2017 Health Care Preparedness and Response Capabilities

Pre-Decisional Draft
July 21, 2016

1 Table of Contents

85

86

87 # Introduction

88 The U.S. Department of Health and Human Services (HHS) Office of the Assistant Secretary for
89 Preparedness and Response (ASPR) leads the country in preparing for, responding to, and recovering
90 from the adverse health effects of emergencies and disasters by supporting our communities' ability to
91 withstand adversity, strengthening our health and response systems, and enhancing national health
92 security. ASPR's Hospital Preparedness Program (HPP) enables the health care system to save lives
93 during emergencies that exceed the day-to-day capacity of the health and emergency response systems.
94 HPP is the only source of federal funding that promotes a sustained national focus to improve patient
95 outcomes, minimize the need for supplemental state and federal resources during emergencies, and
96 enable rapid recovery. HPP prepares the health care delivery system to save lives through the
97 development of health care coalitions (HCCs) that incentivize diverse, and often competitive, health care
98 organizations with differing priorities and objectives to work together.

99 ASPR developed the *2017 Health Care Preparedness and Response Capabilities* to describe what the
100 health care delivery system, including HCCs, hospitals, and emergency medical services, have to do to
101 effectively prepare for and respond to emergencies that impact the public's health. The jurisdiction,
102 including public health and emergency management, provide key support to the health care delivery
103 system.

104 Individual health care organizations, HCCs, and jurisdictions that develop the *2017 Health Care*
105 *Preparedness and Response Capabilities* will

106 • Help patients receive the care they need at the right place and at the right time,
107 • Decrease deaths, injuries, and illnesses resulting from emergencies, and
108 • Promote health care system resilience in the aftermath of an emergency.

109 The intended audience for this document is any health care delivery system entity that is or could be a
110 member of an HCC, including the following entities

111 • Hospitals
112 • Emergency medical services
113 • Emergency management
114 • Public health
115 • Behavioral health services and entities
116 • Community and tribal health centers
117 • Dialysis centers
118 • Federal facilities (e.g., Veterans Health Administration hospitals, Indian Health Services facilities,
119   Department of Defense health facilities)
120 • Home health agencies
121 • Local public safety agencies (e.g., law enforcement and fire services)
122 • Non-governmental organizations (e.g., American Red Cross, voluntary organizations active in
123   disaster, amateur radio operators, etc.)
124 • Primary care providers, including pediatric providers
125 • Private entities associated with health care (e.g., hospital associations)
126 • Schools and universities

127   • Skilled nursing, nursing, and long-term care facilities
128   • Specialty service providers (e.g., woman's health, stand-alone surgery centers)
129   • Support service providers (e.g., laboratories, pharmacies, radiology, blood banks, poison control
130   centers)
131   • Urgent care centers and free standing emergency room

Purpose of the 2017 Health Care Preparedness and Response Capabilities

134   The purpose of the *2017 Health Care Preparedness and Response Capabilities* is to outline the high-level
135   objectives the nation's health care delivery system, including HCCs and individual health care entities,
136   should undertake to prepare for, respond to, and recover from emergencies. These capabilities illustrate
137   the range of preparedness and response activities that, if conducted, represent the ideal state of
138   readiness in the United States. These capabilities may not be achieved solely with the funding provided
139   through the HPP cooperative agreement. ASPR will present clear expectations, priorities, and measures
140   for HPP awardees as well as HPP-funded HCCs and health care organizations in the HPP funding
141   opportunity announcement for the five-year project period that begins in 2017.

The Four Capabilities

143   The four Health Care Preparedness and Response Capabilities include the following:

144   **Capability 1: Foundation for Health Care and Medical Readiness**

145   Goal of Capability 1: The community has a sustainable HCC—comprised of members with strong
146   relationships—that can identify hazards and risks and prioritize and address gaps through
147   planning, training, exercising, and acquiring resources.

148   **Capability 2: Health Care and Medical Response and Recovery Coordination**

149   Goal for Capability 2: Health care organizations, HCCs, and their jurisdictions collaborate to
150   share and analyze information, manage resources, and coordinate strategies to deliver **acute**
151   **medical care** to all populations during emergencies and planned events. Simultaneous response
152   and recovery operations result in a return to normal or improved operations.

153   **Capability 3: Continuity of Health Care Service Delivery**

154   Goal for Capability 3: Health care organizations, with support from HCCs, provide uninterrupted
155   medical care to all populations in the face of damaged or disabled health care infrastructure.
156   Health care workers are well-trained, well-educated, and well-equipped to care for patients
157   during emergencies.

158   **Capability 4: Medical Surge**

159   Goal for Capability 4: Health care organizations—including hospitals, EMS, and out of hospital
160   providers—deliver timely and efficient care to their patients even when the demand for health
161   care services exceeds available supply. The HCC coordinates information and all available
162   resources for its members to maintain conventional surge response. When an emergency
163   overwhelms the HCC's collective resources, the HCC facilitates the health care system's

164   transition to contingency and crisis surge response and its return to conventional standards of
165   care.

166 These four capabilities were developed based on the 2012 *Healthcare Preparedness Capabilities:*
167 *National Guidance for Healthcare System Preparedness*. See appendix 1 for more details on the process
168 ASPR followed to revise the capabilities.

169   The Value of Health Care Coalitions in Developing Capabilities

170 HCCs play a critical role in developing health care delivery system preparedness and response
171 capabilities. HCCs serve as multi-agency coordinating groups that support and integrate with Emergency
172 Support Function-8 (ESF-8) activities. HCCs coordinate activities among health care organizations—such
173 as hospitals and emergency medical services (EMS)—emergency management, public health, and other
174 health care members and stakeholders. HCC members actively contribute to HCC strategic planning,
175 operational planning and response, information sharing, and resource coordination and management.
176 As a result, HCCs collaborate to ensure that each member has the necessary medical equipment and
177 supplies, real-time information, communication systems, and trained health care personnel to respond
178 to emergencies and planned events.

179 The values of participating in an HCC are not limited to emergencies—day-to-day benefits may include
180   •   meeting regulatory and accreditation requirements,
181   •   enhancing purchasing power,
182   •   accessing clinical and non-clinical expertise, and
183   •   improving risk profile.

184   Using the Capabilities Document

185 The *2017 Health Care Preparedness and Response Capabilities* are organized into four sections—one for
186 each of the capabilities. Each capability has a goal and a set of objectives with associated activities.

187   •   Goal: The outcome of developing the capability
188   •   Objectives: Overarching components of the capabilities that, when completed, help achieve the
189   goal
190   •   Activities: Tasks critical for achieving an objective

191 The capabilities are a high-level overview of the objectives and activities the nation's health care
192 delivery system, including HCCs and individual health care entities, should undertake to prepare for,
193 respond to, and recover from emergencies. ASPR encourages jurisdictions, HCCs, and health care
194 entities to use ASPR's Technical Resources, Assistance Center, and Information Exchange (TRACIE)[1] to
195 receive assistance and resources for developing the capabilities.

---

[1] Technical Resources, Assistance Center, and Information Exchange (TRACIE). HHS ASPR. Web. 20 July 2016.
<https://asprtracie.hhs.gov/>.

196 Capability 1. Foundation for Health Care and Medical
197 Readiness

198 The foundation for health care and medical readiness enables the health care delivery system and other
199 organizations that contribute to responses to coordinate efforts before, during, and after emergencies;
200 continue operations; and appropriately surge as necessary. This is accomplished through the
201 development of health care coalitions (HCCs) that incentivize diverse and often competitive health care
202 organizations with differing priorities and objectives to work together. HCCs collaborate to ensure that
203 each member has the necessary medical equipment and supplies, real-time information, communication
204 systems, and trained health care personnel to respond to an emergency. These efforts help each patient
205 receive the right care at the right place at the right time. To accomplish this, HCCs must coordinate
206 among *core* members, including health care entities—such as hospitals and emergency medical services
207 (EMS)—emergency management, and public health. Engaging health care members and other
208 stakeholders is also critical to health care delivery system readiness and successful delivery of care.

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

210 The community has a sustainable HCC—comprised of members with strong relationships—that can
211 identify hazards and risks, and prioritize and address gaps through planning, training, exercising, and
212 acquiring resources.

213 Objective 1: Establish a Health Care Coalition

214 Key HCC priorities include coordinating with members for

215 • Strategic planning,
216 • Operational planning and response,
217 • Information sharing, and
218 • Resource requests and management.

219 HCCs serve as multi-agency coordination groups that support and integrate with Emergency Support
220 Function Public Health and Medical Services-8 (ESF-8)[2] activities. This integration with ESF-8 may vary
221 depending on the community. Please note that details on ESF-8 and situational awareness are included
222 in Capability 2 – Health Care and Medical Response and Recovery Coordination.

223 Activity 1. Define Regional Boundaries

224 HCC boundaries should be defined based on daily health care delivery patterns—including fully
225 integrated corporate health systems—and entities within a defined geographic region, such as
226 independent organizations and federal health care entities. Defined boundaries should encompass more
227 than one of each member type (e.g., hospitals and EMS) to enable coordination and enhance the HCC's
228 ability to share the load during an emergency. HCC boundaries may span several jurisdictional or

---

[2]*Emergency Support Function #8 – Public Health and Medical Services Annex.* FEMA. Jan. 2008. Web. 18 July 2016.
<https://www.fema.gov/media-library-data/20130726-1825-25045-
8027/emergency_support_function_8_public_health___medical_services_annex_2008.pdf>.

229   political boundaries as emergencies do not respect borders. HCCs should coordinate with all ESF-8 lead
230   agencies within their boundaries.

231   Outlined below are general principles when defining HCC boundaries:

232   • HCCs should include enough members to ensure adequate resources while maintaining span of
233   control. At the same time, having members that are geographically too far apart would make
234   patient distribution and resource coordination impractical.
235   • Existing regional service areas (e.g., EMS, trauma, or emergency management regions) may be
236   valuable to consider when establishing HCC boundaries as they define common and known
237   health care delivery and emergency response activities.
238   • As an HCC is established, it may form around existing "hub and spoke" referral patterns in the
239   area, including a fully integrated corporate health system, while taking care not to exclude
240   independent facilities in the area.

Activity 2. Identify Health Care Coalition Members

242   An HCC member is defined as an entity within the defined boundaries of the HCC that actively
243   contributes to HCC strategic planning, operational planning and response, information sharing, and
244   resource coordination and management. In cases where there are multiple entities of each HCC member
245   type, there may be a subcommittee structure that establishes a lead entity that communicates common
246   interests to the HCC. HCC membership does not begin or end with attending meetings.

247   HCCs should include a diverse membership to ensure a successful whole community[3] response. If
248   segments of the community are unprepared or not engaged, there is greater risk that the acute health
249   care delivery system will be further burdened. As such, HCCs should liaise with the broader response
250   community on a regular basis.

251   • Core HCC members include the following:
252   o Hospitals (all acute care hospitals within an HCC's boundaries)
253   o EMS
254   o Emergency management
255   o Public health
256   • Examples of additional HCC members include the following:
257   o Behavioral health services and entities
258   o Community and tribal health centers
259   o Dialysis centers
260   o Federal facilities (e.g., Veterans Health Administration hospitals, Indian Health Services
261   facilities, Department of Defense health facilities)
262   o Home health agencies
263   o Local public safety agencies (e.g., law enforcement and fire services)
264   o Skilled nursing, nursing, and long-term care facilities
265   o Non-governmental organizations (e.g., American Red Cross, voluntary organizations
266   active in emergency responses, amateur radio operators, etc.)
267   o Primary care providers, including pediatric providers

---

[3]*Whole Community.* FEMA. 10 June 2016. Web. 19 July 2016. <https://www.fema.gov/whole-community>.

268   o   Private entities associated with health care (e.g., hospital associations)

269   o   Schools and universities, including academic medical centers

270   o   Specialty service providers (e.g., women's health, stand-alone surgery centers)

271   o   Support service providers (e.g., laboratories, pharmacies, radiology, blood banks, poison

272   control centers)

273   o   Urgent care centers and free standing emergency rooms

274 Specialty patient referral centers (e.g., pediatric, burn, and trauma centers) should be formal members
275 of an HCC within whose boundaries they are located. They also serve as referral centers to other HCCs
276 where that specialty care does not exist. Therefore, they should support other HCC's planning and
277 exercise activities.

278 Urban and rural HCCs may have different membership compositions based on population characteristics
279 and hazards. For example, in urban areas, dialysis centers and skilled nursing, nursing, and long-term
280 care facilities' continuity of operations have been significant during recent emergencies; whereas in
281 rural areas, tribal or support services may play a more prominent role in the HCC.

Activity 3. Establish Health Care Coalition Governance and Structure

283 The primary purpose of establishing an HCC governance body and structure is to identify how HCCs
284 conduct activities related to health care delivery system readiness coordination. The HCC should
285 establish a governance body that is adopted by its members, reviewed regularly, and includes a process
286 for making changes. The governance body should

287   •   Represent HCC membership,

288   •   Establish an organizational structure that includes executive and general committees, election
289   or appointment processes, and any necessary administrative rules and operational functions
290   (e.g., bylaws) to support HCC activities,

291   •   Define member guidelines for participation and engagement that consider each member and
292   region's geography, resources, and other factors, and

293   •   Develop a governance document that defines HCC integration within existing local, state, and
294   member-specific incident management structures and specifies roles—such as a primary point
295   of contact (POC)—that serve as the liaison to ESF-8 and Emergency Operations Centers (EOCs)
296   during an emergency.

Objective 2: Identify Risk and Needs

298 HCCs should plan based on the risks and needs for their defined regions. By conducting assessments—or
299 using and modifying data from existing assessments for health care readiness purposes—HCCs can
300 collect information on the resources and gaps of the larger surrounding area, individuals that may
301 require additional assistance before, during, and after an emergency, and applicable regulatory and
302 compliance issues. Upon identification of risks and needs, the HCC and its members may use the
303 information collected to inform activities and prioritize ways to close or mitigate preparedness and
304 response gaps in the region.

Activity 1. Assess Hazard Vulnerabilities and Risks

A hazard vulnerability analysis (HVA) is a systematic approach to identifying hazards or risks that are most likely to have an impact on the demand for health care services or the health care delivery system's ability to provide these services. This assessment may also include estimates of potential casualties and fatalities based on the identified risks. HCCs and their members may use a variety of HVA tools[4] that are most useful to their unique facility and jurisdictional needs.

