

Hospital Preparedness Program (HPP) Cooperative Agreement

HPP Measure Manual:
Budget Period 3 (BP3) Implementation Guidance for the
HPP Program Measurement Activities



HPP Budget Period 3 (BP3): 1 July 2014 – 30 June 2015



**U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES
ASSISTANT SECRETARY FOR PREPAREDNESS AND RESPONSE**



Hospital Preparedness Program (HPP) Measure Manual: Implementation Guidance for the BP3 HPP Program Measurement Activities

July 1, 2014 — June 30, 2015

The Hospital Preparedness Program (HPP) Measure Manual, Implementation Guidance for the HPP Program Measurement Activities (hereafter referred to as Program Measure Manual) is a highly iterative document. Subsequent versions will be subject to ongoing updates and changes as reflected in HPP policies and direction. Previous versions were entitled Hospital Preparedness Program (HPP) Performance Measure Manual.

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Preface: How to Use This Manual

The Hospital Preparedness Program (HPP) created this manual to assist our awardees (states, territories, freely-associated states, and select municipalities) and healthcare coalitions (HCCs) in collecting reliable and valid program measurement activity results.¹ HPP envisions this document as a “go to” resource to clarify the meaning of the HPP program measures and Healthcare Coalition Developmental Assessment (HCCDA) factors. Rather than reading this manual cover-to-cover, HPP expects that awardees and their respective HCCs to use the manual as a reference tool for specific questions. HPP designed the indicators outlined under each program measure and HCCDA factor to accurately assess and demonstrate achievement of or their progress toward achieving the relevant evaluation activity. Achieving each of these measurement activities will require extended, focused efforts over the remaining three years in the grant cycle.

Any awardee receiving funds from HPP should understand that the federal government requires that all its grant programs conduct program evaluation activities. These activities describe and illustrate an awardee’s progress toward meeting its goals and achieving program outcomes. It is the responsibility of the HPP awardees to provide information for program measurement. Awardees provide this information through HPP program measures and associated indicators, joint measures between HPP and Public Health Emergency Preparedness (PHEP), and HCCDA factors. This information allows HPP to assess the awardee’s effectiveness in implementing the *Healthcare Preparedness Capabilities: National Guidance for Healthcare System Preparedness*² and achieving the associated program measurement activities. In order to meet funding requirements, HPP requires each awardee to report program measurement data to HPP.

This manual is available to the public and includes all relevant BP3 HPP Program Measurement information, including:

- Common definitions and vocabulary for meaningful HPP program evaluation
- Full descriptions of the program measure indicators and HCCDA factors
- The method by which program measurement activities will be calculated from indicator or HCCDA factor responses
- Guidance on how to interpret key terms and phrases
- Additional information, references, and tools to guide achievement of each indicator or factor
- A brief history of HPP program measurement activities
- The rationale and focus for the current HPP program measures

Document Organization

This document is organized into four main sections: the introduction, the HPP-specific program measure indicators, the Healthcare Coalition Developmental Assessment (HCCDA) factors, and appendices with references and resources for awardees. Each section outlines how the awardee should report on the evaluation components addressed in that section.

¹ This manual was prepared by the Science Healthcare Preparedness Evaluation Research (**SHARPER**) Branch within NHPP.

² On January 19, 2012 the Assistant Secretary for Preparedness and Response (ASPR) released the Hospital Preparedness Program (HPP) Capabilities document, “The Healthcare Preparedness Capabilities: National Guidance for Healthcare System Preparedness”.

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The introduction provides general information on important HPP Budget Period 3 (BP3) processes and activities. The following activities will take place during BP3:

1. Data-collection process,
2. Reporting requirements,
3. Data analysis methodology, and
4. The Program Management Tool (formerly known as the HPP Site-Visit Tool).

The HPP-specific program measures and HCCDA sections are broken down into chapters. Each HPP Program Measure and HCCDA chapter follows the structure below:

1. Introduction: Description of the HPP Program Measure or HCCDA
2. Indicators/factors: Table outlining the following for each indicator or factor:
 - Applicable capability(ies) and function(s) the indicator/factor corresponds to in the *Healthcare Preparedness Capabilities* document
 - Unit of measurement
 - Objective of the indicator/factor (preparedness, response, recovery, or mitigation)
3. Interpretation: Detailed technical informational and instructional guidance for understanding and accurately reporting on each indicator/factor included under the program measure
4. Achievement: Guidance on how to achieve each rating on the scaling system for each indicator/factor

The manual also contains five appendices:

- A. Glossary
- B. Indicator, Capability, and Factor Table
- C. HPP- Public Health Emergency Preparedness (PHEP) Joint Measures
- D. BP3 Reporting Template
- E. Historical information, including the creation of the budget period 2 (BP2) measures (BP2 ran from July 1, 2013 to June 30, 2014)

Definitions: HPP Program Measures

Table 1 provides a short introduction to key terms referenced throughout this *HPP Program Measure Manual*. It assists with navigating this manual. For further information, awardees should consult the more detailed definition specific to each program measure (see Medical Surge and Continuity of Healthcare Operations chapters).

Table 1. Introductory Key Terms

Term	Definition
Program Measure	An objective, quantifiable set of indicators used to demonstrate the implementation of activities, creation of outputs, or to quantify progress toward outcomes
Indicator	Data which provide information about the current conditions of the program measures
Result	An indicator or program measure outcome submitted by a reporting entity. Indicator results are combined to calculate a more nuanced program measure result.
Target	A goal or an objective toward which effort is directed
Capability	A comprehensive set of skills, knowledge, and resources (resource elements) that make an organization competent to achieve the capability outcomes or objectives (functions).
Unit of measurement	A quantity used as a standard of measurement
Function	A specific capability outcome or objective, including the set of critical planning, training, and equipment elements (resource elements) that must be completed to achieve the outcome
Resource Element	A critical planning, training, or equipment resource that is needed to achieve a critical element of a desired outcome (function) of the capability.

Responses for HPP Program Measure Indicators/Healthcare Coalition Developmental Assessment (HCCDA) Factors

In budget period 3 (BP3), HPP will continue to use the two program measures developed in BP2: medical surge and continuity of healthcare operations. Each program measure consists of seven indicators (a total of 14 indicators) that the awardee or Healthcare Coalition (HCC) must answer. The unit of measurement (awardee or HCC) is outlined in each indicator. Additionally, HCCs must report on 19 Healthcare Coalition Developmental Assessment (HCCDA) factors using a nine-point Likert scale outlined in [Table 2](#) below. Awardees are responsible for aggregating and reporting HCC-level indicators and HCCDA factors from HCCs within their jurisdictions.

Indicator- and HCCDA factor-specific scales are provided in the program measure and HCCDA sections of this manual. The HPP expects its awardees and/or HCCs to accurately rate their levels of attainment for each of the indicators and HCCDA factors at the end of each budget period. When an awardee rates itself at a certain level (e.g. 6), it implies that the awardee meets all of the criteria for the lower levels (in this case 1-5) and is able to demonstrate the criteria (e.g. in 1-5 as well as 6).

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Table 2. Scaling System for the HPP Program Measure Indicators and HCCDA Factors

Scaling Code	Response	Description
"1"	Strongly Disagree	Does not meet indicator/factor to a very large extent
"2"	Disagree	Does not meet indicator/factor to a large extent
"3"	Moderately Disagree	Does not meet indicator/factor but making some progress
"4"	Slightly Disagree	Does not meet indicator/factor but making minimal progress
"5"	Neither Agree nor Disagree	Undecided
"6"	Slightly Agree	Meets achievement of the indicator/factor with minimal progress
"7"	Moderately Agree	Meets achievement of the indicator/factor with some progress
"8"	Agree	Meets achievement of the indicator/factor to a large extent
"9"	Strongly Agree	Meets achievement of the indicator/factor to a very large extent
— Though most indicators are to be answered by healthcare coalitions, some indicators within the Medical Surge Program Measure are specifically directed for reporting at the Awardee-level unit of measurement.		

The nine-point Likert scale identifies anchor points and increases the sensitivity of the scale to help HPP, awardees, and HCCs better define their current status. "Sensitivity" is the likelihood that the scale will detect a change in the measure, if it occurs. The more awardees and HCCs use this scale over time, the better the scale will become at detecting change/progress over time. This scaling will allow awardees and HCCs to corroborate ratings between different sources of data (e.g. 14 program indicators, 19 HCCDA factors) and develop valid and reliable self-assessment responses regarding their current capabilities and the steps necessary increase their functionality.

The baseline data collected in BP2 and BP3 will be used to measure awardee and HCC progress over the remaining project period (BP4 and BP5, or 2015-2017). The baseline will also provide awardees and HCCs with information that will support the development of stronger plans and improve achievement of goals and/or milestones. These plans will help awardees improve their functionality and healthcare capabilities by the end of the project period (2017). Since it is imperative that this baseline data be as accurate as possible, and the HPP and Science Healthcare Preparedness Evaluation and Research (SHARPER) branches developed a Program Management Tool for Field Project Officers (FPOs) to use on site visits to verify and validate reported data. More information about the Program Management Tool is included later in this manual.

Measure Results: HPP Program Measures

In budget period 2 (BP2) (2013-2014), SHARPER refined and restructured HPP's program measurement activities. In BP2, SHARPER had HPP awardees (and their HCCs) focus on two program measures: medical surge and continuity of healthcare operations. In addition, SHAPER developed a healthcare coalition

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(HCC) assessment framework as part of the federally-required evaluation activities. The unit of measurement for the majority of the HPP-specific indicators is the HCC level.³ As such, each awardee will need to collect and aggregate HCC-level indicators and HCCDA factors for each of its HCCs and report these along with awardee-level data. To meet HPP requirements, awardees must submit information on each performance measure indicator and HCCDA factor.

Sufficient Documentation

Awardees should maintain appropriate documentation for all data reported on the HPP-specific program measures and the HPP-PHEP joint measures. Documentation should contain sufficient information to verify program measure data submitted to HPP. HPP may request additional documentation to verify reported data submitted by awardees.

³ Only the Medical Surge Program Measure indicators listed below are focused at the Awardee level:

- Indicator #1: The Awardee has posted its approved Crisis Standards of Care plan on the ASPR Communities of Interest SharePoint Site
- Indicator #2: The Awardee has completed mass fatality management plans that have been adopted by HCC members.
- Indicator #6: The Awardee's Recovery Plan addresses how it will meet post-disaster behavioral and mental healthcare needs of communities (e.g., HCC member staff).

BP3 HPP DATA COLLECTION PROCESS

Introduction

The Science, Healthcare, Preparedness, Evaluation, and Research (SHARPER) Branch is responsible for evaluating the impact, effectiveness, and costs of the nation's emergency healthcare preparedness activities within NHPP. SHARPER responsibilities include: planning strategies; informing policies; establishing program activities and metrics for improvement and accountability; developing and enhancing program evaluation; utilizing data and evaluation methods and systems; and serving as a resource for building evaluation capacity across ASPR.

Beginning in budget period 1 (BP1), HPP restructured its program measurement process to better assess its awardees' preparation, response, recovery, and mitigation capabilities. The first step of the restructuring process was to **reduce** the required number of end-of-year 2012 (BP1) indicators. In budget period 2 (BP2), HPP **refined** the remaining indicators and introduced the Healthcare Coalition Developmental Assessment (HCCDA) factors to improve the assessment of national healthcare preparedness and better determine awardee progress on program measures (previously called performance measures).

The data collected from the program measure indicators and HCCDA factors in BP2 and budget period 3 (BP3) will serve as a baseline for assessing awardee and HCC progress over time. To provide stability, reduce awardee burden, and provide a solid data baseline, NHPP's evaluation branch, Science Healthcare, Preparedness, Evaluation, Research (SHARPER), did not modify the HPP indicators or HCCDA factors for BP3. HPP will reassess and potentially **recalibrate** its indicators and HCCDA factors and in budget period 4 (BP4) and budget period 5 (BP5). Based on the results of this assessment, SHARPER may develop provisional measurement activities. These activities will aim to further alignment with overarching healthcare preparedness strategies and guidance.

This manual provides a roadmap that awardees and HCCs can follow as they work to achieve each indicator and HCCDA factor. HPP acknowledges the variation among HCCs across and among awardee jurisdictions. Therefore, HPP understands that awardees will vary in their ability to meet the program measures. HPP is committed to helping its awardees enhance HCC development and performance improvement for preparedness goals and objectives.

Healthcare Coalitions (HCC)

Definition of Healthcare Coalition

A HCC is a formal collaboration among healthcare organizations and public and private sector partners that is organized to prepare for and respond to an emergency, mass casualty or catastrophic health event. HCCs generally include hospitals, public health departments, emergency management, Emergency Medical Services, and other types of healthcare organizations. As a multi-agency coordinating body, the HCC assists with mitigation, preparedness, response, and recovery activities related to disaster operations. These activities include planning, organizing, equipping, and training HCC members and their organizations to respond to a disaster. To improve response, HCC plans and conduct exercises and after-incident or after-exercise evaluations. During response, HCCs provide multi-agency coordination, advice on decisions made by incident management, information sharing for situational awareness, and resource coordination. A HCC can coordinate preparedness and response in ways that individual institutions cannot.

BP3 HPP DATA COLLECTION PROCESS

Characteristics of highly developed HCCs

HCCs vary based on their tenure and the community in which they serve. HPP created the Healthcare Coalition Developmental Assessment (HCCDA) factors to identify the differences and similarities across HCCs. In order to be considered highly developed and functional, an HCC must be able to demonstrate preparedness, response, recovery, and mitigation functionality. The HCCDA factors, in conjunction with program measures and the HPP Program Management Tool (discussed below), allow HPP to assess and track the level of functionality within the HCCs over time.

Evaluation and Healthcare Preparedness

Since 2002, HPP has awarded funding through cooperative agreements to the 50 states, eight territories, and four metropolitan localities. HPP's cooperative agreement assists eligible entities to improve surge capacity and enhance community and hospital preparedness for public health/medical emergencies and disasters. HPP funding helps awardees address gaps in healthcare preparedness and refine and maintain medical surge capacity and capability at the state and local levels through associated planning, personnel, equipment, training, exercises, and healthcare coalition (HCC) development.

Evaluating awardees' performance provides the critical information needed to assess national preparedness and response capabilities. The primary goal of program measurement (and evaluation) is to improve national healthcare preparedness and to hold the HPP and its awardees accountable for their efforts.

Working in close collaboration with internal and external subject matter experts (SMEs), HPP awardees, HCCs, national partner organizations, ASPR's primary federal partner (the Centers for Disease Control and Prevention (CDC) Division of State and Local Readiness (DSLRL) in CDC's Office of Public Health Preparedness and Response (OPHPR), and other partners, HPP developed the current set of program measures. These measures:

- Support **program improvement and inform policy** by translating analytical findings into information that decision-makers can use to make course corrections, as needed. Through evidence-based decision making, levers for program improvement may be identified.
- Develop **objective and quantifiable program targets and incremental milestones** that correspond with HPP and CDC's Public Health Emergency Preparedness program (PHEP) program measures, against which HHS can gauge progress toward the medical and public health preparedness goals of the Cooperative Agreements and direct technical assistance, as needed.
- Ensure that **program measures and targets remain consistent** across the remaining three-year project period and that any future measures be comparable to determine whether awardees are making progress toward meeting short- and long-term medical and public health preparedness goals of the cooperative agreements.
- Increase **transparency** by disseminating the program progress and achievements through reports, publications, and presentations. This addresses the recommendation from the National Health Security Strategy (NHSS) which states that "more attention should be given to systematic quality improvement methods to extract and disseminate 'lessons learned.'"⁴

⁴ National Health Security Strategy, pg. 2 at: <http://www.phe.gov/Preparedness/planning/authority/nhss/strategy/Documents/nhss-final.pdf>.

BP3 HPP DATA COLLECTION PROCESS

- Enhance **situational awareness** by assessing healthcare service delivery system capacity and operational capabilities throughout the nation.
- Help guide **technical assistance** and other training to support awardee needs by identifying gaps and providing the appropriate support to mitigate challenges.
- Promote **sound stewardship** of federal tax dollars by using data to assess the impact of public funding and ensure that the American taxpayer sees a return on his/her investment. The development of program measures and continuous quality improvement enables HPP to critically evaluate the ability of the HPP program to perform its intended goals.

BP3 HPP DATA COLLECTION PROCESS

Hospital Preparedness Program (HPP) Data Collection Process

Data collection forms the basis for two primary sources of information, including the HPP program measures and the Healthcare Coalition Developmental Assessment (HCCDA). This approach provides HPP an opportunity to better validate reported data.

1. Program Measures

Medical Surge: Seven indicators (three measured at the awardee level, four measured at the HCC level) that inform preparedness and response capabilities and the surge capacity of hospitals and other healthcare organizations (with respect to mass casualties and public health emergencies).

Continuity of Healthcare Operations: Seven indicators (all measured at the HCC level) that inform the maintenance of vital public health and medical services to optimize federal, state, local, and tribal healthcare operations in the event of a public health or medical emergency.

2. **HCC Developmental Assessment:** 19 factors (all measured at the HCC level) designed to determine an HCC's ability to perform certain functions, encourage and foster communications between the HCC and awardee and gauge the level of HCC development over time and across the disaster spectrum.⁵

Types of measures included in the HPP program measures and HCCDA

The HPP BP3 program measures and Healthcare Coalition Developmental Assessment (HCCDA) address aspects of healthcare preparedness planning, response, recovery, and mitigation. These terms are defined as follows:

- **Healthcare Preparedness** —assesses crucial preparedness activities, including identifying and coordinating with partners, defining risk, developing plans, developing resources, testing plans, evaluating training and exercises, defining operational roles, defining triggers for action, and identifying barriers to public health participation in response and recovery.
- **Healthcare Response** — measures performance while conducting, demonstrating or achieving a capability during an incident, planned event, or exercise.
- **Healthcare Recovery** — measures the extent to which healthcare delivery services are restored within communities following an incident.
- **Healthcare Mitigation** — measures whether a method has been developed to address gaps based on findings from trainings, exercise, or real-life incidents. Mitigation activities reduce the likelihood of a hazard occurring and/or its impact.

⁵ In addition to the 19 HCCDA factors, SHARPER included a generic question, referred to as HCCDA factor #20 that allows HCCs to indicate their most important accomplishment in the current budget period.

BP3 HPP DATA COLLECTION PROCESS

Table 3 includes a brief description of the reporting criteria and exceptions or notes associated with each measure.

Table 3. Program Measure Objective Types

Type of Measure	Reporting Criteria	Exceptions or Notes
Healthcare Preparedness	Report annually, irrespective of the allocation of HPP funds toward the capability	In BP3, ASPR will collect information from all Awardees at the end-of-year.
Healthcare Response	Report annually if an incident, exercise, or planned event utilizes the capability, irrespective of HPP funds allocated toward the capability	None
Healthcare Recovery	Report annually, irrespective of the allocation of HPP funds toward the capability	Encompasses both short-term and long-term efforts for the rebuilding and revitalization of affected communities.
Healthcare Mitigation	Report annually irrespective of the allocation of HPP funds toward the capability	None

Unit of Measurement

The unit of measurement represents the entity (HCC or awardee) responsible for providing data for a given indicator. The unit of measurement for each indicator is listed in the appropriate section. For example, a designated member of the HCC respondent answers the HCC-level questions, and the designated awardee respondent answers the awardee-level questions. However, the HPP awardee is ultimately responsible collecting answers from its HCCs and reporting them to HPP. The HCC will send their data to the awardee and the awardee will provide the data to HPP. HPP will calculate the final result for each program measure.

Reporting Requirements

HPP, in conjunction with PHEP, is developing a module within the only data collection tool, PERFORMS, to collect HPP program measurement activities. HPP requires its 62 awardees to report data related to program measurement and evaluation and assessment activities related to the end-of-year report. Awardees will conclude end-of-year reporting by fall 2014, following the close of budget period 2 (BP2). In addition, HPP may ask awardees to report data at mid-year under certain circumstances (e.g., in the presence of a new data request, or provisional recalibrated measures). Awardees are responsible for collecting HCC-level information from their HCCs to report to HPP.

HPP-PHEP Joint Measures

HPP and PHEP worked collaboratively to develop and refine the HPP-PHEP joint measures for information sharing and volunteer management. The HPP-PHEP joint measures are located in appendix C of this document.

BP3 Data Analysis Methodology

HPP will analyze program measures and HCC Developmental Assessment (HCCDA) factors using a variety of analytic strategies and methods (see Figure 1). This multivariate approach will determine the strength of association between the program measures and HCCDA factors as data items of the medical surge and continuity of healthcare operations program measures.

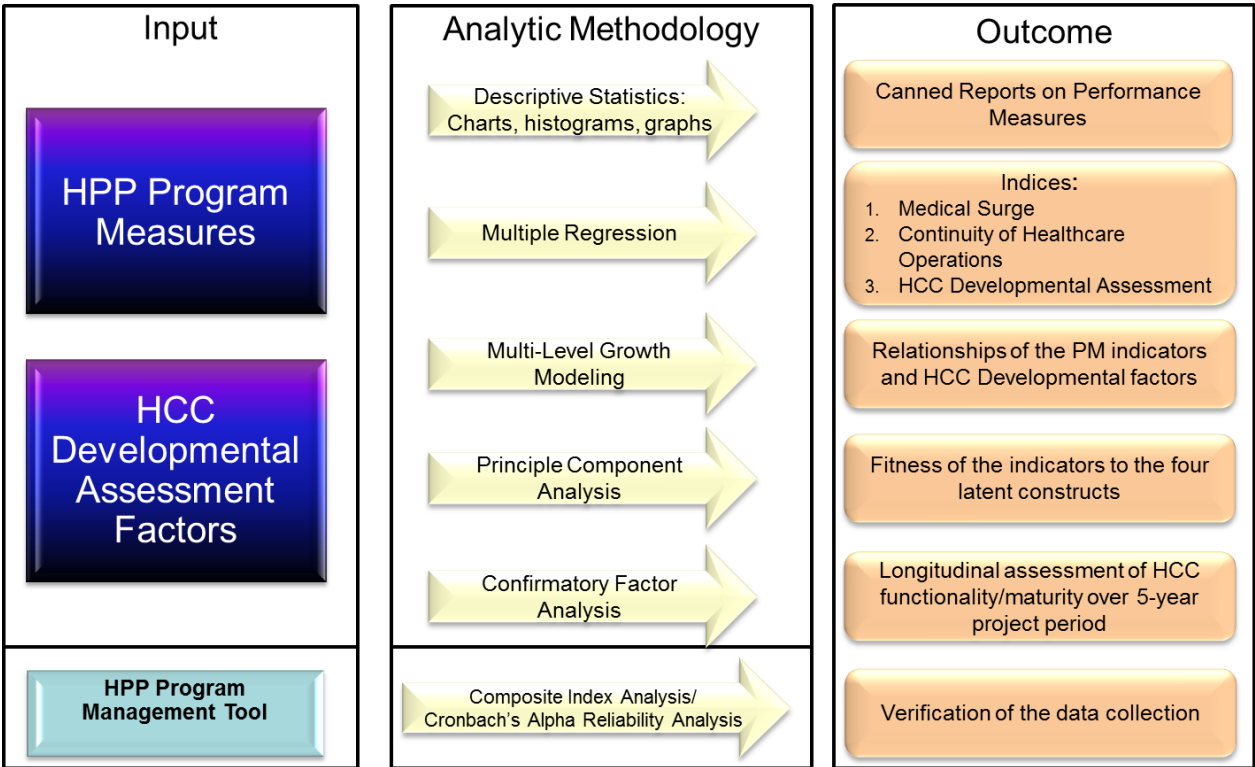


Figure 1. BP3 Data Analysis Framework

HPP will conduct path analysis to assess relationships among the HPP program measures and HCCDA factors. Path analysis will show how well specific measures can inform, explain, and predict other measures. Since the HPP Program Management Tool incorporates the HCCDA factors and the program measure indicators, HPP will use Cronbach’s alpha test to assess the ability of the measurement items to reflect whether awardees have met the goals and objectives of the HPP. Insight into the reliability of these measures will improve the ability of site visits to evaluate Awardee preparedness.

The findings of the multivariate analysis, path analysis, Cronbach’s alpha test or other descriptive analysis will provide internal consistency for the program measures and HCCDA factors. Findings of the analysis will also explain how closely related the HCCDA factors and program measure indicators are as a group. The Cronbach alpha test will indicate to what degree the measurement of awardee progress is consistent across HCCDA factors and program measure indicators. In theory, scores should be relatively similar, as the different indicators measure the same general construct. HPP will assume that the capacity of awardees and their HCCs to respond to all hazards is influenced by its location and HCC maturity. Key statistical terms that will be used in the BP3 analysis are provided in Table 4 below.

BP2 HPP DATA ANALYSIS & VERIFICATION

Table 4. Statistical Key Terms

Term	Definition
Correlation	Any statistical relationship between two random variables or two sets of data
Confirmatory Factor Analysis	Explanatory procedure which analyzes a priori measurement models in which both the number of factors and their correspondence with indicators is explicitly specified
Cronbach's Alpha	A measure of internal consistency, that is, how closely related a set of items are as a group.
Latent Construct	Explanatory variables presumed to reflect a continuum that is not directly observable
Path Analysis	Structural model illustrating the directed dependencies among a set of variables
Principal Components Analysis	Exploratory procedure which reduces a set of potentially correlated variables into a set of linearly uncorrelated indices

HPP Program Management Tool

In January 2012, ASPR published the *Healthcare Preparedness Capabilities: National Guidance for Healthcare System Preparedness* (the capabilities) in order to provide a capability-based approach to healthcare system preparedness. ASPR developed the capabilities document as a flexible, but consistent, approach to state and local healthcare system preparedness and response. HPP has developed a Program Management Tool that will be used to systematically verify capability and program measure completion.

The HPP Program Management Tool provides:

1. A tool for awardees and HCCs to assist with planning, training, exercise, and resource development for capability and indicator achievement
2. Methods to monitor continuous awardee progress from year to year
3. A means to validate the reported BP2 program measure indicators and HCCDA factors

The Program Management Tool (PMT) assists HPP, awardees, and HCCs with needs identification, priority setting, and program progress.

HPP designed the program management tool assist awardees and healthcare coalitions to develop and track planning, organization, equipping, training, and exercise (P.O.E.T.E.) activities. The method used in the Program Management Tool is very similar to the Federal Emergency Management Agency (FEMA) Threat and Hazard Identification and Risk Assessment (THIRA)⁶ process and their State Preparedness Report (SPR) process. The THIRA and SPR focus on the development of capability targets to achieve a desired outcome. HPP developed the PMT so that the healthcare system preparedness capabilities are divided into the P.O.E.T.E. sections. Each of these sections is further broken out into capability target areas. Capability targets include a set of critical tasks that must be completed to achieve the target. Critical tasks align with the healthcare system preparedness capabilities required resource elements.

HPP completed a rigorous vetting process with local, regional HCC, state, and federal subject matter experts to determine the primary intent of the capability resource elements. The critical tasks do not account for every section of guidance in the capabilities document; instead they address the intent of the

⁶ Department of Homeland Security, *Threat and Hazard Identification and Risk Assessment Guide Comprehensive Preparedness Guide (CPG) 201*, First Edition, April 2012, <http://www.fema.gov/library/viewRecord.do?fromSearch=fromsearch&id=5823>

BP2 HPP DATA ANALYSIS & VERIFICATION

resource elements. If there was additional capability guidance that supported the critical task, these have been provided in the program management tool s supporting information for the critical tasks. Critical task is the language used in FEMA's core capabilities and are intended to provide the stepping stones for building a capability. Critical tasks are the basis for planning, organizing, equipping, training, and exercising.

Other Definitions for language in the program management tool:

1. Capability Target: An objective that supports achievement of the capability
2. Critical Task: Actions that need to occur to achieve the capability target
3. Subtasks: Provide further clarity, guidance and action that guide the completion of the critical task
4. Desired Outcomes: Align to the Program Indicators and HCCDA factors
5. Ratings: The Program Indicator and HCCDA factor ratings include nine criteria levels that are used for rating selection.

When determining the ratings for the program measure indicators and HCCDA Factors, the awardee or the HCC will choose from a set of nine criteria in a Likert like scale. These criteria make references to capability targets and critical tasks. A list of the capability targets and critical tasks will be available with the release of the Program Management Tool and will include references to the capability, function, and resource element to which the task is aligned in the *Healthcare Preparedness Capabilities: National Guidance for Healthcare System Preparedness*.² When reporting on the indicators and factors, the Program Management Tool can be used to consolidate and roll-up ratings for all of awardees HCCs.

