or goods, such as passenger cars or trucks and electrical or gas-driven motorized carts.
- PHEP awardees can (with prior approval) use funds to lease vehicles to be used as means of transportation for carrying people or goods, e.g., passenger cars or trucks and electrical or gas-driven motorized carts.
- PHEP awardees can (with prior approval) use funds to purchase material-handling equipment (MHE) such as industrial or warehouse-use trucks to be used to move materials, such as forklifts, lift trucks, turret trucks, etc. Vehicles must be of a type not licensed to travel on public roads.
- PHEP awardees can use funds to purchase caches of antibiotics for use by first responders and their families to ensure the health and safety of the public health workforce.
- PHEP awardees can use funds to support appropriate accreditation activities that meet the Public Health Accreditation Board's preparedness-related standards.

- HPP awardees cannot use funds to support standalone, single-facility exercises.

HPP Vehicle Purchase

- Non-public road vehicles: HPP grant funds **can** (with prior approval) be used to purchase health care coalition material-handling equipment (MHE) such as industrial or warehouse-use trucks to be used to move health care coalition materials, supplies and equipment (such as forklifts, lift trucks, turret trucks, etc.). Vehicles must be of a type not licensed to travel on public roads.

HPP Vehicle Leasing and Hauling Agreements

Passenger road vehicles:

- HPP grant funds **cannot** be used to purchase over-the road passenger vehicles.
- HPP grant funds **can** (with prior approval) be used to procure leased or rental vehicles as means of transportation for carrying people (e.g., passenger cars or trucks) during times of need. Examples include transporting health care coalition leadership to planning meetings, to an exercise, or during a response.

Transportation of medical material**:**

- HPP grant funds **can** (with prior approval) be used to procure leased or rental vehicles for movement of materials, supplies and equipment by HCC members.
- Additionally, HPP grant funds **can** (with prior approval) be used for health care coalitions to make transportation agreements with commercial carriers for movement of health care coalition materials, supplies and equipment. There should be a written process for initiating transportation agreements (e.g., contracts, memoranda of understanding, formal written agreements, and/or other letters of agreement). Transportation agreements should include, at a minimum, the following elements:
    - Type of vendor
    - Number and type of vehicles, including vehicle load capacity and configuration
    - Number and type of drivers, including certification of drivers
    - Number and type of support personnel
    - Vendor's response time
    - Vendor's ability to maintain cold chain, if necessary to the incident
- This relationship may be demonstrated by a signed transportation agreement or documentation of transportation planning meeting with the designated vendor. All documentation should be available to the FPO for review if requested.

Deployment of HPP and PHEP Funded Personnel, Equipment, and Supplies during Emergencies via the Emergency Management Assistance Compact (EMAC)

Deployment of HPP- and PHEP-funded equipment, supplies and personnel via the Emergency Management Assistance Compact (EMAC) for the purpose of mutual aid and assistance between states during a governor declared State of emergency or disaster is permitted, but is subject to

the Federal provisions of 45 CFR 75. However, affected States must notify their CDC Grants Management Specialist within a 24-hour period of the personnel, services and/or equipment being loaned out for the emergency. Awardees should follow their state legislation which governs how they will operate during an emergency or when another state requests assistance via EMAC. Awardees may reference the EMAC website for detailed information via www.emacweb.org . Additional guidance can be found in the 2017-2022 HPP-PHEP Supplemental Guidelines.

Use of HPP Funds during a Declared Emergency

Consistent with section 319C-2 of the PHS Act, HPP funds may only be used to support activities that prepare States for public health emergencies and to improve surge capacity . There are two situations when States (see definition) may use HPP funds during a State or locally declared emergency, disaster, or public health emergency (hereafter referred to as an "emergency"). These situations and related criteria are described below.

Situation 1: HPP Staff Conducting Activities Consistent with Approved Project Goals

Awardees may use HPP funds to support positions performing preparedness-related activities consistent with the awardee's project goals and may utilize those positions within any phase of the disaster cycle, provided that the staff members in those positions continue to do work within statutory limitations, the notice of award, and the approved spending plan. For example, an employee's salary may be permissible for response activities if that employee is carrying out the same responsibilities he or she would carry out as part of his or her preparedness responsibilities.

Situation 2: Using a Declared Emergency as a Training Exercise

Under certain conditions, HPP funds may, on a limited, case-by-case basis, be reallocated to support response activities to the extent they are used for purposes provided for in Section 319C-2 of the PHS Act (the program's authorizing statute), applicable cost principles, the funding opportunity announcement, and the awardee's application (including the jurisdiction's all-hazards plan). Awardees should contact their assigned HPP project officer and grants management specialists for guidance on the process to make such a change. ASPR encourages awardees to develop criteria such as costs versus benefits for determining when to request a "scope-of-work" change to use a real incident as a required exercise.

The request to use an actual response as a required exercise and to pay salaries with HPP funds for up to seven days will be considered for approval under these conditions:

- A state or local declaration of an emergency, disaster, or public health emergency is in effect.
- No other funds are available for the cost.
- The awardee agrees to submit within 60 days (of the conclusion of the disaster or public health emergency) an after-action report, a corrective action plan, and other documentation that supports the actual dollar amount spent.

Note: A change in the scope of work is required to use an actual event as an exercise whether or not funds are needed to support salaries. Also, regardless of the amount of money used in response to an event, the State is still required to meet all the requirements of the original award.

HPP General Funding Guidance

HPP funding must primarily support strengthening health care system preparedness through the collaborative development of HCCs that prepare and respond as an entire regional health system, rather than individual health care organizations. HPP recognizes that, at the conclusion of the previous project period (2012-2017), some awardees only funded HCCs, some funded individual health care entities (with a requirement that they participate in regional preparedness efforts), and others funded a mixture of HCCs and individual health care entities.

During this project period (2017-2022), beginning in Budget Period 1, all awardees must allocate funding to HCCs. For Budget Period 1, ASPR still permits providing direct funding from the awardee to individual health care entities for regional preparedness efforts; however, ASPR expects that as the project period progresses, the awardee's funding strategy will include allocating funding to HCCs in a graduated manner – such HCC funding should increase incrementally over the five-year project period.

As awardees allocate more funding to HCCs each year, individual health care entities can continue to receive HPP funding, through the HCC, to ensure regional coordination and collaboration. HCCs will determine the amount of funding for health care entities upon review of coalition projects, as well as health care entity projects, based on the funding priorities for each budget period. This process will ensure that HCC activities contribute to the overarching readiness, preparedness, and resilience of health care systems.

Awardees may retain direct costs for the management and monitoring of the HPP cooperative agreement during the 2017-2022 project period. Awardee-level direct costs are defined as personnel, fringe benefits, and travel. Because the goal is to support HCCs and their health care system partners, awardees must limit these direct costs to no more than 18 percent of the HPP cooperative agreement award.

By the end of Budget Period 5, awardees must limit these direct costs to no more than 15 percent of the HPP cooperative agreement award.

ASPR will consider requests for exemptions on a case-by-case basis. Requests for exemption must be submitted with the Budget Period 1 application. Requests for exemption will be strengthened by letters of support from the HCCs and the jurisdiction's hospital association indicating these entities understand and agree with the amount the awardee is retaining for awardee-level direct costs. Please note that concurrence is not required, only recommended if an awardee is requesting an exemption.

Within the first 60 days of each budget period, all awardees must provide a detailed spend plan, including all budget line items, to all HCCs within their jurisdiction and any interested health care entity. This spend plan must also be sent to FPOs.

Awardees are not required to submit position descriptions for HPP funded-staff with the application. However, awardees may be required to submit this information to HPP if the roles and responsibilities of the employee(s), and how they support health care preparedness are not clear in the budget narrative section of the application.

HPP Funding Limitations for Individual Healthcare Facilities

HPP awardees and their subrecipients may provide funding to individual hospitals or other health care entities, as long as the funding is used for activities to advance regional, HCC, or health care system wide priorities, and are in line with ASPR's four health care preparedness and response capabilities. Funding to individual health care entities is not permitted to be used to meet Centers for Medicare and Medicaid Services (CMS) conditions of participation, including CMS-3178-F Medicare and Medicaid Programs: Emergency Preparedness Requirements for Medicare and Medicaid Participating Providers and Suppliers. CMS-3178-F requires providers and suppliers to the following conditions of participation.