Outlined below are general principles when assessing hazard vulnerabilities and risks:

- The HVA process should be coordinated with the state and local emergency management Threat and Hazard Identification and Risk Assessment (THIRA)[5] and any public health hazard assessments.
- Health care facilities and entities should provide input into the development of the regional HVA based on their facilities' or organizations' HVAs.
- The assessment components should include regional characteristics, such as risks for natural disasters or terrorist attacks, demographics, geography, and critical infrastructure.
- The HCC should regularly review and share the HVA with all members (e.g., annually).

Activity 2. Assess Regional Health Care Resources

HCC members should perform an assessment to identify health care resources and services that are vital for continuity of health care delivery during an emergency. HCCs should then collect information to identify resources within their areas that could be coordinated and shared. This information is critical to uncovering resource vulnerabilities relative to the HVA that could impede the delivery of acute medical care and health care services during emergencies.

The resource assessment will be different for various HCC member types. These resources will include, but not be limited to, the following:

- Critical infrastructure supporting health care (e.g., utilities, hospital infrastructure, roadways, etc.)
- Hospital services – inpatient, outpatient, emergency department, and support services (see Capability 4 – Medical Surge for further details)
- Ambulatory health care service delivery
- Health care workforce
- Health care supply chain
- Medical and non-medical transportation system
- Health care information systems and communications (facility or health system)
- Electronic platforms for HCC information sharing and coordination activities and appropriate redundancies
- Caches and community emergency assets

---

[4] *ASPR TRACIE Evaluation of Hazard Vulnerability Assessment Tools*. 2016. Web. 19 July 2016. <https://asprtracie.hhs.gov/documents/tracie-evaluation-of-HVA-tools.pdf>
[5] *Threat and Hazard Identification and Risk Assessment*. FEMA. March 2015. Web. 19 July 2016. <https://www.fema.gov/threat-and-hazard-identification-and-risk-assessment>

340 • Private sector assets that can support emergency operations

Activity 3. Identify and Prioritize Resource Gaps

342 A comparison between available resources and current HVA(s) will identify gaps and help prioritize HCC
343 and HCC member activities. Gaps may include lack of or inadequate plans or protocols, staff, equipment
344 and supplies, skills and expertise, services, or any other resources required to respond. Just as the
345 resource assessment will be different for the different member types, so will the efforts to prioritize
346 identified gaps. Gaps may be addressed through coordination, planning, training, or acquisition of
347 resources. HCC members should prioritize gaps based on consensus agreement and then establish
348 strategies and tactics to close the gaps. During the prioritization process, it is understood that certain
349 response activities may require external support or intervention as emergencies may exceed the
350 preparedness thresholds the HCC, its members, and the community have deemed reasonable. Planning
351 to access and integrate external partners and resources is a key part of gap closure.

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

355 Certain individuals may require additional assistance before, during, and after an emergency. HCCs and
356 their members should conduct inclusive planning for the whole community, including children, pregnant
357 women, seniors, and individuals with access and functional needs, including people with disabilities and
358 others with unique needs.

359 HCCs should conducting the following:

360 • Support public health with situational awareness and information technology tools—such as the
361 Department of Health and Human Services emPOWER map[6]—that can help to identify children,
362 seniors, pregnant women, people with disabilities, and others with unique needs
363 • Support public health in developing or augmenting existing response plans for these populations
364 • Identify potential health care system support to these populations (pre- and post-event) that
365 can prevent stress on hospitals during an emergency
366 • Assess needs and contribute to medical planning that may enable individuals to remain in their
367 residences. When that is not possible, support the designated ESF-6 lead agency for Mass Care
368 with planning for medical care at shelter sites and the designation of medical care sites per ESF-
369 8.[7])
370 • Assess transport needs in compliance with the ESF-1 – Transportation annex[8])
371 • Assess specific treatment and access to care needs (e.g., partnering with regional dialysis
372 networks to ensure integration with their HCC response plans)

---

[6] *HHS emPOWER Map*. U.S. Department of Health & Human Services Office of the Assistant Secretary for
Preparedness and Response. 2016. Web. 19 July 2016. <http://www.phe.gov/empowermap/Pages/default.aspx>.
[7]*Emergency Support Function #6 – Mass Care, Emergency Assistance, Housing, and Human Services Annex*. FEMA.
Jan. 2008. Web. 18 July 2016. <https://www.fema.gov/pdf/emergency/nrf/nrf-esf-06.pdf>.
[8]*Emergency Support Function #1 – Transportation Annex*. FEMA. May 2013. Web. 18 July 2016.
https://www.fema.gov/media-library-data/20130726-1913-25045-2201/final_esf_1_transportation_20130501.pdf

Activity 5. Assess and Identify Regulatory Compliance Requirements

Participation in HCCs should help members meet regulations and preparedness requirements, such as exercise and evacuation planning. Additionally, HCCs should identify regulations that may need to be adjusted or suspended during an emergency response. Regulations may have an unintended negative impact on health care delivery during a response, particularly in crisis situations, or offer legal protections to providers or provide a different reimbursement mechanism for facilities during emergencies. The state or jurisdiction should identify how federal or state emergency declarations or other state, local, or federal level actions can support emergency operations.

HCCs should conducting the following:

- Identify and document regulatory and accreditation requirements that impact emergency medical care, including
    - Centers for Medicare and Medicaid Services (CMS) conditions of participation,[9]
    - Health Insurance Portability and Accountability Act (HIPAA) requirements,[10]
    - Emergency Medical Treatment & Labor Act (EMTALA) requirements,[11]
    - Joint Commission[12], DNV GL – Healthcare[13], or other accrediting organizations requirements,
    - Federal disaster declaration processes[14,15] and protections for federal responders,
    - Environmental Protection Agency (EPA) requirements,[16] and
    - Occupational Safety and Health Administration (OSHA) requirements[17] (e.g., general duty clause, blood-borne pathogen standard).
- Identify and document state or local regulations that impact emergency medical care, including any that may require modification, such as
    - State or local staffing requirements,
    - State-specific health care practitioner licensure, practice standards, reciprocity, and scope of practice limitations,

---

[9]*Medicare Program; Clarifying Policies Related to the Responsibilities of Medicare-Participating Hospitals in Treating Individuals with Emergency Medical Conditions.* Department of Health and Human Services Centers for Medicare & Medicaid Services. 42 CFR Parts 413, 482, and 389. Web. 19 July 2016. <https://www.cms.gov/Regulations-and-Guidance/Legislation/EMTALA/Downloads/CMS-1063-F.pdf>.

[10] *Emergency Situations: Preparedness, Planning, and Response.* U.S. Department of Health & Human Services. 2016. Web. 19 July 2016. <http://www.hhs.gov/hipaa/for-professionals/special-topics/emergency-preparedness/index.html>.

[11]*Emergency Medical Treatment & Labor Act (EMTALA).* Centers for Medicare & Medicaid Services. 2012. Web. 19 July 2016. <https://www.cms.gov/Regulations-and-Guidance/Legislation/EMTALA/>.

[12]*Emergency Management Resources*. The Joint Commission. 2016. Web. 19 July 2016. <https://www.jointcommission.org/emergency_management.aspx>.

[13]DNV.GL 2016. Web. 19 July 2016. <http://dnvglhealthcare.com/>.

[14] *The Disaster Declaration Process.* FEMA. 3 June 2016. Web. 19 July 2016. <https://www.fema.gov/disaster-declaration-process>.

[15]*Legal Authority of the Secretary*. U.S. Department of Health & Human Services Office of the Assistant Secretary for Preparedness and Response. 2016. Web. 19 July 2016. <http://www.phe.gov/preparedness/support/secauthority/Pages/default.aspx>.

[16]EPA laws and regulations. EPA. June 2016. Web. 19 July 2016. <https://www.epa.gov/laws-regulations>.

[17]OHSA laws and regulations. OSHA. Web. 19 July 2016. <https://www.osha.gov/law-regs.html>.

398   o   Legal authorization to allocate personnel, resources, equipment, and supplies between
399   health care entities,
400   o   State-specific regulations and statutes, and local ordinances guiding health care delivery
401   and response,
402   o   Legal issues related to isolation and quarantine, and
403   o   Available liability protections for responders.
404   •   Identify and document the process and information required to request necessary waivers and
405   suspension of regulations, including
406   o   Processes for emergency resource acquisition (this may require coordination with the
407   local, state, or federal government),
408   o   Scope and breadth of emergency declarations and ensuing powers to respond,
409   o   Special waiver processes (e.g., section 1135 of the Social Security Act waivers[18]) of key
410   regulatory requirements pursuant to emergency declarations,
411   o   Process for Food and Drug Administration (FDA) issuance of emergency use
412   authorizations[19] for use of non-approved drugs or devices,
413   o   Legal resources[20] related to hospital legal preparedness, such as the deployment and
414   use of volunteer health practitioners,
415   o   Legal and regulatory support for alternate care sites and practices, and
416   o   Legal issues regarding population-based interventions, such as mass prophylaxis and
417   vaccination.

Objective 3: Develop an HCC Preparedness Workplan

419 Information collected on hazard vulnerabilities and risks, resources, gaps, the needs of children,
420 pregnant women, and individuals with access and functional needs, and the legal and regulatory
421 considerations should collectively inform an HCC preparedness workplan and a separate HCC response
422 plan (addressed in Capability 2 – Health Care and Medical Response and Recovery Coordination). The
423 HCC preparedness workplan enhances preparedness through cooperative activities based on common
424 priorities and objectives. Both the HCC preparedness workplan and the HCC response plan have
425 common elements of information sharing and communication, activity and strategy coordination, and
426 planning with members and other stakeholders. During a response, HCCs will have additional
427 responsibilities, including, situational reporting, resource tracking, and allocation support. The HCC
428 should coordinate the development of the HCC preparedness workplan by involving its core members
429 and other HCC members so that the hospital, EMS, public health, and emergency management equities
430 are represented, at a minimum.

---

[18]*Additional Emergency and Disaster-Related Policies and Procedures That May Be Implemented Only With a §
1135 Waiver*. Medicare Fee-For-Service. 31 Jan. 2013. Web. 19 July 2016. <https://www.cms.gov/About-
CMS/Agency-Information/Emergency/Downloads/MedicareFFS-EmergencyQsAs1135Waiver.pdf>.
[19]*Emergency Use Authorization of Medical Products and Related Authorities Guidance for Industry and Public
Health Stakeholders Draft Guidance.* FDA. Apr. 2016. Web. 19 July 2016.
<http://www.fda.gov/downloads/EmergencyPreparedness/Counterterrorism/MedicalCountermeasures/MCMLega
lRegulatoryandPolicyFramework/UCM493627.pdf>.
[20]*Hospital Legal Preparedness: Relevant Resources.* CDC. 20 Apr. 2015. Web. 19 July 2016.
<http://www.cdc.gov/phlp/publications/topic/hospital.html>.

431   Outlined below are general principles for the HCC preparedness workplan:

432   • The workplan should include member type (e.g., skilled nursing, nursing, and long-term care
433   facilities) and HCC-wide priorities for planning and coordination based on regional needs and
434   mitigation of gaps. Priorities will depend on multiple factors including perceived risk,
435   emergencies occurring in the region, available funds, personnel, member facilities and
436   organizations involved, and time constraints.
437   • The workplan should outline strategic and tactical objectives for the HCC as a whole and for
438   each HCC member type. The workplan will drive the planning, training, exercising, and resource
439   and supply acquisition activities during the year.
440   • HCC leadership should guide the initial development of the workplan with broad input from HCC
441   members and other stakeholders. HCCs should consider maximizing the investments of time and
442   resources focused on improving care of the acutely ill and injured patients.
443   • A recurring objective in the preparedness workplan should include developing and reviewing the
444   HCC response plan, which details the responsibilities and roles of the HCC and its members,
445   including how they share information and coordinate activities during an emergency. (See
446   Capability 2 – Health Care and Medical Response and Recovery Coordination).
447   • The workplan should include a timeline of each HCC member's proposed activities, methods to
448   report progress to the HCC, and processes to ensure accountability and completion.
449   • The workplan may include short-term (e.g., within the year) and longer-term (e.g., three- to five-
450   year) objectives.
451

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

454   Training and exercises develop the knowledge, skills, and abilities of an HCC members' workforce to
455   effectively respond to emergencies. This may include clinical training, incident management training,
456   safety and protective equipment training, or planning workshops. Exercises and drills help identify and
457   assess how well a health care delivery system or region is prepared to respond to an emergency. An HCC
458   should help conduct trainings and exercises with its members to promote consistency, engagement, and
459   testing of regional coordination.

Activity 1. Ensure Role-Appropriate National Incident Management System Training

462   An HCC should assist health care facilities and other HCC members with National Incident Management
463   System (NIMS) compliance. HCCs should develop processes and strategies to

464   • Promote NIMS-compliant systems training and exercising within health care entities,
465   • Ensure HCC personnel receive NIMS training and exercise opportunities that will interface with
466   public safety and emergency management during an emergency,
467   • Assist health care entities with incorporating NIMS components into their Emergency
468   Operations Plans, and
469   • Coordinate with state authorities to monitor and track NIMS compliance of HCC members as
470   required.

471 Since NIMS training is generic, individual entities must implement specific incident management
472 systems, such as the Hospital Incident Command System[21], and train personnel on their own plans. HCCs
473 should consider training for individual member entities and HCC leadership on response planning
474 techniques (i.e., Incident Command System (ICS)-300[22], ICS-400[23], and other courses) and other incident
475 management practices that will prepare them for their roles during a response.

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

478 HCC members should support education and training to address health care preparedness and readiness
479 gaps identified through strategic planning, the HCC preparedness workplan, or other assessments.
480 Whenever possible, trainings should be standardized at the HCC level to ensure efficiency and
481 consistency. Education and training should be based on the specific needs (i.e., knowledge, skills, and
482 abilities) and depth (i.e., awareness, knowledge, proficiency) identified by HCC members, including the
483 following:

484 • Ensuring health care providers and ancillary workforce are trained in
485   o clinical management
486   o responder safety and health requirements (see Capability 2 – Health Care and Medical
487   Response and Recovery Coordination), and
488   o their specific roles in the health care delivery system's initial all-hazard emergency
489   response.
490 • Developing and implementing training plans to ensure inclusion of appropriate health care
491   providers and first responders—training plans may include, but are not limited to, initial
492   education, continuing education, appropriate certifications, and just in time training
493 • Employing a variety of modalities (e.g., online, classroom, etc.)
494 • Monitoring the numbers of trained personnel and assessing training effectiveness through drills
495   and evaluation to identify where gaps remain

Activity 3. Develop a Coordinated Exercise Plan with HCC Members and Other Response Entities

498 The HCC should support the development of a coordinated exercise plan to test the health care delivery
499 system. In developing the coordinated exercise plan, the HCC should

500 • Identify common exercise objectives that may be tested through HCC-level exercises and other
501   planned member type-specific (e.g., skilled nursing, nursing, and long-term care facilities)
502   exercises,
503 • Coordinate health care delivery system-wide exercise objectives with those of hospitals, EMS,
504   emergency management, and public health and additional HCC members to the degree possible,

---

[21] *Hospital Incident Command System (HICS)*. 2014. Web. 19 July 2016.
<http://www.emsa.ca.gov/disaster_medical_services_division_hospital_incident_command_system>
[22] *Fact Sheet NIMS ICS-300 Training: Who Must Take It, What It Covers.* FEMA. March 2007. Web. 19 July 2016.
<http://www.fema.gov/pdf/emergency/nims/ics_300_fs.pdf >.
[23] *Fact Sheet NIMS ICS-400 Training in FY 2007: Who Must Take It, What It Covers.* FEMA. March 2007. Web. 19 July
2016. < http://www.fema.gov/pdf/emergency/nims/ics_400_fs.pdf>.