Summary

The four main pillars that form the foundation for HPP BP3 reporting are:

1. HPP Program Measures – Medical surge and continuity of healthcare operations and their associated indicators
2. Healthcare Coalition Developmental Assessment (HCCDA) factors – The HCCDA evaluates the ability of an HCC to perform certain functions. The HCCDA encourages and fosters communications between the HCC and Awardee and gauges the level of HCC development over time and across the disaster spectrum
3. HPP-PHEP Joint Measures – The Joint Measures evaluate information sharing and volunteer management capabilities of the awardees
6. HPP Program Management Tool – The HPP Program Management Tool provides a systematic tool that can be used by Field Project Officers (FPOs) to review and verify the self-reported data (program measure indicators and HCCDA factors) the Awardees submit.

The HPP program measures and HCCDA will be discussed in detail in the next sections. The HPP-PHEP joint measures implementation guidance can be found in appendix C of this document. Finally, the HPP Program Management Tool will be used by Field Project Officers (FPOs) to review and verify self-reported data that the awardees submit.

BP3 HPP PROGRAM MEASURES

HPP Program Measure: Medical Surge

Introduction

Medical and public health systems in the United States must prepare for major emergencies and disasters involving human casualties. Such events will severely challenge the ability of healthcare systems to adequately care for large numbers of patients (surge capacity) and/or victims with unusual or highly specialized medical needs (surge capability). These events may result in a number or type of patients that overwhelm the day-to-day capacity of acute care facilities or other healthcare organizations (HCOs).

Medical surge is the ability to rapidly expand the existing healthcare system (e.g., hospitals, long-term care facilities, community health agencies, acute care facilities, alternate care facilities, public health departments, etc.) in order to provide triage and subsequent medical care during incidents that severely challenge or exceed the normal medical infrastructure of the community.⁷ This includes providing definitive care to individuals at the appropriate clinical level of care within sufficient time. The goal of medical surge is to minimize morbidity and mortality and foster recovery through restored continuity of operations of the healthcare system. Depending on the scale of an incident, a range of responses will be required from providers, health care organizations, HCCs, and public health agencies. These responses will depend on the severity of the incident. According to the Institute of Medicine (IOM), the response:

“Can be envisioned as occurring along a continuum based on resource availability and demand for health care services. One end of this continuum is defined by conventional responses—those services that are provided in health care facilities on a daily basis and are expanded for disaster planning and response. At the other end of the continuum is crisis care, when the best possible care is provided to the population of patients as a whole because of the very limited resources available.”⁸

The indicators related to the medical surge program measure address the essential aspects along the continuum of care.

⁷ Medical Surge Capacity and Capability: The Healthcare Coalition in Emergency Response and Recovery May 2009. <http://www.phe.gov/Preparedness/planning/mscc/Documents/mscc-tier2-jan2010.pdf>

⁸ Institute of Medicine, Crisis Standards of Care, a Systems Framework for Catastrophic Disaster Response, March 2012, Vol1, pp 36-37. (Internal citations omitted).

Table 5 explains the:

- Indicator
- Indicator objective
- Corresponding capability and function
- Unit of Measurement

HPP PROGRAM MEASURE: MEDICAL SURGE

Table 5. Capability Roadmap for Medical Surge

Indicator	Objective	Capability and Function	Unit of Measure
#1: The Awardee has posted its approved Crisis Standards of Care plan on the ASPR Communities of Interest SharePoint Site.	Preparedness	Capability 1: Healthcare System Preparedness <ul style="list-style-type: none"> Function 2: Coordinate healthcare planning to prepare the healthcare system for a disaster Capability 10: Medical Surge <ul style="list-style-type: none"> Function 4: Develop Crisis Standards of Care guidance 	Awardee
#2: The Awardee has completed mass fatality management plans that have been adopted by HCC members.	Preparedness	Capability 1: Healthcare System Preparedness <ul style="list-style-type: none"> Function 2: Coordinate healthcare planning to prepare the healthcare system for a disaster Capability 5: Fatality Management <ul style="list-style-type: none"> (all functions) Capability 10: Medical Surge <ul style="list-style-type: none"> Function 3: Assist healthcare organizations with surge capacity and capability 	Awardee
#3: The HCC has developed a strategic plan with participation from its membership.	Preparedness	Capability 1: Healthcare System Preparedness <ul style="list-style-type: none"> Function 1: Healthcare Coalition Development 	HCC
#4: The HCC has demonstrated, through exercise or real incident, its ability to both deliver appropriate levels of care to all patients, as well as to provide no less than 20% immediate availability of staffed members' beds, within 4 hours of a disaster.	Response	Capability 1: Healthcare System Preparedness <ul style="list-style-type: none"> Function 2: Coordinate healthcare planning to prepare the healthcare system for a disaster Capability 10: Medical Surge <ul style="list-style-type: none"> Function 3: Assist healthcare organizations with surge capacity and capability 	HCC

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Medical Surge

Indicator	Objective	Capability and Function	Unit of Measure
#5: The HCC has demonstrated the ability to do the following during an incident, exercise, or event: 1) Monitor patient acuity and staffed bed availability in real-time, 2) Off-Load Patients, 3) On-Load Patients, 4) Track and document patient movement	Response	Capability 3: Emergency Operations Coordination <ul style="list-style-type: none"> Function 1: Healthcare organization multi-agency representation and coordination with emergency operations Function 2: Assess and notify stakeholders of healthcare delivery status Function 3: Support healthcare response efforts through coordination of resources Capability 6: Information Sharing <ul style="list-style-type: none"> All functions Capability 10: Medical Surge <ul style="list-style-type: none"> Function 2: Coordinate integrated healthcare surge operations with pre-hospital Emergency Medical Services (EMS) operations Function 3: Assist healthcare organizations with surge capacity and capability 	HCC
#6: The Awardee's Recovery Plan addresses how it will meet post-disaster behavioral and mental healthcare needs of communities (e.g., HCC member staff).	Recovery	Capability 1: Healthcare System Preparedness <ul style="list-style-type: none"> Function 2: Coordinate healthcare planning to prepare the healthcare system for a disaster Capability 2: Healthcare System Recovery <ul style="list-style-type: none"> Function 1: Develop recovery processes for the healthcare delivery system Capability 5: Fatality Management <ul style="list-style-type: none"> Function 3: Mental/behavioral support at the healthcare organization level Capability 10: Medical Surge <ul style="list-style-type: none"> Function 3: Assist healthcare organizations with surge capacity and capability 	Awardee
#7: The HCC has a mechanism to obtain feedback to help resolve member conflicts that have the potential to affect the overall performance of the HCC.	Mitigation	Capability 1: Healthcare System Preparedness <ul style="list-style-type: none"> Function 1: Develop, refine or sustain healthcare coalitions Function 6: Improve healthcare response capabilities through coordinated exercise and evaluation Capability 3: Emergency Operations Coordination <ul style="list-style-type: none"> Function 4: Demobilize and evaluate healthcare operations 	HCC

The section below provides some additional information regarding the interpretation and achievement of each of the Medical Surge Program Measure indicators.

Indicator #1: The awardee has posted its approved Crisis Standards of Care (CSC) plan on the Assistant Secretary for Preparedness and Response (ASPR) Communities of Interest (COI) SharePoint Site

Interpretation:

Natural disasters underscore how quickly and completely healthcare systems can be overwhelmed. Disasters, whether they occur suddenly and are unexpected, or are caused by slow, sustained public health and medical emergencies, can stress healthcare systems to the breaking point and disrupt delivery of vital medical services. Successfully responding to a catastrophic disaster requires integrated planning, coordination, cooperation, consultation, and follow-through among many response disciplines and agencies, including state and local governments, EMS, healthcare coalition, healthcare organizations, and community healthcare professionals.

In its “2009 Letter Report,” the Institute of Medicine (IOM) Committee outlined “Guidance for Establishing Standards of Care for Use in Disaster Situations” and defined Crisis Standards of Care (CSC) to be a “substantial change in the usual health care operations and the level of care it is possible to deliver....justified by specific circumstances and...formally declared by a state government in recognition that crisis operations will be in effect for a sustained period.”⁹ CSC planned and implemented in accordance with ethical values, is necessary for the allocation of scarce resources. Public health and medical disasters justify temporarily adjusting practice standards and/or shifting the balance of ethical concerns to emphasize the needs of the community rather than the needs of individuals. One of the major objectives of CSC planning is to increase the healthcare system’s ability to remain in conventional and contingency continuums of care through preparedness and anticipation of resource needs prior to serious shortages. A second objective of CSC planning is to return as quickly as possible from crisis back across the continuum to conventional care. Put simply, the development of CSC plans is the means to mount a response to an incident that far exceeds a community’s usual health and medical capacities and capabilities.

To better help our awardees, territories, tribes, healthcare coalitions, and local communities prepare for a catastrophic event, ASPR has developed a “Communities of Interest” (COI) website that serves as a forum (or intersection point) for sharing the most promising CSC and Allocation of Scarce Resources (ASR) guidelines. These CSC and ASR documents include those developed by subject matter experts (SME), relevant published literature, and the existing planning documents written by states who are integrally involved in CSC and ASR planning. Although the COI site facilitates medical surge planning, it is not a complete solution for achieving Immediate Bed Availability (IBA) strategies that will be coordinated at the HCC level. The COI site is functional and may be found at PHE.GOV/COI. The COI site includes:

- Institute of Medicine Crisis Standards of Care Research, (Phases I-3);
 - Phase-I: IOM Letter Report: *Guidance for Establishing Crisis Standards of Care for Use in Disasters Situations* (2009) presented key concepts related to CSC.

⁹ Guidance for Establishing Crisis Standards of Care for Use in Disaster Situations – Letter Report, Institute of Medicine, 2009, p3.

<http://www.iom.edu/~media/Files/Report%20Files/2009/DisasterCareStandards/Standards%20of%20Care%20report%20brief%20FINAL.pdf>

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- Phase-II: IOM *Crisis Standards of Care: A System Framework for Catastrophic Disaster Response* (2012) provides an operational framework for planning for and implementing CSC.¹⁰
- Phase-III: IOM *Crisis Standards of Care: A Toolkit for Indicators and Triggers* (2013) focuses on *indicators* (measurement or predictors of change in demand for healthcare services or availability of resources) and *triggers* (decision points about adaptations to healthcare service delivery) that guide operational decision-making about providing care during public health and medical incidents, events, and emergencies.¹¹
- AHRQ/RAND Comparative Effectiveness Review on Allocation of Scarce Resources (2012)¹²
- Relevant journal articles and white paper citations
- Tools (e.g., for community engagement)
- Immediate Bed Availability (IBA) Briefings
- Existing “Communities of Interest” CSC and ASR plans from states, territories, tribes, healthcare coalitions, and localities, etc.

Expected Output (Resource): Awardee (State/Territory/Municipality) Crisis Standards of Care (CSC) Plan. A CSC plan should contain five key elements:

- A strong ethical grounding that enables a process deemed equitable and just based on its transparency, consistency, proportionality, and accountability;
- Integrated and ongoing community and provider engagement, education, and communication;
- The necessary legal authority and legal environment in which CSC can be ethically and optimally implemented;
- Clear indicators, triggers, and lines of responsibility; and
- Evidenced-based clinical processes and operations.

Expected Output Activity: In order to rate a positive result for this indicator, the awardee must have developed and submitted its CSC and/or allocation of scarce resources plan to HPP. HPP will post this plan(s) to the ASPR COI Site (located at PHE.GOV/COI). Awardees should develop collaborative crisis standards of care guidance by actively engaging HCCs, healthcare organizations, healthcare practitioners, and local and state medical and public health authorities.

- **Description of Output:** Awardees may submit independent plans or annexes to their medical surge plans which address CSC, allocation of scarce resources, and ethical decision-making in a resource constrained medical environment, legal authorities, decision-making processes, and public engagement processes.

¹⁰ Crisis Standards of Care: A Systems Framework for Catastrophic Disaster Response, IOM, March 21, 2012, <http://www.iom.edu/Reports/2012/Crisis-Standards-of-Care-A-Systems-Framework-for-Catastrophic-Disaster-Response.aspx>

¹¹ Crisis Standards of Care: A Toolkit for Indicators and Triggers, IOM, July 31, 2013, <http://www.iom.edu/Reports/2013/Crisis-Standards-of-Care-A-Toolkit-for-Indicators-and-Triggers.aspx>

¹² Allocation of Scarce Resources During Mass Casualty Events, RAND, <http://www.phe.gov/coi/Pages/asr.aspx>

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Indicator Achievement:

The nine-point Likert scale identifies anchor points and increases the sensitivity of the scale to help HPP, awardees, and HCCs better define their current status. The scale criteria are defined as follows:

- To rate this as a 9, the CSC plan is routinely updated (based on jurisdictional planning cycles), is exercised by HCCs, and training is conducted on the critical aspects of the CSC plan
- To rate this as an 8, the CSC plan has been approved, signed, and adopted by HCC members and relevant response partners
- To rate this as a 7, the CSC plan has been reviewed by HCC members and all relevant sectors of the response community within the last five years
- To rate this as a 6, CSC guidance has been drafted (awardee - state level), and submitted to NHPP for posting on the ASPR COI Site (located at PHE.GOV/COI)
- To rate this as a 5, there is evidence that private and public (local, state, and federal) healthcare subject matter experts have been consulted during CSC planning
- To rate this as a 4, there must be CSC guidance drafted (awardee - state level) that includes the essential planning targets and critical tasks.
- To rate this as a 3, CSC plans exist; while there are missing planning components, there are no planned activities to revise the plans.
- To rate this as a 2, there are no CSC plans, but there are planned activities toward the development of the plan
- To rate this as a 1, there are no CSC plans nor any activity or evidence toward planning

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Indicator #2: The awardee has completed mass fatality management plans that have been adopted by healthcare coalition (HCC) members.

Interpretation:

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

Expected Output (Resource): Fatality management plan

Expected Output Activity: In order to rate a positive result for this indicator, the awardee has developed a fatality management plan, which has then been adopted or integrated with jurisdictional HCCs.

Description of Output: The fatality management plan must address the information and resource management processes that describe how HCCs and their members receive situational awareness related to the fatality situation and how to get fatality management resources.

Information/communication planning: There should be protocols that outline the process to provide the status of resources (situational awareness provided to Healthcare Organizations (HCO)s) as well as the identification of needs (situational awareness received from HCOs).

Resource planning: There should be risk-based estimates of potential fatalities (risk assessment), an assessment of available resources to manage those fatalities (resource assessment), a description or matrix of possible conflicting priorities (resource de-confliction), and the process to obtain the resources (resource request process including contact information). The Department of Homeland Security (DHS) Comprehensive Preparedness Guide provides a four - step process for conducting a threat and hazard identification and risk assessment that can be adapted for fatality management planning.¹³

Indicator Achievement:

The nine-point Likert scale identifies anchor points and increases the sensitivity of the scale to help HPP, awardees, and HCCs better define their current status. The scale criteria are defined as follows:

- To rate this as a 9, the criteria for 6, 7, and 8 have been met and the mass fatality management plan is routinely updated and has been tested based on exercise findings.
- To rate this as an 8, the criteria for 6 and 7 have been met and the mass fatality management plan has been approved, signed, and adopted by HCC members and response partners
- To rate this as a 7, the criteria for 6 has been met and the mass fatality management plan has been reviewed by HCC members and members of the response community within the last five years

¹³ Department of Homeland Security, *Threat and Hazard Identification and Risk Assessment Guide Comprehensive Preparedness Guide (CPG) 201*, First Edition, April 2012, <http://www.fema.gov/threat-and-hazard-identification-and-risk-assessment> .

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- To rate this as a 6, there must be a fatality management plan (awardee - state level) drafted that addresses the capability planning targets and critical tasks
- To rate this as a 5, there is evidence that HCCs are part of the mass fatality management planning process during revision of planning
- To rate this as a 4, mass fatality management plans exist, and while there are missing planning components, there are planned activities toward revising the plan
- To rate this as a 3, mass fatality management plans exist, but there are missing planning components, and there are no planned activities to revise the mass fatality plans
- To rate this as a 2, there are no mass fatality management plans, but there are planned activities toward the development of the mass fatality plan
- To rate this as a 1, there are no mass fatality management plans nor any activity or evidence toward completing a mass fatality plan

Indicator #3: The healthcare coalition (HCC) has developed a strategic plan with participation from its membership.

Interpretation:

Strategic planning serves as a vital component to any organization, and healthcare coalitions are no exception. A strategic plan will identify strengths and weaknesses, while providing a road map as to where the HCC is going. Developing a strategic plan is an important part of an HCC's evolutionary process. As communities grow and the healthcare services need is more complex, HCCs must adapt to the changing culture and environment. Due to this change, it is important to operate in a proactive mode, rather than from crisis to crisis in a reactionary mode. If HCCs do not embrace the concept of strategic planning, they will continue to only plan for and address issues in their present state nor any for the future.

A few key benefits of good planning and great execution:

1. **Better Decisions** – Information communicated through vision and strategy allows decision makers to make the best decisions.
2. **Increased Energy** – Resulting from rallying behind a cause and elimination of conflict and confusion of priorities.
3. **Increased Capacity** – People are focused on what is important and less concerned about what is not.
4. **Better Solutions** – Uncovering the enormous intellectual and creative capacity of an organization that collectively works toward solutions rather than a relying on select few individuals.

Expected Output (Resource): Healthcare coalition strategic plan

Expected Output Activity: In order to rate a positive result for this indicator, the HCC must have developed a strategy addressing how they will maintain the administrative functions of the HCC and how they plan to prepare for (organize, plan, equip, train, exercise, and evaluate), respond to, and recover from a disaster.

Description of Output: The HCC strategic plan should include two components: administrative plan and preparedness strategy.

Administrative plan: This outlines the organization requirements including participants, participation guidelines, funding, resource development processes, meetings, documentation of activity, and other administrative guidelines. This could resemble a charter, by-law, or other document that contain the key concepts of HCC development.¹⁴

The critical tasks for the administrative plan include:

1. Define the HCC's geographical boundaries (Healthcare Coalition Developmental Assessment (HCCDA) 3)
2. Identify and define the HCC's governance structure (HCCDA 1)
3. Define the HCC's multidisciplinary membership (HCCDA 2)

¹⁴ Please note that the title of this important document (referenced in this document as an Administrative Plan) may be different for each HCC. NHPP will recognize any formalized documents that outline the critical parts identified in each indicator or factor.

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4. Define members' roles & responsibilities related to day-to-day functioning of the HCC (administrative) (HCCDA 6)
5. Develop a timeline for regular review and revision based on a 3- or 5-year strategy or based on findings from the mitigation process
6. Define a mitigation process to change governing structure and administrative guidelines when gaps are identified (HCCDA 1 & 19)
7. Identify and describe the funding model to support HCC activities (how the awardee supports these HCC processes outlined in the administrative and preparedness plan) (HCCDA 4 & 6)
8. Develop an administrative sustainability plan

Preparedness Strategy: This document provides the strategy that the HCC will use to prepare for a disaster or medical/public health event/incident. This includes how, who, and when the HCC will engage in planning, organizing, equipping, training, exercising, and evaluating. This outlines the resource development process to address gaps and should describe the funding model to develop resources.

The critical tasks for the preparedness strategy include:

1. Define the strategy to engage in risk assessment and operational planning (HCCDA 10)
2. Define the strategy to ensure the appropriate stakeholders are available for capability-based planning and to develop acceptable coordinating structures for operational roles and responsibilities (HCCDA 5, 8, 9 and 10)
3. Define the process to assess, prioritize, and develop resources (e.g., fund equipment purchases) or resource processes (e.g., mutual aid, ESF#8 request) (HCCDA 4 & 6)
4. Define the process to develop and engage in training. This must be based on the overarching training and exercise program management strategy. (HCCDA 18)
5. Define the process to engage in exercise, evaluation, and mitigation strategies (HCCDA 18)

Indicator Achievement:

The nine-point Likert scale identifies anchor points and increases the sensitivity of the scale to help HPP, awardees, and HCCs better define their current status. The scale criteria are defined as follows:

- To rate this as a 9, the HCC's strategic plan has been submitted and verified by the awardee
- To rate this as an 8, the strategic plan has been approved, signed, and adopted by HCC members
- To rate this as a 7, the strategic plan has been reviewed by HCC members within the last five years
- To rate this as a 6, there is a strategic plan that addresses the critical tasks for both the administrative plan and preparedness strategy
- To rate this as a 5, there is a complete administrative plan OR preparedness strategy, and there is activity to develop the other
- To rate this as a 4, strategic plans (administrative plan OR preparedness strategy) exist, and there are few missing components, but there are planned activities toward revising the plan

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- To rate this as a 3, strategic plans (administrative plan OR preparedness strategy) exist, but there are several missing components, and there are no planned activities to revise the plans
- To rate this as a 2, there are no strategic plans (administrative plan OR preparedness strategy), but there are planned activities toward the development of the plan
- To rate this as a 1, there are no strategic plans (administrative plan OR preparedness strategy) nor any activity or evidence toward planning

Indicator #4: The healthcare coalition (HCC) has demonstrated, through exercise or real incident, its ability to both deliver appropriate levels of care to all patients, as well as to provide no less than 20% immediate availability of staffed members' beds, within four hours of a disaster.

Interpretation:

In 2013, the General Accounting Office (GAO) noted concern about the ability of health care systems to 'surge,' that is, to have the staff and resources in place to adequately care for increased numbers of affected individuals or individuals with unusual or highly specialized needs. Today's health system has little if any additional capacity, and utilizes a "just in time" approach to resources, resulting in daily emergency department crowding. In the context of these challenges, medical surge remains an important capability as described in the *Healthcare Preparedness Capabilities: National Guidance for Healthcare System Preparedness* published by the Hospital Preparedness Program, Office of the Assistant Secretary for Preparedness and Response in January 2012. Recognizing the daily delivery of care limitations and the critical need to develop "medical surge," Immediate Bed Availability (IBA) is a new, evidence-informed approach to medical surge within our current health care system.¹⁵

The term "Immediate Bed Availability" (or IBA) describes major concepts of medical surge. Being able to provide no less than 20% availability of staffed HCC members' beds within four hours of a disaster will increase a HCC's ability to create medical surge capacity for both "no notice" and slower evolving disasters. Medical surge, in concept and in practice, requires more than the immediate availability of beds alone – it requires staffed beds. For the purposes of this document, IBA is inclusive of all the concepts and practical realities of rapidly creating medical surge capacity.

IBA is built on four pillars: continuous monitoring across the health system, off-loading of patients who are at low risk for untoward events through reverse triage, on-loading of patients from the disaster, and documenting and tracking patient movement. The goal of IBA is to quickly provide higher-level care to more acute patients during a disaster with no additional space, personnel, or equipment.

Expected Output (Resource): Medical surge plan and evidence of demonstration (After Action Report Improvement Plan (AAR/IP))

Expected Output Activity: In order to rate a positive result for this indicator the HCC must have worked with the appropriate partners to:

1. Develop and adopt the state, regional, or local medical surge plan
2. Implement this medical surge plan in an exercise or real incident

¹⁵ A framework for physician activity during disasters and surge events Griffiths JL, Estipona A, Waterson JA. Am J Disaster Med 6.

Creation of Surge Capacity by Early Discharge of Hospitalized Patients at Low Risk for Untoward Events G. D. Kelen, M. L. McCarthy, C. K. Kraus, R. Ding, E. B. Hsu, G. Li, J. B. Shahan, J. J. Scheulen, G. B. Green Disaster Medicine and Public Health Preparedness 3.

Health Care Facility and Community Strategies for Patient Care Surge Capacity John L. Hick, Dan Hanfling, Jonathan L. Burstein, Craig DeAtley, Donna Barbisch, Gregory M. Bogdan, Stephen Cantrill Annals of Emergency Medicine 44.

Inpatient disposition classification for the creation of hospital surge capacity: a multiphase study Gabor D Kelen, Chadd K Kraus, Melissa L McCarthy, Eric Bass, Edbert B Hsu, Guohua Li, James J Scheulen, Judy B Shahan, Justin D Brill, Gary B Green Lancet 368.

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Description of output: The output for this measure includes both development and implementation of the medical surge plan.

Plan development: The medical surge plan includes components of pre-hospital and hospital surge coordination and management, and addresses continuous monitoring, off-loading, and on-loading of patients.

Information/communication planning: There should be protocols that outline the process to provide the status of resources (situational awareness provided to healthcare organizations (HCOs)) as well as the identification of needs (situational awareness received from HCOs).

Resource planning: There should be risk-based estimates of potential surge (risk assessment), an assessment of available resources to manage the surge (resource assessment), a description or matrix of possible conflicting priorities (resource de-confliction), and a process to get the resources (resource request process including contact information).

Plan implementation: Implementation of this plan effectively tests the HCCs ability to deliver appropriate levels of care to all patients, as well as to provide no less than 20% availability of acute hospital based staffed members' beds, within four hours of a disaster. This process adheres to the established HPP exercise and reporting requirements. This results in an AAR/IP that provides the successful achievement and reporting of 20% bed availability

Indicator Achievement:

The nine-point Likert scale identifies anchor points and increases the sensitivity of the scale to help HPP, awardees, and HCCs better define their current status. The scale criteria are defined as follows:

- To rate this as a 9, the medical surge plan is routinely updated and has been tested based on exercise findings from a demonstration of the required capability targets
- To rate this as an 8, the medical surge plan has been approved, signed, and adopted by HCC members and response partners
- To rate this as a 7, the medical surge plan has been reviewed by HCC members and sectors of the response community within the last 5 years
- To rate this as a 6, a medical surge plan has been drafted that addresses the capability planning targets and critical tasks
- To rate this as a 5, there is evidence that HCCs are part of the medical surge planning process during revision of planning
- To rate this as a 4, medical surge plans exist, and while there are missing planning components, there are planned activities toward revising the plan
- To rate this as a 3, medical surge plans exist; there are missing planning components, but there are no planned activities to revise the plans
- To rate this as a 2, there are no medical surge plans, but there are planned activities toward the development of a medical surge plan
- To rate this as a 1, there are neither medical surge plans nor activity or evidence toward planning

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Indicator #5: The healthcare coalition (HCC) has demonstrated the ability to do the following during an incident, exercise, or event:

- **Monitor patient acuity and staffed bed availability in real time**
- **Off-load patients**
- **On-load patients**
- **Track and document patient movement**

Interpretation:

Immediate Bed Availability (IBA) is the ability of a healthcare coalition (across the entire HCC, not specific to a single healthcare organization (HCO) to provide no less than 20% bed availability of staffed members' beds within four hours of a disaster. The previous indicator (medical surge indicator 4) described the overarching process for IBA. This indicator focuses on the components of immediate bed availability (IBA) that must be efficiently conducted to achieve the overall goal. There are four basic components to successfully accomplish IBA:

1. Monitor patient acuity and staffed bed availability in real-time
2. Off-load patients by executing rapid bed turnover, discharging/transferring lower acuity patients, and deferral of elective admissions and/or procedures
3. On-load patients by redeploying existing resources to allow for higher-acuity admissions
4. Track and document patient movement to ensure continuity of medical care rendered and ensure family members know the location of their loved ones at all times

Expected Output (Resource): Medical surge plan and evidence of demonstration of after action report/improvement plan (AAR/IP)

Expected Output Activity: In order to rate a positive result for this indicator the HCC must have worked with the appropriate partners to:

1. Develop and adopt the state, regional, or local medical surge plan
2. Implement this medical surge plan

Description of Output: The output for this measure includes both development and implementation of the medical surge plan.

Plan development: The medical surge plan includes components of pre-hospital and hospital surge coordination and management, and addresses continuous monitoring, off-loading, and on-loading of patients.

Information/communication planning: There should be protocols that outline the process to provide the status of resources (situational awareness provided to HCOs), as well as the identification of needs (situational awareness received from HCOs).

Resource planning: There should be risk-based estimates of potential surge (risk assessment), an assessment of available resources to manage the surge (resource assessment), a description or matrix of possible conflicting priorities (resource de-confliction), and the process to obtain the resources (resource request process including contact information).

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Plan Implementation: Implementation of this plan effectively tests the HCCs' ability to deliver appropriate levels of care to all patients, as well as to provide no less than 20% availability of staffed members' beds, within four hours of a disaster. This process adheres to the established HPP exercise and reporting requirements. This results in an AAR/IP that provides details of the how the four main components of IBA were achieved.