- Development of an emergency plan: Based on a risk assessment, develop an emergency plan using an all-hazards approach focusing on capacities and capabilities that are critical to preparedness for a full spectrum of emergencies or disasters specific to the location of a provider or supplier. HPP funding may **not** be provided to individual health care entities to meet this requirement; however, ASPR encourages HCCs to provide technical assistance to their individual members to assist them with the development of their emergency plans. HCCs are permitted to use HPP funding to develop the staffing capacity and technical expertise to assist their members with this requirement.
- Develop policies and procedures: Develop and implement policies and procedures based on the plan and risk assessment. HPP funding may not be provided to individual health care entities to meet this requirement; however, ASPR encourages HCCs to provide technical assistance to their individual members to assist them with the development of policies and procedures. HCCs are permitted to use HPP funding to develop the staffing capacity and technical expertise to assist their members with this requirement.
- Develop and maintain a communication plan: Develop and maintain a communication plan that complies with both Federal and State law. Patient care must be well-coordinated within the facility, across health care providers, and with State and local public health departments and emergency systems. HPP funding may not be provided to individual health care entities to meet this requirement; however, ASPR encourages HCCs to provide technical assistance to their individual members to assist them with the development a communication plan that integrates with the HCC's communications policies and procedures. HCCs are permitted to use HPP funding for costs associated with adding new providers and suppliers to their HCC who are seeking to join coalitions to coordinate patient care across providers, public health departments, and emergency systems (e.g., hiring additional staff to coordinate with the new members, providing communications equipment and platforms to new members, conducting communications exercises, securing meeting spaces, etc.)

- Develop and maintain a training and testing program: Develop and maintain training and testing programs, including initial and annual trainings, and conduct drills and exercises or participate in an actual incident that tests the plan. HPP funding may not be provided to individual health care entities for individual health care organizations' trainings and exercises. HPP funding may be used to plan and conduct trainings and exercises at the regional or HCC level.

18. Data Management Plan

As identified in the Evaluation and Performance Measurement section, applications involving data collection must include a Data Management Plan (DMP) as part of their evaluation and performance measurement plan. The DMP is the applicant's assurance of the quality of the public health data through the data's lifecycle and plans to deposit data in a repository to preserve and to make the data accessible in a timely manner. See web link for additional information: http://www.cdc.gov/grants/additionalrequirements/index.html#ui-id-49

19. Other Submission Requirements

a. Electronic Submission: Applications must be submitted electronically at www.grants.gov. The application package can be downloaded at www.grants.gov. Applicants can complete the application package off-line and submit the application by uploading it at www.grants.gov. All application attachments must be submitted using a PDF file format. Directions for creating PDF files can be found at www.grants.gov. File formats other than PDF may not be readable by OGS Technical Information Management Section (TIMS) staff.

Applications must be submitted electronically by using the forms and instructions posted for this funding opportunity at www.grants.gov.

If Internet access is not available or if the forms cannot be accessed online, applicants may contact the OGS TIMS staff at 770- 488-2700 or by e-mail at ogstims@cdc.gov, Monday through Friday, 7:30 a.m.–4:30 p.m., except federal holidays. Electronic applications will be considered successful if they are available to OGS TIMS staff for processing from www.grants.gov on the deadline date.

b. Tracking Number: Applications submitted through www.grants.gov are time/date stamped electronically and assigned a tracking number. The applicant's Authorized Organization Representative (AOR) will be sent an e-mail notice of receipt when www.grants.gov receives the application. The tracking number documents that the application has been submitted and initiates the required electronic validation process before the application is made available to CDC.

c. Validation Process: Application submission is not concluded until the validation process is completed successfully. After the application package is submitted, the applicant will receive a "submission receipt" e-mail generated by www.grants.gov. A second e-mail message to applicants will then be generated by www.grants.gov that will either validate or reject the submitted application package. This validation process may take as long as two business days. Applicants are strongly encouraged to check the status of their application to ensure that submission of their package has been completed and no submission errors have occurred. Applicants also are strongly encouraged to allocate ample time for filing to guarantee that their application can be submitted and validated by the deadline published in the FOA. Non-validated applications will not be accepted after the

published application deadline date.

If you do not receive a "validation" e-mail within two business days of application submission, please contact www.grants.gov. For instructions on how to track your application, refer to the e-mail message generated at the time of application submission or the Grants.gov Online User Guide. http://www.grants.gov/help/html/help/index.htm?callingApp=custom#t=Get_Started%2FGet_Started.htm

d. Technical Difficulties: If technical difficulties are encountered at www.grants.gov, applicants should contact Customer Service at www.grants.gov. The www.grants.gov Contact Center is available 24 hours a day, 7 days a week, except federal holidays. The Contact Center is available by phone at 1-800-518-4726 or by e-mail at support@grants.gov. Application submissions sent by e-mail or fax, or on CDs or thumb drives will not be accepted. Please note that www.grants.gov is managed by HHS.

e. Paper Submission: If technical difficulties are encountered at www.grants.gov, applicants should call the www.grants.gov Contact Center at 1-800-518-4726 or e-mail them at support@grants.gov for assistance. After consulting with the Contact Center, if the technical difficulties remain unresolved and electronic submission is not possible, applicants may e-mail CDC GMO/GMS, before the deadline, and request permission to submit a paper application. Such requests are handled on a case-by-case basis.

An applicant's request for permission to submit a paper application must:

1. Include the www.grants.gov case number assigned to the inquiry
2. Describe the difficulties that prevent electronic submission and the efforts taken with the www.grants.gov Contact Center to submit electronically; and
3. Be received via e-mail to the GMS/GMO listed below at least three calendar days before the application deadline. Paper applications submitted without prior approval will not be considered.

If a paper application is authorized, OGS will advise the applicant of specific instructions for submitting the application (e.g., original and two hard copies of the application by U.S. mail or express delivery service).

E. Review and Selection Process

1. Review and Selection Process: Applications will be reviewed in three phases

a. Phase 1 Review

All applications will be initially reviewed for eligibility and completeness by CDC Office of Grants Services. Complete applications will be reviewed for responsiveness by the Grants Management Officials and Program Officials. Non-responsive applications will not advance to Phase II review. Applicants will be notified that their applications did not meet eligibility and/or published submission requirements.

b. Phase II Review

A review panel will evaluate complete, eligible applications in accordance with the criteria below.
i. Approach
ii. Evaluation and Performance Measurement
iii. Applicant's Organizational Capacity to Implement the Approach
Not more than thirty days after the Phase II review is completed, applicants will be notified electronically if their application does not meet eligibility or published submission requirements.

Phase II Review Criteria
i. Approach (Maximum Points: 35)
ASPR and CDC will evaluate the extent to which the applicant: • Presents outcomes that are consistent with the project period outcomes described in the ASPR-CDC Project Description and logic model. • Describes an overall strategy and activities consistent with the ASPR-CDC Project Description and logic model. • Describes strategies and activities that are achievable, appropriate to achieve the outcomes of the project, and evidence-based (to the degree practicable). • Shows that the proposed use of funds is an efficient and effective way to implement the strategies and activities and attain the project period outcomes. • Presents a work plan that is aligned with the strategies/activities, outcomes, and performance measures in the approach and is consistent with the content and format proposed by ASPR and CDC.
ii. Evaluation and Performance Measurement (Maximum Points: 35)
ASPR and CDC will evaluate the extent to which the applicant: • Shows/affirms the ability to collect data on the process and outcome performance measures specified by ASPR and CDC in the project description and presented by the applicant in their approach. • Describes clear monitoring and evaluation procedures and how evaluation and performance measurement will be incorporated into planning, implementation, and reporting of project activities. • Describes how performance measurement and evaluation findings will be reported, and used to demonstrate the outcomes of the FOA and for continuous program quality improvement. • Describes how evaluation and performance measurement will contribute to developing an evidence base for programs that lack a strong effectiveness evidence base. • Includes a preliminary Data Management Plan (DMP), if applicable.
iii. Applicant's Organizational Capacity to Implement the Approach (Maximum points: 30)
ASPR and CDC will evaluate the extent to which the applicant addresses the items below. • Demonstrates relevant experience and capacity (management, administrative, and technical) to implement the activities and achieve the project outcomes. • Demonstrates experience and capacity to implement the evaluation plan.