505 • Develop an exercise schedule, and update the schedule annually or in accordance with
506 jurisdictional needs,
507 • Include opportunities for individual facility and organization participation,
508 • Ensure the plan includes an approach for testing health care delivery system readiness, including
509 annual assessment of medical surge,
510 • Ensure the plan includes participating health care entities' roles and responsibilities, and
511 • Include an after-action review, improvement plan, and follow-up process.

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

514 HCC exercise development and execution should consider the following:

515 • Application of Homeland Security Exercise and Evaluation Program (HSEEP) Fundamentals[24] to
516 both the exercise program and the execution of individual exercises
517 • Integration of current health care regulatory requirements such as the Joint Commission
518 Emergency Preparedness Standards and CMS Conditions of Participation
519 • Use of stepwise progression of exercise complexity for a variety of emergency response
520 scenarios (e.g., workshop to tabletop to functional to full-scale exercises)
521 • When appropriate, exercises should include federal, state and local response teams (e.g.,
522 National Disaster Medical System (NDMS) teams, state medical teams, Emergency System for
523 Advance Registration of Volunteer Health Professionals (ESAR-VHP)[25], Medical Reserve Corps
524 (MRC)[26], and other local, state, and federal assets).

525 Activity 5. Evaluate Exercises and Responses to Emergencies

526 The exercise and response evaluation processes should determine gaps in HCC organization, planning,
527 resources, or skills, and these should be documented in an after-action report (AAR). An improvement
528 plan (IP) should detail a plan for addressing the identified gaps, including responsible entities and
529 required time and other resources. An IP should also suggest processes to retest the revised plans and
530 capabilities. Facility and organization evaluations should follow a similar process.

531 The AAR/IP processes should be coordinated with HCC members and other response entities. The same
532 exercise or response may generate facility, member type-specific, HCC, and potentially community
533 AAR/IPs – each with a somewhat different focus and level of detail. Successful HCC maturation depends
534 on integrating AAR/IP findings into the next planning, training, exercise, and resource allocation cycle.

535 Activity 6. Share Leading Practices and Lessons Learned

536 HCCs coordinate with their members, as well as with states, jurisdictions, and other HCCs to share
537 leading practices and lessons learned. Sharing information between HCCs will improve cross-HCC
538 coordination during an emergency and will help further improve coordination efforts. HCCs should

---

[24]*Homeland Security Exercise and Evaluation Program (HSEEP) Fundamentals.* Pg. 1-1. FEMA. April 2013. Web. 19
July 2016. <https://www.fema.gov/media-library-data/20130726-1914-25045-8890/hseep_apr13_.pdf>.
[25] *ESAR-VHP*. ASPR. July 2016. Web. 19 July 2016 <http://www.phe.gov/esarvhp/pages/default.aspx>.
[26] *Division of the Civilian Volunteer – Medical Reserve Corps*. April 2016. Web. 19 July 2016.
<http://www.medicalreservecorps.gov/volunteerfldr/AboutVolunteering>.

539 • Ensure information is shared between HCCs in the region after real-world events and exercises
540 to identify gaps, lessons learned, and leading practices,
541 • Incorporate lessons learned from national and international events into HCC plans and trainings,
542 and
543 • Develop and test mechanisms for rapid acquisition and sharing of new clinical knowledge during
544 exercise scenarios and real world events for a wide range of hazards and threats (e.g., a regional
545 poison center electronically sharing hazardous material information to area emergency
546 departments; coordination of clinical treatment information on a conference call; virtual
547 telemedicine platforms such as Project ECHO (Extension for Community Healthcare
548 Outcomes)[27], and ASPR's Technical Resources, Assistance Center, and Information Exchange
549 (TRACIE)[28]).

550 # Objective 5: Ensure Preparedness is Sustainable
551 A sustainable structure and strategy are essential to continue HCC activities in the future and to
552 promote regional engagement. Sustainability planning is critical component to HCC development.
553 Sustainability should emphasize the HCC processes that support member needs and regulatory
554 requirements (e.g., exercising and evacuation planning). This includes both financial and engagement
555 activities.

556 ## Activity 1. Promote the Value of Health Care and Medical Readiness
557 The HCC, with support from its health care delivery system members, must be able to articulate its role
558 in and benefit (both direct and indirect) to the community and region. HCCs have a duty to plan for a full
559 range of planned events and emergencies that could affect their communities. It is essential that the
560 HCC has members that can serve as a primary points of contact within their respective discipline to
561 promote preparedness and response needs to community leaders. Additionally, members have a shared
562 responsibility to ensure the HCC has visibility into their activities in the region.

563 HCCs should

564 • Develop materials that identify and articulate the benefits of HCC activities to regional
565 stakeholders and
566 • Leverage champions among members and other response entities to promote HCC
567 preparedness efforts to health care executives and other key audiences.

568 ## Activity 2. Engage Health Care Executives
569 The HCC should communicate the direct and indirect benefits of HCC membership to health care
570 executives to advance a "whole of hospital" approach to preparedness and response. Executives can
571 ensure buy-in across all clinical departments and non-clinical support services. The benefits of
572 participating in an HCC are not limited to emergencies. Day-to-day benefits may include

573 • Meeting regulatory and accreditation requirements,
574 • Enhancing purchasing power,

---

[27]*Project ECHO.* 2016. Web. 19 July 2016. <http://echo.unm.edu/>.
[28]*TRACIE.* Department of Health and Human Services Office of the Assistant Secretary for Preparedness and
Response. 2016. Web. 19 July 2016. <https://asprtracie.hhs.gov/>.

575   •   Accessing clinical and non-clinical expertise, and

576   •   Improving risk profile.

577 Health care executives should sign an HCC's memorandum of understanding (MOU) and HCC
578 agreements and should provide input, acknowledgement, and approval regarding HCC strategic
579 operational planning. They should also be engaged in their facilities' plans. HCCs should regularly inform
580 health care executives of HCC activities in their communities through HCC activity reports, member
581 type-specific reports to their leaders, and regular invitation and participation at meetings and exercises.

582 Activity 3. Engage Clinicians

583 HCCs should engage health care delivery system clinical leaders to provide input, acknowledgement, and
584 approval regarding operational planning to ensure a whole of hospital response to an emergency.
585 Clinicians should be included in HCC activities on a regular basis to validate medical surge plans and to
586 provide subject matter expertise to ensure realistic training and exercising. Clinicians should lead the
587 health care provider training for assessing and treating illnesses and injuries specific to various types of
588 emergencies. Clinicians should be engaged in operational planning and contribute to committees and
589 advisory boards, and training and education sessions. Additional engagement can include active
590 participation in planning, exercise, and response activities.

591 Activity 4. Engage Community Leaders

592 Consistent with a "whole community" approach to preparedness, the HCC should actively work with and
593 engage community leaders outside of its members. HCCs should identify and engage community
594 members, business and charitable entities, and the media to be active stakeholders in health care
595 preparedness planning and exercises. Community engagement creates greater awareness of the HCC's
596 role and emergency preparedness activities.

597 Activity 5. Ensure Sustainability of Health Care Coalitions

598 Sustainability is an essential component of HCC development. Documentation of in-kind donation of
599 time, resources, and support is critical to understand the full investment in readiness. Financial
600 strategies, including cost-sharing techniques and other funding options, enhance stability and
601 sustainment.

602 HCCs should

603   •   Analyze critical functions to be preserved and financial opportunities, beyond federal funding, to
604   support or expand HCC functions,
605   •   Develop a financing structure, and document the funding models that support HCC activities
606   •   Determine ways to cost share (e.g., required exercises may be coordinated with emergency
607   management and other entities with similar requirements),
608   •   Explore ways to meet individual members' requirements for tax exemption through community
609   benefit,[29]
610   •   Identify additional funding sources such as federal, foundation, and private funding, HCC dues,
611   and training fees, and

---

[29]*Instructions for Schedule H (Form 990).* IRS. 2015. Web. 18 July 2016. < https://www.irs.gov/pub/irs-pdf/i990sh.pdf>.

612 • Determine how the HCC will continue key coordination activities should funding decrease in the
613 future.

614 HCC members should have awareness of the HCC's sustainability activities, including any requirements
615 established by the HCC lead agency, so they can plan their future investments accordingly.

Capability 2. Health Care and Medical Response and Recovery Coordination

Health care and medical response and recovery coordination enables the health care delivery system and other organizations to share information, manage resources, and integrate their activities with their jurisdictions' health care and medical response and recovery (Emergency Support Function-8[30] and Emergency Support Function-6[31]). Planning for response and recovery together will enable the rapid restoration of health care services. Health care coalitions (HCCs) and their members have a shared and individual responsibilities during and after emergencies.

Goal for Capability 2: Health Care and Medical Response and Recovery Coordination

> Health care organizations, HCCs, and their jurisdictions collaborate to share and analyze information, manage resources, and coordinate strategies to deliver acute medical care to all populations during emergencies and planned events. Simultaneous response and recovery operations result in a return to normal or improved operations.

Objective 1: Develop Coordinated Response Plans

All individual HCC members have response roles. These roles should be coordinated and integrated to reflect the broader response of the HCC recognizing, however, that HCCs have variable degrees of responsibilities during an emergency. Every health care organization must have an Emergency Operations Plan (EOP), and HCCs should have a collective response plan that is informed by their members' individual plans. During emergencies, HCCs support their members' and their community's response by sharing information and resources, facilitating communications between and among HCC members, and ensuring HCCs have visibility of their members' needs. Coordination ensures that the health care delivery system is integrated into the broader community's incident planning objectives and strategy development, and that resource needs that cannot be managed within the HCC are rapidly passed along to the ESF-8 lead agency. HCC coordination may occur at the local Emergency Operations Center (EOC), by virtual means, or at a separate physical site—such as a Health and Medical Coordination Center (HMCC) or Regional Healthcare Coordination Center (RHCC)—that interfaces with the ESF-8 lead agency. Some HCCs already serve as the ESF-8 lead for their jurisdictions. Others integrate with their ESF-8 lead agency by ensuring that the Medical Unit Leader at the jurisdiction's EOC is connected to the HCC and is aware of the HCC's and their members' needs. Regardless, the HCC is the glue that sticks the elements of medical response together and provides the coordination mechanism among health care organizations—such as hospitals and emergency medical services (EMS)— emergency management, and public health, which has been lacking in many prior responses.

Activity 1. Develop Health Care Organization Emergency Operations Plan

Each health care organization should have an Emergency Operations Plan (EOP) to address all-hazards emergencies. The EOP should detail the use of incident management—including specific thresholds for

---

[30]*Emergency Support Function #8 – Public Health and Medical Services Annex.* FEMA. Jan. 2008. Web. 18 July 2016. <https://www.fema.gov/media-library-data/20130726-1825-25045-8027/emergency_support_function_8_public_health___medical_services_annex_2008.pdf> .

[31]*Emergency Support Function #6 – Mass Care, Emergency Assistance, Housing, and Human Services Annex*. FEMA. Jan. 2008. Web. 18 Jul. 2016. <https://www.fema.gov/pdf/emergency/nrf/nrf-esf-06.pdf>.

651 plan activation, alert, and notification processes, response protocols, resource acquisition and sharing—
652 and a process that delineates the proper time to demobilize and begin the transition to recovery and the
653 restoration of normal operations. The plan should define the internal and external sources of
654 information that will be necessary to assess the impact of the emergency on the health care
655 organization. It must also address how the individual HCC member communicates this information to
656 the HCC and to key leadership within the health care organization. The development and utilization of
657 an EOP ensures that fundamental emergency management principles will be applied to the planning for,
658 response to, and recovery from emergencies that stress the health care delivery system, particularly
659 those in which a medical surge (see Capability 4 – Medical Surge) response will be required. Critical
660 elements to include within the health care organization's EOP are those which ensure it is capable of
661 becoming a response organization[32],

662 • Communications (internal and external),
663 • Information management,
664 • Access to resources and supplies,
665 • Assurance of safety and security,
666 • Delineation of staff roles and responsibilities within ICS,
667 • Utility readiness (e.g., back-up generator, water supplies),
668 • Provision of clinical care, and
669 • Support activities.

670 The EOP should summarize the actions taken to initiate and sustain a response to an emergency. Health
671 care organizations' departmental plans should provide specific information for each unit or area.
672 Employees should have a clear understanding of their actions and how to communicate with the facility
673 or organization's EOC during a response.

674 During an emergency, the health care organization plan should help to inform the HCC's expectations
675 related to sharing information, attaining situational awareness, and managing resources, at a minimum.
676 The health care organization should also assist the HCC with patient and resource distribution or re-
677 distribution during a surge emergency (see Capability 4 – Medical Surge).

678 The EOP should contain specialty annexes that document specific planning actions for various types of
679 emergencies (e.g., HAZMAT annex, burn mass casualty plan, pediatric mass casualty plan).

680 Health care organizations should review and update the response plan at least annually but also when
681 necessary after exercises and real world events.

Activity 2. Develop a Health Care Coalition Response Plan

683 The HCC should develop a response plan that clearly defines

684 • Individual member and HCC contact information,
685 • Locations that may be used for multi-agency coordination,
686 • Brief summary of individual member's resources and responsibilities,
687 • Integration with local ESF-8 structures,
688 • Emergency activation thresholds and processes,

---

[32] *Medical Surge Capacity and Capability: A Management System for Integrating Medical and Health Resources During Large-Scale Emergencies.* Second Edition. U.S. Department of Health and Human Services. Sept. 2007.
http://www.phe.gov/preparedness/planning/mscc/handbook/documents/mscc080626.pdf

689 • Alert and notification procedures,
690 • Elements of information agreed to be shared,
691 • Information technology (IT) platforms and redundancies for information sharing,
692 • Patient distribution and tracking procedures and related IT systems,
693 • Resource requests and allocation protocols,
694 • Agreements for support and mutual aid, and
695 • Additional HCC roles and responsibilities as determined by local plans and agreements (e.g.,
696   staff sharing, alternate care sites, shelter support).