Indicator Achievement:

The nine-point Likert scale identifies anchor points and increases the sensitivity of the scale to help HPP, awardees, and HCCs better define their current status. The scale criteria are defined as follows:

- To rate this as a 9, the medical surge plan is routinely updated and has been tested based on exercise findings from a demonstration of the required capability target
- To rate this as an 8, the medical surge plan has been approved, signed, and adopted by HCC members and response partners
- To rate this as a 7, the medical surge plan has been reviewed by HCC members and sectors of the response community within the last five years
- To rate this as a 6, there must be a medical surge plan drafted that addresses the capability planning targets and critical tasks
- To rate this as a 5, there is evidence that HCCs are part of the planning process during revision of planning
- To rate this as a 4, medical surge plans exist, and while there are missing planning components, there are planned activities toward revising the plan
- To rate this as a 3, medical surge plans exist, and there are missing planning components without no activity to revise the plans)
- To rate this as a 2, there are no medical surge plans but there are planned activities toward the development of the plan
- To rate this as a 1, there are neither medical surge plans nor activity or evidence toward planning

Indicator #6: The awardee’s recovery plan addresses how it will meet post-disaster behavioral and mental healthcare needs of communities (e.g., healthcare coalition (HCC) member staff).

Interpretation:

Careful attention to mental and behavioral health concerns should be an integral part of preparedness, response, and recovery for disasters and emergencies that have consequences for the public’s health. Dealing effectively with these issues can increase the effectiveness and efficiency of the immediate response to a disaster, reduce the long-term health burden and associated costs, and improve public confidence in a state’s ability to deal with future emergencies. Historically, mental and behavioral health issues were not the attention and priority mental and behavioral health issues deserve were not effectively integrated within a comprehensive response, and were sometimes not represented at all.

Mental and behavioral health, in the context of disasters and emergencies, include a wide range of interrelated factors—psychological (emotional, cognitive, behavioral), physiological, and social—that influence people’s ability to cope with and recover from extreme situations. Relevant challenges include fear and anxiety resulting from safety concerns, the death of loved ones, separation from family members and uncertainty as to their fate, and loss of homes and possessions; noncompliance with government directives (such as evacuation orders or infection control measures) resulting from loss of confidence in authorities; breakdown in community social cohesion intensified by a disaster or emergency and likely persisting for a long time afterward; and, increased incidence of diagnosable disorders such as post-traumatic stress disorder (PTSD), adjustment difficulties, anxiety, and clinical depression. Loss of jobs and of control over one’s life, coupled with persistent uncertainty about the prospects for recovery and rebuilding, can lead to a variety of problems, including anger, shame, depression, substance abuse, domestic violence, and even suicide. Other damaging long-term outcomes can include exacerbation of physical illness, difficulties in personal and family relationships, absenteeism from work and school, and other consequences harmful to individual quality of life and the functioning of society in general.

Integration of disaster mental and behavioral health efforts into recovery plans will help to:

- Promote compliance with public health directives
- Enhance individual and community resilience
- Facilitate rapid identification of people in need of immediate care
- Proactively train for, and facilitate access to, tailored behavioral health services for responders
- Support continuity of operations by outpatient and inpatient providers of substance use/abuse and mental health services
- Reduce the development of longer-term mental health problems.
- Identify strategies for monitoring and responding to surges in psychological casualties
- Facilitate adjustment to loss and coping with adverse circumstances
- Further cost-effective and seamless care

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- Encourage mobilization and allocation of mental health and substance abuse resources for at-risk and special needs groups¹⁶
- Support culturally informed and culturally sensitive policies and services
- Foster confidence and trust in health care facilities and government
- Empower individuals to care for themselves, their families and communities more effectively
- Foster cohesion and collective efficacy in the affected community and a rapid return to normal functioning

Expected Output (Resource): Recovery Plan (with a behavioral and mental healthcare annex)

Expected Output Activity: In order to rate a positive result for this indicator, the awardee in coordination with HCCs must have developed a healthcare recovery plan.

Description of Output: The recovery plan or associated response plan must address short- and long-term behavioral and mental healthcare needs of the affected community. This will include resource planning to address this need.

Resource planning: There should be risk-based estimates of potential mental and behavior health needs (risk assessment), an assessment of available resources to manage those needs (resource assessment), a description or matrix of possible conflicting priorities (resource de-confliction), and the process to get the resources (resource request process including contact information).

Indicator Achievement:

The nine-point Likert scale identifies anchor points and increases the sensitivity of the scale to help HPP, awardees, and HCCs better define their current status. The scale criteria are defined as follows:

- To rate this as a 9, the recovery plan is routinely updated (based on jurisdictional planning cycles) and incorporates at least two corrective actions identified during exercises or real world events related to mental and behavior health needs of the community
- To rate this as an 8, the recovery plan includes the essential components for planning, training and equipment, and addresses short- and long-term behavioral and mental healthcare needs of the affected community and was approved, signed, and shared with HCC members and relevant response partners within the past year
- To rate this as a 7, the recovery plan includes the essential components for planning, training and equipment, and addresses short- and long-term behavioral and mental healthcare needs of the affected community and has been reviewed by the state and HCC members and all relevant sectors of the response community within the last three years
- To rate this as a 6, a draft recovery plan exists (awardee - state level) that includes the essential components for planning, training, and equipment and addresses short- and long-term behavioral and mental health needs of the community

¹⁶ At-Risk Individuals, HHS, <http://www.phe.gov/Preparedness/planning/abc/Pages/at-risk.aspx>

- To rate this as a 5, there is evidence that HCCs are part of the planning process during drafting and revision of the recovery plan and that it addresses the short- and long-term behavioral and mental health needs of the community.
- To rate this as a 4, a recovery plan exists, and missing planning components are the focus of activity related to plan revisions.
- To rate this as a 3, a recovery plan exists, but there are missing planning components without activity to revise the plan
- To rate this as a 2, there is no recovery plan, but there are planned activities toward the development of a plan
- To rate this as a 1, there is neither recovery plans nor activity or evidence toward planning

HPP PROGRAM MEASURE: MEDICAL SURGE

Indicator #7: The healthcare coalition (HCC) has a mechanism to obtain feedback to help resolve member conflicts that have the potential to affect the overall performance of the HCC.

Interpretation:

Increasingly, the field of national health security relies on HCCs as the structure that advances healthcare preparedness, aligns organizations to respond more effectively in disasters, and supports healthcare system recovery. How HCCs function and manage the relationship among organizational members contributes to the HCC's ability to meet critical preparedness outcomes. The ability to manage and resolve conflicts is central to ensuring the success of an HCC.

Managing conflict is imperative for HCCs focusing on emergency preparedness, response, and recovery, due to the already high level of stress surrounding disasters or public health incidents. By managing conflict within the network before it spirals out of control, HCCs can ensure that the needs of all members are met to satisfy HCC interests and create a win-win situation.

HCCs, by nature, include an array of complex relationships that can cause strain or tension on the whole network if conflict is not handled between members. Multiple members come from various organizations with differing missions, organizational structures, methods of operation, and degrees of power, as well as differing stakeholders and funders. Networks deal with a multitude of issues, and the variety of governance structures available to HCCs can cause conflict, especially if there is a lack of transparency and accountability among HCC members. These areas of conflict among network members can destabilize the network if not properly handled.

One way to handle conflict within HCCs is to use a collaborative problem-solving approach or interest-based negotiation. This type of problem-solving negotiation takes into consideration the needs of all network members and seeks an integrative solution.

Expected Output (Resource): HCC Administrative Plan

Expected Output Activity: The HCC shall develop a process to solicit feedback from its members and resolve any identified conflicts that may impact the overall function or administration of the HCC.

Description of Output: The administrative plan is one of two components of the strategic plan:

Administrative plan: This outlines the organization requirements including, participants, participation guidelines, funding, resource development processes, meetings, documentation of activity and other administrative guidelines. This could resemble a charter, by-law, or other document that contain the key concepts of HCC development. The critical element of the plan is the documentation of the process to solicit feedback from HCC members.

Indicator Achievement:

The nine-point Likert scale identifies anchor points and increases the sensitivity of the scale to help HPP, awardees, and HCCs better define their current status. The scale criteria are defined as follows:

- To rate this as a 9, the criteria for 6, 7, and 8 have been met, and there is evidence of change in administrative or preparedness functions, which has been documented in the strategic plan
- To rate this as an 8, the criteria for 6 and 7 have been met, and there is evidence of change in administrative or preparedness functions
- To rate this as a 7, the criteria for 6 has been met and there is evidence of the formal process through conflict resolution decisions approved by the HCC

- To rate this as a 6, a process for conflict resolution has been developed and accepted by HCC members and is documented in the administrative plan
- To rate this as a 5, a process for conflict resolution has been developed and accepted by HCC members but is not documented in the administrative plan
- To rate this as a 4, a process for conflict resolution has been developed but remains undocumented in the administrative plan or unapproved by HCC member.
- To rate this as a 3, a process for conflict resolution has been developed but is not accepted by HCC members.
- To rate this as a 2, there is no process for conflict resolution, but one is being developed or is planned
- To rate this as a 1, there is no process for conflict resolution

Hospital Preparedness Program (HPP) Program Measure: Continuity of Healthcare Operations

Introduction

Continuity of Healthcare Operations planning is based on improving a healthcare entity's preparedness, response, recovery, and mitigation capabilities during natural disasters and technological emergencies of all kinds. The healthcare entity ideally will identify and mitigate risks, engage in preparedness and planning activities, develop effective response strategies and techniques, and conduct short and long-term recovery planning to facilitate an effective and efficient return to normal healthcare delivery operations. The focus is to maintain operations and, if directly affected, expedite the return to normalcy or a new standard of normalcy for the provision of healthcare delivery to the community. The increasing interconnectedness of health delivery with all facets of the community makes business continuity planning a cornerstone of community resilience. Business preparedness reduces the disruption to employees, productivity, and profitability—and enables an organization to play a stabilizing role in the community. Continuity of Healthcare Operations includes (but is not limited to):

- Sustaining essential financial payment and reimbursement services
- Withstanding disruptions to power, information technology (IT) systems, or other critical infrastructure
- Planning for cyber security attacks
- Testing occupational safety and health processes to preserve and support the healthcare system workforce
- Recovering and preserving patient records and medical supplies
- Continuing to provide routine healthcare services

Successful healthcare service delivery during and after a disaster is contingent on the resilience that is built through an integrated set of plans, procedures, and resources that may be used to maintain and recover essential functions impacted by an event causing any interruption of healthcare delivery.

Working with partners, such as those in the public health, business, education, and emergency management sectors, HCCs can help to plan and advocate for the rebuilding of public health, medical, and mental or behavioral health systems to at least a level of functioning comparable to pre-incident (or better) functionality. The focus should be on an effective and efficient return to normalcy or a new standard of improved normalcy for the provision of healthcare to the community.

Table 6 is a road map that lists the:

- Indicator
- Indicator objective
- Corresponding capability and function
- Unit of Measurement

HPP PROGRAM MEASURE: CONTINUITY OF HEALTHCARE OPERATIONS

Table 6. Capability Roadmap for Continuity of Healthcare Operations

Indicator	Objective	Capability/Function	Unit of Measure
#1: The HCC has access to a risk-based HVA which prioritizes the risks to its members.	Preparedness	Capability 1: Healthcare System Preparedness <ul style="list-style-type: none"> Function 2: Coordinate healthcare planning to prepare the healthcare system for a disaster 	HCC
#2: The HCC has conducted a gap analysis to identify resource shortfalls during an event and is implementing plans to close those resource gaps.	Preparedness	Capability 1: Healthcare System Preparedness <ul style="list-style-type: none"> Function 2: Coordinate healthcare planning to prepare the healthcare system for a disaster Function 4: Determine gaps in the healthcare preparedness and identify resources for mitigation of these gaps Capability 3: Emergency Operations Coordination <ul style="list-style-type: none"> Function 3: Support healthcare response efforts through coordination of resources 	HCC
#3: The HCC has a process to enhance its member's situational awareness to support activation of immediate bed availability through continuous monitoring.	Response	Capability 1: Healthcare System Preparedness <ul style="list-style-type: none"> Function 2: Coordinate healthcare planning to prepare the healthcare system for a disaster Capability 3: Emergency Operations Coordination <ul style="list-style-type: none"> Function 2: Assess and notify stakeholders of healthcare delivery status Capability 6: Information Sharing <ul style="list-style-type: none"> Function 1: Provide healthcare situational awareness that contributes to the incident common operating picture Capability 10: Medical Surge <ul style="list-style-type: none"> Function 2: Coordinate integrated healthcare surge operations with pre-hospital Emergency Medical Services (EMS) operations Function 3: Assist healthcare organizations with surge capacity and capability 	HCC

HPP PROGRAM MEASURE: CONTINUITY OF HEALTHCARE OPERATIONS

Continuity of Healthcare Operations

Indicator	Objective	Capability/Function	Unit of Measure
#4: The HCC has demonstrated the capability of a redundant means of communication for achieving and sustaining situational awareness.	Response	Capability 1: Healthcare System Preparedness <ul style="list-style-type: none"> Function 2: Coordinate healthcare planning to prepare the healthcare system for a disaster Capability 3: Emergency Operations Coordination <ul style="list-style-type: none"> Function 2: Assess and notify stakeholders of healthcare delivery status Capability 6: Information Sharing <ul style="list-style-type: none"> Function 1: Provide healthcare situational awareness that contributes to the incident common operating picture Function 2: Develop, refine, and sustain redundant, interoperable communication systems 	HCC
#5: The HCC has tested its ability to address its members' healthcare workforce safety needs through training and resources.	Response	Capability 1: Healthcare System Preparedness <ul style="list-style-type: none"> Function 2: Coordinate healthcare planning to prepare the healthcare system for a disaster Capability 10: Medical Surge <ul style="list-style-type: none"> Function 2: Coordinate integrated healthcare surge operations with pre-hospital Emergency Medical Services (EMS) operations Function 3: Assist healthcare organizations with surge capacity and capability Capability 14: Responder Safety and Health¹⁷ <ul style="list-style-type: none"> Function 1: Assist healthcare organizations with additional pharmaceutical protection for healthcare workers Function 2: Provide assistance to healthcare organizations with access to additional Personal Protective Equipment (PPE) for healthcare workers during response 	HCC

¹⁷ At times this may include addressing behavioral and mental health issues of the HCC member's workforce.

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Continuity of Healthcare Operations

Indicator	Objective	Capability/Function	Unit of Measure
#6: The HCC has prioritized and integrated essential healthcare recovery needs in its Emergency Operation Plan.	Recovery	Capability 1: Healthcare System Preparedness <ul style="list-style-type: none"> Function 2: Coordinate healthcare planning to prepare the healthcare system for a disaster Function 3: Identify and prioritize essential healthcare assets and services Capability 2: Healthcare System Recovery <ul style="list-style-type: none"> Function 1: Develop recovery processes for the healthcare delivery system Function 2: Assist healthcare organizations to implement Continuity of Operations (COOP) Capability 3: Emergency Operations Coordination <ul style="list-style-type: none"> Function 2: Assess and notify stakeholders of healthcare delivery status Function 3: Support healthcare response efforts through coordination of resources Capability 10: Medical Surge <ul style="list-style-type: none"> Function 5: Provide assistance to healthcare organizations regarding evacuation and shelter in place operations 	HCC
#7: The HCC has achieved its exercise objectives during tests of state or regional healthcare disaster plans.	Mitigation	Capability 1: Healthcare System Preparedness <ul style="list-style-type: none"> Function 2: Coordinate healthcare planning to prepare the healthcare system for a disaster Function 3: Identify and prioritize essential healthcare assets and services Function 4: Determine gaps in the healthcare preparedness and identify resources for mitigation of these gaps Function 6: Improve healthcare response capabilities through coordinated exercise and evaluation Capability 3: Emergency Operations Coordination <ul style="list-style-type: none"> Function 4: Demobilize and evaluate healthcare operations 	HCC

The section below provides some additional information regarding the interpretation and achievement of each of the Continuity of Healthcare Operations Program Measure indicators.

Indicator #1: The HCC has access to a risk-based HVA which prioritizes the risks to its members.

Interpretation:

Hospitals and other healthcare organizations (HCOs) have always had to prepare for and respond to a wide array of routine emergency and catastrophic disaster events. Since the terrorist attacks of 9/11, HCOs have been urged to substantially expand their response plans and overall readiness for disasters. HCCs should have access to and help their members and/or communities annually review their Hazard Vulnerability Analysis (HVA).¹⁸ The HVA provides a systematic approach to recognizing hazards that may affect demand for healthcare services or the healthcare system's ability to provide these services. The risks associated with each hazard are analyzed to prioritize planning, response, recovery, and mitigation activities. The HVA serves as a needs assessment for the emergency management program. This process should involve community partners and be communicated to community emergency response agencies. Common steps associated with an HVA include:

- Research into vulnerability through public safety, emergency management agencies, and other sources of information
- Organizational meeting of individuals to be involved in the deliberative process that would clarify the decision-making process as well as its importance within and outside the institution
- Individual completion of the assessment instrument in private, to encourage differing opinions
- Group discussion and consensus
- Documentation of discussion, including minority opinions and overall results
- Documentation of action planning to address identified gaps
- Wide distribution of the results both outside and within the institution, including to the most senior decision makers.

The Department of Homeland Security (DHS) Comprehensive Preparedness Guide provides a four-step process for conducting a threat and hazard identification and risk assessment.¹⁹

Expected Output (Resource): Threat and Hazard Identification and Risk Assessment (THIRA)

Expected Output Activity: In order to rate a positive result for this indicator, the HCC must have identified threats and hazards and determined the risk to the healthcare delivery system. This should be based on assessments coordinated by the jurisdiction, the healthcare community, public health and / or other assessment documents.

Description of Output: The risk assessment is the primary responsibility of emergency management, and should be coordinated with multiple sectors of the community to include healthcare. If this is the case, this is the risk assessment of record and is reviewed and revised based on the planning cycle of the jurisdiction. Planning priorities are developed from this document. If jurisdictional risk assessments have not been coordinated with the healthcare sector, the HCCs should use both the available risk assessment of the jurisdiction and that of the healthcare sector to develop planning priorities that address the risks

¹⁸ For more information on HVA, as it relates to HCCs, please see the "Medical Surge Capacity Capability: Hazards Vulnerability Analysis" at <http://www.phe.gov/Preparedness/planning/mscc/healthcarecoalition/chapter5/Pages/hazards.aspx>

¹⁹ <http://www.fema.gov/threat-and-hazard-identification-and-risk-assessment>

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to the healthcare community. These priorities should be reviewed and revised based on the planning cycle of the jurisdiction. This process may not be easy in developing HCCs, but as the HCC becomes more functional and includes emergency management as an essential partner, the issue may be resolved.

Indicator Achievement:

The nine-point Likert scale identifies anchor points and increases the sensitivity of the scale to help HPP, awardees, and HCCs better define their current status. The scale criteria are defined as follows:

- To rate this as a 9, the criteria for 6, 7, and 8 have been met, and the document is used across disciplines
- To rate this as an 8, the criteria for 6 and 7 have been met, and the document has been reviewed within the last five years
- To rate this as a 7, the criteria for 6 has been met, and there is documented evidence that the HCC was included in the development of the assessment
- To rate this as a 6, the risk assessment used for planning, organization, equipping, training and exercising by the coalition has been completed
- To rate this as a 5, there is a risk assessment in use, but it is out of date or has not been integrated with healthcare system risks
- To rate this as a 4, the risk assessment has been drafted but has not been vetted by essential partners
- To rate this as a 3, the risk assessment is in development
- To rate this as a 2, the risk assessment development has been planned
- To rate this as a 1, no risk assessment has been conducted, and there is no plan to develop one

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Indicator #2: The healthcare coalition (HCC) has conducted a gap analysis to identify resource shortfalls during an event and is implementing plans to close those resource gaps.

Interpretation:

The gap analysis should specifically provide insight into two main areas: resource management and resource identification prior to an emergency.

Resource management:

Emergency management and incident response activities necessitate carefully managed resources (personnel, teams, facilities, equipment, and/or supplies) to meet incident needs. Utilization of the standardized resource management concepts such as typing, inventorying, organizing and tracking facilitates the dispatch, deployment, and recovery of resources before, during, and after an incident.

Resource management should be flexible and scalable, so HCCs can support any incident (all-hazards preparedness). Efficient and effective deployment of resources requires that resource management concepts and principles are used in all phases of emergency management and incident response.²⁰

The literature separates the resource management process into two components:

1. Resource management as an element of preparedness

The preparedness activities (resource typing, credentialing and inventorying) are conducted on a continual basis to help ensure that resources are ready to be mobilized when called to an incident.

2. Resource management during an incident

Resource management during an incident is a finite process that includes the following steps:

- Identify requirements
- Order and acquire
- Mobilize
- Track and report
- Recover/demobilize
- Reimburse
- Inventory

Identify resources during planning

Once courses of action are selected, the planning team identifies resources needed to accomplish tasks without regard to resource availability. The object is to identify the resources needed to make the operation work. Once the planning team identifies all the requirements, they begin matching available resources to requirements. By tracking obligations and assignments, the planning team determines resource shortfalls and develops a list of needs that private suppliers or other jurisdictions might fill. The resource base should also include a list of facilities vital to emergency operations, and the list should

²⁰ <http://www.fema.gov/resource-management#item1>

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indicate how individual hazards might affect the facilities. Whenever possible, planners should match resources with other geographical/regional needs so that multiple demands for the same or similar resources can be identified and conflicts resolved. This step provides planners an opportunity to identify resource shortfalls to pass to higher levels of government and to prepare pre-scripted resource requests, as appropriate. The Emergency Operations Plan (EOP) should account for unsolvable resource shortfalls so they are not just “assumed away.”²¹

Expected Output (Resource): Gap analysis and resource development process

Expected Output Activity: In order to rate a positive result for this indicator, there must be a gap analysis that outlines resource assessment and a resource development process to address the gaps.

Description of Output: Gap analysis includes an assessment of resources needed to achieve capability based operational priorities, goals and objectives for the planned courses of action. This includes the assessment of available resources compared to needed resources. These resources may include:

- Organizational (e.g., staffing, team development, HCC development)
- Planning
- Equipment and Supply
- Training
- Space

The gap analysis logically leads into the resource development process and therefore gaps should be prioritized based on operational need. This prioritization becomes essential when the resources are developed. Resource development processes should be documented in the HCC Administrative Plan or Preparedness Strategy and include the following:

Resource development process:

- Decision-makers outline the goals of the planning session (Awardee level or HCC members)
- Planners set capability-based objectives based on risk
- Planners develop courses of action to meet the capability-based objectives and to identify the resource gaps based on results and analysis of:
 - Resource and capability assessments
 - Plan deficiencies (lack of plans or inadequate plans/gaps)
 - Corrective actions from After Action Reports (AARs)
 - Other methods to ascertain resource gaps
- Planners prioritize each of the capability-based objectives with all resource needs listed
- Planners prioritize each of the resource needs under the previously prioritized objectives

An acceptable HCC organizational structure should dictate who is prioritizing resources (it is essential to have the right people so resource development is not skewed toward special interests). Prioritization also relates to the overall incident and the need for identifying required resources for the response as a whole (e.g., generator issues that occurred during the Hurricane Sandy response in fall 2012).

The basis for analysis to prioritize resource development must follow the preparedness cycle and planning processes (see resource development process above).

²¹ http://www.fema.gov/pdf/about/divisions/npd/CPG_101_V2.pdf

Indicator Achievement:

The nine-point Likert scale identifies anchor points and increases the sensitivity of the scale to help HPP, awardees, and HCCs better define their current status. The scale criteria are defined as follows:

- To rate this as a 9, the criteria for 6, 7, and 8 have been met and the resource assessment is tested/revised based on findings
- To rate this as an 8, the criteria for 6 and 7 have been met, and the resource assessment is recognized by relevant response partners
- To rate this as a 7, the criteria for 6 have been met ,and the resource assessment has been accepted by the essential members of the HCC
- To rate this as a 6, a resource and capability assessment has been documented, including the identification of gaps in planning, organization, equipment, training and exercise and resources or resource processes have been matched to priority healthcare delivery services
- To rate this as a 5, a resource assessment has been completed for healthcare system and jurisdictional resources, which includes resource request processes and mutual aid agreements
- To rate this as a 4, a resource assessment has been completed for healthcare system resources
- To rate this as a 3, a resource assessment has been completed for jurisdictional resource.
- To rate this as a 2, a resource assessment or gap analysis is in progress or planned
- To rate this as a 1, no resource assessment or gap analysis is in progress or planned

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Indicator #3: The healthcare coalition (HCC) has a process to enhance its members' situational awareness to support activation of immediate bed availability (IBA) through continuous monitoring.

Interpretation:

HCCs should develop an operational framework to help members develop decision making processes related to continuity of care. For example, HCC members can identify triggers that would warrant a transition from conventional to contingency or crisis standards of care (and back again). The framework should include a set of potential indicators or triggers that would help HCC members anticipate such transitions. The process should include input from local HCCs, healthcare delivery organizations, long-term care facilities, emergency medical services (EMS), home healthcare organizations, local public health departments, etc. Since in-depth data collection and analysis are not possible during most disasters/public health events, triggers should be based on information that is likely to be readily available during an incident. The situational awareness process should NOT focus on specific 'lines in the sand,' but rather on the indicators that signify when discussions should occur and the key factors and elements that need to be discussed during the decision-making process.

Expected Output (Resource): Medical surge plan (Surge Assessment and Information / Communication Protocols)

Expected Output Activity: In order to achieve a positive result for this indicator, HCCs must have a medical surge plan that contains protocols for surge assessment and includes notification, activation, continual monitoring, and reporting of surge status.²²

Description of Output: The surge assessment includes surge estimates and a definition of the regional (or HCC) surge response system. Information / communication protocols address notification, activation, and monitoring/reporting of status.

Surge Assessment: The medical surge plan should be based on a surge assessment. This assessment includes surge estimates and a related gap analysis.

- Surge estimates are based on risk and the goal should be to provide 20% of staffed members' beds (IBA) within the regional (HCC) surge system.
- This assessment should define the regional (HCC) surge response system. The surge assessment is a focused resource assessment that identifies available resources (e.g., beds, staffing, alternate surge sites, mobile medical assets, rapid response teams, HCO surge equipment and supply) that will be needed to provide resourced beds to address the estimated surge. When completing the surge assessment, it is important to note that available resources may originate outside of a HCC boundary. For example, in a trauma referral pattern, some resources may be located in one HCC but be used by another (e.g. trauma beds, equipment, supplies, and staff). HCCs should consider external resources when defining the surge system. The surge assessment should also include a detailed assessment of the notification and communication procedures for activation and reporting of surge activity (see information/communication protocols in next section).

²² HPP understands that performing IBA may be difficult for unique HCCs (e.g., rural HCCs) and is providing technical assistance to help facilitate achievement of the IBA-related measures.

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Information/Communication Protocols: The information and communication protocols for the surge plan should start at the pre-hospital setting and continue throughout the surge event. These protocols should address notification, activation, and monitoring/reporting of status.

- **Notification:** Based on the surge assessment, the HCC should identify triggers for activating its surge plan. Most likely, the first trigger to consider is the first-responder or pre-hospital notification. The notification process should use the information reporting system and/or interoperable communications to provide a mass or focused alert of a pending surge event to HCC members. Public notification of resource availability is a very important component of the notification protocol. Based on historical data, the majority of patients will self-transport to the hospital, and early communication can help redirect the brunt of the surge.
- **Activation:** The activation should begin resource mobilization of tactical strategies to address surge (e.g., pre-hospital staging of triage sites, collection points, mobile assets, and response teams; rapid decompression strategies; and the expansion of in-hospital surge capacity).
- **Surge Monitoring/Reporting:** Protocols should be in place to provide real-time on-scene surge numbers and real-time at-hospital resource availability. The protocol should include patient distribution protocols based on predefined assessment protocols and real-time situational awareness. Protocols should include a process for the healthcare system to communicate resource availability to the on-scene transport unit so the unit can make rapid decisions. This will require protocols for HCO reporting to an information system or through interoperable communications (e.g., automated resource reporting).
 - *Note: Information / Communication protocols may be included in a separate plan and encompass more than just surge notification, activation and monitoring/reporting. However, this plan should be specific enough to address medical surge and continuity of operations.*

The critical tasks/capability targets for the medical surge plan include:

1. Engagement in the information / communication system as outlined in emergency operations coordination
2. Communication with emergency medical services (EMS)
3. Communication with HCC members and relevant partners regarding surge operations

Indicator Achievement:

The nine-point Likert scale identifies anchor points and increases the sensitivity of the scale to help HPP, awardees, and HCCs better define their current status. The scale criteria are defined as follows:

- To rate this as a 9, the medical surge plan is routinely updated and has been tested based on exercise findings demonstrating the required capability targets (e.g., communication and reporting of surge status)
- To rate this as an 8, the medical surge plan has been approved, signed, and adopted by HCC members and relevant response partners
- To rate this as a 7, the medical surge plan has been reviewed by HCC members and all relevant sectors of the response community within the last five years

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- To rate this as a 6, a medical surge plan has been drafted that addresses the capability planning targets and critical tasks
- To rate this as a 5, there is evidence that HCCs are part of the medical surge planning process during revision of plans
- To rate this as a 4, medical surge plans exist, but they are missing planning components. Activities are planned to revise the plan
- To rate this as a 3, medical surge plans exist, but there are missing planning components without planned activities to revise the plans
- To rate this as a 2, there are no medical surge plans, but there are planned activities toward the development of the plan
- To rate this as a 1, there are no medical surge plans nor any activity or evidence toward developing these plans

Indicator #4: The healthcare coalition (HCC) has demonstrated the capability of a redundant means of communication for achieving and sustaining situational awareness.