Phase II Review Criteria
• Provides a staffing plan and project management structure that will be sufficient to achieve the project outcomes and which clearly defines staff roles. Provides an organizational chart.
Budget
Equipment requests totaling $5,000 or more must include three cost estimates.

c. Phase III Review

ASPR and CDC will conduct a thorough technical review of work plans and budgets to ensure they align with the strategies and activities described in this FOA.

Review of risk posed by applicants.
Prior to making a Federal award, ASPR and CDC are required by 31 U.S.C. 3321 and 41 U.S.C. 2313 to review information available through any OMB-designated repositories of government-wide eligibility qualification or financial integrity information as appropriate. See also suspension and debarment requirements at 2 CFR parts 180 and 376.

In accordance 41 U.S.C. 2313, ASPR and CDC are required to review the non-public segment of the OMB-designated integrity and performance system accessible through SAM (currently the Federal Awardee Performance and Integrity Information System (FAPIIS)) prior to making a Federal award where the Federal share is expected to exceed the simplified acquisition threshold, defined in 41 U.S.C. 134, over the period of performance. At a minimum, the information in the system for a prior Federal award recipient must demonstrate a satisfactory record of executing programs or activities under Federal grants, cooperative agreements, or procurement awards; and integrity and business ethics. ASPR and CDC may make a Federal award to a recipient who does not fully meet these standards, if it is determined that the information is not relevant to the current Federal award under consideration or there are specific conditions that can appropriately mitigate the effects of the non-Federal entity's risk in accordance with 45 CFR §75.207.

ASPR's and CDC's framework for evaluating the risks posed by an applicant may incorporate results of the evaluation of the applicant's eligibility or the quality of its application. If it is determined that a Federal award will be made, special conditions that correspond to the degree of risk assessed may be applied to the Federal award. The evaluation criteria is described in this funding opportunity announcement. In evaluating risks posed by applicants, ASPR and CDC will use a risk-based approach and may consider any items such as the following:
(1) Financial stability;
(2) Quality of management systems and ability to meet the management standards prescribed in this part;
(3) History of performance. The applicant's record in managing Federal awards, if it is a prior recipient of Federal awards, including timeliness of compliance with applicable reporting requirements, conformance to the terms and conditions of previous Federal awards, and if applicable, the extent to which any previously awarded amounts will be expended prior to future awards;
(4) Reports and findings from audits performed under subpart F 45 CFR 75 or the reports and findings of any other available audits; and

(5) The applicant's ability to effectively implement statutory, regulatory, or other requirements imposed on non-Federal entities.

ASPR and CDC must comply with the guidelines on government-wide suspension and debarment in 2 CFR part 180, and require non-Federal entities to comply with these provisions. These provisions restrict Federal awards, subawards and contracts with certain parties that are debarred, suspended or otherwise excluded from or ineligible for participation in Federal programs or activities.

2. Announcement and Anticipated Award Dates

Awardees will receive an e-mail from Grants Solutions with a link to their Notices of Award (NOA) no later than July 1, 2017. Funding will take effect July 1, 2017.

F. Award Administration Information

1. Award Notices

Awardees will receive an e-mail from Grants Solutions with a link to their (NOA). ***The NOA shall be the only binding, authorizing document between the awardee and CDC.*** The NOA will be signed by an authorized GMO and emailed to the awardee business officer listed in application and the program director.

Any applicant awarded funds in response to this FOA will be subject to the DUNS, SAM Registration, and Federal Funding Accountability And Transparency Act Of 2006 (FFATA) requirements.

Unsuccessful applicants will receive notification of these results by e-mail with delivery receipt or by U.S. mail.

2. Administrative and National Policy Requirements

Awardees must comply with the administrative and public policy requirements outlined in 45 CFR Part 75 and the HHS Grants Policy Statement, as appropriate. Brief descriptions of relevant provisions are available at http://www.cdcgov/grants/additionalrequirements/index.html#ui-id-17.
The HHS Grants Policy Statement is available at http://www.hhs.gov/sites/default/files/grants/grants/policies-regulations/hhsgps107.pdf.

Note that 45 CFR part 75 supersedes the administrative requirements (A-110 & A-102), cost principles (A-21, A-87 & A-122) and audit requirements (A-50, A-89 & A-133).

The following Administrative Requirements (AR) apply to this project:

AR-7: Executive Order 12372
AR-9: Paperwork Reduction Act http://www.hhs.gov/ocio/policy/collection/infocollectfaq.html
AR-11: Healthy People 2020

AR-12: Lobbying Restrictions
AR-13: Prohibition on Use of CDC Funds for Certain Gun Control Activities
AR-14: Accounting System Requirements
AR-16: Security Clearance Requirement
AR-21: Small, Minority, And Women-owned Business
AR-24: Health Insurance Portability and Accountability Act
AR-25: Release and Sharing of Data
AR-26: National Historic Preservation Act of 1966
AR-29: Compliance with EO13513, "Federal Leadership on Reducing Text Messaging while Driving," October 1, 2009
AR-30: Compliance with Section 508 of the Rehabilitation Act of 1973
AR-33: Plain Writing Act of 2010
ARs applicable to awards related to conferences:
AR-20: Conference Support
AR-27: Conference Disclaimer and Use of Logos

For more information on the CFR visit http://www.access.gpo.gov/nara/cfr/cfr-table-search.html

3. Reporting

Reporting provides continuous program monitoring and identifies successes and challenges that awardees encounter throughout the project period. Also, reporting is a requirement for awardees who want to apply for yearly continuation of funding. Reporting helps CDC and awardees because it:

- Helps target support to awardees;
- Provides CDC with periodic data to monitor awardee progress toward meeting the FOA outcomes and overall performance;
- Allows CDC to track performance measures and evaluation findings for continuous quality and program improvement throughout the project period and to determine applicability of evidence-based approaches to different populations, settings, and contexts; and
- Enables CDC to assess the overall effectiveness and influence of the FOA.

The table below summarizes required and optional reports. All required reports must be sent electronically to GMS listed in the "Agency Contacts" section of the FOA copying the ASPR and CDC project officers.

Report	When?	Required?
Awardee Evaluation and Performance Measurement Plan, including Data Management Plan (DMP)	6 months into award	Yes
Annual Performance Report (APR)	No later than 120 days before end of budget period. Serves as yearly continuation application.	Yes

Report	When?	Required?
	ASPR and CDC awardees must submit summary information regarding their responses to real incidents involving partial or full activation of their EOCs, including virtual activations. More information will be provided with the APR guidance.	
Federal Financial Reporting Forms	90 days after end of calendar quarter in which budget period ends CDC may require more frequent financial reporting for PHEP awardees based on individual circumstances.	Yes
Monthly spend plan reports that include obligation rates	5 days after the end of the month	Yes PHEP Awardees Only
Final Performance and Financial Report	90 days after end of project period	Yes
Payment Management System (PMS) Reporting	Quarterly reports	Yes

a. Awardee Evaluation and Performance Measurement Plan (required)

With support from ASPR and CDC, awardees must elaborate on their initial applicant evaluation and performance measurement plan. This plan must be no more than 20 pages; awardees must submit the plan six months into the award. ASPR and CDC will review and approve the recipient's monitoring and evaluation plan to ensure that it is appropriate for the activities to be undertaken as part of the agreement, for compliance with the monitoring and evaluation guidance established by ASPR and CDC or other guidance otherwise applicable to this Agreement.

Awardee Evaluation and Performance Measurement Plan (required): This plan should provide additional detail on the following:

Performance Measurement

- Performance measures and targets
- The frequency that performance data are to be collected.
- How performance data will be reported.