697 The HCC should coordinate the development of the response plan by involving its core members and
698 other HCC members so that the hospital, EMS, emergency management, and public health equities are
699 represented, at a minimum. HCC should coordinate the development of the response plan. While the
700 interests of all members and stakeholders should be considered in the plan, the equities of hospitals and
701 EMS are paramount given their roles in patient distribution across the HCC's geographic area during an
702 emergency. The HCCs should review and update the response plan at least annually but also when
703 necessary after exercises and real world events.

704 The response plan should refer to HCC members' and other stakeholders' individual response plans.
705 Each health care entity has an individual role in patient care or patient support. These are the roles and
706 responsibilities that should be clearly defined in the HCC's and individual organization's operational and
707 response planning. However, the HCC is only responsible for those activities that its members agree to
708 delegate to it. In some cases, these activities may be substantial including patient and resource tracking,
709 whereas in others, information sharing and strategy coordination is sufficient to deconflict protocols,
710 share resource requests, and maintain situational awareness while informing incident objectives.

711 Objective 2: Develop Information Sharing Processes and
712 Platforms

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

718 Activity 1. Develop Information Sharing Procedures

719 Individual HCC members must be able to easily access and collect timely, relevant, and actionable
720 information about their own organizations and share it with the HCC and its members and other
721 stakeholders according to protocols, based on predefined triggers. The HCC's information sharing
722 procedures should

723 • Define the methods and frequency of communication and information sharing, as well as the
724   equipment and systems across health care organizations during response and steady state,
725 • Identify triggers that activate the alert and notification process,

726   •   Define the Essential Elements of Information (EEI)[33] that should be reported during an incident
727   and coordinated between HCC members and with local, state, and federal response partners,
728   such as number of patients, severity and types of illnesses or injuries, operating status, resource
729   needs and requests, and bed availability,
730   •   Identify the platform and format for sharing each EEI, and
731   •   Develop a process to validate health care organization status and requests during an emergency,
732   including reports received outside of the HCC's reporting platforms (e.g., media reports, no
733   report when expected, rumors of distress, etc.).

Activity 2. Identify Information Access and Data Protection Procedures

735 HCCs should coordinate with state and local authorities to define information sharing procedures,
736 including

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

Activity 3. Develop and Maintain Communications Systems and Platforms

745 HCCs and their members should send and receive EEIs to maintain situational awareness using primary
746 and redundant systems.

747 HCCs should

748   •   Identify redundant information and communication systems (e.g., incident management
749   software, bed and patient tracking systems, EMS information systems, radios, satellite
750   telephones, etc.); provide access to HCC members and other stakeholders,
751   •   Maintain ability to communicate between health care entities (e.g., between hospitals, EMS,
752   skilled nursing, nursing, and long-term care facilities),
753   •   Restore emergency communications quickly during disruptions through alternate
754   communications methods, and
755   •   Use these systems to effectively coordinate information during emergencies and planned
756   events, as well as on a regular basis, to ensure familiarity with these tools.

Objective 3: Coordinate Response Strategy, Resources, and Communications

759 The HCC should coordinate its response strategy, its members' resource availability and needs, and
760 clearly communicate this information to all HCC members, other stakeholders, and the ESF-8 lead

---

[33]*Essential Elements of Information*. U.S. Department of Health & Human Services Office of the Assistant Secretary
for Preparedness and Response. 13 Aug. 2012. Web. 19 July 2016
<http://www.phe.gov/Preparedness/planning/playbooks/rdd/Pages/essentialelements.aspx>.

761 agency. In addition, the HCC's provision of accurate and timely information to health care providers and
762 the public is critical to the community's successful response to an emergency.

763 Activity 1. Identify and Coordinate Resource Needs during an Emergency

764 The HCC and all of its members—particularly emergency management and public health—must have
765 visibility of its members' resources and resource needs (e.g., personnel, teams, facilities, equipment, and
766 supplies) to appropriately meet the community's clinical care needs during an emergency. Therefore,
767 the HCC should clearly define the resource request processes for its members.

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

769 • HCC members should inform the HCC of their operational status, actions taken, and resource
770 needs, and the HCC will relay this information to the jurisdiction's EOC.
771 • Resource management should include logging, tracking, and vetting resource requests across
772 the HCC and in coordination with ESF-8.
773 • Ideally, systems should track beds available by bed type, resource requests, and include
774 inventory management processes to update and track resources shared between HCC members
775 or from HCC-controlled resource caches.
776 • HCCs should work with distributors to understand and communicate which health care
777 organizations and facilities should have prioritized deliveries of supplies and equipment (e.g.,
778 personal protective equipment (PPE)[34]) depending on the emergency. In some cases, the
779 prioritization of limited resources provided by distributors will have to be determined by HCC
780 leadership, based on input from member organizations, reflecting needs at the time of the
781 emergency. Please note that more information around supply chain integrity for individual HCC
782 members and the HCC can be found in Capability 3 – Continuity of Health Care Service Delivery.

783 Activity 2. Coordinate Incident Action Planning During an Emergency

784 During an emergency or planned event, each health care organization should develop an Incident Action
785 Plan (IAP)[35] and utilize incident action planning cycles to identify and modify objectives and strategies.
786 Similar to the development of health care organizations' EOPs, the individual member plans should
787 contribute to the development of the HCC's IAP with its own focus on planning cycles, objectives, and
788 strategies. Ultimately, the HCC's IAP should be integrated into the jurisdiction's IAP so the approach to
789 establishing strategies and tactics that will govern the response to an emergency or planned event are
790 both transparent and scalable. Keeping response strategies consistent across HCC members requires
791 coordinated discussion and joint decision-making (e.g., implementing alternate care sites, allocating
792 resources, and developing policy on visitors during epidemic events).

793 Activity 3. Communicate with Health Care Providers and Health Care
794 Organizations during an Emergency

795 Accurate and timely information is critical for health care providers during an emergency. Health care
796 organizations should have the ability to rapidly alert and notify their employees to update them on the
797 situation and protect their health and safety (see Capability 3 – Continuity of Health Care Service

---

[34]*Emergency Response Resources.* The National Institute for Occupational Safety and Health (NIOSH). Web. 12
August 2013. <http://www.cdc.gov/niosh/topics/emres/ppe.html>.
[35]*Incident Action Planning Guide.* FEMA Jan. 2012. Web. 18 July 2016. <http://www.fema.gov/media-library-
data/20130726-1822-25045-1815/incident_action_planning_guide_1_26_2012.pdf >

798 Delivery, Objective 5 – Protect Responders' Safety and Health) and to facilitate provider-to-provider
799 communication. HCCs should develop processes and protocols to rapidly acquire and share clinical
800 knowledge between health care providers and between health care organizations during responses to
801 CBRNE, trauma, burn, pediatrics, or highly infectious disease emergencies to improve patient
802 management, particularly at facilities that may not care for these patients regularly.

803 Activity 4. Communicate with the Public during an Emergency

804 HCC members coordinate relevant health care information with the Joint Information System (JIS) to
805 ensure information is accurate and disseminated to the community using one voice. Coordinated health
806 care information that could be shared with the JIS may include

807 • Current health care facility operating status,
808 • When and where to seek care,
809 • Alternate care site locations,
810 • Screening or intervention sites,
811 • Expected health and behavioral health effects related to the emergency,
812 • Information to facilitate reunification of families,
813 • Other relevant health care guidance.

814 The HCC and its members will agree upon the type of information that the HCC will disseminate and the
815 type of information that individual members will disseminate.

816 To prepare the HCC for its public communications role, the HCC should

817 • Provide Public Information Officer (PIO) training to those designated to act in that capacity
818   during an emergency, and
819 • Exercise public communications on an annual basis.

820 Objective 4: Ensure Health Care System Recovery

821 Planning for recovery should be initiated at the beginning of a response in order to facilitate an effective
822 and efficient return to normal or, ideally, improved operations for the provision of health care delivery
823 to the community.

824 Activity 1. Plan for Health Care System Recovery

825 Health care organizations and HCCs should not approach recovery planning by trying to build stand-
826 alone recovery plans. Instead, health care organizations and HCCs should integrate recovery functions
827 into established ICS by writing recovery functions into their EOPs and HCC response plans from the
828 beginning.[36]

---

[36]*Essential Functions and Considerations for Hospital Recovery.* Harvard School of Public Health and
Commonwealth of Massachusetts Department of Public Health Sept. 2013. Web. 18 July 2016.
<http://www.nasemso.org/Projects/DomesticPreparedness/documents/Essential-Functions-and-Considerations-of-Hospital-Recovery.pdf>.

829 HCC members and the HCC should participate in state and local pre-emergency recovery planning
830 activities as described in the National Disaster Recovery Framework[37] in order to leverage recovery
831 resources, programs, projects, and activities. The HCC and its members should identify the health care
832 services required by the community and strategies for the continued delivery of essential health care
833 services after an emergency.

834 ## Activity 2. Assess Health Care Delivery System Recovery Needs after an
835 Emergency

836 HCCs should assist their members with an assessment of emergency-related structural, functional, and
837 operational impacts to health care organizations by

838 • Identifying immediate needs for the delivery of essential health care services,
839 • Identifying long-term health care recovery priorities, and
840 • Communicating short- and long-term priorities to the jurisdiction's ESF-6 and ESF-8 structures.

841 ## Activity 3. Ensure Health Care Delivery System Recovery Assistance and
842 Participation

843 Individual health care members should ensure that the planning and finance administration sections of
844 the ICS structure are initiating the recovery process by

845 • Arranging clean-up services,
846 • Restoring infrastructure to functional status,
847 • Restoring impacted patient care services,
848 • Supporting the physical and behavioral health needs of affected patients, staff, and families,
849 • Connecting patients, staff, and families in need with case management, financial, and insurance
850   services,
851 • Tracking expenditures,
852 • Beginning documentation necessary for state and federal assistance, and
853 • Beginning the after-action learning and improvement process.

854 HCCs support their members in the post-emergency recovery process by assisting the health care
855 delivery system to restore operations and repatriate patients. Additionally, the HCC, along with its
856 government partners (local, state, and federal), should assist its members with the state and/or federal
857 process for reimbursement, reconstitution, and resupply.

858 HCCs and their member organizations provide critical voices to their jurisdictions in determining how
859 their communities will build back better by ensuring the needs of all populations, including children,
860 pregnant women, seniors, and individuals with access and functional needs are addressed.

861

---

[37]*National Disaster Recovery Framework.* FEMA. June 2016. Web. 19 July 2016. <http://www.fema.gov/media-library-data/1466014998123-4bec8550930f774269e0c5968b120ba2/National_Disaster_Recovery_Framework2nd.pdf>.

862 Capability 3. Continuity of Health Care Service Delivery

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

873 Goal for Capability 3: Continuity of Health Care Service Delivery

874 Health care organizations, with support from health care coalitions, provide uninterrupted
875 medical care to all populations in the face of damaged or disabled health care infrastructure.
876 Health care workers are well-trained, well-educated, and well-equipped to care for patients
877 during emergencies.

878 Objective 1: Identify Essential Functions for Health Care Delivery

879 There are key health care functions (e.g., Mission Essential Functions (MEFs)) that must be continued
880 after a disruption of normal activities and are a priority for restoration should any be compromised.
881 Determining a health care organization's key functions are the first steps in its health care continuity
882 planning. HCCs may play an important supporting role in ensuring these functions are being maintained.
883 These key functions include infrastructure and services that are critical to supporting inpatient,
884 outpatient, long-term, and home care activities, including but not limited to

885 • Facility infrastructure,
886 • Utilities (water, electricity, gas, and sewer),
887 • Telecommunications and internet services,
888 • Transportation services,
889 • Nutrition and dietary services,
890 • Supply chain management (leasing, purchasing, and delivery of critical equipment and supplies
891   such as pharmaceuticals), and
892 • Information technology (software and hardware for electronic health records, billing, and
893   clinical services such as lab and radiology).

894 Health care and administrative personnel are a critical component of continuity, which are included in
895 Objective 5, Responders' Safety and Health.

896 Objective 2: Plan for Continuity of Operations

897 The foundations for safe medical care delivery include critical infrastructure and key support systems
898 such as the facilities, resources, and services. Health care organizations should determine their priorities
899 for ensuring key functions are maintained during an emergency, including the provision of care to
900 existing and new patients. Facilities should determine those systems that must be supported and those
901 that can be allowed to fail. In addition, the HCC should have a plan to maintain its own operations.
902 During continuity preparedness activities, the health care organizations and HCCs should consider what

903 disaster risk reduction strategies should be implemented in order to lessen the likelihood of complete
904 and total failure. HCCs should facilitate each individual member's approach to risk reduction to ensure a
905 regional approach to addressing critical infrastructure (e.g., utilities, telecommunications, and supply
906 chain).

Activity 1. Identify Risks and Prioritize Mitigation Strategies

908 Health care organizations should determine mitigation and prioritization strategies after identifying risks
909 in essential systems that support the provision of medical care. This should involve conducting a **risk**
910 **benefit analysis** that considers the time, materials, and resources necessary to close the gaps.

911 HCC members should share their risk analysis and mitigation priorities with the HCC so that members
912 can address common risks through education and training, workshops, and by engaging suppliers or
913 other stakeholders to develop joint strategies and agreements.

Activity 2. Develop Health Care Organization COOP Plans

915 Continuity of Operations (COOP) planning ensures health care operations and business continuity. The
916 health care organization's COOP plans should be an annex to the organization's Emergency Operations
917 Plan (EOP) and, during a response, should be addressed under the ICS. The COOP annex should include
918 the following:

919 • Activation and response functions
920 • Supervisor and managerial points of contact for each department
921 • Orders of succession and delegations of authority
922 • Immediate actions or assessments to be performed in case of disruptions
923 • Safety assessment and resource inventory to determine whether or not the health care
924   organization can continue to operate
925 • Redundant, replacement, or supplemental resources
926 • External organizations to contact (e.g., utilities, HCC members, or other stakeholders)
927 • Strategies and priorities for addressing disruptions.

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

931 HCCs and governmental partners should be engaged when one or more health care organizations are
932 affected or when a disruption to a health care organization requires evacuation or sustained changes in
933 patient flow.

Activity 3. Develop Health Care Coalition COOP Plans

935 HCC COOP plans should be an annex to the HCC's response plan. In addition to the topics covered in
936 Activity 2 – Develop Health Care Organization COOP Plans, the HCC COOP annex should include
937 strategies for communications and leadership continuity.