Interpretation:

Over the past several decades, healthcare facilities have rapidly adopted and updated information technologies (IT) in nearly every facet of patient care. In recent years, the U.S. government has encouraged healthcare facilities to further utilize IT resources. As IT becomes more central to clinical and business practice, healthcare organizations must be increasingly vigilant about preparing for continuity of operations when normal IT and communication functions are disrupted. The HCC should help its members develop plans and create checklists to ensure the ability to recover and restore IT and communication delivery systems, voice and data networks, and clinical and business applications and data before they are lost. This includes the implementation of viable risk mitigation and recovery strategies, the development of technology recovery plans, and the creation of redundant communication systems.²³

Expected Output (Resource): Information / Communication Plan and plan implementation

Expected Output Activity: In order to achieve a positive result for this indicator, there must be an information/communication plan and a successful implementation (exercise or real event) of the information/communication protocols in the plan. This should include implementation of operational plans information/communication protocols. The implementation should address the following capability targets:

1. Report the status of the incident
2. Report essential elements of information
3. Validate reported information

Description of Output: This indicator requires both plan development and plan implementation of information and communication protocols.

Information/communication protocols: Protocols should be in place to provide the status of resources (situational awareness provided to healthcare organizations (HCOs)) and the status of need (situational awareness received from HCOs). This should include the method by which information sharing would occur (e.g., information management system, interoperable communications).

Plan Implementation: Implementing this plan would test the HCC's ability to deliver an acceptable percentage of members that submit all requested essential elements of information (EEI) to the health and medical lead within the requested timeframe (per the HPP-PHEP joint measure 6.2 (see appendix C)). This process should adhere to the established HPP exercise and reporting requirements and would result in an AAR/IP that would provide details of the completion of the objective.

Indicator Achievement:

The nine-point Likert scale identifies anchor points and increases the sensitivity of the scale to help HPP, awardees, and HCCs better define their current status. The scale criteria are defined as follows:

²³ HPP is developing a "Healthcare Business Continuity & Recovery Concept of Operations" that Awardees and HCCs can use to develop overarching response and recovery plans, to include communications plans. The CONOPs highlights major supporting activities at the Awardee and HCC levels and provides a framework for jurisdictions to create specific plans.

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- To rate this as a 9, the information/communication plan is routinely updated and has been tested based on exercise findings demonstrating the required capability targets
- To rate this as an 8, the information/communication plan has approved, signed, and adopted by HCC members and relevant response partners.
- To rate this as a 7, the information/communication plan has been reviewed by HCC members and all relevant sectors of the response community within the last five years
- To rate this as a 6, there must be information/communication plans drafted that address the capability planning targets and critical tasks
- To rate this as a 5, there must be evidence that HCCs are part of the planning process and revision of information/communication planning
- To rate this as a 4, information/communication plans exist; however there are missing planning components. Activities exist to revise the plan
- To rate this as a 3, information/communication plans exist; and while there are missing planning components, there are no planned activities to revise the plans.
- To rate this as a 2, there are no information/communication plans, but there are planned activities toward the development of the plan.
- To rate this as a 1, there are no information/communication plans nor any activity or evidence toward planning.

Indicator #5: The healthcare coalition (HCC) has tested its ability to address its members' healthcare workforce safety needs through strategic placement of resources.

Interpretation:

Healthcare organizations (HCOs) should prioritize the safety and health of healthcare workers from a variety of hazards during emergencies and disasters, particularly in Continuity of Healthcare Operations. This includes processes to equip, train, and provide other resources needed to ensure that healthcare workers at the highest risk for adverse exposure, illness, or injury are adequately protected from all hazards during response and recovery operations.

Expected Output (Resource): Resource Management Plan (Responder Safety and Health specific) and implementation of the plan

Expected Output Activity: In order to rate a positive result for this indicator, there must be a resource plan to request and receive resources that will provide pharmaceutical prophylaxis and/or treatment and personal protective to the healthcare workforce. HCCs must also test of this plan.

Description of Output: This indicator requires both plan development and plan implementation of resource management protocols (Responder Safety & Health specific).

Resource management planning: Resource management planning should include: risk-based estimates of potential need (risk assessment), an assessment of available resources to address the need (resource assessment), a description or matrix of possible conflicting priorities (resource de-confliction), and a process to get the resources (resource request process including contact information).

HPP does not require that HCCs develop a pharmaceutical cache or personal protective equipment (PPE) cache during the resource development process. However, resource management must include an assessment of potential need and a resource request process to fill the need. This can include established or newly developed cache resources. If this is the case, HCCs should have a plan to access and distribute the cache, protect the cache (environmental and physical security), provide oversight of the cache (e.g., state pharmacy oversight), and maintain the cache (e.g., renew, rotate, dispose). Resource management planning may also include addressing behavioral and mental health issues of the HCC member's workforce.

Plan Implementation: Implementation of this plan will effectively test the HCC's ability to request resource support for the health and safety needs of healthcare workers. This should be included in the emergency operations coordination (EOC) component of the HPP exercise requirement regarding management of resources. The plan should include access and distribution of available cached resources and/or implementation of the local, state, or federal request process. The plan should be based on the resource management planning process (risk assessment, resource assessment, and resource de-confliction). This process should adhere to the established HPP exercise and reporting requirements and result in an AAR/IP that provides details of the completion of the objective.

The Strategic National Stockpile (SNS) or CHEMPACK deployment during the required joint Cities Readiness Initiative (CRI) exercise may be used to satisfy this indicator requirement if it addresses the safety of healthcare workers as outlined in the qualifying exercise component of the HPP exercise requirements as described in the HPP Cooperative Agreement.

Indicator Achievement:

The nine-point Likert scale identifies anchor points and increases the sensitivity of the scale to help HPP, awardees, and HCCs better define their current status. The scale criteria are defined as follows:

- To rate this as a 9, the resource management plan is routinely updated and has been tested based on exercise findings demonstrating the required capability targets.
- To rate this as an 8, the resource management plan has been approved, signed, and adopted by HCC members and relevant response partners.
- To rate this as a 7, the resource management plan has been reviewed by HCC members and all relevant sectors of the response community within the last five years
- To rate this as a 6, there must be a resource component of a resource management plan or an annex that addresses the health and safety needs of the healthcare workforce; the plan is drafted and addresses the capability planning targets and critical tasks
- To rate this as a 5, there is evidence that HCCs are part of the planning process and revision of resource management planning
- To rate this as a 4, resource management plans exist but there are missing planning components ,but there are activities toward revising the plan
- To rate this as a 3, resource management plans exist; and while planning components are missing, there are no planned activities to revise the plans
- To rate this as a 2, there are no resource management plans, but there are planned activities toward the development of the plan
- To rate this as a 1, there are no resource management plans nor any activity or evidence toward planning

Indicator #6: The healthcare coalition (HCC) has prioritized and integrated essential healthcare recovery needs in its emergency operation plan (EOP).

Interpretation:

According to the *National Infrastructure Protection Plan (NIPP)*, critical infrastructure includes those assets, systems, networks, and functions—physical or virtual—so vital to the United States that their incapacitation or destruction would have a debilitating impact on physical security, national economic security, public health or safety, or any combination of those matters. Key resources are publicly or privately controlled resources essential to minimal operation of the economy and the government.²⁴

In relation to the public health and medical sector, critical infrastructure and key resources encompass the healthcare systems essential facilities, resources and services to continue healthcare delivery after an event. During recovery planning, priorities must be set to determine the best method to assist essential healthcare assets to restore operations.²⁵

Expected Output (Resource): A recovery plan with a continuity of healthcare operations annex

Expected Output Activity: In order to rate a positive result for this indicator, the awardee and HCCs in the jurisdiction must have developed a healthcare recovery plan.

Description of Output: The recovery plan, continuity of operations plan, or associated response plan must address short- and long-term support of essential and prioritized healthcare assets in the community. This includes focused resource planning to address this need:

Resource planning: Resource planning should include: risk-based estimates of potential critical healthcare delivery needs (risk assessment), an assessment of available resources to manage those needs (resource assessment), a description or matrix of possible conflicting priorities (resource de-confliction), and a process to get the resources (resource request process including contact information).

These assessment and resource management processes should identify and address the following critical services and key resources (not inclusive):

- Critical medical services (e.g., trauma, radiology, critical care, surgery, pediatrics, behavioral and mental health, EMS, decontamination, isolation)
- Critical medical support services (e.g., patient transport services, pharmacy, blood banks, laboratory, medical gas suppliers)
- Critical facility management services (e.g., power, water, sanitation, generators, heating, ventilation, and air conditioning (HVAC), elevators)
- Critical healthcare information systems for information management/communications (e.g., failover and back up, remote site hosting)
- Key healthcare resources (e.g., staffing, equipment, beds, medical supply, pharmaceuticals)

²⁴ National Infrastructure Protection Plan: Partnering for Critical Infrastructure Security and Resilience, DHS, 2013, <http://www.dhs.gov/national-infrastructure-protection-plan>

²⁵ HPP is developing a “Healthcare Sector Continuity of Operations” that Awardees and HCCs can use to develop overarching response and recovery plans, to include communications plans. The COOP plan highlights major supporting activities at the Awardee and HCC levels and provides a framework for jurisdictions to create specific plans.

Indicator Achievement:

The nine-point Likert scale identifies anchor points and increases the sensitivity of the scale to help HPP, awardees, and HCCs better define their current status. The scale criteria are defined as follows:

- To rate this as a 9, the continuity of healthcare operations plan is routinely updated and has been tested based on exercise findings from a demonstration of the required capability targets
- To rate this as an 8, the continuity of healthcare operations plan has been approved, signed, and adopted by HCC members and relevant response partners
- To rate this as a 7, the continuity of healthcare operations plan has been reviewed by HCC members and all relevant sectors of the response community within the last five years
- To rate this as a 6, a continuity of healthcare operations plan has been drafted that addresses the capability planning targets and critical tasks
- To rate this as a 5, there is evidence that HCCs are part of the planning process and revision of continuity of healthcare operations planning
- To rate this as a 4, continuity of healthcare operations plans exist; and while there are missing planning components, there are planned activities toward revising the plan
- To rate this as a 3, continuity of healthcare operations plans exist but there are missing planning components and there are no planned activities to revise the plans
- To rate this as a 2, there are no continuity of healthcare operations plans but there are planned activities toward the development of the plan
- To rate this as a 1, there are no recovery plans with continuity of healthcare operations plans nor any activity or evidence toward planning

HPP PROGRAM MEASURE: CONTINUITY OF HEALTHCARE OPERATIONS

Indicator #7: The healthcare coalition (HCC) has achieved its exercise objectives during tests of state or regional healthcare disaster plans.

Interpretation:

Exercises assess and validate the speed, effectiveness, and efficiency of capabilities, and test the adequacy of policies, plans, procedures, and protocols in a risk-free environment. Exercises should be conducted in conjunction with jurisdictional/regional, state, or federal-based exercises when possible. Joint exercises improve integration efforts and may be more efficient. The awardee should monitor and evaluate HCC exercise, which should follow the Homeland Security Exercise and Evaluation Program (HSEEP) requirements. Exercise decisions are made based on planning priorities, risk assessments, gap analyses, and the continuous improvement process (to address the required corrective actions identified in improvement plans).

The final step in the preparedness cycle is evaluation and improvement of mission and task performance. This step is crucial to informing risk assessments, managing vulnerabilities, allocating resources, and informing the other elements of the disaster cycle. HCCs develop improvement plans and track corrective actions that address the capabilities identified in plans and tested in exercises or real events. In addition to corrective actions, HCCs evaluate regional public health and healthcare preparedness through assessment initiatives. Findings from these initiatives allow HCCs to reassess and revise plans and protocols, creating a continuous improvement process and ensuring that updated strategies and plans can inform new preparedness-building activities.²⁶

Expected Output (Resource): Exercise program and submission of acceptable AARs

Expected Output Activity: In order to achieve a positive result for this indicator, the awardee and HCCs must have developed or be integrated into an exercise program that meets the HPP and HPP-PHEP joint exercise requirements. Following the exercise, the HCC must develop an AAR/IP that provides details of the completion of the objective.

Description of Output: The major output for this indicator is submission of acceptable AARs/IPs from exercises that fulfill the exercise requirements. These include:

- Each identified HCC must participate in at least one qualifying exercise in the 5-year project period. This may be at the sub-state regional level or the statewide level.
- All HPP participating hospitals (and if possible other healthcare organizations) must participate in a qualifying exercise. This should be in conjunction with their respective HCCs' participation.
- There must be participation in a joint full-scale exercise (FSE). The participation must demonstrate public health and medical coordination and is required by the awardee once in the 5-year project period.

To be considered a qualifying exercise:

- Exercises must be a sub-state regional or statewide functional or full-scale exercise.
- Exercises must test the capabilities of the participants from a single HCC or multiple HCCs and demonstrate capability-based objectives from:

²⁶ <http://www.dhs.gov/xlibrary/assets/rma-risk-management-fundamentals.pdf>

HPP PROGRAM MEASURE: CONTINUITY OF HEALTHCARE OPERATIONS

- Resource and information management as outlined in Capability 3: Emergency Operations Coordination and Capability 6: Information Sharing (see Capabilities document).
- Capability 10: Medical Surge to include at a minimum implementation of pre-hospital coordination and surge capacity and capability operations as outlined in these measures.
- Continuity of Healthcare Operations indicator #6, demonstrating, in some capacity, the continuation of essential healthcare services

Note: Demonstrations for Capability 2: Healthcare System Recovery, Capability 5: Fatality Management, Capability 14: Responder Safety and Health, and Capability 15: Volunteer Management may be achieved through allowable drills or functional or full-scale exercises that incorporate these capabilities into resource and information management tests. However, Awardees must demonstrate that the capability has been tested within their jurisdictions.

Please refer to the HPP-PHEP exercise requirements outlined in the Funding Opportunity Announcement (FOA) Appendix for full detail of the exercise requirements.

The effectiveness of the exercise is dependent upon HCC development and plan development and therefore corresponds closely with the HCC Developmental Assessment factors 1-19.

Indicator Achievement:

The nine-point Likert scale identifies anchor points and increases the sensitivity of the scale to help HPP, awardees, and HCCs better define their current status. The scale criteria are defined as follows:

- To rate this as a 9, the criteria for 6, 7, and 8 have been met, and there is evidence of improvement planning and mitigation efforts to address planning, organizing, equipping, training, and exercising deficiencies by the awardee in support of HCCs
- To rate this as an 8, the criteria for 6 and 7 have been met, and the corrective actions have been completed
- To rate this as a 7, the criteria for 6 have been met, and there is an improvement plan addressing HCC corrective actions
- To rate this as a 6, the exercise objectives match program requirements and have been tested per requirements To rate this as a 5, the exercise objectives have been drafted and are both Homeland Security Exercise and Evaluation Program (HSEEP-) and HPP-program compliant
- To rate this as a 4, the exercise objectives have been tested but do not match required objectives
- To rate this as a 3, the exercise objectives have been drafted but do not match required objectives and have not been tested
- To rate this as a 2, the exercise objectives are being developed
- To rate this as a 1, the awardee has not developed nor met exercise objectives

Healthcare Coalition Developmental Assessment Factors

HEALTHCARE COALITION DEVELOPMENTAL ASSESSMENT FACTORS

Healthcare Coalition Developmental Assessment (HCCDA) Factors

While the Hospital Preparedness Program (HPP)'s budget period 3 (BP3) program measure indicators assess the awardees' ability to meet specific goals and objectives; the HCCDA factors assess how well the healthcare coalitions (HCCs) in an awardee's jurisdiction are fully implementing activities and plans (e.g., training, exercising, resource development, progressing toward achieving program measures, and developing processes for onsite verification). The HCCDA will help demonstrate the ability and capability of the awardees' HCCs to meet HPP goals and objectives.

HCC development is a relatively new concept, and the formulation of each HCC may progress at a different rate. The HCCDA was designed to:

- Assess awardees' processes of developing and forming HCCs.
- Assess how awardees' HCCs are functioning to meet HPP's goals and objectives (e.g. program measures/indicators, oversight, and monitoring).
- Assess the reliability of the awardees' work plans and program indicators to monitor progress over time.

Table 7 contains the full list of HCCDA factors and their associated objective (preparedness, response, recovery, or mitigation).

Table 7. Healthcare Coalition Developmental Assessment Factors

Assessment Factors	Objective
#1: The HCC has established a formal self-governance structure, including leadership roles.	Preparedness
#2: The HCC has multi-disciplinary healthcare organization membership.	Preparedness
#3: The HCC has established its geographical boundaries.	Preparedness
#4: The HCC has a formalized process for resource and information management with its membership.	Preparedness
#5: The HCC is integrated into the healthcare delivery system processes for their jurisdiction (e.g., EMS, referral patterns, etc.).	Preparedness
#6: The HCC has established roles and responsibilities.	Preparedness
#7: The HCC has conducted an assessment of each of its member's healthcare delivery capacities and capabilities.	Preparedness
#8: The HCC has engaged its member's healthcare delivery system executives.	Preparedness
#9: The HCC has engaged its member's healthcare delivery system clinical leaders.	Preparedness
#10: The HCC has an organizational structure to develop operational plans.	Preparedness
#11: The HCC has an incident management structure (e.g., MACC, ICS) to coordinate actions to achieve incident objectives during response.	Response
#12: The HCC demonstrates an ability to enhance situational awareness for its members during an event.	Response
#13: The HCC demonstrates an ability to identify the needs of at-risk individuals (e.g., electrically dependent home-bound patients, chronically ill) during response.	Response
#14: The HCC demonstrates resource support and coordination among its member organizations under the time urgency, uncertainty, and logistical constraints of emergency response.	Response
#15: The HCC members demonstrate an evacuation capability with functional patient tracking mechanisms.	Response

HEALTHCARE COALITION DEVELOPMENTAL ASSESSMENT FACTORS

Assessment Factors	Objective
#16: The HCC utilizes an operational framework and set of indicators to transition from crisis standards of care, to contingency, and ultimately back to conventional standards of care.	Recovery
#17: The HCC incorporates post-incident health services recovery into planning and response.	Recovery
#18: The HCC ensures quality improvement through exercises/events and corrective action plans.	Mitigation
#19: The HCC has an established a method (e.g., social network analysis) for incorporating feedback from its members to support group cohesion and improve processes.	Mitigation
#20: Within the past year, what is your HCC's MOST IMPORTANT accomplishment related to emergency preparedness, response recovery, and/or mitigation? (Choose one.) <ul style="list-style-type: none"> <input type="checkbox"/> Enhanced connectivity with Emergency Operations Center (EOC) and Emergency Operations Plan (EOP) <input type="checkbox"/> Improved leveraging of disparate funding streams <input type="checkbox"/> Increased ability to leverage resources and allocate scarce resources between HCC members <input type="checkbox"/> Increased availability of emergency response and recovery services for the jurisdiction; bridging response and recovery <input type="checkbox"/> Increased educational training opportunities for healthcare organizations <input type="checkbox"/> Increased emergency management skills among HCC organizations <input type="checkbox"/> Increased emergency preparedness of the jurisdiction targeted or served by the HCC, including at-risk populations <input type="checkbox"/> Increased exercising and readiness planning among HCC members (e.g., drills and exercises) <input type="checkbox"/> Increased formal agreements for resource and information exchange <input type="checkbox"/> Increased information sharing between HCC members through integrated communication <input type="checkbox"/> Increased or enhanced sources of data needed for emergency preparedness and response <input type="checkbox"/> Increased volunteerism (e.g., Emergency System for Advance Registration of Volunteer Health Professionals) <input type="checkbox"/> Other (Please describe) _____ 	NA

The section below provides some additional information regarding the interpretation and achievement of each of the Healthcare Coalition Developmental Assessment factors.

HEALTHCARE COALITION DEVELOPMENTAL ASSESSMENT FACTORS

Assessment Factor #1: The healthcare coalition (HCC) has established a formal self-governance structure, including leadership roles.

Description of factor: The governance structure is outlined in the administrative plan. This includes the method by which the HCC is structured and administered.

The HCC governance structure should be developed so that there is appropriate representation of the HCC member agencies in the multiagency coordination system for public health and healthcare response. The HCC as a whole should determine the governance structure and establish the guidelines for administration and facilitation with input from membership. This structure should allow for improvement or major modification through mitigation processes incorporated into the administrative plan (factor 19).

Expected Output (Resource): HCC administrative plan

Description of Output: The administrative plan outlines the organizational requirements including: participants, participation guidelines, funding, resource development processes, meetings, documentation of activity, and other administrative guidelines. This could resemble a charter, bylaw, or other document that contains the key concepts of HCC development.

The administrative plan should document the following critical tasks:

1. Develop a governance structure that represents the entire HCC membership and has been developed so that the capability functions can be completed
2. Develop a formal method (documented in administration plan) to decide how the governance structure is formed
3. Ensure there is a mitigation process in the administrative plan so that the governance structure could be improved or completely revised if found inadequate

HCCDA Factor 1 is documented as part of the Strategic Plan as defined in Medical Surge Indicator # 3.

Factor Achievement:

The nine-point Likert scale identifies anchor points and increases the sensitivity of the scale to help HPP, awardees, and HCCs better define their current status. The scale criteria are defined as follows:

- To rate this as a 9, the HCC's administrative plan has been submitted as complete and it is verified on a periodic basis by the awardee
- To rate this as an 8, HCC members have reviewed the formal self-governance structure within the last two years
- To rate this as a 7, the formal self-governance structure has been approved and adopted by HCC members.
- To rate this as a 6, there is an administrative strategy that includes the components (critical tasks) for a formal self-governance structure
- To rate this as a 5, formal self-governance structure exists and is documented, there are some missing components (1-2), and there are planned activities toward revising the plan
- To rate this as a 4, a formal self-governance structure exists and is documented, but there are three or more missing components and is activity toward revising the plan.
- To rate this as a 3, a formal self-governance structure exists, but there are missing components and there are no planned activities to revise the plans

HEALTHCARE COALITION DEVELOPMENTAL ASSESSMENT FACTORS

- To rate this as a 2, there is no formal self-governance structure, but there are planned activities toward development
- To rate this as a 1, there are no plans nor any activity or evidence toward developing a formal self-governance structure

HEALTHCARE COALITION DEVELOPMENTAL ASSESSMENT FACTORS

Assessment Factor #2: The healthcare coalition (HCC) has multi-disciplinary healthcare organization membership.

Description of factor: Membership should consist of, at a minimum, participating hospitals, emergency medical service (EMS), emergency management, and public health. Incorporating long-term care (LTC) and mental and behavioral health (M/BH) members should be a priority. Neither other healthcare (e.g., pediatric substance abuse professionals) nor any-healthcare entities (e.g., public works, faith-based organizations), are highly encouraged to be added based on planning priorities.²⁷ These other entities may include partners such as dialysis partners, Community Health Centers, Veterans Affairs and Department of Defense hospitals, and private agencies/associations.

It is very important that the awardee be a partner and supporter of the HCC. The HCC should outline the method of support in the administration plan.

The membership must provide an operational link to Emergency Support Function #8 – Public Health and Medical Services (ESF-8) or the jurisdiction's health operations structure.

Expected Output (Resource): HCC administrative plan

Description of Output: The administrative plan outlines the organizational requirements, including participants, participation guidelines, funding, resource development processes, meetings, documentation of activity, and other administrative guidelines. The administrative plan could resemble a charter, by-laws, or other documentation that contains the key concepts of HCC development. The plan should document and track membership using a monitoring tool (e.g., sign-in sheets). The administrative plan should be revised as membership grows.

The administrative plan should address the following capability planning targets and critical tasks:

1. Ensure there is a core group of essential members in the HCC that includes the following minimal requirements:
 - Hospitals (all participating)
 - EMS - Public or private
 - Emergency Management - Local, regional, or state
 - Public health
 - Long-term care providers
 - Mental/behavioral health providers
 - Awardees
2. Document the membership in the administrative plan.
3. Document and track the membership participation (e.g., meeting minutes).
4. Include an ESF-8 liaison in the healthcare coalition to ensure participation of federal, state, and local ESF-8 in key planning decisions.
5. Select other essential partnerships as required for capability planning.
6. Develop and document an accountability process for member participation (e.g., required meeting attendance, webinar, correspondence).

HCCDA Factor 2 is documented as part of the Strategic Plan as defined in Medical Surge Indicator #3.

²⁷ A more comprehensive listing of potential HCC members can be found on page 2 of the *Healthcare Preparedness Capabilities* document.

HEALTHCARE COALITION DEVELOPMENTAL ASSESSMENT FACTORS

Factor Achievement:

The nine-point Likert scale identifies anchor points and increases the sensitivity of the scale to help HPP, awardees, and HCCs better define their current status. The scale criteria are defined as follow:

- To rate this as a 9, evidence of consistent essential partner and subject matter expert participation for capability development exists, and an accountability process is in place (e.g., documentation of attendance or engagement)
- To rate this as an 8, evidence of essential partner membership and subject matter experts for capability development exist.
- To rate this as a 7, evidence of essential partner membership for capability development exists, but subject matter experts are still missing
- To rate this as a 6, evidence of consistent essential membership participation or engagement at meetings, as a minimum, exists; and the HCC has documented this evidence (through administrative plans and meeting documentation)
- To rate this as a 5, essential members inconsistently participate or engage, and the HCC has identified this as a gap and is addressing it
- To rate this as a 4, essential members participate or are engaged, but the HCC has no documentation of their participation
- To rate this as a 3, *most* essential members participate or are engaged, but the HCC lacks documentation of their participation
- To rate this as a 2, some of the essential members are represented at the HCC
- To rate this as a 1, little to no participation of essential members in the healthcare coalition exists

HEALTHCARE COALITION DEVELOPMENTAL ASSESSMENT FACTORS

Assessment Factor #3: The healthcare coalition (HCC) has established its geographical boundaries.

Description of factor: The development of a boundary is based on the unique needs of the region and jurisdiction. Many factors affect boundary development. In some cases, using the emergency management or ESF-8 planning region might be easier to support and fund than a healthcare region, as they provide easier access to available full-time employees (FTEs) to perform assigned duties. In other cases, using a model that leverages contract funding to provide services may be more beneficial. In either case, defining the regional resource situation is dependent on healthcare patterns, regulations, and operational planning. There are several types of development boundaries:

- Healthcare service catchment area
- Trauma region
- Emergency Medical Service (EMS) region
- Regional coordinating hospital region
- Public health region/district
- County jurisdiction
- Emergency Management Agency (EMA) region
- Other type of functional service region

The healthcare delivery system, percent population served, at-risk populations (including vulnerable populations), and the ability to execute or perform healthcare preparedness capabilities are critical considerations in the development of an HCC's geographic boundaries.

Expected Output (Resource): HCC administrative plan

Description of Output: The administrative plan outlines the organizational requirements including, participants, participation guidelines, funding, resource development processes, meetings, documentation of activity, and other administrative guidelines. This could resemble a charter, by-laws, or other documentation that contains the key concepts of HCC development. The guidelines should include a process for establishing and/or updating the HCC boundary based on changes in healthcare system resource patterns or jurisdictional response.

The administrative plan should address the following capability planning targets and critical tasks:

1. Establish a boundary that is based on an existing jurisdictional boundary, an emergency planning region, or a healthcare pattern/public health region.
2. Ensure the boundary does not limit resource planning for essential healthcare services (e.g., develop mutual aid agreements for the healthcare delivery system).

HCCDA Factor 3 is documented as part of the Strategic Plan as defined in Medical Surge Indicator #3.

Factor Achievement:

The nine-point Likert scale identifies anchor points and increases the sensitivity of the scale to help HPP, awardees, and HCCs better define their current status. The scale criteria are defined as follow:

- To rate this as a 9, the HCC has met the criteria for 6, 7, and 8, and evidence exists that the boundaries do not limit resource planning per HCCDA 5.