- How quality of performance data will be assured.
- How performance measurement will yield findings to demonstrate progress towards achieving
- FOA goals (e.g., reaching target populations or achieving expected outcomes).
- Dissemination channels and audiences.
- Other information requested as determined by the CDC program.

Evaluation

- The types of evaluations to be conducted (e.g., process or outcome evaluations).
- The frequency that evaluations will be conducted.
- How evaluation reports will be published on a publically available website.
- How evaluation findings will be used to ensure continuous quality and program improvement.
- How evaluation will yield findings to demonstrate the value of the FOA (e.g., effect on improving public health outcomes, effectiveness of FOA, cost-effectiveness or cost-benefit).
- Dissemination channels and audiences.

In a cooperative agreement, ASPR and CDC staff are substantially involved in the program activities, above and beyond routine grant monitoring. During the project period, ASPR and CDC will monitor and evaluate the defined activities within the agreement and awardee progress in meeting work plan priorities. The recipient must ensure reasonable access by ASPR and CDC or their designees to all necessary sites, documentation, individuals and information to monitor, evaluate and verify the appropriate implementation the activities and use of ASPR and CDC funding under this Agreement.

b. Annual Performance Report (APR) (required)
The awardee must submit the APR via www.grants.gov no later than 120 days before the end of the budget period. This report must not exceed 45 pages excluding administrative reporting. Attachments are not allowed, but web links are allowed. This report must include the following:

- **Performance Measures:** Awardees must report on performance measures for each budget period and update measures, if needed. In addition, awardees must submit program benchmark and pandemic influenza planning data. Awardees that fail to "substantially meet" HPP and PHEP benchmarks and pandemic influenza planning information required by this FOA are subject to withholding of a statutorily mandated percentage of the following year's award.
- **Evaluation Results:** Awardees must report evaluation results for the work completed to date (including findings from process or outcome evaluations).
- **Work Plan:** Awardees must update work plan each budget period to reflect any changes in project period outcomes, activities, timeline, etc.
- **Successes**
    - Awardees must report progress on completing activities and progress towards achieving the project period outcomes described in the logic model and work plan.
    - Awardees must describe any additional successes (e.g. identified through evaluation results or lessons learned) achieved in the past year.
    - Awardees must describe success stories.

- **Challenges**
    - Awardees must describe any challenges that hindered or might hinder their ability to complete the work plan activities and achieve the project period outcomes.
    - Awardees must describe any additional challenges (e.g., identified through evaluation results or lessons learned) encountered in the past year.
- **ASPR and CDC Program Support to Awardees**
    - Awardees must describe how ASPR and CDC could help them overcome challenges to complete activities in the work plan and achieving project period outcomes.
- **EOC Activations**
    - Awardees must submit summary information regarding their responses to real incidents involving partial or full activation of their EOCs, including virtual activations. More information will be provided with the APR guidance.
- **Administrative Reporting** (No page limit)
    - SF-424A Budget Information-Non-Construction Programs.
    - Budget Narrative – Must use the format outlined in "Content and Form of Application Submission, Budget Narrative" section.
    - Indirect Cost Rate Agreement.

The awardees must submit the Annual Performance Report via www.grants.gov 120 days before the end of the budget period.

c. Federal Financial Reporting (FFR) (required)

The annual FFR form (SF-425) is required and must be submitted no later than 90 days after the end of the budget period. To submit the FFR, log into www.grantsolutions.gov , select “Reports” from the menu, and click on Federal Financial Reports. The report must include only those funds authorized and disbursed during the timeframe covered by the report. The final FFR must indicate the exact balance of unobligated funds, and may not reflect any unliquidated obligations. There must be no discrepancies between the final FFR expenditure data and the Payment Management System’s
(PMS) cash transaction data. Failure to submit the required information by the due date may adversely affect the future funding of the project. If the information cannot be provided by the due date, awardees are required to submit a letter of explanation to OGS and include the date by which the Grants Officer will receive information.

CDC may require more frequent financial reporting for PHEP awardees based on individual circumstances.

d. Final Performance and Financial Report (required)

This report is due 90 days after the end of the project period. CDC programs must indicate that this report should not exceed 40 pages. This report covers the entire project period and can include information previously reported in APRs. At a minimum, this report must include the following:

- Performance Measures – Awardees must report final performance data for all process and outcome performance measures.
- Evaluation Results – Awardees must report final evaluation results for the project period for any evaluations conducted.
- Impact/Results/Success Stories – Awardees must use their performance measure results and their evaluation findings to describe the effects or results of the work completed over the project period, and can include some success stories.
- A final Data Management Plan that includes the location of the data collected during the funded period, for example, repository name and link data set(s)
- Additional forms as described in the Notice of Award (e.g., Equipment Inventory Report, Final Invention Statement).

4. Federal Funding Accountability and Transparency Act of 2006 (FFATA)

Federal Funding Accountability and Transparency Act of 2006 (FFATA), P.L. 109–282, as amended by section 6202 of P.L. 110–252 requires full disclosure of all entities and organizations receiving Federal funds including awards, contracts, loans, other assistance, and payments through a single publicly accessible Web site, http://www.USASpending.gov.
Compliance with this law is primarily the responsibility of the Federal agency. However, two elements of the law require information to be collected and reported by applicants: 1) information on executive compensation when not already reported through the SAM, and 2) similar information on all sub-awards/subcontracts/consortiums over $25,000.
For the full text of the requirements under the FFATA and HHS guidelines, go to:

- https://www.gpo.gov/fdsys/pkg/PLAW-109publ282/pdf/PLAW-109publ282.pdf,
- https://www.fsrs.gov/documents/ffata_legislation_110_252.pdf
- http://www.hhs.gov/grants/grants/grants-policies-regulations/index.html#FFATA.

5. Reporting of Foreign Taxes (International/Foreign projects only)

A. Valued Added Tax (VAT) and Customs Duties – Customs and import duties, consular fees, customs surtax, valued added taxes, and other related charges are hereby authorized as an allowable cost for costs incurred for non-host governmental entities operating where no applicable tax exemption exists. This waiver does not apply to countries where a bilateral agreement (or similar legal document) is already in place providing applicable tax exemptions and it is not applicable to Ministries of Health. Successful applicants will receive information on VAT requirements via their Notice of Award.

B. The U.S. Department of State requires that agencies collect and report information on the amount of taxes assessed, reimbursed and not reimbursed by a foreign government against commodities financed with funds appropriated by the U.S. Department of State, Foreign Operations and Related Programs Appropriations Act (SFOAA) (“United States foreign assistance funds”). Outlined below are the specifics of this requirement:

1) Annual Report: The grantee must submit a report on or before November 16 for each foreign country on the amount of foreign taxes charged, as of September 30 of the same year, by a foreign government on commodity purchase transactions valued at 500 USD or more financed with United States foreign assistance funds under this grant during the prior United States fiscal year (October 1 – September 30), and the amount reimbursed and unreimbursed by the foreign government. [Reports are required even if the grantee did not pay any taxes during the reporting period.]

2) Quarterly Report: The grantee must quarterly submit a report on the amount of foreign taxes charged by a foreign government on commodity purchase transactions valued at 500 USD or more financed with United States foreign assistance funds under this grant. This report shall be submitted no later than two weeks following the end of each quarter: April 15, July 15, October 15 and January 15.

3) Terms: For purposes of this clause:
"Commodity" means any material, article, supplies, goods, or equipment;
"Foreign government" includes any foreign government entity;
"Foreign taxes" means value-added taxes and custom duties assessed by a foreign government on a commodity. It does not include foreign sales taxes.

4) Where: Submit the reports to the Director and Deputy Director of the CDC office in the country(ies) in which you are carrying out the activities associated with this cooperative agreement. In countries where there is no CDC office, send reports to VATreporting@cdc.gov.

5) Contents of Reports: The reports must contain:
a. grantee name;
b. contact name with phone, fax, and e-mail;
c. agreement number(s) if reporting by agreement(s);
d. reporting period;
e. amount of foreign taxes assessed by each foreign government;
f. amount of any foreign taxes reimbursed by each foreign government;
g. amount of foreign taxes unreimbursed by each foreign government.