938 HCCs should ensure that communication and coordination systems that are used for incident
939 management are adequately secured, backed up, and have redundant power and server protections. In
940 addition, redundant or backup systems should be specified in case the usual means of coordination
941 (e.g., internet software platform) are unavailable. Backup plans for communications should be
942 understood prior to an event and documented in the HCC response plan.

943 HCC leadership may not be available to assist with coordination during an emergency due to illness,
944 injury, or other commitments. Orders of succession and delegations of authority should be detailed in
945 the HCC COOP annex, and a suitable number of personnel (ideally not from the same organization)
946 should be trained to carry out the coordination activities of the HCC.

Activity 4. Continue Administrative and Finance Functions

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

Activity 5. Plan for Health Care Organization Sheltering-in-Place

953 The decision to shelter-in-place is based on the nature and timing of the emergency (e.g., tornados,
954 flooding, and improvised nuclear device (IND) detonation), the potential effects on patient care delivery,
955 and the status of critical infrastructure in the surrounding community.[38] Shelter-in-place planning
956 considerations include, but are not limited to

957 • Decision making criteria and authorities,
958 • Identification of patient and non-patient care locations to provide protection from external
959 environment,
960 • Operational procedures for shutting down HVAC, lock-down, and access control,
961 • Assessment of internal capabilities and needs,
962 • Acquisition of supplies, equipment, pharmaceuticals, and other necessary resources for
963 sustainment (e.g., water and food),
964 • Internal and external communications plans, and
965 • Identify triggers for lifting shelter-in-place orders.

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

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

Activity 1. Assess Supply Chain Integrity

972 Each individual member and the HCC should examine their supply chain vulnerabilities by collaborating
973 with vendors to determine access to critical supplies, amounts available in regional systems, and
974 potential alternate delivery options in the case that access or infrastructure is compromised.
975 Collaborations with and assessments of supply chain integrity should include the following

976 • Blood banks
977 • Medical gas suppliers
978 • Fuel suppliers
979 • Nutritional suppliers and food vendors

---

[38]*Hospital Evacuation Decision Guide*. Abt Associates Inc. May 2010. Web. 19 July 2016.
<http://archive.ahrq.gov/prep/hospevacguide/hospevac.pdf>.

980   • Pharmaceutical vendors
981   • Leasing entities for biomedical (monitors, ventilators, etc.) and other durable medical
982   equipment and beds
983   • Major vendors for disposable supplies
984   • Major vendors for PPE
985   • Hazardous waste removal services

986   HCCs should collaborate with vendors and other stakeholders to develop joint understanding and
987   strategies to address vulnerabilities in the supply chain. These vulnerabilities may be addressed by
988   decisions and mitigation strategies at a health care organization and/or an HCC level related to

989   • Stockpile (or maintain and rotate higher stock levels),
990   • Establishing secondary vendors,
991   • Developing 'push' or pre-event disaster supply procedures and triggers for activation, or
992   • Identifying alternate modes of delivery.

993   Health care organizations will need to determine whether additional new contracts or other agreements
994   are needed prior to an emergency. In many cases, there is little redundancy in available vendors and
995   little available inventory, which may contribute to rapid exhaustion of supplies in a major emergency.
996   HCC agreements to share supplies may provide a critical resource during emergencies; these
997   agreements should be developed and documented prior to an emergency.

998   When these strategies fail, health care organizations and HCCs should consider the implementation of
999   contingency plans that include conservation, substitution, adaptation, reuse, or reallocation.[39]

Activity 2. Assess and Address Pharmaceutical Requirements

1001   Medications are needed for both emergency treatment and to maintain the health of patients. Health
1002   care organizations should maintain awareness of critical medications they have on hand and how to
1003   obtain additional supplies through their HCC and established procurement processes.

1004   Categories of pharmaceuticals, blood products, and intravenous fluids required for emergency
1005   treatment include the following

1006   • Analgesia and sedation medications (including oral and injectable)
1007   • Anesthesia medications (e.g., paralytics)
1008   • Antibiotics (oral and injectable)
1009   • Antivirals (e.g., oseltamivir)
1010   • Tetanus vaccination
1011   • Pressor medications
1012   • Antiemetics
1013   • Respiratory medications (e.g., albuterol)
1014   • Antidotes (e.g., atropine, hydroxycobalamin) – based on community risks and resources
1015   • Psychotropic medications
1016   • Blood products

---

[39]*Guidance for Establishing Crisis Standards of Care for Use in Disaster Situations*. Institute of Medicine of the
National Academies. 2009. Web. 19 July 2016. <http://www.nap.edu/read/12749/chapter/1>.

1017 • Intravenous fluids

1018 Health care organizations should consider ensuring access to formulations appropriate for pediatric
1019 dosing.

1020 For most health care organizations, small increases above baseline levels of common, inexpensive
1021 medications will provide a buffer, particularly when organizations can share resources with HCC
1022 members during an emergency. Decisions to stockpile medications are complex and rely on a risk
1023 assessment and resource commitments by the health care organizations, HCCs, and other stakeholders.
1024 Acquisition, storage, rotation, activation, use, and disposal decisions must all be considered and
1025 documented.

1026 All health care organizations and HCCs should understand the Strategic National Stockpile (SNS)
1027 distribution plan for their jurisdiction. Health care organizations and HCCs in communities participating
1028 in CHEMPACK[40], the Cities Readiness Initiative (CRI)[41], and local and state-based plans that maintain
1029 treatment or prophylaxis caches should ensure they are engaged in the development, training, and
1030 exercising of those distribution plans.

Objective 4: Develop Strategies to Protect Health Care Cyber Networks

1033 Recent cyberattacks on health care organizations have had significant effects on every aspect of patient
1034 care and organizational continuity. With increasing reliance on cyber systems, including electronic
1035 health records, billing, portable patient records, and communication and information sharing systems,
1036 there is a great risk to the integrity and safety of these cyber systems. This highlights the need for health
1037 care organizations of all sizes and types to implement cybersecurity best practices and conduct robust
1038 planning and exercising for cyber incident response and consequence management. As the number of
1039 cyberattacks on this sector increases, health care practitioners, executives, information technology
1040 professionals, and emergency managers must remain current on the ever-changing nature and type of
1041 threats to their organizations, systems, patients, and staff.[42]

1042 Health care organizations, assisted by HCCs, should explore the steps necessary to protect these systems
1043 and have a plan in place for recovery should they be compromised. Some industry recognized best
1044 practices include

1045 • Conducting a computer network assessment to obtain the information necessary to develop a
1046   cyber security plan to reduce cyberattacks and reduce breaches,
1047 • Encrypting all computers and mobile devices,
1048 • Preapproving the use of any devices not issued by the organization,
1049 • Implementing role-based access to any systems to ensure employees only have access to
1050   programs and applications necessary to perform functions of their jobs,

---

[40]CHEMPACK. U.S. Department of Health and Human Services. 2016. Web. 19 July 2016.
<https://chemm.nlm.nih.gov/index.html>.
[41]*Cities Readiness Initiative*. Centers for Disease Control and Prevention. Office of Public Health Preparedness and
Response. 2016. Web. 19 July 2016. <http://www.cdc.gov/phpr/stockpile/cri/>.
[42]*Cybersecurity Topic Collection*. TRACIE Healthcare Emergency Preparedness Information Gateway. 16 June 2016.
Web. 19 July 2016. <https://asprtracie.hhs.gov/documents/cybersecurity.pdf>.

1051   •   Configuring any electronic health records systems or database to require specific access
1052   permissions to each user; inquiring with the EHR vendor to determine how they provide updates
1053   and technical support, and
1054   •   Developing security policies for the use of virtual private network (VPN) or private
1055   connections[43].

Objective 5: Protect Responders' Safety and Health

1056

1057 The safety and health of workers and staff are high priorities for preparedness and continuity as
1058 effective care cannot be delivered without available staff. Processes should be developed and
1059 implemented to equip, train, and provide resources necessary to protect staff from hazards during
1060 response and recovery operations. PPE, medical countermeasures, workplace violence training, and
1061 other interventions specific to an emergency are all necessary to protect health care workers from
1062 illness or injury. This section addresses selected aspects of workforce safety and protection relevant to
1063 emergencies, but does not consider the much broader spectrum of health care worker safety during
1064 routine operations.

Activity 1. Distribute, Train, and Exercise on Personal Protective Equipment

1065
1066

1067 PPE utilization in the health care setting is necessary for a wide range of threats, such as infectious
1068 diseases, radiation, and chemical exposure. PPE should be available to response personnel across
1069 varying job functions. EMS and health care facilities should determine the PPE required by their
1070 expected response roles. Regional procurement of PPE and conducting regional training coordinated by
1071 HCCs may offer significant advantages in pricing and consistency for staff, especially when PPE are
1072 shared across health care organizations in an emergency.

1073 Health care organizations should

1074   •   Create HAZMAT plans that include appropriate staff training requirements and PPE to perform
1075   decontamination per OSHA First Receiver Guidance[44] (for further information on HAZMAT
1076   response please see Capability 4 – Medical Surge),
1077   •   Plan for pre-hospital decontamination and ensure coordination among fire, EMS, and other
1078   health care organizations,
1079   •   Provide PPE and training for health care providers for droplet, airborne, and highly pathogenic
1080   and transmissible infectious diseases,
1081   •   Integrate PPE procurement and training with existing occupational health programs, including
1082   respiratory protection, and
1083   •   Work with health care union and human resources departments to develop policies and
1084   procedures to ensure health care worker readiness and safety associated with caring for
1085   patients.

---

[43]*Protecting the Healthcare Digital Infrastructure: Cybersecurity Checklist*. Healthcare & Public Health Sector Coordinating Councils Public Private Partnership. 2016. Web. 19 July 2016. <http://www.phe.gov/Preparedness/planning/cip/Documents/cybersecurity-checklist.pdf>.

[44]*OSHA Best Practices for Hospital-based First Receivers of Victims from Mass Casualty Incidents Involving the Release of Hazardous Substances*. United States Department of Labor. Jan. 2005. Web. 19 July 2016. <https://www.osha.gov/dts/osta/bestpractices/html/hospital_firstreceivers.html>.

1086 In certain situations, staff exposures may warrant pharmaceutical prophylaxis, which should be
1087 managed according to the health care organization's infection control policies. Exposures may be the
1088 result of PPE failure or exposures prior to patient diagnosis and could involve emerging infectious
1089 disease outbreaks or industrial, natural, or terrorism-related exposures.

Activity 2. Develop Health Care Worker Resilience
1090

1091 A resilient workforce is critical to a successful response to and recovery from emergencies. HCCs and
1092 their members should consider the following:

- Pre-emergency resilience building, such as encouraging healthy lifestyles, developing family emergency plans, conducting staff training for active shooter events, and instituting workplace violence reduction strategies
- Emergency resilience support, such as rotating staff to limit fatigue, providing support to staff and families, providing accurate and timely updates on an evolving situation, providing opportunities for interacting with health care organization leadership, and providing just in time training relative to the emergency
- Post-emergency support, such as providing psychological first aid, distributing information on expected stress responses, conducting self- and peer-assessment and monitoring activities, providing access to employee assistance programs, including professional behavioral health services and modifying duty assignments. Post-incident activities may continue for months and even years beyond the emergency.

Objective 6: Plan for Health Care Evacuation and Relocation
1105

1106 Health care organizations must evacuate or relocate when continuity planning cannot sustain a safe
1107 working environment or when a government entity orders a health care organization to evacuate. HCCs
1108 should ensure all members are included in evacuation and relocation planning, including skilled nursing,
1109 nursing, and long-term care facilities.

Activity 1: Develop Health Care Organization Evacuation and Relocation Plans
1110
1111

1112 Health care organizations need to be prepared for evacuation or relocation when little to no warning is
1113 received. Evacuation and relocation plans assist health care organizations with the safe and effective
1114 care of patients, use of equipment, and utilization of staff when relocating to another part of the facility
1115 or when evacuating patients to another facility. Evacuation and relocation planning should

- Establish authority and decision processes, such as factors to be considered, decision makers, and triggers for decision making
- Ensure internal and external communications
- Identify appropriate relocation and evacuation staging areas within the facility
- Notify HCC and jurisdiction stakeholders
- Identify available destination facilities and their ability to expand existing services to receive patients from evacuating facilities
- Prioritize the order and category of patients chosen for evacuation and relocation
- Match patient needs with available transport resources (including non-EMS transportation assets)

1126 • Move and track patients and ensure vital patient medications and equipment (e.g., mechanical
1127   ventilators) are brought with the patient during patient transport
1128 • Move and track staff, supplies, patient belongings, and medical records when necessary
1129 • Notify families and initiate reunification processes
1130 • Establish procedures for facility closure.

1131 Planning, training, and exercising these activities are critical to the success of relocation and evacuation.
1132 Special consideration should be given to patients that are at highest risk during evacuation. These
1133 patients include critical care, current operative cases, pediatric, psychiatric (including memory/dementia
1134 care), and other patients that may need specialized care during evacuation.

Activity 2. Develop Plans for Evacuation Transportation

1135
1136 HCCs and their members should develop transportation plans for evacuating patients from one health
1137 care facility to another. The plans should

1138 • Include a process to appoint a transport manager or similar position under the ICS operations
1139   section
1140 • Identify a coordinating entity for local EMS agencies
1141 • Understand the HCC's role in coordinating EMS assistance
1142 • Identify transportation assets including non-medical transportation partners, such as
1143   commercial bus company
1144 • Identify processes to access specialized transportation assets through emergency management
1145   (e.g., National Guard, tractors, boats).

1146 Capability 4. Medical Surge

1147 Medical surge is the ability to evaluate and care for a markedly increased volume of patients that
1148 exceeds normal operating capacity.[45] Providing an effective medical surge response is dependent on the
1149 planning and response capabilities developed in Capability 1 – Foundation for Health Care and Medical
1150 Readiness, Capability 2 – Health Care and Medical Response and Recovery Coordination, and Capability
1151 3 – Continuity of Health Care Service Delivery. Developing a health care coalition (HCC) is especially
1152 important in order to coordinate the medical response across health care organizations. Medical surge
1153 requires building capacity and capability:

1154 1. Surge capacity is the ability to manage a sudden influx of patients. It is dependent on a well-
1155 functioning Incident Command System (ICS) and the variables of space, supplies, and staff.[46] The
1156 surge requirements may extend beyond direct patient care (e.g., extensive laboratory studies).[47]
1157 2. Surge capability is the ability to manage patients requiring very specialized medical evaluation
1158 and care. Surge requirements span a range of medical and health care services (e.g., expertise,
1159 information, procedures, or personnel) that are not normally available at the location where
1160 they are needed (e.g., pediatric care provided at non-pediatric facilities or burn care services at
1161 a non-burn center). Surge capability also includes special interventions in response to
1162 uncommon and resource intensive patient diagnoses (e.g., Ebola, radiation sickness) to protect
1163 medical providers, other patients, and the integrity of the medical care facility.