HEALTHCARE COALITION DEVELOPMENTAL ASSESSMENT FACTORS

- To rate this as an 8, the HCC has met the criteria for both 6 and 7, and the boundary cannot be changed without member input and approval.
- To rate this as a 7, the HCC has met criteria for 6, and a documented process to adjust the regional boundary based on the needs of the member organizations is in place.
- To rate this as a 6, the HCC has defined and documented a regional boundary based on the needs of the member organizations.
- To rate this as a 5, the regional boundary met criteria minimal requirements, but due to changing priorities, the HCC is revising it.
- To rate this as a 4, boundaries exist, but they do not represent or reflect a viable system that can meet the intentions of the HCC (based on ongoing analysis).
- To rate this as a 3, the HCC has defined but not documented a regional boundary.
- To rate this as a 2, boundaries exist, but were selected without representation of the members.
- To rate this as a 1, no defined boundaries exist.

HEALTHCARE COALITION DEVELOPMENTAL ASSESSMENT FACTORS

Assessment Factor #4: The healthcare coalition (HCC) has a formalized process for resource and information management with its membership.

Description of factor: The formalized process for resource and information management with its membership is documented in the preparedness strategy and operational plans. Resource development is also part of the preparedness strategy, and the process should be provided in this document (covered in the Continuity of Healthcare Operations Program Measure, indicator 2).

Resource management and information management are vital components of any operational plan and should be clearly defined.

Expected Output (Resource): HCC administrative plan or preparedness strategy

Description of Output:

Administrative plan: The administrative plan outlines organizational requirements including, participants, participation guidelines, funding, resource development processes, meetings, documentation of activity, and other administrative guidelines. This could resemble a charter, by-laws, or other documentation that contains the key concepts of HCC development.

Preparedness strategy: The preparedness strategy provides the strategy by which the HCC will identify roles and responsibilities, including resource and information management with its membership. The strategy also outlines the resource development process to address gaps and should describe the funding model to develop resources or identify gaps in resources.

The administrative plan/preparedness strategy should address the following capability planning targets and critical tasks:

1. Document the process the coalition uses to develop resources.
2. Document the resource and information management responsibilities and tasks for HCC members in operational plans.

HCCDA Factor 4 is documented as part of the Strategic Plan as defined in Medical Surge Indicator #3.

Factor Achievement:

The nine-point Likert scale identifies anchor points and increases the sensitivity of the scale to help HPP, awardees, and HCCs better define their current status. The scale criteria are defined as follow:

- To rate this as a 9, the HCC has documented resource and information management processes in operational plans and tested and revised the processes based on findings
- To rate this as an 8, the HCC has documented resource and information management processes in operational plans recognized by the jurisdiction
- To rate this as a 7, the HCC has documented resource and information management processes in operational plans which have been accepted and approved the processes
- To rate this as a 6, the HCC has documented resource and information management processes in operational plans, which include a complete resource assessment and gap analysis

HEALTHCARE COALITION DEVELOPMENTAL ASSESSMENT FACTORS

- To rate this as a 5, the HCC has completed a resource assessment, and resource and information management processes exist, but HCC members have not documented them in operational plans
- To rate this as a 4, the HCC has completed a resource assessment, and resource and information management processes are nearly complete
- To rate this as a 3, the HCC has started a complete assessment of resource and information management processes
- To rate this as a 2, the HCC has planned but not started an assessment of resources and resource/information processes
- To rate this as a 1, the resource assessment does not exist nor do resource/information processes or any activity toward achieving the resource assessment

HEALTHCARE COALITION DEVELOPMENTAL ASSESSMENT FACTORS

Assessment Factor #5: The healthcare coalition (HCC) is integrated into the healthcare delivery system processes for their jurisdiction (e.g., EMS, referral patterns).

Description of factor: The HCC should fully understand and embrace the normal operational pattern of the region as related to healthcare delivery. This includes referral patterns, regulations guiding transport and clinical treatment, normal relationships between member organizations, relationships through resource agreements, and other considerations that affect resource management. This is done during resource planning when the HCC defines its regional system.

Expected Output (Resource): HCC administrative plan and capability assessment

Description of Output: The administrative plan outlines the organizational requirements including, participants, participation guidelines, funding, resource development processes, meetings, documentation of activity, and other administrative guidelines. This could resemble a charter, by-laws, or other documentation that contain the key concepts of HCC development.

The administrative plan and capability assessment should address the following capability planning targets and critical tasks:

- A strategy or process for including diverse healthcare organization (HCO) membership participation
- An assessment to fully understand the capacities and capabilities of each of its members, including referral patterns, EMS coverage areas, etc.

HCCDA Factor 5 is documented as part of the Strategic Plan as defined in Medical Surge Indicator #3

Factor Achievement:

The nine-point Likert scale identifies anchor points and increases the sensitivity of the scale to help HPP, awardees, and HCCs better define their current status. The scale criteria are defined as follows:

- To rate this as a 9, the HCC has met the criteria for 6, 7, and 8 and has tested/revised the plan based on findings.
- To rate this as an 8, the HCC has met the criteria for 6 and 7, and jurisdictional emergency management is aware of the healthcare roles and responsibilities in the plan.
- To rate this as a 7, the HCC has met the criteria for 6, and healthcare executives and healthcare leaders have accepted the plan.
- To rate this as a 6, the HCC has conducted a full assessment of normal operating and disaster operating patterns, including resources and essential services, and the HCC has a plan reflecting resource request processes.
- To rate this as a 5, resource request processes reflect normal operating patterns and disaster patterns, but the HCC has no documentation.
- To rate this as a 4, resource request processes reflect normal operating patterns, but the HCC has no documentation.
- To rate this as a 3, resource request processes reflect most resource patterns of applicable essential healthcare services.

HEALTHCARE COALITION DEVELOPMENTAL ASSESSMENT FACTORS

- To rate this as a 2, an assessment of healthcare delivery patterns is ongoing or planned.
- To rate this as a 1, no assessment of healthcare delivery patterns exists, and the HCC has no plans to assess these patterns.

HEALTHCARE COALITION DEVELOPMENTAL ASSESSMENT FACTORS

Assessment Factor #6: The healthcare coalition (HCC) has established roles and responsibilities.

Description of factor: Both strategic plans (administrative plan and preparedness strategy) and operational plans (medical surge, recovery, EOP, continuity of operations (COOP)) delineate members' roles and responsibilities.

Expected Output (Resource): HCC administrative plan, preparedness strategy, or other operational plans that outline members' roles and responsibilities

Description of Output:

Administrative plan: The administrative plan outlines the organizational requirements including, participants, participation guidelines, funding, resource development processes, meetings, documentation of activity, and other administrative guidelines. This could resemble a charter, by-laws, or other documentation that contain the key concepts of HCC development. The administrative plan should address the following capability planning targets and critical tasks:

- **Role and responsibilities:** Roles and responsibilities in the administrative plan outline how each member supports the administrative functions of the HCC. This includes assignments and deliverables that have been agreed upon, contracted, or assigned. As fiduciary support is a primary concern in any endeavor, the administrative plan should capture how this support is provided and expended. Being forthright about funding sources or job duties helps prevent confusion and distrust.
- **Awardee role:** The awardee's role in HCCs is to form a partnership with and/or to provide support to HCC members to provide multi-agency coordination for preparedness and response. This role should be outlined in the HCC administrative plan. It is important for HCC members to understand how they are being supported. For example, if the awardee role is to provide an FTE, the FTE's role should be detailed by listing the assigned duties in the HCC. If the awardee supports its HCCs by providing direct funding via a contract, it is important to list deliverables in the roles and responsibilities.
- **Role of a fiduciary agent:** If the awardee uses a fiduciary agent to provide funding either directly or by reimbursement, this process should be captured in the administrative plan. Examples of this are hospital associations under contract to assist with HCC and capability development. Members of the HCC should fully understand the hospital association's role. If contracts are developed with single members to facilitate HCC and capability development, these roles and responsibilities should be communicated (as allowable through jurisdictional contract law).

Preparedness strategy:

- The preparedness strategy should outline who is responsible and how planning, training, and exercises are achieved. This section of the strategic plan provides the basis for establishing the HCC.
- Another highly important role and responsibility is outlining the method for completing resource development and which members must participate in the process (covered in the Continuity of Healthcare Operations Program Measure, indicator 2). This is not an arbitrary task and should be worked out by HCC members.

HEALTHCARE COALITION DEVELOPMENTAL ASSESSMENT FACTORS

Operational plans:

- Outlining roles and responsibilities in operational plans is part of the planning process and is based on the guiding operational priorities, goals, and objectives during the development of the course of action. For example, dialysis may have a limited role in fatality management planning but could have a very large role in medical surge planning.
- HCC roles and responsibilities should also be evident in operational plans.

HCCDA Factor 6 is documented as part of the Strategic Plan as defined in Medical Surge Indicator #3.

Factor Achievement:

The nine-point Likert scale identifies anchor points and increases the sensitivity of the scale to help HPP, awardees, and HCCs better define their current status. The scale criteria are defined as follows:

- To rate this as a 9, the HCC has met the criteria for 6, 7, and 8 and have been tested/revised the plan based on findings
- To rate this as an 8, the HCC has met the criteria for 6 and 7, and the jurisdictional emergency management is aware of healthcare roles and responsibilities in the plan
- To rate this as a 7, the HCC has met the criteria for 6, and the HCC has approved the plan
- To rate this as a 6, roles and responsibilities for HCC members exist for administrative/preparedness strategies, and the HCC has documented roles and responsibilities for essential members in operational plans
- To rate this as a 5, roles and responsibilities for HCC members exist for administrative/preparedness strategies, and the HCC has documented roles and responsibilities for essential members in operational plans, but essential member roles and responsibilities are missing
- To rate this as a 4, roles and responsibilities for HCC members exist for administrative/preparedness strategies and operational plans, but the HCC has not documented them
- To rate this as a 3, there is a plan to develop roles and responsibilities for HCC members for administrative/preparedness strategies and operational plans
- To rate this as a 2, there is a plan to develop roles and responsibilities for HCC members for administrative/preparedness strategies or operational plans.
- To rate this as a 1, no roles and responsibilities have been developed for any member of the HCC for either administrative/preparedness strategies or operational plans

HEALTHCARE COALITION DEVELOPMENTAL ASSESSMENT FACTORS

Assessment Factor #7: The healthcare coalition (HCC) has conducted an assessment of each of its member's healthcare delivery capacities and capabilities.

Description of factor: Capability assessments are completed to assist with gap analysis and operational planning. Understanding the capacities and capabilities of each member helps to resolve gaps and to plan toward achieving operational objectives. Therefore, how the coalition assesses members' capabilities should be well documented in the preparedness strategy under roles and responsibilities, while the assessed resources and resource processes should be documented for use with operational plans.

Expected Output (Resource): HCC administrative plan with member capability assessment

Description of Output: The administrative plan should include a capability assessment to fully understand members' existing resources and resource processes as part of the overarching resource assessment. The capability assessment helps to identify and resolve gaps for the continued delivery of essential healthcare services.

HCCDA Factor 7 is documented as part of the Strategic Plan as defined in Medical Surge Indicator #3.

Factor Achievement:

The nine-point Likert scale identifies anchor points and increases the sensitivity of the scale to help HPP, awardees, and HCCs better define their current status. The scale criteria are defined as follows:

- To rate this as a 9, the HCC has met the criteria for 6, 7, and 8, and a process for ongoing updates/revisions is in place
- To rate this as an 8, the HCC has met the criteria for 6 and 7, and all relevant stakeholders have access to the assessment
- To rate this as a 7, the HCC has met the criteria for 6, and the HCC accepts the assessment
- To rate this as a 6, the HCC has completed a full capability assessment of members, and the HCC has met have conducted and documented a gap analysis
- To rate this as a 5, a capability assessment is complete, and the HCC has analyzed it for gaps.
- To rate this as a 4, a capability assessment is complete, but the HCC has not analyzed it for gaps
- To rate this as a 3, a capability assessment is complete for most HCC members
- To rate this as a 2, a capability assessment is in progress or is planned
- To rate this as a 1, the HCC has neither conducted nor are planning a capability assessment

HEALTHCARE COALITION DEVELOPMENTAL ASSESSMENT FACTORS

Assessment Factor #8: The healthcare coalition (HCC) has engaged its members' healthcare delivery system executives.

Description of factor: Every effort should be made to engage local healthcare executives to explain the purpose and benefits of the HCC. Healthcare executives (e.g., chief executive, operating, medical, or financial officers) establish the priorities and decide how their HCO resources will be deployed during an actual incident and during conventional daily care. HCCs must work to actively engage and gain the support of its members' executives and explain the purpose and benefits of HCC participation. This factor measures the HCC's documented outreach efforts to engage healthcare executives in its geographical vicinity to help them understand the goals and benefits of HCC participation. Examples include informational briefings and meetings, targeting recruiting efforts, and HCC members participating in local professional chapter meetings primarily attended by healthcare executives. In an effort to increase collaboration between public health departments and healthcare providers, the American College of Healthcare Executives published a playbook that outlines a strategy to bring these groups together.²⁸

Expected Output (Resource): HCC administrative plan including evidence of stakeholder engagement.

Description of Output: The HCC administrative plan outlines the organizational requirements including, participants, participation guidelines, funding, resource development processes, meetings, documentation of activity, and other administrative guidelines. This could resemble a charter, by-laws, or other documentation that contain the key concepts of HCC development. To achieve this factor, there must be a documented process for stakeholder outreach, specifically healthcare executives, and engagement/participation in HCC functions and decision making. The administrative plan should address the following critical tasks:

1. Ensure there is input from the healthcare system authorities regarding operational planning.
2. Ensure that policy and protocols from healthcare executives of the HCC are integrated into overall functioning and resource planning.
3. Document healthcare executive engagement (e.g., MOU, planning input, meeting attendance).

HCCDA Factor 8 is documented as part of the Strategic Plan as defined in Medical Surge Indicator #3.

Factor Achievement:

The nine-point Likert scale identifies anchor points and increases the sensitivity of the scale to help HPP, awardees, and HCCs better define their current status. The scale criteria are defined as follows:

- To rate this as a 9, the HCC has met the criteria for 6, 7, and 8, and evidence exists of guidance and direction from healthcare delivery executives in the functioning of HCCs.
- To rate this as an 8, the HCC has met the criteria for 6 and 7, and a process is in place to ensure healthcare executives see and accept decisions regarding healthcare system delivery.
- To rate this as a 7, the HCC has met the criteria for 6, and evidence exists of regular participation of the HCC.

²⁸ "A Practical Playbook: Public Health. Primary Care. Together," .American College of Healthcare Executives, 2014, <https://practicalplaybook.org/>

HEALTHCARE COALITION DEVELOPMENTAL ASSESSMENT FACTORS

- To rate this as a 6, the HCC has engaged all relevant healthcare delivery executives, and the HCC has developed and documented the process for ongoing engagement
- To rate this as a 5, the HCC has engaged all relevant healthcare delivery executives, and the HCC has developed, but not documented, the process for ongoing engagement
- To rate this as a 4, the HCC has engaged all relevant healthcare delivery executives, but the HCC has not developed a process for ongoing engagement
- To rate this as a 3, the HCC has engaged healthcare delivery executives, or the process for engagement is ongoing.
- To rate this as a 2, the HCC is planning the process for the engagement of healthcare-delivery executives
- To rate this as a 1, the HCC has not engaged healthcare delivery system executives

HEALTHCARE COALITION DEVELOPMENTAL ASSESSMENT FACTORS

Assessment Factor #9: The healthcare coalition (HCC) has engaged its members' healthcare delivery system clinical leaders.

Description of factor: The HCC should make every effort to engage local clinical healthcare leaders, include them as a member of the HCC, and outline their roles. Clinical engagement is the active and positive contribution of clinicians within their normal working roles to maintain and enhance the performance of the HCC, which itself recognizes this commitment in supporting and encouraging high quality care. Examples of clinicians include physicians, nursing staff, therapists, and ancillary professionals to name a few. Achievement of the clinical engagement factor is measured through different vehicles including sharing promising practices with medical and nursing staffs, attending local professional organization meetings, recruiting a variety of healthcare professionals for roles within the HCC, and writing articles for local newspaper or healthcare institution magazines.

Expected Output (Resource): HCC administrative plan, including a stakeholder engagement annex/process

Description of Output: The administrative plan outlines the organizational requirements including, participants, participation guidelines, funding, resource development processes, meetings, documentation of activity, and other administrative guidelines. This could resemble a charter, by-laws, or other documentation that contains the key concepts of HCC development. To achieve this factor, there must be a documented process for stakeholder outreach, specifically healthcare delivery system clinical leaders, and engagement/participation in HCC functions and decision making.

The administrative plan should address the following critical tasks:

1. Ensure healthcare system clinical leaders have input regarding operational planning.
2. Integrate medical protocols and regulations for the healthcare clinicians of the HCC into overall functioning and resource planning.
3. Document healthcare clinical leader engagement (e.g., planning input, meeting attendance).

HCCDA Factor 9 is documented as part of the Strategic Plan as defined in Medical Surge Indicator #3.

Factor Achievement:

The nine-point Likert scale identifies anchor points and increases the sensitivity of the scale to help HPP, awardees, and HCCs better define their current status. The scale criteria are defined as follows:

- To rate this as a 9, the HCC has met the criteria for 6, 7, and 8, and evidence exists of guidance and direction from clinical leaders in the functioning of HCCs
- To rate this as an 8, the HCC has met the criteria for 6 and 7, and a process is in place to ensure healthcare clinical leaders see and accept decisions regarding clinical care
- To rate this as a 7, the HCC has met the criteria for 6, and evidence exists of regular participation of the HCC
- To rate this as a 6, the HCC has engaged all relevant healthcare delivery clinical leaders, and the process for ongoing engagement has been developed and documented
- To rate this as a 5, the HCC has engaged all relevant healthcare delivery clinical leaders, and the HCC has developed, but not documented, the process for ongoing engagement

HEALTHCARE COALITION DEVELOPMENTAL ASSESSMENT FACTORS

- To rate this as a 4, the HCC has engaged all relevant healthcare delivery clinical leaders, but the HCC has not developed a process for ongoing engagement
- To rate this as a 3, the HCC has engaged healthcare delivery system clinical leaders, or the process for engagement is ongoing.
- To rate this as a 2, the HCC has planned the process for healthcare delivery system clinical leaders engagement
- To rate this as a 1, the HCC has not engaged clinical leaders

HEALTHCARE COALITION DEVELOPMENTAL ASSESSMENT FACTORS

Assessment Factor #10: The healthcare coalition (HCC) has an organizational structure to develop operational plans.

Description of factor: Highly functional HCCs develop a process to link their strategic goals and objectives to their operational (member) goals and objectives. To achieve this factor, HCCs must demonstrate an ability to develop operational plans using an organized, structured process that can be verified by the HPP Field Project Officer (FPO).

Expected Output (Resource): HCC strategic plan with preparedness strategy

Description of Output: The preparedness strategy provides guidance to HCCs on how to engage in preparations. This includes how, who, and when the HCC will engage in planning, organizing, equipping, training, exercising, and evaluating. This CONOPS should outline the operational planning process, address implementation, and include a process for revising/updating the plans.

The strategic plan should address the following critical tasks:

1. Ensure the appropriate members and subject matter experts are part of planning.
2. Develop risk-based operational plans.
3. Develop resources and resource processes.
4. Develop the appropriate training to address gaps in capability targets.
5. Establish a mechanism to exercise plans

HCCDA Factor 10 is documented as part of the Strategic Plan as defined in Medical Surge Indicator #3.

Factor Achievement:

The nine-point Likert scale identifies anchor points and increases the sensitivity of the scale to help HPP, awardees, and HCCs better define their current status. The scale criteria are defined as follows:

- To rate this as a 9, the HCC has met the criteria for 6, 7, and 8, and the HCC has regularly reviewed the strategy (according to HCC policies) and revised it based on findings/input from members
- To rate this as an 8, the HCC has met the criteria for 6 and 7, and the strategy has produced functional operational plans
- To rate this as a 7, the HCC has met the criteria for 6, and documented evidence exists of implementation of the strategy
- To rate this as a 6, the HCC has developed and documented the complete strategy for planning, organizing, equipping, training, and exercises
- To rate this as a 5, the HCC has developed, but not documented, a complete strategy for planning, organizing, equipping, training and exercises
- To rate this as a 4, the HCC has developed most of the strategy for planning, organizing, equipping, training, and exercises
- To rate this as a 3, the HCC has developed some of the strategy for planning, organizing, equipping, training, and exercises

HEALTHCARE COALITION DEVELOPMENTAL ASSESSMENT FACTORS

- To rate this as a 2, the HCC has undertaken activity or has planned to develop a preparedness strategy or structure to address operational planning
- To rate this as a 1, the HCC has not developed a preparedness strategy nor structure to address operational planning

HEALTHCARE COALITION DEVELOPMENTAL ASSESSMENT FACTORS

Assessment Factor #11: The healthcare coalition (HCC) has an incident management structure (e.g., MACC, ICS) to coordinate actions to achieve incident objectives during response.

Description of factor: HCCs are not meant to supersede the authority provided to local and state emergency management and public health representatives (e.g., incident command (IC), incident management team (IMT), and ESF-8) during response.

Healthcare response coordination and the subsequent allocation of resources is initiated by either multi-agency representation of the HCC to assist incident management with decisions regarding resource allocation or by prioritized plans and protocols that assist incident management with resource allocation. This mainly applies to instances in which resources are needed by healthcare organizations that must be requested through the jurisdiction.

Some HCCs may have a more direct role in response and function as an operational unit. In practice, each organization that has a role in patient care or patient support has an operational role. When a healthcare organization or HCC has an operational role, this should be clearly defined in operational planning and tested in accordance with the plan.

When implementing resource agreements or allocating resources in which HCOs and HCCs have resource options outside of the normal request process of the jurisdiction (e.g., regional HCC caches), the roles and responsibilities should also be clearly defined.

Including jurisdictional emergency management during planning will assist the response process. ESF-8 has the responsibility as the lead agency in many plans, but planning is a jurisdictional responsibility. HCCs should integrate into this process when indicated. This is why it is important for emergency management, ESF-8, and other important decision makers to become part of the HCC.

Expected Output (Resource): Emergency operations plan or coordinating plan documenting the incident management strategy

Description of Output: The incident management strategy includes the protocols for operational roles and responsibilities, information and communication management, and requesting and allocating resources. HCC EOPs should be supportive of jurisdictional EOPs or other operational plans, and should serve as an HCC coordinating plan. These plans should be adopted, updated, and exercised by HCC members.

Factor Achievement:

The nine-point Likert scale identifies anchor points and increases the sensitivity of the scale to help HPP, awardees, and HCCs better define their current status. The scale criteria are defined as follows:

- To rate this as a 9, HCC members routinely update the emergency operation plan (EOP) and have tested it based on exercise findings from a demonstration of the required capability targets
- To rate this as an 8, HCC members and response partners have approved, signed, and adopted the plan
- To rate this as a 7, HCC members and sectors of the response community have reviewed the plan within the last five years

HEALTHCARE COALITION DEVELOPMENTAL ASSESSMENT FACTORS

- To rate this as a 6, the HCC members have an EOP drafted that identifies HCC integration with the incident management structure and addresses the capability planning targets and critical tasks
- To rate this as a 5, evidence exists that HCCs are part of the planning process during revision of planning
- To rate this as a 4, plans exist but are missing planning components, and HCC members are undertaking activity toward revising the plan
- To rate this as a 3, plans exist but are missing planning components, but HCC members are not undertaking activities to revise the plans
- To rate this as a 2, no plans exist, but HCC members are undertaking activity toward developing the plan
- To rate this as a 1, HCC members have no activities toward developing the plan

HEALTHCARE COALITION DEVELOPMENTAL ASSESSMENT FACTORS

Assessment Factor #12: The healthcare coalition (HCC) demonstrates an ability to enhance situational awareness for its members during an event.

Description of factor: HCCs must develop an information/communication plan and demonstrate a successful implementation (exercise or real event) of the information/communication protocols in the plan. Planning for this response objective is further defined in the Continuity of Healthcare Operations Program Measure, indicators 3 and 4; implementation is outlined in the Continuity of Healthcare Operations Program Measure, indicator 4. Situational awareness can be achieved by identifying a potential set of indicators to help the community and HCC anticipate transitions and the types of decision making that must occur.

Expected Output (Resource): Information/communication protocols that include activation protocols

Description of Output: Emergency Operation Plan (HCC coordinating plan) includes

Information/Communication Protocols: There should be protocols that outline the process to provide the status of resources (situational awareness provided to HCOs) as well as the status of need (situational awareness received from HCOs). This should include the method (e.g., information management system, interoperable communications) by which this would occur. HCCs and their members must be able to

1. Report the status of the incident
2. Report essential elements of information
3. Validate reported information

Activation Protocols: The activation should begin resource mobilization of tactical strategies to address medical surge or continuity of healthcare operations (e.g., pre-hospital staging of triage sites, collection points, mobile assets, and response teams; rapid decompression strategies; expansion of in-hospital surge capacity).

Factor Achievement:

The nine-point Likert scale identifies anchor points and increases the sensitivity of the scale to help HPP, awardees, and HCCs better define their current status. The scale criteria are defined as follows:

- To rate this as a 9, the HCC routinely updates the plan and tests it based on exercise findings from a demonstration of the required capability targets
- To rate this as an 8, HCC members and response partners have approved, signed, and adopted the plan.
- To rate this as a 7, HCC members and sectors of the response community have reviewed the plan within the last five years
- To rate this as a 6, the HCC has an emergency operations plan drafted that includes activation and communications protocols that address the capability planning targets and critical tasks
- To rate this as a 5, evidence exists that HCCs are part of the planning process during revision of planning

HEALTHCARE COALITION DEVELOPMENTAL ASSESSMENT FACTORS

- To rate this as a 4, plans exist but are missing planning components, and the HCC has undertaken activity toward revising the plan.
- To rate this as a 3, plans exist but are missing planning components, and the HCC has undertaken no activity to revise the plans
- To rate this as a 2, no plans exist, but the HCC has undertaken activity toward the development of the plan
- To rate this as a 1, the HCC does not have either plans nor activity toward planning

HEALTHCARE COALITION DEVELOPMENTAL ASSESSMENT FACTORS

Assessment Factor #13: The healthcare coalition (HCC) demonstrates an ability to identify the needs of at-risk individuals (e.g., electrically dependent home-bound patients, chronically ill) during response.

Description of factor: The assessment of this objective is completed during the risk assessment as outlined in the Continuity of Healthcare Operations Program Measure, indicator 1. HCCs develop operational plans, and all plans should address the needs of at-risk individuals. Therefore, plan implementation that adequately addresses at-risk needs should be demonstrated during information and resource management processes in operations. Best practices from some awardees include digital at-risk registries associated with geographic information system (GIS) mapping. It may not be the HCC responsibility to develop this resource, but planning and implementation should include this component. This factor links strongly to the Affordable Care Act and the development of health needs assessments for respective communities.

Expected Output (Resource): At-risk population planning documentation

Description of Output: An at-risk population planning document should be developed based on the regional risk assessment. Planning should adequately address at-risk population needs, be adopted by the HCC members, and be routinely tested, exercised, and revised.

Factor Achievement:

The nine-point Likert scale identifies anchor points and increases the sensitivity of the scale to help HPP, awardees, and HCCs better define their current status. The scale criteria are defined as follows:

- To rate this as a 9, the HCC has met the criteria for 6, 7, and 8, and routinely reviews the plan for gaps based on findings during exercise or other activities
- To rate this as an 8, the HCC has met the criteria for 6 and 7; the HCC has adopted the plans, and relevant stakeholders recognize the plan
- To rate this as a 7, the HCC has met the criteria for 6, and subject matter experts on at-risk populations have participated, reviewed, and accepted the plans
- To rate this as a 6, the HCC has completed and documented at-risk planning in operational plans
- To rate this as a 5, the HCC has drafted at-risk planning documents
- To rate this as a 4, the HCC is developing at-risk planning as an overarching plan or during operational planning but has not documented these efforts
- To rate this as a 3, the HCC is developing at-risk planning in most operational plans
- To rate this as a 2, the HCC has planned or is undertaking at-risk planning activities
- To rate this as a 1, the HCC has no activity or planning for at-risk populations

HEALTHCARE COALITION DEVELOPMENTAL ASSESSMENT FACTORS

Assessment Factor #14: The healthcare coalition (HCC) has demonstrated resource support and coordination among its member organizations under the time urgency, uncertainty, and logistical constraints of emergency response.

Description of factor: HCC members must understand the resource management process. When implementing operational plans, roles and responsibilities regarding information and resource management protocols should be clearly defined. This is an operational planning component.

Expected Output (Resource): Emergency Operations Plan with resources matrix/coordination

Description of Output: HCC coordinating plans should include how resources are shared. There should also be documents that outline available resources and associated request processes.