6) Subagreements. The grantee must include this reporting requirement in all applicable subgrants and other subagreements.

G. Agency Contacts

ASPR and CDC encourage inquiries concerning this FOA.

Program Office Contact
For programmatic technical assistance, contact:

R. Scott Dugas, ASPR Project Officer
Department of Health and Human Services
Assistant Secretary for Preparedness and Response
200 C Street, SW

Washington, D.C. 20201
Telephone: (202) 245-0732
Email: Robert.Dugas@hhs.gov

Sharon Sharpe, CDC Project Officer
Department of Health and Human Services
Centers for Disease Control and Prevention
1600 Clifton Road, NE,
Mailstop D29
Atlanta, GA 30329-027

Grants Staff Contact
For **financial, awards management, or budget assistance,** contact:

Shicann Phillips, Lead Grants Management Specialist
Department of Health and Human Services
CDC Office of Grant Services
2920 Brandywine Road
Atlanta, GA 30341
Telephone: (770) 488-2809
Email: ibq7@cdc.gov

For assistance with **submission difficulties related to** www.grants.gov, contact the Contact Center by phone at 1-800-518-4726.
Hours of Operation: 24 hours a day, 7 days a week, except on federal holidays.

For all other **submission** questions, contact:
Technical Information Management Section
Department of Health and Human Services
CDC Office of Financial Resources
Office of Grants Services
2920 Brandywine Road, MS E-14
Atlanta, GA 30341
Telephone: 770-488-2700
E-mail: ogstims@cdc.gov

CDC Telecommunications for persons with hearing loss is available at: TTY 1-888-232-6348

H. Other Information

Application Attachments

Following is a list of acceptable attachments **awardees** can upload as PDF files as part of their applications at www.grants.gov. Awardees may not attach documents other than those listed; if other documents are attached, applications will not be reviewed.

- Table of Contents for Entire Submission
- HPP Project Abstract
- PHEP Project Abstract
- HPP Project Narrative
- PHEP Project Narrative
- HPP Work Plan (high-level plan)
- HPP Domain Work Plan
- PHEP Work Plan (high-level plan)
- PHEP Domain Work Plan
- HPP Budget Narrative
- HPP Application for Federal Assistance (SF-424)
- HPP Budget Information for Non-Construction Programs (SF-424A)
- HPP Indirect Cost Rate Agreement
- PHEP Budget Narrative
- PHEP Application for Federal Assistance (SF-424)
- PHEP Budget Information for Non-Construction Programs (SF-424A)
- PHEP Indirect Cost Rate Agreement
- CDC Assurances and Certifications (PHS-5161)
- Senior Health Official (SHO) Letter (PHEP only)
- Local Concurrence Letters (PHEP only)
- Tribal Input Letters (PHEP only)
- EMSC support letters (HPP only)
- HPP Organizational Chart
- PHEP Organizational Chart
- Disclosure of Lobbying Activities (SF-LLL)

Optional attachments:

- Memorandum of Agreement (MOA)
- Memorandum of Understanding (MOU)
- Bona Fide Agent status documentation, if applicable

Temporary Reassignment of State and Local Personnel during a Public Health Emergency

Section 201 of the Pandemic and All-Hazards Preparedness Reauthorization Act of 2013 (PAHPRA), Public Law 113-5 amends section 319 of the Public Health Service (PHS) Act to provide the Secretary of the Department of Health and Human Services (HHS) with discretion to authorize the temporary reassignment of state, tribal, and local personnel during a declared federal public health emergency upon request by a state or tribal organization. The temporary reassignment provision is applicable to state, tribal, and local public health department or agency personnel whose positions are funded, in full or part, under PHS programs and allows such personnel to immediately respond to the public health emergency in the affected jurisdiction. Funds provided under the award may be used to support personnel who are temporarily reassigned in accordance with section 319(e). This authority terminates September 30, 2018. Please see detailed information available on the ASPR website at http://www.phe.gov/Preparedness/legal/pahpa/section201/Pages/default.aspx

HPP Budget Period 1 (Fiscal Year 2017) Funding

Awardee	FY 2017 Total Funding Available
Alabama	$3,316,320
Alaska	$951,914
American Samoa	$278,422
Arizona	$3,930,938
Arkansas	$2,002,932
California	$23,397,482
Chicago	$2,736,056
Colorado	$3,119,392
Connecticut	$2,330,641
Delaware	$1,049,193
Florida	$11,822,752
Georgia	$5,973,258
Guam	$374,754
Hawaii	$1,261,124
Idaho	$1,247,694
Illinois	$8,772,659
Indiana	$3,934,926
Iowa	$2,130,401
Kansas	$2,117,146
Kentucky	$2,759,985
Los Angeles County	$9,263,958
Louisiana	$2,895,985
Maine	$1,065,567
Marshall Islands	$268,005

Awardee	FY 2017 Total Funding Available
Maryland	$4,864,700
Massachusetts	$4,315,709
Michigan	$6,157,587
Micronesia	$276,806
Minnesota	$3,518,356
Mississippi	$2,176,032
Missouri	$3,676,990
Montana	$920,601
Nebraska	$1,373,309
Nevada	$1,911,347
New Hampshire	$1,089,878
New Jersey	$5,633,732
New Mexico	$1,527,031
New York	$9,639,512
New York City	$7,941,327
North Carolina	$6,112,501
North Dakota	$879,429
Northern Mariana Islands	$270,356
Ohio	$7,450,278
Oklahoma	$2,602,493
Oregon	$2,577,424
Palau	$255,373
Pennsylvania	$8,093,898
Puerto Rico	$2,576,010
Rhode Island	$940,547
South Carolina	$3,117,650
South Dakota	$848,108
Tennessee	$4,040,788
Texas	$16,176,634
Utah	$2,271,467
Vermont	$780,333
Virgin Islands (US)	$305,611
Virginia	$6,075,317
Washington	$4,279,234
Washington, D.C.	$944,353
West Virginia	$1,405,606
Wisconsin	$3,634,631
Wyoming	$837,538
Total	**$228,500,000**

Public Health Emergency Preparedness (PHEP)
Budget Period 1 (Fiscal Year 2017) Funding*

Awardee	FY 2017 Base Plus Population Funding	FY 2017 Cities Readiness Initiative Funding	FY 2017 Level 1 Chemical Laboratory Funding	FY 2017 Level 2 Chemical Laboratory Funding**	FY 2017 Total Funding Available
Alabama	$8,463,734	$294,350	$0	$0	$8,758,084
Alaska	$4,012,964	$169,600	$0	$0	$4,182,564
American Samoa	$360,798	$0	$0	$0	$360,798
Arizona	$10,677,895	$1,139,655	$0	$0	$11,817,550
Arkansas	$6,348,875	$199,715	$0	$260,000	$6,808,590
California	$35,976,191	$5,265,278	$1,175,583	$0	$42,417,052
Chicago	$8,039,978	$1,611,520	$0	$0	$9,651,498
Colorado	$9,135,706	$699,105	$0	$260,000	$10,094,811
Connecticut	$7,037,812	$536,817	$0	$260,000	$7,834,629
Delaware	$4,012,964	$311,709	$0	$0	$4,324,673
Florida	$25,794,260	$2,851,074	$932,317	$0	$29,577,651
Georgia	$14,486,214	$1,431,277	$0	$0	$15,917,491
Guam	$484,271	$0	$0	$0	$484,271
Hawaii	$4,609,782	$254,457	$0	$0	$4,864,239
Idaho	$4,860,905	$169,600	$0	$260,000	$5,290,505
Illinois	$14,429,471	$1,885,757	$0	$0	$16,315,228
Indiana	$10,443,574	$775,482	$0	$400,000	$11,619,056
Iowa	$6,512,703	$201,283	$0	$0	$6,713,986
Kansas	$6,274,028	$388,865	$0	$260,000	$6,922,893
Kentucky	$7,975,845	$366,410	$0	$0	$8,342,255
Los Angeles	$16,072,996	$3,223,040	$0	$260,000	$19,556,036
Louisiana	$8,252,048	$532,494	$0	$260,000	$9,044,542
Maine	$4,494,778	$169,600	$0	$260,000	$4,924,378
Marshall Islands	$383,816	$0	$0	$0	$383,816
Maryland	$9,753,965	$1,361,690	$0	$260,000	$11,375,655
Massachusetts	$10,640,064	$1,246,987	$1,080,144	$0	$12,967,195
Michigan	$14,157,552	$1,110,828	$1,063,587	$0	$16,331,967
Micronesia	$417,164	$0	$0	$0	$417,164
Minnesota	$9,172,836	$877,187	$1,092,880	$0	$11,142,903
Mississippi	$6,364,763	$234,840	$0	$260,000	$6,859,603
Missouri	$9,840,854	$862,657	$0	$400,000	$11,103,511
Montana	$4,161,511	$169,600	$0	$260,000	$4,591,111
Nebraska	$5,132,192	$199,955	$0	$260,000	$5,592,147
Nevada	$6,250,643	$526,292	$0	$0	$6,776,935
New Hampshire	$4,496,217	$279,296	$0	$260,000	$5,035,513
New Jersey	$13,072,939	$2,211,804	$0	$260,000	$15,544,743
New Mexico	$5,344,624	$233,399	$1,096,376	$0	$6,674,399