1164 Though these terms are not mutually exclusive (e.g., an emergency with large numbers of burn patients
1165 results in a need for capacity and capability), they provide context for medical surge planning and can
1166 assist HCCs in developing regional approaches to provide care to patients with specific illnesses or
1167 injuries resulting from a wide variety of emergencies (e.g., regional viral hemorrhagic fever plan,
1168 regional mass burn plan, and regional mass pediatric plan).

1169 HCCs and their members that coordinate during a medical surge response are more likely to be able to
1170 manage the emergency without state or federal assets or employing crisis care strategies[48]. However, it
1171 is not possible to plan for all worst case scenarios and there may be times when the health care system
1172 is stressed beyond its maximum surge capacity. During those scenarios, crisis care strategies must be
1173 employed and planned for well in advance. Planning for medical surge should follow the Medical Surge
1174 Capacity and Capability (MSCC) tiered approach, where successive levels of assistance are activated as
1175 the emergency evolves.

---

[45]*ICDRM/GWU Emergency Management Glossary of Terms*. P. 14. The George Washington University Institute for
Crisis, Disaster, and Risk Management. 30 June 2010 Web. 19 July 2016.
<https://www.gwu.edu/~icdrm/publications/PDF/GLOSSARY - Emergency Management ICDRM 30 JUNE 10.pdf>.
[46]*Health Care System Surge Capacity Recognition, Preparedness, and Response*. American College of Emergency
Physicians. 2014. Web. 19 July 2016 <https://www.acep.org/Clinical---Practice-Management/Health-Care-System-
Surge-Capacity-Recognition,-Preparedness,-and-Response/>.
[47]*ICDRM/GWU Emergency Management Glossary of Terms*. The George Washington University Institute for Crisis,
Disaster, and Risk Management. 30 June 2010 Web. 19 July 2016
<https://www.gwu.edu/~icdrm/publications/PDF/GLOSSARY - Emergency Management ICDRM 30 JUNE 10.pdf>.
[48]*Guidance for Establishing Crisis Standards of Care for Use in Disaster Situations*. Institute of Medicine of the
National Academies. 2009. Web. 19 July 2016. <http://www.nap.edu/read/12749/chapter/1>.

1176   Goal for Capability 4: Medical Surge

1177   Health care organizations—including hospitals, EMS, and out of hospital providers—deliver
1178   timely and efficient care to their patients even when the demand for health care services
1179   exceeds available supply. The HCC coordinates information and all available resources for its
1180   members to maintain conventional surge response. When an emergency overwhelms the HCC's
1181   collective resources, the HCC facilitates the health care system's transition to contingency and
1182   crisis surge response and its return to conventional standards of care.

1183 Objective 1: Plan for a Medical Surge

1184   Health care organizations can only effectively implement and manage medical surge when appropriate
1185   information sharing systems and protocols have been established, appropriate plans have been
1186   developed, and personnel have been trained in their use.

1187 Activity 1. Incorporate Medical Surge Planning into a Health Care
1188 Organization's Emergency Operations Plan (EOP)

1189   For more information on the health care organization's Emergency Operations Plan (EOP), see Capability
1190   2 - Health Care and Medical Response and Recovery Coordination.

1191   With regard to medical surge planning, the EOP should summarize the actions to initiate a response to a
1192   medical surge. The EOP should include individual departmental sections that provide specific surge
1193   strategies for each unit or service line. Health care organizations should predetermine surge strategies,
1194   which employees may easily implement with minimal guidance. Further, employees should clearly know
1195   how to communicate with the organization's Emergency Operations Center (EOC). As the response
1196   evolves, refinement of strategies according to the scope of the emergency can occur with better
1197   situational awareness of the emergency and the status of the health care organizations and HCC.

1198   During an emergency, at a minimum, the health care organization's EOP should help inform the HCC's
1199   expectations relative to sharing information, attaining situational awareness, and managing resources.
1200   The health care organization should also assist the HCC with patient and resource distribution or re-
1201   distribution during a surge emergency.

1202 Activity 2. Incorporate Medical Surge into an Emergency Medical
1203 Services EOP

1204   The EMS EOP should detail the implementation of a step-wise approach to medical surge, including the
1205   use of conventional, contingency (e.g., mutual aid), and crisis care strategies (e.g., request for National
1206   Guard resources) to address potential shortfalls. Ultimately, EMS organizations should strive to return to
1207   normal operations as quickly as possible. Common strategies should be developed and consistently
1208   implemented across EMS providers within the HCC. EMS medical directors and managers should
1209   develop and activate surge protocols appropriate for the emergency that enable their employees to
1210   make informed decisions in the field so they can provide the best care possible.

1211   EMS organizations and HCCs support each other during medical surge and should incorporate
1212   information on dispatch, response, prehospital triage and treatment, transportation, and supplies into
1213   the EMS organization's EOP.

1214 *Table 1 - Elements to Incorporate into an EMS EOP*

Category	Elements to incorporate into an EMS EOP
Dispatch	Identify protocols to • Alert hospitals of an emergency, • Communicate hospital capacity to EMS providers, • Track patients, • Change emergency dispatch processes (e.g., not dispatching EMS to motor vehicle crashes until police or fire report significant injuries), and • Assign low priority calls to other resources or alternative forms of transport.
Response	• Match appropriate specialized providers and equipment with the nature of the emergency (e.g., hazardous materials trained crews during chemical spill) • Consider surge strategies such as changing shift lengths or crew configurations, using alternate vehicles, using community paramedicine or other non-ambulance responses in coordination with dispatch priorities
Prehospital Triage and Treatment	• Implement disaster triage protocols and other standard operating procedures (e.g., no need to obtain verbal orders during responses for advanced life support (ALS) interventions • Plan for specialty responses, such as hazardous materials, viral hemorrhagic fevers, mass burn, mass trauma, and mass pediatric emergencies
Transportation	• Identify preferred destination hospitals for trauma and pediatrics • Identify protocols for changing preferred destination facilities or not using the closest hospital • Identify protocols for type of transport (e.g., ALS, basic life support (BLS), and neonatal and critical care) and protocols for the use of single vehicles to transport multiple patients • Develop and implement EMS strategies to avoid overloading a single hospital with patients
Supplies and Equipment	• Utilize physical resources including equipment and cached materials to support a medical surge

1215

Activity 3. Incorporate Medical Surge into the HCC Response Plan

1217 The HCC response plan as described in Capability 2 - Health Care and Medical Response and Recovery
1218 Coordination should detail the activation and notification processes for initiating medical surge response
1219 coordination among HCC members. The HCC should document information related to medical surge,
1220 particularly for hospitals and EMS, including

1221 • Surge related Essential Elements of Information (EEI), especially bed and resource availability,
1222 • Coordination of surge strategies and objectives,
1223 • Resource requests and management including staff and volunteer management,
1224 • Strategies for initial patient distribution and re-distribution of patients in the event a facility
1225   becomes overwhelmed,

1226   •   Strategies for patient tracking,

1227   •   Medical countermeasures distribution – especially in case of need for mass prophylaxis,

1228   •   Strategies if the emergency overwhelms an HCC's specialty care (e.g., anthrax, burn, pediatric)
1229   resources,

1230   •   Processes for HCC and member decision making and engagement to avoid crisis conditions
1231   based on proactive decisions about resource utilization, and

1232   •   Jurisdictional interface with the NDMS, including an understanding of assets and services
1233   available, coordination with an area's Federal Coordinating Center, and responsibilities for local
1234   support of air and rail heads for patient movement activities.

1235 Objective 2: Respond to a Medical Surge

1236 Independent heath care organizations and the HCC will need to respond to a surge in demand for health
1237 care services as a result of an emergency. This will require a coordinated approach to share information
1238 and resources and ensure the stewardship of beds, medical equipment, supplies, pharmaceuticals, and
1239 other key items to provide the best possible care under such conditions.

1240 Activity 1. Implement Emergency Department and Inpatient Medical
1241 Surge Response

1242 Hospitals must activate their EOP to rapidly develop a medical surge response proportionate to the
1243 emergency. Hospitals should engage HCC members with the end goal of returning to normal operations
1244 as quickly as possible by either acquiring additional resources or sharing the patient load.

1245 Hospitals should develop their MSCC in the following areas:

1246 *Table 2 – Areas to Develop Emergency Department and Inpatient Medical Surge*
1247 *Capacity and Capability*

Area	Description
Emergency Department	• Make beds and surge spaces rapidly available for initial triage and stabilization and obtain additional staff, equipment, and supplies
General Medical, General Surgical, and Monitored Beds	• Ensure immediate bed availability (IBA) (at least 20 percent additional acute care inpatient capacity within the first four hours following an emergency) by rapidly prioritizing patients for discharge, maximizing the use of staffed beds, and using non-traditional spaces (e.g., observation areas)
Critical Care	• Rapidly expand capacity (for those facilities that provide it) by adapting procedural, pre- and post-operative, and other areas for critical care • Assess staff, equipment, and supply needs for these spaces to facilitate requests
Surgical Intervention	• Secure resources such as operating rooms, surgeons, anesthesiologists, operating room nurses, and surgical equipment and supplies to provide time-sensitive, immediate surgical interventions to patients with life threatening injuries
Staffing	• Call back supplemental staff, utilize staff in non-traditional roles • Adjust staffing ratios and shifts as required, and implement HCC member staff sharing plans

Area	Description
Health Care Volunteer Management	• Identify situations that would necessitate the need for volunteers in hospitals • Estimate the anticipated number of volunteers and health professional roles based on identified situations and resource needs of the facility • Identify volunteer liability issues and scope of practice issues that may deter volunteer use • Leverage existing government and non-governmental volunteer registration programs (e.g., Emergency System for Advance Registration of Volunteer Health Professional (ESAR-VHP) and MRC • Develop rapid credential verification processes to facilitate emergency response
Equipment and Supplies	• Implement emergency equipment, supplies and stocking strategies and HCC resource sharing agreements

1248

Activity 2. Implement Out of Hospital Medical Surge Response

1250 Patient care settings outside of hospitals may be impacted during an emergency. For example, structural
1251 impacts from natural disasters or increased demand during epidemics may compromise an outpatient
1252 clinic's ability to provide care. If not adequately addressed, the demand for out of hospital care will
1253 usually fall on hospitals and EMS, further overloading an already burdened system. Safe continued
1254 operations of a community's out of hospital care resources is critical to an effective medical surge
1255 response. Therefore, HCC out of hospital members, including ambulatory care, stand-alone surgical and
1256 specialty centers, skilled nursing, nursing, and long-term care facilities, and home care should share staff
1257 and resources and be fully integrated into the region's surge response activities.

1258

Activity 3. Develop Alternate Care Systems

1260 When demand overwhelms a region or the nation's health care delivery system for a prolonged period,
1261 or an emergency has significantly damaged infrastructure and limited access to health care, health care
1262 organizations and the HCC should work together to meet patient care needs.

1263 Below are considerations when developing alternate care systems:

1264 *Table 3 - Key Considerations to Develop Alternate Care Systems*

Category	Key Considerations
Telemedicine/Virtual Medicine	• Use telephone, internet, telemedicine consultations, or other virtual platforms to provide consultation between providers • Provide access to specialty care expertise where it does not exist within the HCC to allow for remote triage and initial stabilization of patients

Category	Key Considerations
Screening/Early Treatment	• Establish assessment and screening centers that allow the health care delivery system to respond to increased demand for screening and early treatment (e.g., during a pandemic). • These centers would preferentially manage patients with minor symptoms and those who might require limited medical intervention – patients who might otherwise overwhelm emergency departments. Public health and emergency management have a leadership role in selecting, establishing, and operating the sites, though the health care delivery system may provide support, including personnel and supplies.
Medical Care at Shelters	• Provide medical care support at community-established shelters (may involve ESAR-VHP, MRC, disaster medical teams, nursing home staff, or a variety of ambulatory care providers).
Disaster Alternate Care Facilities Selection and Operation	• The support that hospitals and EMS will provide to alternate care sites[49] for non-ambulatory care should these be needed for hospital overflow.

1265

1266 Activity 4. Implement Specialty Care during a Medical Surge Response

1267 Certain emergencies require a specialized response, either because of the hazard posed by the patient,
1268 the specific vulnerabilities of the patient populations, or because of a lack of specialty services for that
1269 patient population in the region. HCCs facilitate the specialty care response through timely information
1270 and resource sharing (e.g., EEIs, expertise that exists within the HCC, etc.).

1271 Below are specialty surge response considerations:

1272 *Table 4 - Key Considerations to Implement Specialty Care during a Medical Surge*
1273 *Response*

Category	Key considerations
Pediatrics	All hospitals must be prepared to receive and stabilize pediatric patients. However, given the limited number of pediatric specialty hospitals, an emergency affecting large numbers of children may require HCC involvement to ensure those children that can benefit the most from pediatric specialty services receive priority for transfer. Additionally, pediatric practitioners may be able to help identify patients that are appropriate for transfer to non-pediatric facilities.

---

[49]*Disaster Alternate Care Facilities: Selection and Operation.* Denver Health. October 2009. Web. 19 July 2016.
<http://archive.ahrq.gov/prep/acfselection/dacfreport.pdf>.

Category	Key considerations
HAZMAT	Each hospital receiving patients from EMS should be prepared to provide wet and dry decontamination by personnel trained and equipped according to the OSHA First Receiver Guidance[50]. Additionally, EMS providers should be aware of the plans for receiving patients, decontamination, patient movement inside the hospital and the hospital's HAZMAT capabilities. Pre-hospital and hospital staff should work together on a regional HAZMAT approach to manage a response. This includes distributing and administering antidotes, including Chempacks[51] when necessary.
Radiation	Many radiation emergencies result in contamination that must be managed similarly to a HAZMAT emergency. In some instances, there may be no contamination or the challenge may be to provide screening and appropriate treatment to patients after a local or remote nuclear accident. Specific local and regional radiation risks and assets should be detailed and EMS should be aware of any facility designations relative to radiation screening and treatment. In particular, all trauma receiving hospitals in urban areas or in close proximity to nuclear facilities should be capable of screening patients for radiation contamination.
Burn	All hospitals must be prepared to receive and stabilize burn patients. However, given the limited number of burn specialty hospitals, an emergency that results in large numbers of burn patients may require HCC involvement to ensure those patients that can benefit the most from burn specialty services receive priority for transfer. Additionally, a specialty hospital can identify patients who do not require burn center care and who are appropriate for transfer to other health care facilities.