Critical tasks associated with this factor include:

1. HCC members must be able to coordinate requests for resources from local, state, and federal incident management through the ESF-8 Liaison.
2. HCC members must be able implement resource allocation and mutual aid processes established between HCC members and stakeholders.
3. Inventory and tracking of resources must occur to provide situational awareness of the ongoing status of resources.

Factor Achievement:

The nine-point Likert scale identifies anchor points and increases the sensitivity of the scale to help HPP, awardees, and HCCs better define their current status. The scale criteria are defined as follows:

- To rate this as a 9, the HCC has routinely updates the plan and tests it based on exercise findings from a demonstration of the required capability targets
- To rate this as an 8, HCC members and relevant response partners have approved, signed, and adopted the plan
- To rate this as a 7, HCC members and all relevant sectors of the response community have reviewed the plan within the last five years.
- To rate this as a 6, the HCC has an EOP drafted that addresses the capability planning targets and critical tasks.
- To rate this as a 5, evidence exists that HCCs participate in the planning process during revision of planning
- To rate this as a 4, plans exist but are missing planning components, and the HCC has undertaken activities toward revising the plan
- To rate this as a 3, plans exist but are missing planning components, and the HCC has not undertaken activities to revise the plans
- To rate this as a 2, no plans exist, but the HCC has undertaken activities toward the development of the plan
- To rate this as a 1, the HCC has neither plans nor activity toward planning

HEALTHCARE COALITION DEVELOPMENTAL ASSESSMENT FACTORS

Assessment Factor #15: The healthcare coalition (HCC) members have demonstrated evacuation capability with functional patient tracking mechanisms.

Description of factor: Patient transportation and evacuation entails many elements including medical records and medications going with patients, patient supplies and durable medical equipment, identification tags, and development of a functional patient evacuation tracking system.

Expected Output (Resource): Healthcare evacuation plan for its healthcare organizations

Description of Output: The healthcare evacuation plan should be developed based on the regional risk assessment. The plan should adequately address available and needed resources for healthcare evacuation within the jurisdiction. HCC members should adopt the plan and routinely test, exercise, and revise it.

Factor Achievement:

The nine-point Likert scale identifies anchor points and increases the sensitivity of the scale to help HPP, awardees, and HCCs better define their current status. The scale criteria are defined as follows:

- To rate this as a 9, the HCC routinely updates the healthcare evacuation plan and tests it based on exercise findings from a demonstration of the required capability targets
- To rate this as an 8, HCC members and relevant response partners have approved, signed, and adopted the healthcare evacuation plan
- To rate this as a 7, HCC members and all relevant sectors of the response community have reviewed the healthcare evacuation plan within the last five years
- To rate this as a 6, the HCC has a healthcare evacuation plan for the region. The plan is drafted and includes the essential planning targets and critical tasks
- To rate this as a 5, evidence exists that HCCs are part of the healthcare evacuation planning process during revision of planning
- To rate this as a 4, healthcare evacuation plans exist but are missing planning components, and the HCC has undertaken activities toward revising the plan
- To rate this as a 3, healthcare evacuation plans exist but are missing planning components, and the HCC has not undertaken activity to revise the plans.
- To rate this as a 2, there are no healthcare evacuation plans, but the HCC has undertaken activities toward the development of the plan
- To rate this as a 1, there are no healthcare evacuation plans, and the HCC has not undertaken activities toward planning

HEALTHCARE COALITION DEVELOPMENTAL ASSESSMENT FACTORS

Assessment Factor #16: The healthcare coalition (HCC) utilizes an operational framework and set of indicators to transition from crisis standards of care, to contingency, and ultimately back to conventional standards of care.

Description of factor: The Crisis Standards of Care (CSC) plan requires a multifaceted approach. CSC may occur with or without a plan to address the resource needs. Early engagement in the planning process and then distribution of the plan and provision of support, training, and education to HCC members are essential.

Expected Output (Resource): Crisis Standards of Care (CSC) Plan

Description of Output:

CSC plan: The need for crisis standards of care is justified by specific circumstances and may or may not be triggered by the formal declaration of emergency, disaster, or public health emergency (with input from local HCCs and regional authorities), in recognition that crisis operations will be in effect for a sustained period.

By developing an operational CSC plan, HCCs can help guide community decisions about actions that may warrant transitions across the continuum of care, from conventional standards of care to contingency and crisis standards, and back again. The plan should include a set of potential indicators to help a community anticipate when it may need to make such transitions and a set of triggers that identify points at which a decision to transition should be considered.²⁹ The indicators should be based on information that is likely to be readily available during an incident, as in most cases in-depth data collection and analysis and the development of new systems will not be feasible. Triggers are likely to be context-specific, but HCCs can contribute to decision-making processes by identifying triggers for when decisions about these transitions should be explicitly considered by its HCC members and communities. HCC members should adopt the plan and routinely test, exercise, and revise it.

Factor Achievement:

The nine-point Likert scale identifies anchor points and increases the sensitivity of the scale to help HPP, awardees, and HCCs better define their current status. The scale criteria are defined as follows:

- To rate this as a 9, HCC members routinely update the crisis standards of care (CSC) guidance and test it based on a catastrophic exercise scenario
- To rate this as an 8, HCC members and relevant response partners have signed and adopted the CSC guidance
- To rate this as a 7, HCC members and all relevant sectors of the response community have reviewed the CSC guidance within the last three years
- To rate this as a 6, HCC members have drafted CSC guidance drafted (awardee - state level) that addresses the capability planning targets and critical tasks

²⁹ Crisis Standards of Care: A Toolkit for Indicators and Triggers, IOM, July 31, 2013, <http://www.iom.edu/Reports/2013/Crisis-Standards-of-Care-A-Toolkit-for-Indicators-and-Triggers.aspx>

HEALTHCARE COALITION DEVELOPMENTAL ASSESSMENT FACTORS

- To rate this as a 5, evidence exists that HCCs are part of the CSC guidance planning process and revision of planning
- To rate this as a 4, CSC guidance exists but is missing planning components, and the HCC is undertaking activities toward revising the plan
- To rate this as a 3, CSC guidance exist but is missing planning components, and the HCC is not undertaking activities to revise the plans
- To rate this as a 2, there are no CSC guidance plans, but the HCC is undertaking activities toward developing the plan.
- To rate this as a 1, there are no CSC guidance plans nor any activity or evidence toward planning

HEALTHCARE COALITION DEVELOPMENTAL ASSESSMENT FACTORS

Assessment Factor #17: The healthcare coalition (HCC) incorporates post-incident health services recovery into planning and response.

Description of factor: The HCC should outline post-incident health services plan in the recovery plan. The HCC should also determine how it will operate during response and recovery phases, which it should outline in the roles and responsibilities of the plan and address during resource and information management. The resource management process would revolve around restoration of operations and normalization of the healthcare system or transition to a new norm.

Expected Output (Resource): Recovery plan with post-incident health services annex/plan

Description of Output: The HCC should outline its post-incident health services plan should be outlined in the recovery plan. The HCC should also determine how they will operate during response and recovery phases, which it should outline in the roles and responsibilities of the plan and address during resource and information management. This resource management process would revolve around restoration of operations and normalization of the healthcare system or transition to a new norm. HCC members should adopt the plan and routinely test, exercise, and revise it.

Factor Achievement:

The nine-point Likert scale identifies anchor points and increases the sensitivity of the scale to help HPP, awardees, and HCCs better define their current status. The scale criteria are defined as follows:

- To rate this as a 9, the HCC routinely updates the recovery plan routinely and tests it based on exercise findings from a demonstration of the required capability targets
- To rate this as an 8, HCC members and relevant response partners have approved, signed, and adopted the recovery plan
- To rate this as a 7, HCC members and all relevant sectors of the response community have reviewed the recovery plan within the last five years
- To rate this as a 6, the HCC has a recovery plan drafted (awardee - state level) that addresses the capability planning targets and critical tasks for post-incident health services recovery
- To rate this as a 5, evidence exists that HCCs are part of the post-incident health services planning process during revision of planning
- To rate this as a 4, recovery plans exist but are missing planning components for post-incident health services, and the HCC is undertaking activities toward revising the plan
- To rate this as a 3, recovery plans exist but are missing planning components for post-incident health services, and the HCC is not undertaking activities to revise the plans.
- To rate this as a 2, no recovery plans exist, but the HCC is undertaking activities toward the development of the plan.
- To rate this as a 1, there are no recovery plans nor any activity or evidence toward planning

HEALTHCARE COALITION DEVELOPMENTAL ASSESSMENT FACTORS

Assessment Factor #18: The healthcare coalition (HCC) ensures quality improvement through exercises/events and corrective action plans.

Description of factor: As part of strategic planning, the preparedness strategy should outline the exercise and evaluation process and the role the HCC members will take. This is associated with the continuity of healthcare operations program measure, indicator 7.

Expected Output (Resource): Training and exercise Plans and corresponding AAR/IP

Description of Output: Training and exercise strategies should be outlined in the preparedness strategy documented in the Strategic Plan, as defined in Medical Surge Indicator # 3.

The preparedness strategy should address the capability planning targets and critical tasks:

1. Include Homeland Security Exercise and Evaluation Program (HSEEP) fundamentals in the exercise and training program.
2. Develop a process to assess gaps in response and provide funds toward training to address the identified gaps.
3. Develop a process to assess gaps in response and provide funds toward exercises to address the identified gaps.
4. Develop an acceptable process to evaluate, document, and improve upon gaps in response post exercise and real-life event.
(Note: Acceptable processes are in accordance with the HSEEP evaluation method so that they produce an actionable improvement plan.)

Factor Achievement:

The nine-point Likert scale identifies anchor points and increases the sensitivity of the scale to help HPP, awardees, and HCCs better define their current status. The scale criteria are defined as follows:

- To rate this as a 9, exercises/real-world demonstrations have occurred; areas for improvement have been addressed, and the preparedness strategy has been revised to reflect improvements
- To rate this as an 8, exercises/real-world demonstrations have occurred; areas for improvement have been addressed
- To rate this as a 7, exercises/real-world demonstrations have occurred; there is a documented and accepted process for implementing corrective actions, and few mission-critical findings remain unresolved
- To rate this as a 6, exercises/real-world demonstrations have occurred; there is a process for implementing corrective actions, but many mission-critical findings remain unresolved
- To rate this as a 5, exercises/real-world demonstrations have occurred, but mission-critical findings have not been resolved
- To rate this as a 4, exercises/real-world demonstrations have occurred based on HSEEP and HPP requirements, and the AAR/IP has been submitted
- To rate this as a 3, exercises/real-world demonstrations have occurred based on HSEEP and HPP requirements, but AAR/IP has been submitted
- To rate this as a 2, there is progress or planning to exercise in a qualifying exercise per HPP requirements

HEALTHCARE COALITION DEVELOPMENTAL ASSESSMENT FACTORS

- To rate this as a 1, no exercises/real-world demonstration have occurred in the last five years

HEALTHCARE COALITION DEVELOPMENTAL ASSESSMENT FACTORS

Assessment Factor #19: The HCC has an established method (e.g., social network analysis) for incorporating feedback from its members to support group cohesion and improve processes.

Description of factor: The mitigation of gaps and incorporation of feedback completes the loop from response to preparedness and assists HCCs with revising and maturing developmental processes. This is an important concept for HCCs to incorporate into their overall administrative and operational strategies. Members must be able to provide feedback, and entire HCC structures should be flexible enough to incorporate and improve based on feedback or restructure altogether.

Expected Output (Resource): Healthcare coalition administrative plan

Description of Output: The administrative plan outlines the organizational requirements including, participants, participation guidelines, funding, resource development processes, meetings, documentation of activity, and other administrative guidelines. This could resemble a charter, by-laws, or other documentation that contains the key concepts of HCC development. The administrative plan should include a section or annex that outlines the process for incorporating feedback into policies, plans, and procedures.

Factor Achievement:

The nine-point Likert scale identifies anchor points and increases the sensitivity of the scale to help HPP, awardees, and HCCs better define their current status. The scale criteria are defined as follows:

- To rate this as a 9, the HCC has met the criteria for 6, 7, and 8, and evidence exists that the process for incorporating feedback is effective (based on the revision of strategies in the administrative plan)
- To rate this as an 8, the HCC has met the criteria for 6 and 7, and a formal procedure to act on decisions to change processes exists
- To rate this as a 7, the HCC has met the criteria for 6, and a formal process exists to assess the feedback and form a decision approved by the HCC
- To rate this as a 6, the HCC has developed and accepted a process to solicit member feedback and has documented this process in the administrative plan
- To rate this as a 5, the HCC has developed and accepted a process but has not documented it in the administrative plan
- To rate this as a 4, the HCC has developed a process but has not approved or documented it in the administrative plan
- To rate this as a 3, the HCC has developed a process but has not accepted it
- To rate this as a 2, the HCC is developing or planning a process to provide feedback to support group cohesion and improve processes
- To rate this as a 1, the HCC has no process to provide feedback to support group cohesion and improve processes

HEALTHCARE COALITION DEVELOPMENTAL ASSESSMENT FACTORS

Assessment Factor #20: Within the past year, what is your HCC's MOST IMPORTANT accomplishment related to emergency preparedness, response, recovery, and/or mitigation? (Choose one.)

- ☐ Enhanced connectivity with Emergency Operations Center (EOC) and Emergency Operations Plan (EOP)
- ☐ Improved leveraging of disparate funding streams
- ☐ Increased ability to leverage resources and allocate scarce resources between HCC members
- ☐ Increased availability of emergency response and recovery services for the jurisdiction; bridging response and recovery
- ☐ Increased educational training opportunities for healthcare organizations
- ☐ Increased emergency management skills among HCC organizations
- ☐ Increased emergency preparedness of the jurisdiction targeted or served by the HCC, including at-risk populations
- ☐ Increased exercising and readiness planning among HCC members (e.g., drills and exercises)
- ☐ Increased formal agreements for resource and information exchange
- ☐ Increased information sharing between HCC members through integrated communication
- ☐ Increased or enhanced sources of data needed for emergency preparedness and response
- ☐ Increased volunteerism (e.g., Emergency System for Advance Registration of Volunteer Health Professionals)
- ☐ Other (Please describe) _____

APPENDIX A: GLOSSARY

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Appendix A: Glossary

Business continuity: The ability of an organization to provide service and support for its customers and to maintain its viability before, during, and after a business continuity event.

Chain of command: The orderly line of authority within the ranks of the incident management organization.

Charter: A written instrument that creates or defines an organization and describes the organization's functions.

Common Operating Picture (COP): A common operating picture offers a standard overview of an incident, thereby providing incident information that enables the Incident Commander or Unified Command and any supporting agencies and organizations to make effective, consistent, and timely decisions. Compiling data from multiple sources and disseminating the collaborative information COP ensures that all responding entities have the same understanding and awareness of incident status and information when conducting operations. (*FEMA Communications and Information Management: <http://www.fema.gov/emergency/nims/CommunicationsInfoMngmnt.shtm>*)

Community Resilience: the sustained ability of communities to withstand and recover—in both the short and long term—from adversity. Community resilience is one of the main goals of the National Health Security Strategy. There are six key components that influence community resiliency:

- **Infrastructure:** Refers to the physical resilience of the built environment and infrastructure that aims to ensure the functionality of community buildings and systems after an event. This type of resilience is affected by building codes, engineering standards, land use planning, and environmental and human threats.
- **Connectedness:** The strong social networks, shared cultural identity and heritage, and connection to place that form a sense of community. The social connectedness that bonds individuals and groups are the ties that bind communities together and help people withstand disaster, recover, and rebuild. The environmental effects of the disaster can have deep impacts on community cohesion.
- **Health:** Resilient individuals are physically and psychologically healthy, socially connected to each other and to community systems, and have access to health and behavioral health care. Good health prior to a disaster has been shown to support greater resilience in the post-disaster setting.
- **Organizational:** An essential attribute of a resilient community's governance structure, and of the public and private sector entities within it. Resilient organizations retain or quickly regain their function following a shock, improvise, avoid single points of failure, and invest in their workforce.
- **Psychological:** The ability to maintain positive adaptation and mental health despite stressors in the immediate and broader environment. A disaster can impair psychological resilience due to stress, traumatic exposure, adverse psychological reactions, and disrupted social networks.
- **Economic:** The ability of a community to quickly regain its productive capacity after a disaster. Community members have access to good jobs and good wages, the local economy is diversified, and it produces or accesses enough goods to meet the needs of community members.

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Confirmatory Factor Analysis: Explanatory procedure which analyzes a priori measurement models in which both the number of factors and their correspondence with indicators is explicitly specified.

Continuity of Operations (COOP): An effort to ensure that primary mission-essential functions (PMEFs) continue to be performed during a wide range of emergencies, including localized acts of nature, accidents, and technological or attack-related emergencies. A continuity of operations plan is a document that identifies the PMEFs and describes the tasks, processes, and systems requirements to maintain PMEFs.

Correlation: Any statistical relationship between two random variables or two sets of data.

Crisis Standards of Care: The level of care possible during a crisis or disaster due to limitations in supplies, staff, environment, or other factors. These standards will usually incorporate the following principles: (1) prioritize population health rather than individual outcomes; (2) respect ethical principles of beneficence, stewardship, equity, and trust; (3) modify regulatory requirements to provide liability protection for healthcare providers making resource allocation decisions; and/or (4) designate a crisis triage officer and include provisions for palliative care in triage models for scarce resource allocation (e.g., ventilators) (Chang et al., 2008). Crisis standards of care will usually follow a formal declaration or recognition by state government during a pervasive (pandemic influenza) or catastrophic (earthquake, hurricane) disaster which recognizes that contingency surge response strategies (resource-sparing strategies) have been exhausted, and crisis medical care must be provided for a sustained period of time. Formal recognition of these austere operating conditions enables specific legal or regulatory powers and protections for healthcare provider allocation of scarce medical resources and for alternate care facility operations. Under these conditions, the goal is still to supply the best care possible to each patient. (*Healthcare Preparedness Capabilities*)

Critical Infrastructure (CI) and Key Resources (KR): The assets, systems, networks, and functions, whether physical or organizational, whose destruction or incapacity would have a debilitating impact on the Nation's security, public health and safety, and/or economic vitality. (*Healthcare Preparedness Capabilities*)

Cronbach's Alpha: A measure of internal consistency, that is, how closely related a set of items are as a group.

Data Usage and Access Policies: Rules and guidelines specifying appropriate and inappropriate uses for different types of information, including: legal, statutory, privacy, and intellectual property considerations; the types of information that can be shared and with whom; recommended data sharing frequency; and suggested or required data protections and information system security.

Emergency operations coordination: Direction and support of an incident with public health or medical implications by establishing a standardized, scalable system of oversight, organization, and supervision consistent with jurisdictional standards and practices and with the National Incident Management System (NIMS).

Emergency Operations Plan (EOP): An ongoing plan for responding to a wide variety of potential hazards.

Emergency System for Advance Registration of Volunteer Health Professionals (ESAR-VHP): The Emergency System for Advance Registration of Volunteer Health Professionals (ESAR-VHP) is a federal program created to support state and territorial governments 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. By registering through ESAR-VHP, volunteers' identities, licenses,

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credentials, and hospital privileges are all verified in advance, saving valuable time in emergency situations.

Emergency Support Function (ESF) #8: Emergency Support Function (ESF) #8 — Public Health and Medical Services, provides the mechanism for coordinated federal assistance to supplement state, tribal, and local resources in response to a public health and medical disaster, potential or actual incidents requiring a coordinated federal response, and/or during a developing potential health and medical emergency. The phrase “medical needs” is used throughout this annex. Public Health and Medical Services include responding to medical needs associated with mental health, behavioral health, and substance abuse considerations of incident victims and response workers. Services also cover the medical needs of members of the “at risk” or “special needs” population described in the Pandemic and All-Hazards Preparedness Act and in the National Response Framework (NRF) Glossary, respectively. It includes a population whose members may have medical and other functional needs before, during, and after an incident. (*Healthcare Preparedness Capabilities*)

Exercise: The process of conducting activities involved with prevention, protection, response, and recovery capabilities in a risk-free environment. Exercises can be used for: testing and validating policies, plans, procedures, training, equipment, and inter-agency agreements; clarifying and training personnel in roles and responsibilities; improving interagency coordination and communications; identifying gaps in resources; improving individual performance; and identifying opportunities for improvement. (Note: An exercise is also an excellent way to demonstrate community resolve to prepare for disastrous events). (*Homeland Security Exercise and Evaluation Program Volume I: HSEEP Overview and Exercise Program Management*)

Family Assistance Center: A secure facility established to serve as a centralized location to provide information and assistance about missing or *unaccounted for* persons and the deceased and to support the reunification of the missing or deceased with their loved ones.

Fatality Management: The ability to coordinate with organizations (e.g., law enforcement, healthcare, emergency management, and medical examiner or coroner) to ensure the proper recovery, handling, identification, transportation, tracking, storage, and disposal of human remains and personal effects; certify cause of death; and facilitate access to mental or behavioral health services for family members, responders, and survivors of an incident. Coordination also includes the proper and culturally sensitive storage of human remains during periods of increased deaths.

Hazard Vulnerability Assessment (HVA): A systematic approach to recognizing hazards that may affect demand for services or the ability to provide those services. The risks associated with each hazard are analyzed to prioritize planning, mitigation, response, and recovery activities. An HVA serves as a needs assessment and a strategy to identify those hazards that are most likely to have an impact on a facility and the surrounding community. The HVA process should involve community partners and be communicated to community emergency response agencies. (*DHHS, 2009*).

Healthcare Coalition (HCC): The HCC is a collaborative network of healthcare organizations and their respective public and private sector response partners that serve as a multiagency coordinating group to assist with preparedness, response, recovery, and mitigation activities related to healthcare organization disaster operations. The primary function of the HCC includes sub-state regional, healthcare system emergency preparedness activities involving the member organizations. This includes planning, organizing and equipping, training, exercises and evaluation. During response, HCCs should represent healthcare organizations by providing multi-agency coordination in order to provide advice on decisions made by incident management regarding information and resource coordination for healthcare organizations. This includes either a response role as part of a multi-agency coordination group to assist

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incident management (area command or unified command) with decisions, or through coordinated plans to guide decisions regarding healthcare organization support. (*Healthcare Preparedness Capabilities*)

Healthcare Organization(s) (HCOs): The component(s) of a community's healthcare service delivery system to primarily include hospitals, Emergency Medical Services (EMS), primary care, long term care, mental or behavioral health systems, specialty services (dialysis, pediatrics, woman's health, standalone surgery, urgent care, etc.), support services (laboratories, pharmacies, blood banks, poison control, etc.), private entities associated with healthcare delivery (Hospital associations, regulatory boards, etc.). HCOs may or may not include components of public health, tribal healthcare, federal (VA, DOD, IHS facilities, etc.), community health centers, volunteer medical organizations (e.g. ARC), healthcare services provided in city, county, or state jails, prisons, penitentiaries, and others not noted. (*Healthcare Preparedness Capabilities*)

Healthcare Constituencies: The people involved in or served by the HCC.

Healthcare Recovery: 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 (adapted from the *National Disaster Recovery Framework*³⁰).

Healthcare System or Healthcare Service Delivery System: A collection of a community's healthcare organizations. (*Healthcare Preparedness Capabilities*)

Healthcare Workers' Families: Family members of healthcare workers who may benefit from prophylaxis or treatment theoretically allow the worker to remain on duty rather than having to care for ill family members.

Incident Command Structure (ICS): The Incident Command System (ICS) is a standardized, on-scene, all-hazards incident management approach that allows for the integration of facilities, equipment, personnel, procedures and communications operating within a common organizational structure, Enables a coordinated response among various jurisdictions and functional agencies, both public and private, and establishes common processes for planning and managing resources (<http://www.fema.gov/incident-command-system#item1>).

Immediate Bed Availability (IBA): The ability to provide no less than 20% availability of staffed members' beds within four hours of a disaster to create medical surge capacity for both "no notice" and slower evolving disasters. Medical surge, in concept and in practice, requires more than the immediate availability of beds alone – it requires staffed beds.

Information Sharing: The ability to conduct multijurisdictional and multidisciplinary exchange of public health and medical-related information and situational awareness data among federal, state, local, territorial, and tribal levels of government and the private sector. This capability includes the routine sharing of information as well as issuing of public health alerts to federal, state, local, territorial, and tribal levels of government and the private sector in preparation for, and in response to, events or incidents of public health significance. An effective information sharing system will provide durable, reliable, and effective information exchanges (both horizontally and vertically) between those responsible for gathering information and the analysts and consumers of threat or hazard-related information. It will also allow for feedback and other necessary communications in addition to the regular flow of information and intelligence.

³⁰ National Disaster Recovery Framework, http://www.fema.gov/pdf/recoveryframework/health_social_services_rsf.pdf

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Interagency Agreement (IAA): A written agreement between federal agencies or components of federal agencies to acquire supplies or services as authorized by statute.

Key Partners: Within the context of Fatality Management, private organizations that have agreed to play a role in performing Fatality Management functions, such as funeral directors, coroners, medical examiners, or mental health professionals.

Latent Construct: Explanatory variables presumed to reflect a continuum that is not directly observable.

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

Memoranda of Understanding (MOUs) or Memoranda of Agreement (MOAs): Documents that describe a bilateral or multilateral agreement between two or more parties. These documents express an intended common line of action, establish a scope of association, and define mutual responsibilities. They are often used in cases where parties do not wish to or cannot create an otherwise legally enforceable agreement.

Mental or Behavioral Health Professional: Someone who offers services that have the effect of improving an individual's mental state, such as psychologists, social workers, therapists, counselors, spiritual care providers, hospice providers, and translators, or embassy and Consulate representatives when international victims are involved.

Mutual Aid Agreements (MAAs): A document that formalizes and defines the reciprocal assistance that two or more communities or organizations can and will provide to another in the event of a disaster.

Path Analysis: Structural model illustrating the directed dependencies among a set of variables.

Personal Protective Equipment (PPE): Specialized clothing or equipment worn by an employee for protection against infectious materials. PPE such as masks and gloves can protect healthcare workers from illness and injury allowing them to continue delivering important healthcare services. Ensuring a sufficient supply of PPE requires a number of steps be taken during emergency preparedness including: determining the PPE need, assessing in-facility stocks of PPE, comparing need and stock to identify any PPE gaps, and then developing procedures for obtaining the gap amount should you need it (e.g., a resource request via the ICS resource management system).

Pharmaceutical Cache: A collection of pharmaceuticals, antidotes, and medical supplies designed to provide rapid delivery of a broad spectrum of assets for an ill-defined threat in the early hours of an event. Prophylactic pharmaceutical caches can protect healthcare workers from illness, allowing them to continue delivering important healthcare services. In addition, providing prophylaxis to healthcare workers' families enhances response by theoretically allowing the worker to remain on duty rather than having to care for an ill family member.

Principal Components Analysis: Exploratory procedure which reduces a set of potentially correlated variables into a set of linearly uncorrelated indices.

Prophylaxis: A medical or public health procedure undertaken to prevent, rather than treat or cure, a disease.

Recovery Processes: The development, coordination, and execution of service- and site-restoration plans; the reconstitution of government operations and services; individual, private-sector, nongovernmental, and public assistance programs to provide housing and promote restoration; long-term care and treatment of affected persons; additional measures for social, political, environmental,

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and economic restoration; evaluation of the incident to identify “lessons learned”; post incident reporting; and development of initiatives to mitigate the effects of future incidents.

Resilience: The ability of an asset, system, network or function, to maintain its capabilities and function during and in the aftermath of an all-hazards incident. (*Healthcare Preparedness Capabilities*)

Situational Awareness: The ability to identify, process, and comprehend the essential information about an incident to inform the decision making process in a continuous and timely cycle and includes the ability to interpret and act upon this information.

Supply Chain: A system of organizations, people, technology, activities, information, and resources involved in moving a product or service from supplier to customer.

Surge Capacity: The ability to evaluate and care for a markedly increased volume of patients—one that challenges or exceeds normal operating capacity. Requirements may extend beyond direct patient care to include other medical tasks, such as extensive laboratory studies or epidemiologic investigations.

Threat and Hazard Identification and Risk Assessment (THIRA): DHS document that provides a comprehensive approach for identifying and assessing risks and associated impacts

Trigger: An event which initiates certain actions.

APPENDIX B: TABLES OF INDICATORS, CAPABILITIES, AND FACTORS

Appendix B: Tables of Indicators, Capabilities, and Factors

Table 8 and Table 9 contain the results of an analysis of the HPP Program Measure indicators, *Healthcare Preparedness Capabilities* and functions, and HCCDA factors. These tables demonstrate that no capabilities or functions were lost during the reduction and refinement of the BP2 Program Measures. They also demonstrate that the indicators and factors are integrated and influence each other.