Awardee	FY 2017 Base Plus Population Funding	FY 2017 Cities Readiness Initiative Funding	FY 2017 Level 1 Chemical Laboratory Funding	FY 2017 Level 2 Chemical Laboratory Funding**	FY 2017 Total Funding Available
New York	$16,066,980	$1,791,571	$1,726,734	$0	$19,585,285
New York City	$14,219,560	$3,826,060	$0	$0	$18,045,620
North Carolina	$14,292,742	$522,554	$0	$0	$14,815,296
North Dakota	$4,012,964	$169,600	$0	$0	$4,182,564
N. Mariana Islands	$357,539	$0	$0	$0	$357,539
Ohio	$16,058,844	$1,468,042	$0	$0	$17,526,886
Oklahoma	$7,398,148	$340,871	$0	$0	$7,739,019
Oregon	$7,530,429	$482,081	$0	$0	$8,012,510
Palau	$323,735	$0	$0	$0	$323,735
Pennsylvania	$17,395,919	$1,675,818	$0	$400,000	$19,471,737
Puerto Rico	$6,906,583	$0	$0	$260,000	$7,166,583
Rhode Island	$4,187,766	$272,421	$0	$0	$4,460,187
South Carolina	$8,505,527	$296,405	$1,010,999	$0	$9,812,931
South Dakota	$4,012,964	$169,600	$0	$0	$4,182,564
Tennessee	$10,421,781	$723,955	$0	$0	$11,145,736
Texas	$33,887,955	$3,998,896	$0	$0	$37,886,851
Utah	$6,368,795	$294,706	$0	$0	$6,663,501
Vermont	$4,012,964	$169,600	$0	$400,000	$4,582,564
Virgin Islands (US)	$415,036	$0	$0	$0	$415,036
Virginia	$12,426,351	$1,493,238	$962,945	$0	$14,882,534
Washington	$11,062,782	$1,052,317	$0	$260,000	$12,375,099
Washington, D.C.	$5,755,894	$623,814	$0	$0	$6,379,708
West Virginia	$5,073,651	$183,875	$0	$260,000	$5,517,526
Wisconsin	$9,489,645	$482,103	$1,445,235	$0	$11,416,983
Wyoming	$4,012,964	$169,600	$0	$0	$4,182,564
Total	**$542,144,450**	**$51,998,750**	**$11,586,800**	**$6,020,000**	**$611,750,000**

***** PHEP funding subject to change based on the final fiscal year 2017 budget.
****** Additional funding awarded to complete replacement of ICP-MS equipment.

Cities Readiness Initiative (CRI)
Budget Period 1 (Fiscal Year 2017) Funding

Awardee	CRI City	2015 Census Population	FY 2017 Awardee Total
Alabama	Birmingham	1,138,476	$294,350
Alaska	Anchorage	395,285	$169,600
Arizona	Phoenix	4,407,915	$1,139,655
Arkansas	Little Rock	722,684	
Arkansas	Memphis	49,765	$199,715
California	Los Angeles	3,116,069	
California	Riverside	4,392,801	
California	Sacramento	2,221,525	
California	San Diego	3,223,096	$5,265,278
California	San Francisco	4,528,894	
California	San Jose	1,925,706	
California	Fresno	956,749	
Chicago	Chicago		$1,611,520
Colorado	Denver	2,703,972	$699,105
Connecticut	Hartford	1,214,056	
Connecticut	New Haven	862,224	$536,817
Delaware	Philadelphia	549,643	
Delaware	Dover	169,509	$311,709
Florida	Miami	5,861,000	
Florida	Orlando	2,277,816	
Florida	Tampa	2,888,458	$2,851,074
Georgia	Atlanta	5,535,837	$1,431,277
Hawaii	Honolulu	984,178	$254,457
Idaho	Boise	651,402	$169,600
Illinois	Chicago	5,940,053	
Illinois	St Louis	697,634	$1,885,757
Illinois	Peoria	379,947	
Indiana	Chicago	705,671	
Indiana	Indianapolis	1,950,674	
Indiana	Cincinnati	63,011	$775,482
Indiana	Louisville	280,024	
Iowa	Des Moines	601,187	
Iowa	Omaha	122,542	$201,283
Kansas	Wichita	638,884	

Awardee	CRI City	2015 Census Population	FY 2017 Awardee Total
Kansas	Kansas City	848,063	$388,865
Kentucky	Louisville	981,912	
Kentucky	Cincinnati	435,275	$366,410
Los Angeles	Los Angeles		$3,223,040
Louisiana	Baton Rouge	819,861	
Louisiana	New Orleans	1,239,697	$532,494
Maine	Portland	520,893	$169,600
Maryland	Baltimore	2,769,818	
Maryland	Washington D.C	2,394,916	$1,361,690
Maryland	Philadelphia	101,960	
Massachusetts	Boston	4,270,286	
Massachusetts	Providence	552,763	$1,246,987
Michigan	Detroit	4,296,416	$1,110,828
Minnesota	Fargo	60,879	
Minnesota	Minneapolis	3,331,873	$877,187
Mississippi	Jackson	577,070	
Mississippi	Memphis	252,333	$234,840
Missouri	St. Louis	2,128,940	
Missouri	Kansas City	1,207,612	$862,657
Montana	Billings	164,716	$169,600
Nebraska	Omaha	773,377	$199,955
Nevada	Las Vegas	2,035,572	$526,292
New Hampshire	Boston	424,279	
New Hampshire	Manchester	403,972	$279,296
New Jersey	New York City	6,580,787	
New Jersey	Philadelphia	1,317,972	$2,211,804
New Jersey	Trenton	370,212	
New Mexico	Albuquerque	902,731	$233,399
New York	Albany	877,846	
New York	Buffalo	1,135,734	$1,791,571
New York	New York City	4,915,788	
New York City	New York City	0	$3,826,061
North Carolina	Charlotte	1,984,897	
North Carolina	Virginia Beach	36,216	$522,554
North Dakota	Fargo	162,500	$169,600
Ohio	Cincinnati	1,641,180	

Awardee	CRI City	2015 Census Population	FY 2017 Awardee Total
Ohio	Cleveland	2,064,483	
Ohio	Columbus	1,972,375	$1,468,042
Oklahoma	Oklahoma City	1,318,408	$340,871
Oregon	Portland	1,864,574	$482,081
Pennsylvania	Philadelphia	4,066,105	
Pennsylvania	Pittsburgh	2,358,926	$1,675,818
Pennsylvania	New York City	56,632	
Rhode Island	Providence	1,053,661	$272,421
South Carolina	Columbia	792,530	
South Carolina	Charlotte	353,895	$296,405
South Dakota	Sioux Falls	242,731	$169,600
Tennessee	Nashville	1,761,848	
Tennessee	Memphis	1,038,238	$723,955
Texas	Dallas	6,833,420	
Texas	Houston	6,346,653	$3,998,896
Texas	San Antonio	2,286,702	
Utah	Salt Lake City	1,139,851	$294,706
Vermont	Burlington	215,081	$169,600
Virginia	Richmond	1,246,215	
Virginia	Virginia Beach	1,677,485	$1,493,238
Virginia	Washington D.C	2,851,789	
Washington	Seattle	3,614,361	
Washington	Portland	455,749	$1,052,317
Washington D.C	Washington D.C		$623,814
West Virginia	Charleston	223,922	
West Virginia	Washington D.C	55,214	$183,875
Wisconsin	Chicago	167,738	
Wisconsin	Milwaukee	1,570,006	$482,103
Wisconsin	Minneapolis	126,917	
Wyoming	Cheyenne	95,431	$169,600
Total CRI Funding		**160,525,973**	**$51,998,750**

* CRI funding subject to change based on the final fiscal year 2017 budget.