---

[50] *OSHA Best Practices for Hospital-based First Receivers of Victims from Mass Casualty Incidents Involving the Release of Hazardous Substances*. Occupational Safety & Health Administration. January 2005. Web. 19 July 2016. <https://www.osha.gov/dts/osta/bestpractices/html/hospital_firstreceivers.html>

[51] *CHEMPACK Overview*. Chemical Hazards Emergency Medical Management, U.S. Department of Health and Human Services. 2016. Web. 19 July 2016. <https://chemm.nlm.nih.gov/index.html>

Category	Key considerations
Highly Infectious Diseases	All hospitals should be prepared to screen patients for signs, symptoms, and relevant travel and exposure history, appropriately isolate patients, and provide Personal Protective Equipment (PPE**)** to their employees and visitors while awaiting either comprehensive evaluation, definitive diagnosis, or transfer. Patients with suspected highly pathogenic respiratory viruses (e.g., severe acute respiratory syndrome (SARS)/MERS) and other highly transmissible infections require assessment and management at a tertiary care facility or designated facility. EMS should coordinate PPE and response protocols with the designated receiving facilities. The HCC should define common visitor policies and expectations across the HCC with regard to infectious diseases. In addition, the HCC should include health care associated infections (HAI) coordinators and quality improvement professionals at the facility and jurisdiction levels in HCC activities, including planning, training, and exercising/drilling. Finally, the HCC should work with its members to document and share promising practices for preventing and responding to HAI and limiting the transmission of infectious diseases within and between health care facilities. This includes utilizing information sharing platforms to notify HCC members of unusually high cases of HAIs or infectious diseases present in member facilities.

Activity 5. Provide Behavioral Health Care during a Medical Surge Response

Emergencies may cause severe emotional impact on survivors, their families, and responders and also cause substantial destabilization of patients with existing behavioral health issues. Hospitals and outpatient care providers, including behavioral health professionals, must identify a regional approach to assess and address the needs of the community. HCC members should ensure a robust behavioral health response that should include, but not be limited to, the following:

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

Activity 6. Manage Mass Fatalities

Hospitals must be able to manage an increase in decedents at their facilities. Hospitals should be aware of community plans and authorities for an emergency resulting in mass fatalities. Mass fatality management may involve emergency management, public health and/or the Office of the Chief Medical Examiner, depending on the nature of the emergency. HCCs and their members should consider the following:

- Preparing for a surge in initial storage of decedents, including those that will not become medical examiner cases (e.g., pandemic)
- Security and management of highly infectious decedents (e.g., Ebola)
- Managing large numbers of family members and friends of decedents who may come to the hospital
- Facilitating the identification of ad hoc mass fatality storage sites in the community (e.g., ice rinks, parking decks, etc.).

Activity 7. Distribute Medical Countermeasures during Medical Surge Response

In coordination with public health, the HCC and its member organizations must be prepared to receive and distribute medical countermeasures (MCM) to their patients, employees, and employee-dependents during a medical surge event (e.g., radiation, botulism, anthrax and other category A bioterrorism agents[52]).

It is important to keep patients, employees, and their families' safe during biological emergencies. A closed point of dispensing (POD) should be established when there is potential or confirmed exposure and where prophylactic MCM exist. Access to such MCM may either be requested through the ESF-8 structure or may exist in HCC or individual HCC member's caches. The closed POD allows for an organized and timely distribution of medication or vaccines to exposed individuals.

Objective 3: Exercise Medical Surge Response

Health care organizations should test all components of surge capacity and capability through an annual functional exercise. This includes mobilization of beds, personnel, and key resources, including equipment, supplies, and pharmaceuticals. HCC members should share information about their operating status and resource availability.

Often, specific and time-limited drills can suffice to test the systems and reinforce learning. Tabletop exercises can provide leadership with experience managing a response and testing surge capacity and capability, including crisis care decisions. [53]

Part of the surge evaluation process includes the ability to conduct specific requests between health care organizations, within the HCC, and to coordinate with ESF-8. Upon completing an exercise, health care organizations should develop an after action report/improvement plan (AAR/IP) to identify gaps, opportunities for improvement, and training needs for medical surge planning. Please refer to Capability 1 - Foundation for Health Care and Medical Readiness, Objective 4 – Train and Prepare the Health Care and Medical Workforce.

---

[52] Bioterrorism Overview. Centers for Disease Control and Prevention. February 2007. Web. 19 July 2016. <http://emergency.cdc.gov/bioterrorism/overview.asp>

[53]*Health Care Coalition Surge Evaluation Tool.* Office of the Assistant Secretary for Preparedness and Response. June 2016. Web. 19 July 2016. < http://www.phe.gov/Preparedness/planning/hpp/Pages/coaltion-tool.aspx>

1329 # Glossary

1330

Term	Definition
Access and Functional Needs	People with access and functional needs include at-risk individuals such as children, seniors, pregnant women, people with disabilities, and others with unique needs.[54]
Acute Medical Care	Acute medical care is the delivery of health care services to a patient that requires care for severe injury or episode of illness, an urgent medical condition, or during recovery from surgery. In medical terms, care for acute health conditions is the opposite from chronic care, or longer term care.[55]
Advanced Life Support (ALS)	If after the preliminary aid is given basic life support (BLS), the emergency medical technician (EMT) feels that more help is required, a member of the Advanced Life Support (ALS) team is requested to take over. The ALS group is a team of highly trained individuals that provide more advanced medical help to the patients in transit when needed. In other words, they are authorized to do the things that EMTs cannot do for the patient.[56]
All-Hazards	Describing an incident, natural or manmade, that warrants action to protect life, property, environment, and public health or safety, and to minimize disruptions of government, social, or economic activities.[57]
Alternate Care Sites	Encompasses all non-hospital-based locations where organized non-ambulatory or ambulatory care can be provided at a time of markedly increased need during a naturally occurring or man-made disaster.[58]
Alternate Care Systems	Encompasses a full array of organizations outside the hospital in which health care can be delivered in a health care emergency, including nursing homes, home care, and skilled nursing, nursing, and long-term care facilities, etc.
Basic Life Support (BLS)	A group that aims to provide basic life support to patients that they are attending to. The group includes • First Responder, • Ambulance Driver,

---

[54] *At-Risk Individuals*. U.S. Department of Health & Human Services Office of the Assistant Secretary for Preparedness and Response. 1 Mar 2015. Web. 20 July 2016. <http://www.phe.gov/preparedness/planning/abc/pages/at-risk.aspx>.

[55] *Acute Care*. Canadian Institute for Health Information. Web. 20 July 2016. <https://www.cihi.ca/en/types-of-care/hospital-care/acute-care>.

[56] *Advanced Life Support*. FC Emergency Medical Services. 2016. Web. 20 July 2016. <http://www.fcems.org/advanced-life-support.html>.

[57] *Glossary*. FEMA. 2016. Web. 20 July 2016. < https://emilms.fema.gov/IS700aNEW/glossary.htm>.

[58] *Disaster Alternate Care Facilities: Selection and Operation.* Denver Health. October 2009. Web. 19 July 2016. <http://archive.ahrq.gov/prep/acfselection/dacfreport.pdf>.

Term	Definition
	• Ambulance Care Assistant, and • EMT – Basic.[59] A basic life support group is the team required to identify emergency situations, give first aid and transport a patient to the nearest hospital if necessary. The emergency medical technician (EMT) is given the task to give all the preliminary aids to the patient if necessary. If the situation calls for it, they can give the patients IV, medicines, and perform oxygen therapies. [60]
Category A Bioterrorism Agents	Category A pathogens are those organisms/biological agents that pose the highest risk to national security and public health because they • Can be easily disseminated or transmitted from person to person, • Result in high mortality rates and have the potential for major public health impact, • Might cause public panic and social disruption, and • Require special action for public health preparedness[61]
Cities Readiness Initiative (CRI)	A federally funded program designed to enhance preparedness in the nation's largest population centers where more than 50% of the U.S. population resides. Using CRI funding, state and large metropolitan public health departments develop, test, and maintain plans to quickly receive and distribute life-saving medicine and medical supplies from the SNS to local communities following a large-scale public health emergency.[62]
Closed Point of Dispensing (POD)	Closed PODs are not open to the public; they are company facilities where medication is made available exclusively to a company's employees and family members.[63]
Community Paramedicine	Allows paramedics and emergency medical technicians (EMTs) to operate in expanded roles to provide health care services to underserved populations. It is a way to improve rural emergency medical services (EMS) as well as address the health care needs of the community.[64]

---

[59] *Basic Life Support Team*. FC Emergency Medical Services. 2016. 20 July 2016. <http://www.fcems.org/basic-life-support.html>

[60] *Advanced Life Support*. FC Emergency Medical Services. 2016. Web. 20 July 2016. <http://www.fcems.org/advanced-life-support.html>.

[61] *NIAID Emerging Infectious Diseases/Pathogens*. U.S. Department of Health and Human Services National Institutes of Health. 25 Jan. 2016. Web. 20 July 2016. <https://www.niaid.nih.gov/topics/biodefenserelated/biodefense/pages/cata.aspx>.

[62] *Cities Readiness Initiative*. Centers for Disease Control and Prevention Office of Public Health Preparedness and Response. 2016. Web. 20 July 2016. <http://www.cdc.gov/phpr/stockpile/cri/>.

[63] *Successful Partnerships*. Centers for Disease Control and Prevention Office of Public Health Preparedness and Response. 10 Apr. 2015. Web. 20 July 2016. <http://www.cdc.gov/phpr/partnerships/story_closedpods.htm>.

[64] *Community Paramedicine*. Rural Health Information Hub. 18 May 2015. Web. 20 July 2016. <https://www.ruralhealthinfo.org/topics/community-paramedicine>.

Term	Definition
Critical Care	Critical care helps people with life-threatening injuries and illnesses. It might treat problems such as complications from surgery, accidents, infections, and severe breathing problems. It involves close, constant attention by a team of specially-trained health care providers. Critical care usually takes place in an intensive care unit (ICU) or trauma center.[65]
Emergency Operations Center (EOC)	The physical location at which the coordination of information and resources to support incident management (on-scene operations) activities normally takes place. An EOC may be a temporary facility or may be located in a more central or permanently established facility, perhaps at a higher level of organization within a jurisdiction. EOCs may be organized by major functional disciplines (e.g., fire, law enforcement, medical services), by jurisdiction (e.g., Federal, State, regional, tribal, city, county), or by some combination thereof.[66]
Emergency Operations Plan (EOP)	An ongoing plan for responding to a wide variety of potential hazards.[67]
Emergency Support Function Mass Care, Emergency Assistance, Housing, and Human Services Annex (ESF-6)	Coordinates federal assistance in support of state and local efforts to meet the mass care needs of victims of a disaster. This federal assistance will support the delivery of mass care services of shelter, feeding, and emergency first aid to disaster victims; the establishment of systems to provide bulk distribution of emergency relief supplies to disaster victims; and the collection of information to operate a Disaster Welfare Information (DWI) system for the purpose of reporting victim status and assisting in family reunification.[68]
Emergency Support Function Public Health and Medical Services Annex (ESF-8)	ESF-8 – Public Health and Medical Services provides the mechanism for coordinated federal assistance to supplement State, Tribal, and local resources in response to an emergency. Emergency Support Functions (ESFs) is the grouping of governmental and certain private sector capabilities into an organizational structure to provide support, resources, program implementation, and services that are most likely needed to save lives, protect property and the environment, restore essential services and critical infrastructure, and help victims and communities return to normal following domestic incidents.[69]

---

[65] *Critical Care*. U.S. National Library of Medicine MedlinePlus. 2016. Web. 20 July 2016. <https://medlineplus.gov/criticalcare.html>.

[66] *Glossary*. FEMA. 2016. Web. 20 July 2016. <https://emilms.fema.gov/IS700aNEW/glossary.htm>.

[67] *Glossary*. FEMA. 2016. Web. 20 July 2016. <https://emilms.fema.gov/IS700aNEW/glossary.htm>.

[68] *Emergency Support Function #6 – Mass Care, Emergency Assistance, Housing, and Human Services Annex*. FEMA. Jan. 2008. Web. 20 July 2016. <https://www.fema.gov/pdf/emergency/nrf/nrf-esf-06.pdf>.

[69] *Emergency Support Function #8 – Public Health and Medical Services Annex*. FEMA. Jan. 2008. Web. 20 July 2016. <https://www.fema.gov/media-library-data/20130726-1825-25045-8027/emergency_support_function_8_public_health___medical_services_annex_2008.pdf>.

Term	Definition
Emergency Support Function Transportation Annex (ESF-1)	Transportation provides support by assisting local, state, tribal, territorial, insular area, and federal governmental entities, voluntary organizations, nongovernmental organizations, and the private sector in the management of transportation systems and infrastructure during domestic threats or in response to actual or potential incidents.[70]
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 states and territories in establishing standardized volunteer registration programs for disasters and public health and medical emergencies. The program, administered on the state level, verifies health professionals' identification and credentials so that they can respond more quickly when disaster strikes. By registering through ESAR-VHP, volunteers' identities, licenses, credentials, accreditations, and hospital privileges are all verified in advance, saving valuable time in emergency situations[71].
Emergency Use Authorization	This authority allows FDA to help strengthen the nation's public health protections against CBRN threats by facilitating the availability and use of MCMs needed during public health emergencies. Under section 564 of the Federal Food, Drug, and Cosmetic Act (FD&C Act), the FDA Commissioner may allow unapproved medical products or unapproved uses of approved medical products to be used in an emergency to diagnose, treat, or prevent serious or life-threatening diseases or conditions caused by CBRN threat agents when there are no adequate, approved, and available alternatives.[72]
ESF-8 Lead Agency	ESF-8 language distinguishes between lead and supporting agencies to conduct an emergency response.[73] Within the context of ESF, primary agencies have significant authorities, roles, resources, and capabilities for a particular function within an ESF.
Essential Elements of Information (EEI)	Information collected under the Emergency Support Functions (ESF) to enable situational awareness of an incident or response.[74]

---

[70] *Emergency Support Function #1 – Transportation Annex*. FEMA. Jan. 2008. Web. 20 July 2016. <https://www.fema.gov/pdf/emergency/nrf/nrf-esf-01.pdf>.

[71] *The Emergency System for Advance Registration of Volunteer Health Professionals.* U.S. Department of Health and Human Services. 2016. Web. 20 July 2016. <http://www.phe.gov/esarvhp/Pages/about.aspx>.