Table 8. Comparison of the Continuity of Healthcare Operations indicators to their associated capabilities and functions and HCC Developmental Assessment factors.

Continuity of Healthcare Operations		
Indicator	Healthcare Preparedness Capability/Function	HCC Developmental Assessment Factor
The HCC has access to a risk-based HVA which prioritizes the risks to its members.	Capability 1: Healthcare System Preparedness ▪ Function 2: Coordinate healthcare planning to prepare the healthcare system for a disaster	2 - The HCC has multi-disciplinary healthcare organization membership. 7 - The HCC has conducted an assessment of each of its member's healthcare delivery capacities and capabilities. 20 - The HCC utilizes an operational framework and set of indicators to transition from crisis standards of care, to contingency, and ultimately back to conventional standards of care. 10 - The HCC has an organizational structure to develop operational plans. 13 - The HCC demonstrates an ability to identify the needs of at-risk individuals (e.g., electrically dependent home-bound patients, chronically ill) during response.
The HCC has conducted a gap analysis to identify resource shortfalls during an event and is implementing plans to close those resource gaps.	Capability 1: Healthcare System Preparedness ▪ Function 2: Coordinate healthcare planning to prepare the healthcare system for a disaster ▪ Function 4: Determine gaps in the healthcare preparedness and identify resources for mitigation of these gaps Capability 3: Emergency Operations Coordination ▪ Function 3: Support healthcare response efforts through coordination of resources	1 - The HCC has established a formal self-governance structure, including leadership roles. 2 - The HCC has multi-disciplinary healthcare organization membership. 6 - The HCC has established roles and responsibilities. 7 - The HCC has conducted an assessment of each of its member's healthcare delivery capacities and capabilities. 8 - The HCC has engaged its member's healthcare delivery system executives. 9 - The HCC has engaged its member's healthcare delivery system clinical leaders. 10 - The HCC has an organizational structure to develop operational plans.

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Continuity of Healthcare Operations		
Indicator	Healthcare Preparedness Capability/Function	HCC Developmental Assessment Factor
The HCC has a process to enhance its member's situational awareness to support activation of immediate bed availability through continuous monitoring.	<p>Capability 1: Healthcare System Preparedness</p> <ul style="list-style-type: none"> Function 2: Coordinate healthcare planning to prepare the healthcare system for a disaster <p>Capability 3: Emergency Operations Coordination</p> <ul style="list-style-type: none"> Function 2: Assess and notify stakeholders of healthcare delivery status <p>Capability 6: Information Sharing</p> <ul style="list-style-type: none"> Function 1: Provide healthcare situational awareness that contributes to the incident common operating picture <p>Capability 10: Medical Surge</p> <ul style="list-style-type: none"> Function 2: Coordinate integrated healthcare surge operations with pre-hospital Emergency Medical Services (EMS) operations Function 3: Assist healthcare organizations with surge capacity and capability 	<p>2 - The HCC has multi-disciplinary healthcare organization membership.</p> <p>4 - The HCC has a formalized process for resource and information management with its membership.</p> <p>5 - The HCC is integrated into the healthcare delivery system processes for their jurisdiction (e.g., EMS, referral patterns, etc.).</p> <p>6 - The HCC has established roles and responsibilities.</p> <p>7 - The HCC has conducted an assessment of each of its member's healthcare delivery capacities and capabilities.</p> <p>10 - The HCC has an organizational structure to develop operational plans.</p> <p>11- The HCC has an incident management structure (e.g., MACC, ICS) to coordinate actions to achieve incident objectives during response.</p> <p>12 - The HCC demonstrates an ability to enhance situational awareness for its members during an event.</p> <p>13 - The HCC demonstrates an ability to identify the needs of at-risk individuals (e.g., electrically dependent home-bound patients, chronically ill) during response.</p> <p>14 - The HCC has demonstrated resource support and coordination among its member organizations under the time urgency, uncertainty, and logistical constraints of emergency response.</p>

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Continuity of Healthcare Operations		
Indicator	Healthcare Preparedness Capability/Function	HCC Developmental Assessment Factor
The HCC has demonstrated the capability of a redundant means of communication for achieving and sustaining situational awareness.	<p>Capability 1: Healthcare System Preparedness</p> <ul style="list-style-type: none"> Function 2: Coordinate healthcare planning to prepare the healthcare system for a disaster <p>Capability 3: Emergency Operations Coordination</p> <ul style="list-style-type: none"> Function 2: Assess and notify stakeholders of healthcare delivery status <p>Capability 6: Information Sharing</p> <ul style="list-style-type: none"> Function 1: Provide healthcare situational awareness that contributes to the incident common operating picture Function 2: Develop, refine, and sustain redundant, interoperable communication systems 	<p>2 - The HCC has multi-disciplinary healthcare organization membership.</p> <p>4 - The HCC has a formalized process for resource and information management with its membership.</p> <p>5 - The HCC is integrated into the healthcare delivery system processes for their jurisdiction (e.g., EMS, referral patterns, etc.).</p> <p>6 - The HCC has established roles and responsibilities.</p> <p>10 - The HCC has an organizational structure to develop operational plans.</p> <p>11 - The HCC has an incident management structure (e.g., MACC, ICS) to coordinate actions to achieve incident objectives during response.</p> <p>12 - The HCC demonstrates an ability to enhance situational awareness for its members during an event.</p> <p>18 - The HCC ensures quality improvement through exercises/events and corrective action plans.</p>

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Continuity of Healthcare Operations		
Indicator	Healthcare Preparedness Capability/Function	HCC Developmental Assessment Factor
The HCC has tested its ability to address its member's healthcare workforce safety needs through strategic placement of resources.	<p>Capability 1: Healthcare System Preparedness</p> <ul style="list-style-type: none"> Function 2: Coordinate healthcare planning to prepare the healthcare system for a disaster <p>Capability 10: Medical Surge</p> <ul style="list-style-type: none"> Function 2: Coordinate integrated healthcare surge operations with pre-hospital Emergency Medical Services (EMS) operations Function 3: Assist healthcare organizations with surge capacity and capability <p>Capability 14: Responder Safety and Health</p> <ul style="list-style-type: none"> Function 1: Assist healthcare organizations with additional pharmaceutical protection for healthcare workers Function 2: Provide assistance to healthcare organizations with access to additional Personal Protective Equipment (PPE) for healthcare workers during response 	<p>2 - The HCC has multi-disciplinary healthcare organization membership.</p> <p>4 - The HCC has a formalized process for resource and information management with its membership.</p> <p>7 - The HCC has conducted an assessment of each of its member's healthcare delivery capacities and capabilities.</p> <p>10 - The HCC has an organizational structure to develop operational plans.</p> <p>11 - The HCC has an incident management structure (e.g., MACC, ICS) to coordinate actions to achieve incident objectives during response.</p> <p>14 - The HCC has demonstrated resource support and coordination among its member organizations under the time urgency, uncertainty, and logistical constraints of emergency response.</p> <p>18 - The HCC ensures quality improvement through exercises/events and corrective action plans.</p>

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Continuity of Healthcare Operations		
Indicator	Healthcare Preparedness Capability/Function	HCC Developmental Assessment Factor
The HCC has prioritized and integrated essential healthcare recovery needs in its Emergency Operation Plan.	<p>Capability 1: Healthcare System Preparedness</p> <ul style="list-style-type: none"> Function 2: Coordinate healthcare planning to prepare the healthcare system for a disaster Function 3: Identify and prioritize essential healthcare assets and services <p>Capability 2: Healthcare System Recovery</p> <ul style="list-style-type: none"> Function 1: Develop recovery processes for the healthcare delivery system Function 2: Assist healthcare organizations to implement Continuity of Operations (COOP) <p>Capability 3: Emergency Operations Coordination</p> <ul style="list-style-type: none"> Function 2: Assess and notify stakeholders of healthcare delivery status Function 3: Support healthcare response efforts through coordination of resources <p>Capability 10: Medical Surge</p> <ul style="list-style-type: none"> Function 5: Provide assistance to healthcare organizations regarding evacuation and shelter in place operations 	<p>2 - The HCC has multi-disciplinary healthcare organization membership.</p> <p>4 - The HCC has a formalized process for resource and information management with its membership.</p> <p>5 - The HCC is integrated into the healthcare delivery system processes for their jurisdiction (e.g., EMS, referral patterns, etc.).</p> <p>6 - The HCC has established roles and responsibilities.</p> <p>7 - The HCC has conducted an assessment of each of its member's healthcare delivery capacities and capabilities.</p> <p>10 - The HCC has an organizational structure to develop operational plans.</p> <p>11 - The HCC has an incident management structure (e.g., MACC, ICS) to coordinate actions to achieve incident objectives during response.</p> <p>12 - The HCC demonstrates an ability to enhance situational awareness for its members during an event.</p> <p>13 - The HCC demonstrates an ability to identify the needs of at-risk individuals (e.g., electrically dependent home-bound patients, chronically ill) during response.</p> <p>14 - The HCC has demonstrated resource support and coordination among its member organizations under the time urgency, uncertainty, and logistical constraints of emergency response.</p> <p>16 - The HCC utilizes an operational framework and set of indicators to transition from crisis standards of care, to contingency, and ultimately back to conventional standards of care.</p> <p>17 - The HCC incorporates post-incident health services recovery into planning and response.</p>

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Continuity of Healthcare Operations		
Indicator	Healthcare Preparedness Capability/Function	HCC Developmental Assessment Factor
The HCC has achieved its exercise objectives during tests of state or regional healthcare disaster plans.	<p>Capability 1: Healthcare System Preparedness</p> <ul style="list-style-type: none"> Function 2: Coordinate healthcare planning to prepare the healthcare system for a disaster Function 3: Identify and prioritize essential healthcare assets and services Function 4: Determine gaps in the healthcare preparedness and identify resources for mitigation of these gaps Function 6: Improve healthcare response capabilities through coordinated exercise and evaluation <p>Capability 3: Emergency Operations Coordination</p> <ul style="list-style-type: none"> Function 4: Demobilize and evaluate healthcare operations 	All factors

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Table 9. Comparison of the Medical Surge indicators to their associated capabilities and functions and HCC Developmental Assessment factors.

Medical Surge		
Indicator	Healthcare Preparedness Capability/Function	HCC Developmental Assessment Factor
The Awardee has posted its approved Crisis Standards of Care plan on the ASPR Communities of Interest SharePoint Site.	Capability 1: Healthcare System Preparedness <ul style="list-style-type: none"> Function 2: Coordinate healthcare planning to prepare the healthcare system for a disaster Capability 10: Medical Surge <ul style="list-style-type: none"> Function 4: Develop Crisis Standards of Care guidance 	2 - The HCC has multi-disciplinary healthcare organization membership. 16 - The HCC utilizes an operational framework and set of indicators to transition from crisis standards of care, to contingency, and ultimately back to conventional standards of care.
The Awardee has completed mass fatality management plans that have been adopted by HCCs members.	Capability 1: Healthcare System Preparedness <ul style="list-style-type: none"> Function 2: Coordinate healthcare planning to prepare the healthcare system for a disaster Capability 5: Fatality Management <ul style="list-style-type: none"> (all functions) Capability 10: Medical Surge, <ul style="list-style-type: none"> Function 3: Assist healthcare organizations with surge capacity and capability 	2 - The HCC has multi-disciplinary healthcare organization membership. 7 - The HCC has conducted an assessment of each of its member's healthcare delivery capacities and capabilities. 11 - The HCC has an incident management structure (e.g., MACC, ICS) to coordinate actions to achieve incident objectives during response. 12 - The HCC demonstrates an ability to enhance situational awareness for its members during an event. 13- The HCC demonstrates an ability to identify the needs of at-risk individuals (e.g., electrically dependent home-bound patients, chronically ill) during response. 14 - The HCC has demonstrated resource support and coordination among its member organizations under the time urgency, uncertainty, and logistical constraints of emergency response.

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Medical Surge		
Indicator	Healthcare Preparedness Capability/Function	HCC Developmental Assessment Factor
The HCC has developed a strategic plan with participation from its membership	Capability 1: Healthcare System Preparedness <ul style="list-style-type: none"> Function 1: Healthcare Coalition Development 	1 - The HCC has established a formal self-governance structure, including leadership roles. 2 - The HCC has multi-disciplinary healthcare organization membership. 3 - The HCC has established its geographical boundaries. 4 - The HCC has a formalized process for resource and information management with its membership. 5 - The HCC is integrated into the healthcare delivery system processes for their jurisdiction (e.g., EMS, referral patterns, etc.). 6 - The HCC has established roles and responsibilities. 8 - The HCC has engaged its member's healthcare delivery system executives. 9 - The HCC has engaged its member's healthcare delivery system clinical leaders. 10 - The HCC has an organizational structure to develop operational plans. 17 - The HCC incorporates post-incident health services recovery into planning and response. 18 - The HCC ensures quality improvement through exercises/events and corrective action plans. 19 - The HCC has an established method (e.g., social analysis) for incorporating feedback from its members to support group cohesion and improve processes.

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Medical Surge		
Indicator	Healthcare Preparedness Capability/Function	HCC Developmental Assessment Factor
The HCC has demonstrated, through exercise or real incident, its ability to both deliver appropriate levels of care to all patients, as well as to provide no less than 20% immediate availability of staffed members' beds, within 4 hours of a disaster.	<p>Capability 1: Healthcare System Preparedness</p> <ul style="list-style-type: none"> Function 2: Coordinate healthcare planning to prepare the healthcare system for a disaster <p>Capability 10: Medical Surge</p> <ul style="list-style-type: none"> Function 3: Assist healthcare organizations with surge capacity and capability 	<p>2 - The HCC has multi-disciplinary healthcare organization membership.</p> <p>7 - The HCC has conducted an assessment of each of its member's healthcare delivery capacities and capabilities.</p> <p>11 - The HCC has an incident management structure (e.g., MACC, ICS) to coordinate actions to achieve incident objectives during response.</p> <p>12- The HCC demonstrates an ability to enhance situational awareness for its members during an event.</p> <p>13 - The HCC demonstrates an ability to identify the needs of at-risk individuals (e.g., electrically dependent home-bound patients, chronically ill) during response.</p> <p>14 - The HCC has demonstrated resource support and coordination among its member organizations under the time urgency, uncertainty, and logistical constraints of emergency response.</p> <p>15 - The HCC members have demonstrated evacuation capability with functional patient tracking mechanisms.</p>

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Medical Surge		
Indicator	Healthcare Preparedness Capability/Function	HCC Developmental Assessment Factor
The HCC has demonstrated the ability to do the following during an incident, exercise or event: 1) Monitor patient acuity and staffed bed availability in real-time, 2) Off-Load Patients, 3) On-Load Patients, 4) Track and document patient movement	<p>Capability 3: Emergency Operations Coordination</p> <ul style="list-style-type: none"> Function 1: Healthcare organization multi-agency representation and coordination with emergency operations Function 2: Assess and notify stakeholders of healthcare delivery status Function 3: Support healthcare response efforts through coordination of resources <p>Capability 6: Information Sharing</p> <ul style="list-style-type: none"> All functions <p>Capability 10: Medical Surge</p> <ul style="list-style-type: none"> Function 2: Coordinate integrated healthcare surge operations with pre-hospital Emergency Medical Services (EMS) operations Function 3: Assist healthcare organizations with surge capacity and capability 	<p>2 - The HCC has multi-disciplinary healthcare organization membership.</p> <p>7 - The HCC has conducted an assessment of each of its member's healthcare delivery capacities and capabilities.</p> <p>11 - The HCC has an incident management structure (e.g., MACC, ICS) to coordinate actions to achieve incident objectives during response.</p> <p>12- The HCC demonstrates an ability to enhance situational awareness for its members during an event.</p> <p>13 - The HCC demonstrates an ability to identify the needs of at-risk individuals (e.g., electrically dependent home-bound patients, chronically ill) during response.</p> <p>14 - The HCC has demonstrated resource support and coordination among its member organizations under the time urgency, uncertainty, and logistical constraints of emergency response.</p> <p>15 - The HCC members have demonstrated evacuation capability with functional patient tracking mechanisms.</p>

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Medical Surge		
Indicator	Healthcare Preparedness Capability/Function	HCC Developmental Assessment Factor
The Awardee's Recovery Plan addresses how it will meet post-disaster behavioral and mental healthcare needs of communities (e.g., HCC member staff).	<p>Capability 1: Healthcare System Preparedness</p> <ul style="list-style-type: none"> Function 2: Coordinate healthcare planning to prepare the healthcare system for a disaster <p>Capability 2: Healthcare System Recovery</p> <ul style="list-style-type: none"> Function 1: Develop recovery processes for the healthcare delivery system <p>Capability 5: Fatality Management</p> <ul style="list-style-type: none"> Function 3: Mental/behavioral support at the healthcare organization level <p>Capability 10: Medical Surge</p> <ul style="list-style-type: none"> Function 3: Assist healthcare organizations with surge capacity and capability 	<p>2 - The HCC has multi-disciplinary healthcare organization membership.</p> <p>7 - The HCC has conducted an assessment of each of its member's healthcare delivery capacities and capabilities.</p> <p>11 - The HCC has an incident management structure (e.g., MACC, ICS) to coordinate actions to achieve incident objectives during response.</p> <p>12- The HCC demonstrates an ability to enhance situational awareness for its members during an event.</p> <p>13 - The HCC demonstrates an ability to identify the needs of at-risk individuals (e.g., electrically dependent home-bound patients, chronically ill) during response.</p> <p>14 - The HCC has demonstrated resource support and coordination among its member organizations under the time urgency, uncertainty, and logistical constraints of emergency response.</p> <p>16 - The HCC utilizes an operational framework and set of indicators to transition from crisis standards of care, to contingency, and ultimately back to conventional standards of care.</p> <p>17 - The HCC incorporates post-incident health services recovery into planning and response.</p>

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Medical Surge		
Indicator	Healthcare Preparedness Capability/Function	HCC Developmental Assessment Factor
The HCC has a mechanism to obtain feedback to help resolve member conflicts that have the potential to affect the overall performance of the HCC.	<p>Capability 1: Healthcare System Preparedness</p> <ul style="list-style-type: none"> Function 1: Develop, refine or sustain healthcare coalitions Function 6: Improve healthcare response capabilities through coordinated exercise and evaluation <p>Capability 3: Emergency Operations Coordination</p> <ul style="list-style-type: none"> Function 4: Demobilize and evaluate healthcare operations 	<p>1 - The HCC has established a formal self-governance structure, including leadership roles.</p> <p>2 - The HCC has multi-disciplinary healthcare organization membership.</p> <p>3 - The HCC has established its geographical boundaries.</p> <p>4 - The HCC has a formalized process for resource and information management with its membership.</p> <p>5 - The HCC is integrated into the healthcare delivery system processes for their jurisdiction (e.g., EMS, referral patterns, etc.).</p> <p>6 - The HCC has established roles and responsibilities.</p> <p>8 - The HCC has engaged its member's healthcare delivery system executives.</p> <p>9 - The HCC has engaged its member's healthcare delivery system clinical leaders.</p> <p>10 - The HCC has an organizational structure to develop operational plans.</p> <p>17 - The HCC incorporates post-incident health services recovery into planning and response.</p> <p>18 - The HCC ensures quality improvement through exercises/events and corrective action plans.</p> <p>19 - The HCC has an established method (e.g., social network analysis) for incorporating feedback from its members to support group cohesion and improve processes.</p>

APPENDIX C: BP2 HPP-PHEP Joint Measures

Appendix C: BP2 HPP-PHEP Joint Measures

In line with HPP and PHEP grant alignment priorities, HPP and PHEP worked collaboratively to develop and refine the HPP-PHEP Joint Measures for information sharing and volunteer management. For BP2 specifically, information sharing and volunteer management were removed from the HPP specific measures to further reduce Awardees' reporting burden.

HPP-PHEP 6.1: Information Sharing

Percentage of **local partners** that reported requested **Essential Elements of Information (EEI)** to the public health/medical lead within the **requested timeframe**

Measure Applies To :	Circumstances for Reporting:	Data May Be Taken From:	Other Considerations:
States	Annual Reporting*	Incident*	<input checked="" type="checkbox"/> Data Utilized By: MCM ORR
Directly Funded Localities	<input type="checkbox"/> If PHEP Funds Allocated to the Capability or Contracts Plan	Exercise*	<input checked="" type="checkbox"/> Data Collected By: HPP and/or PHEP (PERFORMS only)
Territories or Freely Associated States		Planned Event*	<input type="checkbox"/> PAHPRA Benchmark

New – Additional Information: Awardees are required to report twice for this measure. If you have zero or one data point to report, conduct exercises (including drills) or planned events to obtain two data points for this performance measure. Only information sharing related to an MCM incident or scenario (including an exercise or drill) will count towards the MCM ORR, so ensure this is accomplished at least every other year. In alternate years, consider exercising information sharing related to non-MCM incidents and scenarios to test capability for sharing different types of EEI with different local partners.



How is the measure calculated?

Numerator: Number of local partners that reported requested EEI to the public health/medical lead within the requested timeframe

Denominator: Number of local partners that received a request for EEI



Why is this measure important?

The intent of this measure is to assess the extent to which local response entities communicate requested information to the public health/medical lead in order to facilitate situational awareness and the effective management of resources in a timely manner.



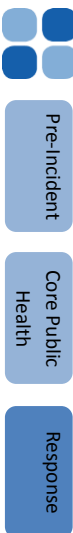
What other requirements are there for reporting measure data?

This measure requires submission of self-reported data. Data should be collected and reported by incident (or planned event or exercise).



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Awardees are required to report at least two data points for this measure. One data point must reflect the awardee's best performance (highest percentage); the other must reflect performance which, based on a determination from the awardee, calls for focused quality improvement and – if applicable – technical assistance. Awardees are encouraged to submit data on additional incidents, planned events and exercises as well. There are no specific reporting requirements or parameters for these additional data points.





How does this measure align with the MCM ORR tool?

Information sharing is essential during responses to all emergencies, and is particularly important to the facilitation of situational awareness and appropriate allocation of resources during an MCM incident. The MCM ORR tool requires exercising the sharing of EEI every two years during an MCM-related incident. There is an opportunity to work with partners to align EEI sharing processes for the HPP-PHEP 6.1 and the MCM ORR by conducting an MCM-oriented exercise or drill every two years and on alternate years conducting an exercise or drill to share EEI for other hazards. Data from HPP-PHEP 6.1 will apply directly to the MCM ORR.



What data must be reported?

For each incident, exercise, or planned event reported for demonstration of the Information Sharing Capability, please enter the following information:

1. Number of local partners that received a request for EEI (denominator) *[Max 5 digits]*
2. Number of local partners that reported requested EEI to the health and medical lead within the requested timeframe (numerator) *[Max 5 digits]*
Performance Measure: Percent of local partners that reported EEI to the health/medical lead within the requested timeframe (System calculated) *[Percentage]*
3. The request for EEI occurred during a/an: *[Select one]*

<input type="checkbox"/> Incident	<input type="checkbox"/> Drill
<input type="checkbox"/> Full scale exercise	<input type="checkbox"/> Planned event
<input type="checkbox"/> Functional exercise	
4. Please identify the type of incident/exercise/planned event upon which the request for EEI was based.* *[Select only one, even if multiple hazards existed in one incident]*

<input type="checkbox"/> Extreme weather (e.g., heat wave, ice storm)	<input type="checkbox"/> Tornado
<input type="checkbox"/> Flooding	<input type="checkbox"/> Biological hazard or disease, please specify <i>[Max 100 characters]</i>
<input type="checkbox"/> Earthquake	<input type="checkbox"/> Radiation
<input type="checkbox"/> Hurricane/tropical storm	<input type="checkbox"/> Other, please specify <i>[Max 100 characters]</i>
<input type="checkbox"/> Hazardous material	
<input type="checkbox"/> Fire	
5. Was this incident/exercise/planned event MCM-related? *New – check to align with MCM ORR*

<input type="checkbox"/> Yes	<input type="checkbox"/> No
------------------------------	-----------------------------
6. Please provide the name and date of the incident/planned event/exercise.

a) Name <i>[Max 100 characters]</i>	b) Date <i>[MM/DD/YYYY]</i>
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7. Does this incident reflect your best performance (highest percentage)?
- ☐ Yes ☐ No
8. Is this incident being used to focus on quality improvement or technical assistance?
- ☐ Yes ☐ No
9. This incident/planned event/exercise utilized or demonstrated one or more functions within the *[Select one]*
- ☐ HPP Capability
☐ PHEP Capability
☐ Both HPP and PHEP Capabilities
10. Please state how many of each type(s) of local partners responded to the request. *[Max 5 digits for each type]*
- ☐ Hospitals ☐ Healthcare Organizations (HCOs)
☐ Long-term care facilities ☐ Local public health entities
☐ Community health center
11. Did “other” types of local partners (not listed above) respond to the request? *[Maximum five “other” types]*
- ☐ Yes
☐ No
- a) If yes to Question 11, please describe other type #1. *[Max 100 characters]*
- b) If yes to Question 11, how many local partners of “other” type #1 responded to the request?
[Max 3 digits]
- c) Please describe other type #2. *[Max 100 characters]*
- d) How many local partners of other type #2 responded to the request? *[Max 3 digits]*
- e) Please describe other type #3. *[Max 100 characters]*
- f) How many local partners of other type #3 responded to the request? *[Max 3 digits]*
- g) Please describe other type #4. *[Max 100 characters]*
- h) How many local partners of “other” type #4 responded to the request? *[Max 3 digits]*
- i) Please describe other type #5. *[Max 100 characters]*
- j) How many local partners of “other” type #5 responded to the request? *[Max 3 digits]*
12. Please identify the requesting entity (e.g., public health/medical lead at the state, sub-state regional, or local level). *[Select one]*
- ☐ State health/medical lead (or designee)
☐ Sub-state regional health/medical lead (or designee)
☐ Local health/medical lead (or designee)
☐ Other, please specify *[Max 100 characters]*
13. Please identify the types of EEI requested. *[Select all that apply]*
- ☐ Facility operating status ☐ Status of critical medical services (e.g., trauma, critical care)
☐ Facility structural integrity ☐ Critical service/infrastructure status (e.g., electric, water, sanitation,
☐ The status of evacuations/shelter in-place operations

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- heating, ventilation, and air conditioning)
- ☐ Bed or patient status
- ☐ Equipment/supplies/medications/vaccine status or needs
- ☐ Staffing status
- ☐ Emergency Medical Services (EMS) status
- ☐ Epidemiological, surveillance or lab data (e.g., test results, case counts, deaths)
- ☐ School-related data (closure, absenteeism, etc.)
- ☐ POD/mass vaccine sites data (e.g., throughout, open/set-up status, etc.),
- ☐ Other, please specify *[Max 100 characters]*

14. Please identify the type of IT or other communication system used to request EEI from local partners. *[Select all that apply]*

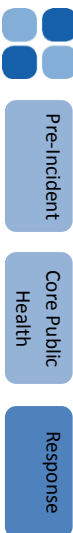
- ☐ Telecommunication (e.g., cell phone, satellite phone, landline)
- ☐ E-mail
- ☐ Online/web interface (electronic bed or patient tracking, survey tools, WebEOC or similar, etc.)
- ☐ Health Alert Network
- ☐ Other, please specify *[Max 100 characters]*

15. Continuous Quality Improvement:

- a. Were relevant corrective actions/improvement plans items from prior responses (including exercises, drills, etc.) related to information sharing incorporated into planning and/or response procedures before this incident/drill took place?
 - ☐ Yes
 - ☐ No
 - ☐ Some
- b. Have corrective actions/improvement plan items related to information sharing been identified as a result of this incident/drill?
 - ☐ Yes
 - ☐ No
- c. Have they been implemented?
 - ☐ Yes
 - ☐ No
 - ☐ Some

16. Please indicate any barriers to submitting requested EEI within the requested timeframe. *[Select all that apply]*

- ☐ Communication
- ☐ Equipment
- ☐ Funding
- ☐ Participation
- ☐ Policies/procedures
- ☐ Resource limitations
- ☐ Staffing
- ☐ Time constraints
- ☐ Training
- ☐ Other, please specify



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☐ None

17. [Optional] Please provide any additional clarifying, contextual, or other information [Max 1,000 characters]



How is this measure operationalized?

This measure can also be found in the Hospital Preparedness Program (HPP) Measure Manual: Implementation Guidance for the BP3 HPP Program Measures.

This measure intends to capture information on the communication of incident-specific public health/medical EEIs. Determination of which EEIs are to be requested or collected during a response, as well as which local entities should report the information and the timeframe in which the information should be reported, should be based on established plans, protocols and procedures, but are ultimately at the discretion of the incident commander or designee.