I. Glossary

Activities: The actual events or actions that take place as a part of the program.
Administrative and National Policy Requirements, Additional Requirements (ARs): Administrative requirements found in 45 CFR Part 75 and other requirements mandated by statute or ASPR and CDC policy. Awardees must comply with the ARs listed in the FOA.
To view brief descriptions of relevant provisions, see http://www.cdc.gov/grants/additionalrequirements/index.html. Note that 45 CFR part 75 supersedes the administrative requirements (A-110 & A-102), cost principles (A-21, A-87 & A-122) and audit requirements (A-50, A-89 & A-133).
Approved but Unfunded: Approved but unfunded refers to applications recommended for approval during the objective review process; however, they were not recommended for funding by the program office and/or the grants management office.
Award: Financial assistance that provides support or stimulation to accomplish a public purpose. Awards include grants and other agreements (e.g., cooperative agreements) in the form of money, or property in lieu of money, by the federal government to an eligible applicant.
Budget Period or Budget Year: The duration of each individual funding period within the project period. Traditionally, budget periods are 12 months or 1 year.
Carry-over: Unobligated federal funds remaining at the end of any budget period that, with the approval of the GMO or under an automatic authority, may be carried over to another budget period to cover allowable costs of that budget period either as an offset or additional authorization. Obligated but liquidated funds are not considered carry-over.
Catalog of Federal Domestic Assistance (CFDA): A government-wide compendium published by the General Services Administration (available on-line in searchable format as well as in printable format as a .pdf file) that describes domestic assistance programs administered by the Federal Government.
CFDA Number: A unique number assigned to each program and FOA throughout its lifecycle that enables data and funding tracking and transparency.
CDC Assurances and Certifications: Standard government-wide grant application forms.
Competing Continuation Award: A financial assistance mechanism that adds funds to a grant and adds one or more budget periods to the previously established project period (i.e., extends the "life" of the award).
Continuous Quality Improvement: A system that seeks to improve the provision of services with an emphasis on future results.
Contracts: An award instrument used to acquire (by purchase, lease, or barter) property or services for the direct benefit or use of the Federal Government.
Cooperative Agreement: A financial assistance award with the same kind of interagency relationship as a grant except that it provides for substantial involvement by the federal agency funding the award. Substantial involvement means that the recipient can expect federal programmatic collaboration or participation in carrying out the effort under the award.
Cost Sharing or Matching: Refers to program costs not borne by the Federal Government but by the awardees. It may include the value of allowable third-party, in-kind contributions, as well as expenditures by the awardee.
Direct Assistance: A financial assistance mechanism, which must be specifically authorized by statute, whereby goods or services are provided to recipients in lieu of cash. DA generally involves the assignment of federal personnel or the provision of equipment or supplies, such as vaccines. DA

is primarily used to support payroll and travel expenses of CDC employees assigned to state, tribal, local, and territorial (STLT) health agencies that are recipients of grants and cooperative agreements. Most legislative authorities that provide financial assistance to STLT health agencies allow for the use of DA. http://www.cdc.gov/grants/additionalrequirements/index.html.

DUNS: The Dun and Bradstreet (D&B) Data Universal Numbering System (DUNS) number is a nine-digit number assigned by Dun and Bradstreet Information Services. When applying for Federal awards or cooperative agreements, all applicant organizations must obtain a DUNS number as the Universal Identifier. DUNS number assignment is free. If requested by telephone, a DUNS number will be provided immediately at no charge. If requested via the Internet, obtaining a DUNS number may take one to two days at no charge. If an organization does not know its DUNS number or needs to register for one, visit Dun & Bradstreet at http://fedgov.dnb.com/webform/displayHomePage.do.

Emergency Support Function (ESF): As defined in the National Response Framework, an ESF refers to a group of capabilities of federal departments and agencies to provide the support, resources, program implementation, and services that are most likely to be needed to save lives, protect property, restore essential services and critical infrastructure, and help victims return to normal following a national incident. An ESF represents the primary operational level mechanism to orchestrate activities to provide assistance to state, tribal, or local governments, or to federal departments or agencies conducting missions of primary federal responsibility.

Evaluation (program evaluation): The systematic collection of information about the activities, characteristics, and outcomes of programs (which may include interventions, policies, and specific projects) to make judgments about that program, improve program effectiveness, and/or inform decisions about future program development.

Evaluation Plan: A written document describing the overall approach that will be used to guide an evaluation, including why the evaluation is being conducted, how the findings will likely be used, and the design and data collection sources and methods. The plan specifies what will be done, how it will be done, who will do it, and when it will be done. The FOA evaluation plan is used to describe how the awardee and/or CDC will determine whether activities are implemented appropriately and outcomes are achieved.

Federal Funding Accountability and Transparency Act of 2006 (FFATA): Requires that information about federal awards, including awards, contracts, loans, and other assistance and payments, be available to the public on a single website at www.USAspending.gov.

Fiscal Year: The year for which budget dollars are allocated annually. The federal fiscal year starts October 1 and ends September 30.

Grant: A legal instrument used by the federal government to transfer anything of value to a recipient for public support or stimulation authorized by statute. Financial assistance may be money or property. The definition does not include a federal procurement subject to the Federal Acquisition Regulation; technical assistance (which provides services instead of money); or assistance in the form of revenue sharing, loans, loan guarantees, interest subsidies, insurance, or direct payments of any kind to a person or persons. The main difference between a grant and a cooperative agreement is that in a grant there is no anticipated substantial programmatic involvement by the federal government under the award.

Grants.gov: A "storefront" web portal for electronic data collection (forms and reports) for federal grant-making agencies at www.grants.gov.

Grants Management Officer (GMO): The individual designated to serve as the HHS official responsible for the business management aspects of a particular grant(s) or cooperative agreement(s). The GMO serves as the counterpart to the business officer of the recipient organization. In this

capacity, the GMO is responsible for all business management matters associated with the review, negotiation, award, and administration of grants and interprets grants administration policies and provisions. The GMO works closely with the program or project officer who is responsible for the scientific, technical, and programmatic aspects of the grant.

Grants Management Specialist (GMS): A federal staff member who oversees the business and other non-programmatic aspects of one or more grants and/or cooperative agreements. These activities include, but are not limited to, evaluating grant applications for administrative content and compliance with regulations and guidelines, negotiating grants, providing consultation and technical assistance to recipients, post-award administration and closing out grants.

Health Disparities: Differences in health outcomes and their determinants among segments of the population as defined by social, demographic, environmental, or geographic category.

Health Equity: Striving for the highest possible standard of health for all people and giving special attention to the needs of those at greatest risk of poor health, based on social conditions.

Health Inequities: Systematic, unfair, and avoidable differences in health outcomes and their determinants between segments of the population, such as by socioeconomic status (SES), demographics, or geography.

Healthy People 2020: National health objectives aimed at improving the health of all Americans by encouraging collaboration across sectors, guiding people toward making informed health decisions, and measuring the effects of prevention activities.

Inclusion: Both the meaningful involvement of a community's members in all stages of the program process and the maximum involvement of the target population that the intervention will benefit. Inclusion ensures that the views, perspectives, and needs of affected communities, care providers, and key partners are considered.

Indirect Costs: Costs that are incurred for common or joint objectives and not readily and specifically identifiable with a particular sponsored project, program, or activity; nevertheless, these costs are necessary to the operations of the organization. For example, the costs of operating and maintaining facilities, depreciation, and administrative salaries generally are considered indirect costs.

Intergovernmental Review: Executive Order 12372 governs applications subject to Intergovernmental Review of Federal Programs. This order sets up a system for state and local governmental review of proposed federal assistance applications. Contact the state single point of contact (SPOC) to alert the SPOC to prospective applications and to receive instructions on the State's process. Visit the following web address to get the current SPOC list: http://www.whitehouse.gov/omb/grants_spoc/.

Letter of Intent (LOI): A preliminary, non-binding indication of an organization's intent to submit an application.

Lobbying: Direct lobbying includes any attempt to influence legislation, appropriations, regulations, administrative actions, executive orders (legislation or other orders), or other similar deliberations at any level of government through communication that directly expresses a view on proposed or pending legislation or other orders, and which is directed to staff members or other employees of a legislative body, government officials, or employees who participate in formulating legislation or other orders. Grass roots lobbying includes efforts directed at inducing or encouraging members of the public to contact their elected representatives at the federal, state, or local levels to urge support of, or opposition to, proposed or pending legislative proposals.

Logic Model: A visual representation showing the sequence of related events connecting the activities of a program with the programs' desired outcomes and results.

Maintenance of Effort: A requirement contained in authorizing legislation, or applicable regulations

that a recipient must agree to contribute and maintain a specified level of financial effort from its own resources or other non-government sources to be eligible to receive federal grant funds. This requirement is typically given in terms of meeting a previous base-year dollar amount.

Memorandum of Understanding (MOU) or Memorandum of Agreement (MOA): Document that describes a bilateral or multilateral agreement between parties expressing a convergence of will between the parties, indicating an intended common line of action. It is often used in cases where the parties either do not imply a legal commitment or cannot create a legally enforceable agreement.

Nonprofit Organization: Any corporation, trust, association, cooperative, or other organization that is operated primarily for scientific, educational, service, charitable, or similar purposes in the public interest; is not organized for profit; and uses net proceeds to maintain, improve, or expand the operations of the organization. Nonprofit organizations include institutions of higher educations, hospitals, and tribal organizations (that is, Indian entities other than federally recognized Indian tribal governments).

Notice of Award (NoA): The official document, signed (or the electronic equivalent of signature) by a Grants Management Officer that: (1) notifies the recipient of the award of a grant; (2) contains or references all the terms and conditions of the grant and Federal funding limits and obligations; and (3) provides the documentary basis for recording the obligation of Federal funds in the HHS accounting system.

Objective Review: A process that involves the thorough and consistent examination of applications based on an unbiased evaluation of scientific or technical merit or other relevant aspects of the proposal. The review is intended to provide advice to the persons responsible for making award decisions.

Outcome: The results of program operations or activities; the effects triggered by the program. For example, increased knowledge, changed attitudes or beliefs, reduced tobacco use, reduced morbidity and mortality.

Performance Measurement: The ongoing monitoring and reporting of program accomplishments, particularly progress toward pre-established goals, typically conducted by program or agency management. Performance measurement may address the type or level of program activities conducted (process), the direct products and services delivered by a program (outputs), or the results of those products and services (outcomes). A "program" may be any activity, project, function, or policy that has an identifiable purpose or set of objectives.

Plain Writing Act of 2010: Plain Writing Act of 2010, Public Law 111-274 requires federal agencies to communicate with the public in plain language to make information more accessible and understandable by intended users, especially people with limited health literacy skills or limited English proficiency. The Plain Writing Act is available at www.plainlanguage.gov.

Program Strategies: Strategies are groupings of related activities, usually expressed as general headers (e.g., Partnerships, Assessment, Policy) or as brief statements (e.g., Form partnerships, Conduct assessments, Formulate policies).

Program Official: Person responsible for developing the FOA; can be either a project officer, program manager, branch chief, division leader, policy official, center leader, or similar staff member.

Project Period Outcome: An outcome that will occur by the end of the FOA's funding period.

Public Health Accreditation Board (PHAB): A nonprofit organization that works to promote and protect the health of the public by advancing the quality and performance of public health departments in the U.S. through national public health department accreditation http://www.phaboard.org.

Regulation: An official rule or order, having legal force, usually issued by an administrative agency.

Social Determinants of Health: Conditions in the environments in which people are born, live, learn, work, play, worship, and age that affect a wide range of health, functioning, and quality-of-life outcomes and risks.
Statute: An act of the legislature; a particular law enacted and established by the will of the legislative department of government, expressed with the requisite formalities. In foreign or civil law any particular municipal law or usage, though resting for its authority on judicial decisions, or the practice of nations.
Statutory Authority: Authority provided by legal statute that establishes a federal financial assistance program or award.
System for Award Management (SAM): The primary vendor database for the U.S. federal government. SAM validates applicant information and electronically shares secure and encrypted data with federal agencies' finance offices to facilitate paperless payments through Electronic Funds Transfer (EFT). SAM stores organizational information, allowing www.grants.gov to verify identity and pre-fill organizational information on grant applications.
Technical Assistance: Advice, assistance, or training pertaining to program development, implementation, maintenance, or evaluation that is provided by the funding agency.
THIRA: The Threat and Hazard Identification and Risk Assessment (THIRA) is a 4 step common risk assessment process that helps the whole community–including individuals, businesses, faith-based organizations, nonprofit groups, schools and academia and all levels of government–understand its risks and estimate capability requirements.
Work Plan: The summary of project period outcomes, strategies and activities, personnel and/or partners who will complete the activities, and the timeline for completion. The work plan will outline the details of all necessary activities that will be supported through the approved budget.

FOA-specific Glossary and Acronyms

Acute Care Hospital: A hospital that provides inpatient medical care and other related services for surgery, acute medical conditions or injuries usually for a short term illness or condition.
Alternate Care System: The utilization of non-traditional settings and modalities for health care deliver.
ASPR and CDC Assurances and Certifications: Standard U.S. government grant application forms.
Emergency Support Function (ESF): As defined in the National Response Framework, an ESF refers to a group of capabilities of federal departments and agencies to provide the support, resources, program implementation, and services that are most likely to be needed to save lives, protect property, restore essential services and critical infrastructure, and help victims return to normal following a national incident. An ESF represents the primary operational level mechanism to orchestrate activities to provide assistance to state, tribal, or local governments, or to federal departments or agencies conducting missions of primary federal responsibility.
ESF-8 Public Health and Medical Services: Provides the mechanism for coordinated federal assistance to supplement state, tribal, and local resources in response to an emergency.
Fiscal Preparedness: The process of ensuring that fiscal and administrative authorities and practices that govern funding, procurement, contracting, hiring, and legal capabilities necessary to mitigate, respond to, and recover from public health emergencies can be accelerated, modified, streamlined, and accountably managed at all levels of government.
Health Care Coalition: ASPR defines a health care coalition as a coordinating body that incentivizes diverse and often competitive health care organizations and other community partners with differing

priorities and objectives to work together to prepare for, respond to, and recover from emergencies and other incidents that impact the public's health

Health Care Coalition Member: ASPR defines an HCC member as an entity within the HCC's defined boundaries that actively contributes to HCC strategic planning, identification of gaps and mitigation strategies, operational planning and response, information sharing, and resource coordination and management.

Immediate Bed Availability: Immediate bed availability (IBA) is defined as the ability of a hospital to provide no less than 20% bed availability of staffed beds within four hours of a disaster.

Mission Ready Package (MRP): Describes specific response and recovery resource capabilities that are organized, developed, trained, and exercised prior to an emergency or disaster.

Outcome Measure: Also be called impact measures, outcome measures assess direct and indirect program impact over time.

Process Measure: Focuses on the actual operation of a program to help identify progress as well as strengths and weaknesses. Process measures help define the structural and process components of the program and can be applied to document the delivery and improvement of the program.

Program Measure: For the purposes of the PHEP program evaluation, the program measures indicate the level of implementation and improvement of the PHEP program and the impact of the program overall across all awardees. Program measures are compiled from the individual awardee performance measures to provide an overall measure of PHEP program impact.