If large volumes of EEI are collected in an incident, it is the responsibility of the awardee to determine which of this information was “essential” – and therefore able to count towards the numerator and denominator – for this performance measure.

Key Measurement Terms

Essential Elements of Information (EEI): Essential elements of information are discrete types of reportable public health or healthcare-related incident-specific knowledge communicated or received concerning a particular fact or circumstance, preferably reported in a standardized manner or format, which assists in generating situational awareness for decision-making purposes. EEI are often coordinated and agreed upon pre-incident (and communicated to local partners) as part of information collection request templates and emergency response playbooks.

Local partners: Local partners are entities, at the local level, which receive requests for EEIs. Local partners may differ based on the type of incident/exercise/planned event (e.g., HCOs, LHDs, healthcare coalitions).

Requested timeframe: Requested timeframe is an awardee-defined period of time for receiving requested EEI (e.g., operational period, set time to meet special request, e.g., 1500 hours).

Responsible entity or entities: A responsible entity or entities refers to an organization at the awardee or sub-awardee level, which is accountable for completing the specific activity or element associated with one or more PHEP performance measures.

HPP-PHEP 15.1: Volunteer Management

Percentage of volunteers deployed to support a public health/medical incident within the requested timeframe.

Measure Applies To:	Circumstances for Reporting:	Data May Be Taken From:	Other Considerations:
States	<input checked="" type="checkbox"/> Annual Reporting*	Incident*	<input type="checkbox"/> Data Utilized By:
Directly Funded Localities	<input type="checkbox"/> If PHEP Funds Allocated to the Capability or Contracts Plan	Exercise*	<input checked="" type="checkbox"/> Data Collected By: HPP and/or PHEP (PERFORMS only)
Territories or Freely Associated States		<input type="checkbox"/> Planned Event	PAHPRA Benchmark

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New – Additional Information: Awardees that experience two or more incidents involving deployment of volunteers must report data from **at least** two of these. Awardees that experience one incident involving volunteer deployment must report on it. Awardees that do not experience an incident involving volunteer deployment do not have to report on this measure; however, they must conduct a call down acknowledgment drill.



How is the measure calculated?

Numerator: Number of volunteers, determined to be needed for the response by the public health/medical lead or other authorized official, that arrived on scene (including staging area or other designated area) within the requested timeframe

Denominator: Number of volunteers determined to be needed for the response by the public health/medical lead or other authorized official



Why is this measure important?

The immediate intent of this measure is to assess the timeliness of implementing key stages of volunteer management – from receipt of **request**, to activation of volunteers, to deployment – in order to determine key bottlenecks and chokepoints which inhibit timely deployment of volunteers.

The broader programmatic intent of this measure is to ensure that the public health/medical lead meets requests for volunteers in a timely manner.

This measure is NOT intended to assess routine or day-to-day volunteer activities in healthcare organizations.



What other requirements for reporting measure data?

- Awardees may report the numerator and denominator of this measure *by incident or exercise* at the state, sub-state regional or local level.
- **Awardees that experience two or more incidents or exercises** involving deployment of volunteers **must report on at least** two of those.
 - One data point must reflect the awardee's best performance (highest percentage);
 - The other data point must reflect performance that, based on a determination from the awardee, calls for focused quality improvement and – if applicable – technical assistance.
 - Awardees are encouraged to submit data on additional incidents and exercises as well. There are no specific reporting requirements or parameters for additional data points.
- **Awardees that experience only one incident or exercise** involving deployment of volunteers must report on it.
- **Awardees that experience no incidents or exercises** involving deployment of volunteers in BP3 do not need to report on this measure; however, they must conduct a call down and acknowledgement drill. The call down and acknowledgement drill contains the following required data elements:
 - Number of volunteers contacted (registered in the ESAR-VHP system)
 - Number of volunteer contacted (registered in other systems)
 - Number of volunteers in the ESAR-VHP system that acknowledged contact within the requested timeframe
 - Number of volunteers registered in other systems that acknowledged contact within the requested timeframe
 - The requested timeframe for acknowledgment (e.g., 4 hours, 8 hours, 12 hours, etc.)
 - Date of call down drill



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- The call down and acknowledgement drill, above, may *not* be reported in lieu of performance measure HPP-PHEP 15.1, if there occurred incidents or exercises involving actual deployment of volunteers in the budget period.
- In future budget periods, awardees may be required to exercise actual volunteer deployment if there are no volunteer deployments during a public health/medical incident in consecutive budget periods.



How does this measure align with the MCM ORR tool?

While there are no direct links between HPP-PHEP 15.1 and the MCM ORR, there are various activities related to volunteer management that are applicable to both. Awardees are encouraged to use activities conducted during BP3 to meet these multiple requirements, where appropriate.



What data must be reported?

1. This performance measure is required if an incident/exercise involving the management of volunteers occurred within the Budget Period 3. Did an incident/exercise involving the deployment of volunteers occur?
☐ Yes
☐ No [If no, only Question 17 is required]

For each incident or exercise reported for demonstration of the Volunteer Management Capability, please enter the following information:

2. The number of volunteers determined to be needed for the response by the public health/medical lead or other authorized official (denominator)
3. The number of volunteers who arrived at staging area/on scene within the requested timeframe (numerator) *[Max 5 digits]*. Of these:
 - a) Number of deployed volunteers registered in ESAR-VHP *[Max 5 digits]*
 - b) Number of deployed volunteers registered in other systems *[Max 5 digits]***Total** *[Max 5 digits]* *[System Calculated]* (Note: Sum of 3a and 3b must equal value entered for Question 3.)

Percentage of volunteers deployed to support a public health/medical incident within an appropriate timeframe. *[System Calculated]*

(Performance Measure for HPP/PHEP – 15.1)

4. Requested timeframe for on-scene (including staging area or other designated area) arrival of volunteers *[Max 100 characters]*
5. The request for volunteers occurred during a(n): *[Select one]*
☐ Incident
☐ Full Scale Exercise
☐ Functional Exercise
☐ Drill



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6. This incident or exercise utilized or demonstrated one or more functions within the: *[Select one]*
- ☐ HPP Volunteer Management Capability
 - ☐ PHEP Volunteer Management Capability
 - ☐ Both HPP and PHEP Volunteer Management Capabilities
7. Does this incident reflect your best volunteer deployment (highest percentage)?
- ☐ Yes
 - ☐ No
8. Is this incident being used to focus on quality improvement or technical assistance?
- ☐ Yes
 - ☐ No
9. The name and date of the incident or exercise.
- ☐ Name *[Max 100 characters]*
 - ☐ Date *[MM/DD/YYYY]*
10. The type of incident or exercise upon which the request for volunteers was based:
[Select only one, even if multiple hazards existed in one incident]
- ☐ Extreme weather (e.g., heat wave, ice storm)
 - ☐ Flooding
 - ☐ Earthquake
 - ☐ Hurricane/tropical storm
 - ☐ Hazardous material
 - ☐ Fire
 - ☐ Tornado
 - ☐ Biological hazard or disease - Please specify *[Max 100 characters]*
 - ☐ Radiation
 - ☐ Other (Please Specify) *[Max 100 characters]*
11. The entity that made the original request for volunteers *[Select one]*
- a. Local health department
 - b. State health department
 - c. Healthcare organization
 - d. Healthcare coalition
 - e. Other, please specify: *[Max 100 characters]*
12. The requested location for the deployment *[Select one]*
- ☐ Staging/assembly area(s) (not actual incident site)
 - ☐ Hospital(s)
 - ☐ Shelter(s)
 - ☐ Points of Dispensing (POD or PODs)
 - ☐ Alternate care site(s), please specify *[Max 750 characters]*
 - ☐ Other, please specify *[Max 100 characters]*
13. The number of volunteers who were contacted for potential deployment *[Max 5 digits]*
-

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14. Please indicate any barriers to deploying volunteer to support a public health/medical incident within requested timeframe. *[Select all that apply]*

- | | |
|---|--|
| <input type="checkbox"/> Communication | <input type="checkbox"/> Staffing |
| <input type="checkbox"/> Equipment | <input type="checkbox"/> Time constraints |
| <input type="checkbox"/> Funding | <input type="checkbox"/> Training |
| <input type="checkbox"/> Participation | <input type="checkbox"/> Other, please specify |
| <input type="checkbox"/> Policies/procedures | <input type="checkbox"/> None |
| <input type="checkbox"/> Resource limitations | |

15. Continuous Quality Improvement:

a) Were relevant corrective actions/improvement plans items from *prior responses* (including exercises, drills, etc.) related to volunteer management incorporated into planning and/or response procedures before this incident/drill took place?

- ☐ Yes
☐ No
☐ Some

b) Have corrective actions/improvement plan items related to volunteer management been identified as a result of this incident/drill?

- ☐ Yes
☐ No

i. Have they been implemented?

- ☐ Yes
☐ No
☐ Some

16. [Optional] Please provide any additional clarifying, contextual, or other information *[Max 1,000 characters]*

17. Awardees that experience no incidents or exercises involving deployment of volunteers in BP3 do not need to report on this measure; however they must conduct a call down and acknowledgement drill. Please enter the following information on the call down drill.

- Number of volunteers contacted (registered in the ESAR-VHP system) *[Max 5 digits]*
- Number of volunteers contacted (registered in other systems) *[Max 5 digits]*
- Number of volunteers in the ESAR-VHP system that acknowledged contact within the requested timeframe *[Max 5 digits]*
- Number of volunteers registered in other systems that acknowledged contact within the requested timeframe *[Max 5 digits]*
- Requested timeframe for acknowledgment: Hours Mins



How is this measure operationalized?

This measure can also be found in the Hospital Preparedness Program (HPP) Measure Manual: Implementation Guidance for the BP3 HPP Program Measures.

The numerator and denominator for this measure should refer to aggregate numbers of volunteers across a given incident. For example, the public health/medical lead determines in Week 1 of an incident that 100 volunteers are



Pre-Incident

Core Public Health

Response

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needed. In Week 2 it is determined that an additional 100 volunteers are needed. The denominator for this incident is 200.

Awardees should ensure that the number of volunteers included in the denominator does *not* refer to the total number of *potential* volunteers that have been contacted to determine deployment availability or “requested” to deploy. It should only refer to the number of volunteers that the public health/medical lead has determined are needed for the response and has requested for the incident. This number may or may not coincide with how many have been “requested” to deploy via a call down or activation, and should be independent of how many are known to be available. For example, the public health/medical lead determines that 75 volunteers are needed on-scene within 3 days. She makes this request to the state volunteer coordinator, who contacts 900 individuals currently in the ESAR-VHP database. After contacting the entire database of potential volunteers, the volunteer coordinator informs the public health/medical lead that only 20 are available for deployment. The public health/medical lead agrees to take however many are available. Twenty volunteers arrive at the staging area within the 3 day timeframe. The numerator for this incident is 20. The denominator is 75. The denominator is *not* 20 even though the public health/medical lead “agrees” that 20 is acceptable, since this number did not reflect true need, but rather was a function of how many volunteers were available for deployment. Similarly, the denominator is not 900 since this number simply reflects how many individuals were contacted for potential deployment



Key Measurement Terms

Deploy: Deployment is defined as the movement of activated volunteers to a staging area or assigned mission location such as the scene of an incident, planned event, or exercise.

Out-processing volunteers: Out-processing volunteers refers to the return of equipment, operational debriefing, and any transfer of command or responsibilities.

Request: A request is a formal application to ask for a specified number of needed volunteers, typically by local response entities, to the health and medical lead at the local, regional or state level.

Requested timeframe: Requested timeframe is the period of time in which volunteers are requested to report for duty.

Responsible entity or entities: A responsible entity or entities refers to an organization at the awardee or sub-awardee level, which is accountable for completing the specific activity or element associated with one or more PHEP performance measures.

Tracking volunteers: Tracking volunteers refers to the process, plans, or procedures to capture volunteer activities, roles, locations, etc.

Volunteers: Volunteers are individuals supporting the public health/medical incident, including medical and non-medical professionals (e.g., from the ESAR-VHP system, Medical Reserve Corps, etc.)



APPENDIX D: BP3 HPP REPORTING TEMPLATE



Appendix D: BP3 HPP Reporting Template

Introduction

The BP3 reporting template includes all of the data indicators within the two program measures of BP3 implementation guide and the healthcare coalition (HCC) developmental assessment factors. It does not include any additional data related to exercises, budget, training, credentialing of Emergency System for Advance Registration of Volunteer Health Professionals (ESAR-VHP), or facilities. Even though the template was created to reflect the implementation guide, the sections do not directly reflect the organization of the implementation guide. The sections are broken down based on content and level of data aggregation and include all of the program indicators and factors within each section:

- Section 1 includes Cover and Financial.
- Section 2 includes ESAR-VHP form which will not be populated with any data.
- Section 3 includes all of the Awardee Program Indicators.
- Section 4 includes all of the Healthcare Coalition and NIMS information.
- Section 5 includes all of the HCC program indicators and HCC developmental assessment factors. Awardees will be required to fill in Section 5 individually for each HCC identified in Section 4.
- Section 6 includes an optional form which awardees can use to provide further detail for any of their answers provided.

**these forms are only visible when pressing links from either healthcare coalition form.

The BP3 template will be available in PERFORMS Resource Library as well as on PHE.Gov

APPENDIX E: Program Measure Background and History

Appendix E: Background/History

In 2012, HPP began refining its program measurement process to better assess its Awardees' preparation, response, recovery, and mitigation capabilities. The first step of the refinement process was to **reduce** the required number of end-of-year 2012 (BP1) indicators. Next, HPP **refined** the remaining indicators to improve the assessment of national healthcare preparedness and better determine Awardee progress on program measures (previously called performance measures).

The HPP Program Measure development process integrates strategic thinking from the *2012 Healthcare Preparedness Capabilities: National Guidance for Healthcare System Preparedness* (the Capabilities),³¹ the 2009 National Health Security Strategy (NHSS)³², the disaster spectrum cycle,³³ and Healthcare Coalition (HCC) development. The updated HPP Program Measures highlight the importance of HCCs in creating community resiliency. The key components of community resiliency are infrastructure, connectedness, health, organizational, psychological, and economic (see appendix A).

National healthcare preparedness has a limited scientific foundation. The HPP Program Measures strengthen this foundation—better describing national healthcare preparedness enhancing the collection of meaningful data. Awardee reported information can be verified for achievement, improvement, and progress over time. Additionally, the refined program measures have allowed HPP to develop baseline data for standardized analysis to better compare and measure collective national preparedness over time.

In the BP1 performance measure manual, the performance measures (now called program measures) related to each of the eight capabilities outlined in the *National Guidance for Healthcare System Preparedness*. In BP2, HPP reduced the program measures to Medical Surge and Continuity of Healthcare Operations. While HPP has reduced the number of program measures, the refined indicators under the remaining two measures incorporate the critical components of the Capabilities. In BP2, HPP also introduced the HCC Developmental Assessment factors (HCCDA), which determine an HCC's ability to perform essential functions. The HCCDA factors encourage and foster communication between the HCC and Awardee and gauge the level of HCC development over time and across the disaster spectrum.

The mid-year BP1 data collection effort provided HPP with an opportunity to better understand how to evaluate Awardee performance. HPP recognized that the previous reporting effort was a considerable burden on Awardees. To minimize this burden, HPP launched a thorough investigation of the performance measures with the goal of targeted reduction and further refinement. The investigation was a three-step process:

1. **An environmental scan/document review:** A research team reviewed and gathered background research about preparedness, best practices, and performance measures that impact program measures for healthcare disaster preparedness. This list includes, but is not limited to: policy documents from the Department of Homeland Security, the Healthcare Preparedness Capabilities document, National Incident Management System (NIMS) references, relevant scientific and healthcare journal articles, and online newspaper and web articles referencing key lessons learned from actual events.
2. **Quantitative analysis of the data collected in the mid-year BP1 template:** Concepts essential to HPP's work, such as healthcare system preparedness, emergency operations coordination, and medical surge, do not have natural measurement units associated with them. Under these circumstances, a common approach is to operate with a number of proxy variables that share correlation with that (latent) variable, but also contain measurement error. A popular tool to analyze such problems is confirmatory factor analysis (CFA). This

³¹ On January 19, 2012 the Assistant Secretary for Preparedness and Response (ASPR) released the Hospital Preparedness Program (HPP) Capabilities document, "The Healthcare Preparedness Capabilities: National Guidance for Healthcare System Preparedness".

³² The purpose of the NHSS is to refocus the patchwork of disparate public health and medical preparedness, response, and recovery strategies in order to ensure that the nation is prepared for, protected from, and resilient in the face of health threats or incidents with potentially negative health consequences.

³³ The disaster life cycle describes the process through which emergency managers prepare for emergencies and disasters, respond to them when they occur, help people and institutions recover from them, mitigate their effects, reduce the risk of loss, and prevent disasters from occurring.

multivariate statistical technique assesses the researcher's theory that suggests the number of latent (or unobserved) factors and their relation to the observed variables, or indicators. The quantitative data analysis utilized CFA to determine which data indicators to retain for end-of-year 2012 (BP1) or to retire for their respective performance measures. Evaluators use CFA when observed variables (e.g. indicators) are believed to jointly represent an unobserved latent construct (e.g. performance measure). Utilizing maximum likelihood estimation procedures, evaluators derived estimates (in the form of factor loading scores) to partially guide decision-making processes for exclusion/inclusion of indicators.

3. **Qualitative analysis through focus groups and key informant interviews with HCC representatives, HPP Awardees, HHS personnel, and other subject matter experts:** The mid-year template data was limited, did not sufficiently explain why an Awardee had not completed or fulfilled an indicator, and lacked a substantive explanation in the supplemental information. To provide a more complete picture, evaluators conducted focus groups and key informant interviews to determine:
 - How well provisional performance measures were able to convey practical preparedness for a particular capability,
 - The extent to which data availability, data collection, data reporting, and information burden impacted performance measure reporting, and
 - The extent to which training and technical assistance strategies helped Awardees under the intent of provisional performance measures.

HPP Program Measure Development Process

HPP developed the current Program Measures using a three-step process of reduction, refinement, and recalibration (see [Implementation Guidance for HPP Program Measures](#)) of BP1 provisional performance measures³⁴:

1. **Reduce:** During BP1, the mid-year data collection consisted of eight provisional performance measures and 83 associated indicators. HPP analyzed the performance measures and indicators (both quantitatively and qualitatively) to clarify ambiguous and omit non-informative indicators. As a result, HPP retired over 60 indicators. The reduction process between mid-year and end-of-year BP1 is summarized in the BP2 [Implementation Guidance for HPP Program Measures](#).

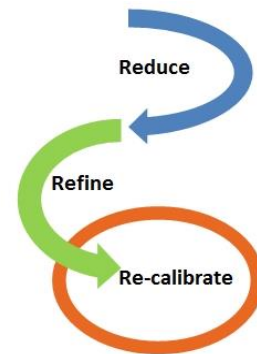


Figure 2. The three-tiered approach used to develop the BP2 Program Measures

Following the reduction phase, HPP refined its indicators. These new indicators formed the basis for the current reporting template (see appendix D). The refined indicators include new, succinct language that stabilizes reporting and reduces Awardee burden. The refinement process better integrates the HPP program and evaluation components of program measurement and integrates and aligns measures with the National Health Security Strategy. HPP integrated the disaster cycle within each program measure and created the HCC Developmental Assessment tool to evaluate HCC development over time.

³⁴ Prior to 2013, performance measure was the term used. Starting in 2013 the correct term is program measure.

Table 10. Reduction of BP1 Provisional Performance Measures

Performance Measure	Mid-year BP1	End-of-year BP1
Emergency Operations Coordination (EOC)	11	1
Fatality Management	12	2
Volunteer Management	12	1
Responder Safety and Health	9	2
Information Sharing (IS)	7	4
Medical Surge	6	2
Preparedness	11	4
Recovery	15	5
Total # of Indicators	83	21

2. **Refine:** During BP2, the eight performance measures underwent realignment with the NHSS goals. This consisted of incorporating the disaster cycle within each performance measure, as well as refining the language of the indicators that remained after the reduction phase. As a result, a new concept of performance measures emerged, which re-categorized eight BP1 performance measures into two BP2 HPP Program Measures: Medical Surge and Continuity of Healthcare Operations (see [Implementation Guidance for HPP Program Measures](#)). The definitions for the two BP2 HPP Program Measures are contained in Table 11. The performance/program measure refinement process resulted in the creation of an assessment tool that could evaluate HCC development and maturation over time.

Table 11. BP2 HPP Program Measures

HPP Program Measures	
Medical Surge	The goal of Medical Surge is to increase surge capacities and capabilities of Awardees, HCCs, and their members for preparedness, response, recovery, and mitigation activities.
Continuity of Healthcare Operations	The goal of Continuity of Healthcare Operations is to maintain vital public health and medical services to allow for optimal federal, state, local, and tribal operations in the event of a public health emergency.

3. **Recalibrate:** From BP3 through BP5 (EOY 14-16), HPP is utilizing the existing evidence base, refined program measures, and baseline HCC data to finalize stable performance targets and incremental milestones. During this time, HPP will consider quality improvement techniques, return on investment, priority setting, pilot recalibrated program measures, and root cause analysis when developing milestones and considering future measurement options. The recalibrated targets and milestones will allow HPP to monitor Awardee progress and will inform HPP's improvement, technical assistance, and policies.

Alignment between BP2 HPP Program Measures and the Healthcare Preparedness Capabilities

The Healthcare Preparedness Capabilities guide (the Capabilities) outlines preparedness efforts at the Awardee and HCC level. Their successful implementation assists local healthcare systems during response and recovery so that:

APPENDICES

1. Community resilience is enhanced through the continued delivery of essential healthcare services to the community post-disaster (Continuity of Healthcare Operations Program Measure)
2. There is a strong emergency response system to provide for effective management for surges of patients, deaths, and concerned citizens (Medical Surge Program Measure)

The two HPP Program Measures presented in this document demonstrate progress toward the objectives described above. The 14 program measure indicators have been further divided into mission areas that closely match the core capabilities of the National Preparedness System and Presidential Policy Directive 8: National Preparedness (PPD-8). The mission areas match the phases of the disaster cycle, which are preparedness; response, recovery, and mitigation (see [Implementation Guidance for HPP Program Measures](#)). Each program measure contains indicators that assist a jurisdiction in achieving the two objectives. Awardees can use this manual and the Capabilities document as a roadmap to develop successful healthcare preparedness programs. Table 12 summarizes the BP2 HPP Program Measure realignment and refinement process.



Table 12. Alignment of Healthcare Preparedness Capabilities to BP2 Program Measures

Figure 3. The Disaster Cycle

Capability	BP2 Program Measure
Health Care System Preparedness	Continuity of Healthcare Operations/Medical Surge
Health Care System Recovery	Continuity of Healthcare Operations/Medical Surge
Emergency Operations Coordination	Continuity of Healthcare Operations
Fatality Management	Medical Surge
Information Sharing (IS)	Joint IS & Continuity of Healthcare Operations
Medical Surge	Medical Surge
Responder Safety and Health	Continuity of Healthcare Operations
Volunteer Management (VM)	Joint VM

The primary objectives of the Capabilities correlate with the goals of the Office of the Assistant Secretary for Preparedness and Response's (ASPR) National Health Security Strategy³⁵ discussed in the following section, [Implementation Guidance for HPP Program Measures](#), depicts the alignment between the *Healthcare Preparedness Capabilities*, current HPP Program Measures, and HPP-PHEP Joint Measures.

³⁵ <http://www.phe.gov/Preparedness/planning/authority/nhss/strategy/Pages/default.aspx>

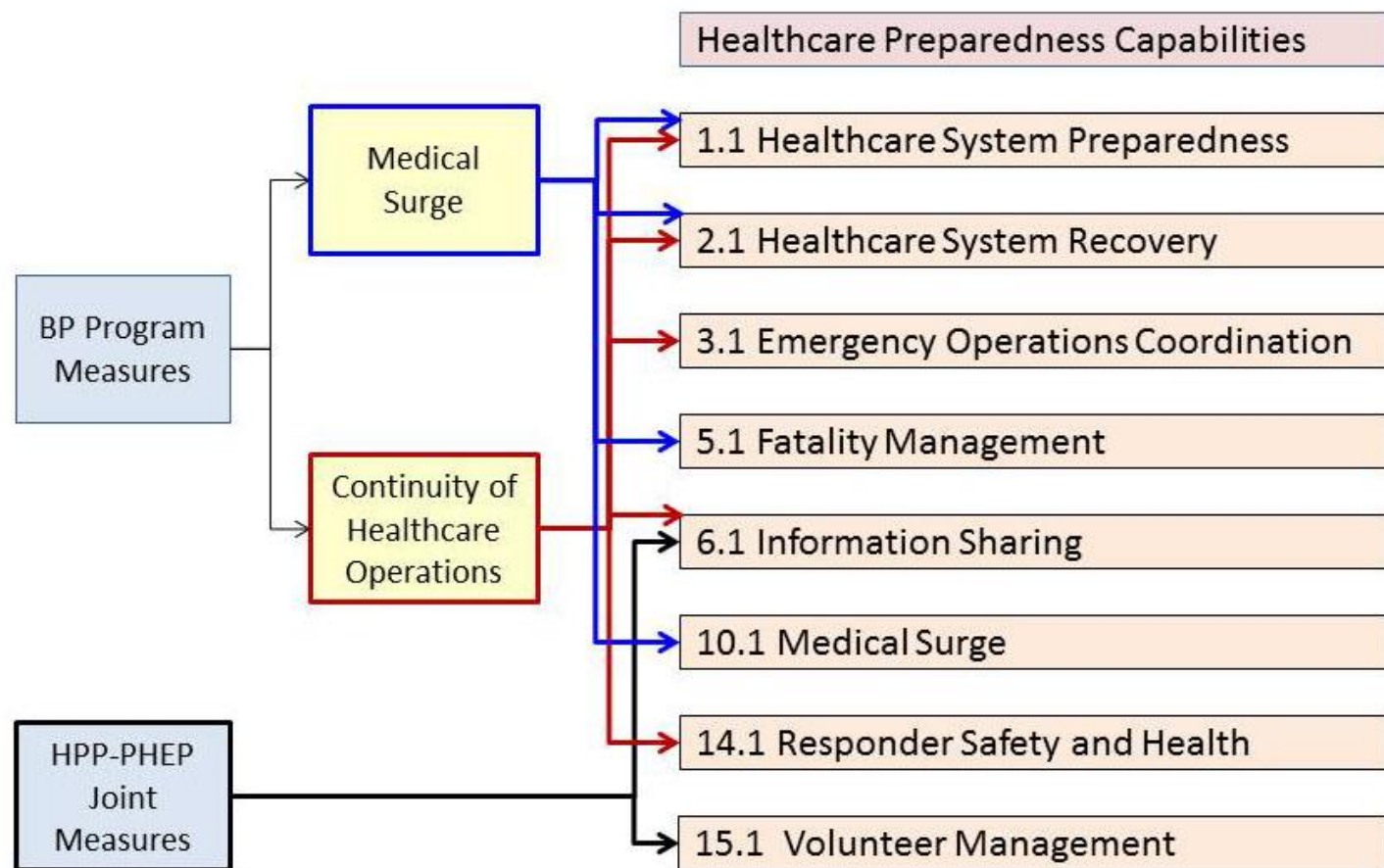


Figure 4. BP2 HPP Program Measure Alignment with the Healthcare Preparedness Capabilities. The mapping of the BP2 HPP Program Measures (Medical Surge lines in blue, Continuity of Healthcare Operations lines in red) and HPP-PHEP Joint Measures (black lines) to the Healthcare Preparedness Capabilities illustrates that all capabilities are accounted for in BP2.

Alignment with the National Health Security Strategy

The *National Health Security Strategy* (NHSS) guides the nation's efforts to minimize the risks associated with a wide range of potential large-scale incidents that threaten the health of its citizens.³⁶ In this context, national health security occurs when the nation and its people are prepared for, protected from, respond effectively to, and are able to recover from incidents with potentially negative health consequences.³⁷ The two main goals of the NHSS are:

- Build community resilience
- Strengthen and sustain health and emergency response systems

The current set of HPP program measures align with the NHSS and provide a larger picture of national health security. HPP designed each measure and indicator to accurately assess an HCC's progress toward disaster preparedness improvement and alignment with the strategic objectives outlined in the NHSS.

HPP's approach integrates the NHSS, Healthcare Preparedness Capabilities, and the disaster cycle into a uniform approach to preparedness (See the [Implementations Guidance for HPP Program Measures](#)).

³⁶ National Health Security Strategy, pg 2 at: <http://www.phe.gov/Preparedness/planning/authority/nhss/strategy/Documents/nhss-final.pdf>.

³⁷ Id.