[72] *Emergency Use Authorization*. U.S. Food and Drug Administration. Web. 20 July 2016. <http://www.fda.gov/EmergencyPreparedness/Counterterrorism/ucm182568.htm>.

[73] *Emergency Support Function #8 – Public Health and Medical Services Annex*. FEMA. Jan. 2008. Web. 20 July 2016. <https://www.fema.gov/media-library-data/20130726-1825-25045-8027/emergency_support_function_8_public_health___medical_services_annex_2008.pdf>.

[74] *Essential Elements of Information*. U.S. Department of Health & Human Services Office of the Assistant Secretary for Preparedness and Response. Web. 20 July 2016. <http://www.phe.gov/Preparedness/planning/playbooks/rdd/Pages/essentialelements.aspx>.

Term	Definition
Fully Integrated Corporate Health System	An organized, coordinated, and collaborative network that (1) links various health care providers, via common ownership or contract, across three domains of integration – economic, noneconomic, and clinical – to provide a coordinated, vertical continuum of services to a particular patient population or community, and (2) is accountable both clinically and fiscally for the clinical outcomes and health status of the population or community served, and has systems in place to manage and improve them.[75]
Hazard Vulnerability Analysis (HVA)	A systematic approach to identifying all hazards that may affect an organization and/or its community, assessing the risk (probability of hazard occurrence and the consequence for the organization) associated with each hazard, and analyzing the findings to create a prioritized comparison of hazard vulnerabilities. The consequence, or "vulnerability," is related to both the impact on organizational function and the likely service demands created by the hazard impact.
HAZMAT	A material (as flammable or poisonous material) that would be a danger to life or to the environment if released without precautions.[76]
Health and Medical Coordination Center (HMCC)	A health care or health care-related entity in the geographic area of an emergency, with the ability to support the situational awareness, surge response including resource coordination and patient movement, risk communication, and just-in-time training.
Health Care Coalition (HCC) Member	An HCC member is defined as an entity within the defined boundaries of the HCC that actively contributes to HCC strategic planning, operational planning and response, information sharing, and resource coordination and management.
Health Care Coalition(s) (HCC)	A group of individual health care organizations (e.g., hospitals, clinics, nursing homes, etc.) in a defined geographic location. HCCs serve as a multi-agency coordination group that supports and integrates with emergency management and Emergency Support Function Public Health and Medical Services Annex ESF-8.
Health Care Facility	Any asset where point-of-service medical care is regularly provided or provided during an incident. It includes hospitals, integrated health care systems, private physician offices, outpatient clinics, nursing homes and other medical care configurations. During an emergency response, alternative medical care facilities and sites where definitive medical care is provided by EMS and other field personnel would be included in this definition.

---

[75] *Integrated Delivery Systems.* AJMC. 15 Dec. 2009. Web. 20 July 2016.
<http://www.ajmc.com/journals/supplement/2009/a264_09dec_hlthpolicycvrone/a264_09dec_enthovens284to290/>.

[76] *HAZMAT*. Merriam-Webster. Web. 20 July 2016. <http://www.merriam-webster.com/dictionary/hazmat>.

Term	Definition
Health Insurance Portability and Accountability Act (HIPAA)	The Health Insurance Portability and Accountability Act (HIPAA) offers protections for millions of America's workers that improve portability and continuity of health insurance coverage.[77]
Health Care Associated Infections (HAI)	Health care-associated infections, or HAIs, are infections that people acquire while they are receiving treatment for another condition in a health care setting.[78]
Homeland Security Exercise and Evaluation Program (HSEEP) Fundamentals	Principles that frame a common approach to exercises. These principles include the following: [79] • Guided by Elected and Appointed Officials • Capability-based, Objective Driven • Progressive Planning Approach • Whole Community Integration • Common Methodology
Hospital Incident Command System	Incident management system that can be used by any hospital to manage threats, planned events, or emergency incidents. It is based on the same principles as the Incident Command System (ICS) component of the NIMS, adapted for the health care environment.[80]
Immediate Bed Availability (IBA)	The ability of a health care coalition to provide no less than 20% bed availability of staffed members' beds within four hours of a disaster. It is built on three pillars: continuous monitoring across the health system; off-loading of patients who are at low risk for untoward events through reverse triage; and on-loading of patients from the disaster.[81]
Incident Action Plan (IAP)	A tool to synchronize operations at the incident level and ensures that incident operations are conducted in support of incident objectives.[82]
Incident Action Planning Cycles	The iterative incident action planning cycles provides preparedness and response partners involved in incident management operations the primary tool for managing incidents. A disciplined system of

[77] *The Health Insurance Portability and Accountability Act*. United States Department of Labor. Nov. 2015. Web. 20 July 2016. <https://www.dol.gov/ebsa/newsroom/fshipaa.html>.

[78] *National Action Plan to Prevent Health Care Associated Infections*. Health.gov Web. 20 July 2016. <http://health.gov/hcq/prevent-hai.asp>.

[79] *HSEEP*. FEMA. Apr. 2013. Web. 20 July 2016. <http://www.fema.gov/media-library-data/20130726-1914-25045-8890/hseep_apr13_.pdf>.

[80] *Hospital Incident Command System*. California Emergency Medical Services Authority. May 2014. Web. 20 July 2016. <http://www.emsa.ca.gov/media/default/HICS/HICS_Guidebook_2014_11.pdf>.

[81] *Immediate Bed Availability*. U.S. Department of Health & Human Services. Web. 20 July 2016. <http://www.phe.gov/coi/Pages/iba.aspx>.

[82] *FEMA Incident Action Planning Guide*. FEMA. Jan. 2012. Web. 20 July 2016. <http://www.fema.gov/media-library-data/20130726-1822-25045-1815/incident_action_planning_guide_1_26_2012.pdf>.

Term	Definition
	planning phases and collaboration sessions fosters partnerships and clearly focuses incident operations.[83]
Incident Command System (ICS)	A standardized on-scene emergency management construct specifically designed to provide an integrated organizational structure that reflects the complexity and demands of single or multiple incidents, without being hindered by jurisdictional boundaries. ICS is the combination of facilities, equipment, personnel, procedures, and communications operating within a common organizational structure, designed to aid in the management of resources during incidents. It is used for all kinds of emergencies and is applicable to small as well as large and complex incidents. ICS is used by various jurisdictions and functional agencies, both public and private, to organize field-level incident management operations.[84]
Incident Management Structures	A structure used to guide government agencies, non-governmental organizations (NGO), and the private sector in working together seamlessly and managing incidents involving all threats and hazards—regardless of cause, size, location, or complexity—in order to reduce loss of life, loss of property, and harm to the environment.[85]
Joint Commission	An independent, not-for-profit organization, The Joint Commission accredits and certifies nearly 21,000 health care organizations and programs in the United States. Joint Commission accreditation and certification is recognized nationwide as a symbol of quality that reflects an organization's commitment to meeting certain performance standards.[86]
Joint Information System (JIS)	The JIS provides the mechanism to organize, integrate, and coordinate information to ensure timely, accurate, accessible, and consistent messaging across multiple jurisdictions and/or disciplines with nongovernmental organizations and the private sector; it includes the plans, protocols, procedures, and structures used to provide public information. Federal, state, tribal, territorial, regional, or local Public Information Officers and established Joint Information Centers (JICs) are critical supporting elements of the JIS.[87]
Medical Countermeasures (MCM)	Medical countermeasures, or MCMs, are FDA-regulated products (biologics, drugs, devices) that may be used in the event of a

---

[83] *FEMA Incident Action Planning Guide*. FEMA. Jan. 2012. Web. 20 July 2016. <http://www.fema.gov/media-library-data/20130726-1822-25045-1815/incident_action_planning_guide_1_26_2012.pdf>.

[84] *Glossary*. FEMA. 2016. Web. 20 July 2016. <https://emilms.fema.gov/IS700aNEW/glossary.htm>.

[85] *NIMS Doctrine Supporting Guides & Tools*. FEMA. 23 Dec. 2016. Web. 20 July 2016. <http://www.fema.gov/nims-doctrine-supporting-guides-tools>.

[86] *About the Joint Commission*. The Joint Commission. Web. 20 July 2016. <https://www.jointcommission.org/about_us/about_the_joint_commission_main.aspx>.

[87] *Joint Information Systems Concept*. FEMA. Web. 20 July 2106. <https://emilms.fema.gov/IS702A/PIO0103summary.htm>.

Term	Definition
	potential public health emergency stemming from a terrorist attack with a biological, chemical, or radiological/nuclear material, a naturally occurring emerging disease, or a natural disaster. MCMs can be used to diagnose, prevent, protect from, or treat conditions associated with chemical, biological, radiological, or nuclear (CBRN) threats, or emerging infectious diseases.[88]
Medical Reserve Corps (MRC)	A national network of local groups of volunteers engaging local communities to strengthen public health, reduce vulnerability, build resilience, and improve preparedness, response, and recovery capabilities.[89]
Medical Surge Capacity and Capability (MSCC)	A management methodology based on valid principles of emergency management and the ICS. Medical and public health disciplines may apply these principles to coordinate effectively with one another, and to integrate with other response organizations that have established ICS and emergency management systems (fire service, law enforcement, etc.). This promotes a common management system for all response entities—public and private—that may be brought to bear in an emergency. In addition, the MSCC Management System guides the development of public health and medical response that is consistent with the National Incident Management System (NIMS).
Medical Unit Leader	Individual primarily responsible for the development of the Medical Plan ICS Form 206, obtaining medical aid and transportation for injured and ill incident personnel, establishment of Responder Rehabilitation, and preparation of reports and records.[90]
Member Type	A category of HCC members that represents a type of facility or organization (e.g., all nursing facilities, all hospitals, or all EMS agencies within one HCC).
Mission Essential Functions (MEFs)	The limited set of organization-level government functions that must be continued or resumed quickly after a disruption of normal activities.[91]
National Disaster Medical System (NDMS)	The National Disaster Medical System (NDMS) is a federally coordinated system that augments the Nation's medical response capability. The overall purpose of the NDMS is to supplement an integrated national medical response capability for assisting State and local authorities in dealing with the medical impacts of major

---

[88] *What are Medical Countermeasures?* U.S. Food and Drug Administration. 29 Apr. 2016. Web. 20 July 2016. <http://www.fda.gov/EmergencyPreparedness/Counterterrorism/MedicalCountermeasures/AboutMCMi/ucm431268.htm>.

[89] *Medical Reserve Corps.* Medical Reserve Corps. Web. 20 July 2016. <http://www.medicalreservecorps.gov/volunteerfldr/AboutVolunteering>.

[90] *Coffee Break Training*. United States Fire Administration. 12 May 2014. Web. 20 July 2016. <https://www.usfa.fema.gov/downloads/pdf/coffee-break/cc/cc_2014_5.pdf>.

[91] *Continuity Guidance Circular 2*. FEMA. Oct. 2013. Web. 20 July 2016. <https://www.fema.gov/media-library-data/1386609058826-b084a7230663249ab1d6da4b6472e691/Continuity-Guidance-Circular2.pdf>.

Term	Definition
	peacetime disasters and to provide support to the military and the Department of Veterans Affairs medical systems in caring for casualties evacuated back to the U.S. from overseas armed conventional conflicts. [92]
National Disaster Recovery Framework	A guide that enables effective recovery support to disaster-impacted states, tribes, territorial and local jurisdictions. It provides a flexible structure that enables disaster recovery managers to operate in a unified and collaborative manner. It also focuses on how best to restore, redevelop and revitalize the health, social, economic, natural and environmental fabric of the community and build a more resilient Nation.[93]
National Incident Management System (NIMS)	A set of principles that provides a systematic, proactive approach guiding government agencies at all levels, nongovernmental organizations, and the private sector to work seamlessly to prevent, protect against, respond to, recover from, and mitigate the effects of incidents, regardless of cause, size, location, or complexity, in order to reduce the loss of life or property and harm to the environment.[94]
OSHA First Receiver Guidance	Practical information to help hospitals address employee protection and training as part of emergency planning for mass casualty incidents involving hazardous substances.[95]
Personal Protective Equipment (PPE)	Equipment worn to minimize exposure to a variety of hazards. Examples of PPE include such items as gloves, foot and eye protection, protective hearing devices (earplugs, muffs) hard hats, respirators and full body suits.[96]
Psychological First Aid	An evidence-informed modular approach for assisting people in the immediate aftermath of disaster and terrorism to reduce initial distress and to foster short- and long-term adaptive functioning.[97]
Public Information Officer (PIO)	As part of the incident response team, responsible for communicating with the public, media, and/or coordinating with other agencies, as necessary, with incident related information requirements. The PIO is responsible for developing and releasing

---

[92] *National Disaster Medical System*. U.S. Department of Health & Human Services Office of the Assistant Secretary for Preparedness and Response. Web. 20 July 2016. <http://www.phe.gov/Preparedness/responders/ndms/Pages/default.aspx>.

[93] *National Disaster Recovery Framework*. FEMA. 28 June 2016. Web. 20 July 2016. <https://www.fema.gov/national-disaster-recovery-framework>.

[94] *Glossary*. FEMA. 2016. Web. 20 July 2016. <https://emilms.fema.gov/IS700aNEW/glossary.htm>.

[95] *OSHA Best Practices for Hospital-Based First Receivers of Victims from Mass Casualty Incidents Involving the Release of Hazardous Substances*. Occupational Safety & Health Administration. Jan. 2005. Web. 20 July 2016. <https://www.osha.gov/dts/osta/bestpractices/html/hospital_firstreceivers.html>.

[96] *Personal Protective Equipment*. Occupational Safety and Health Administration. 2013. Web. 20 July 2016. <https://www.osha.gov/Publications/osha3151.html>.

[97] *Psychological First Aid Field Operations Guide 2nd Edition*. National Child Traumatic Stress Network & National Center for PTSD. Web. 20 July 2016. <http://www.ptsd.va.gov/professional/manuals/manual-pdf/pfa/PFA_2ndEditionwithappendices.pdf>.

Term	Definition
	information about the incident to the news media, incident personnel, and other appropriate agencies and organizations. Depending on the size or complexity of the incident, a lead PIO should be assigned for each incident and may have assistants, as necessary, including supporting PIOs representing other responding agencies or jurisdictions.[98]
Regional Healthcare Coordination Center (RHCC)	A multi-agency center that coordinates the emergency response operations during a major emergency.[99]
Risk Benefit Analysis	The method by which the risks of treatment for a patient are evaluated against the benefits of the treatment outcomes.[100]
Section 1135 of the Social Security Act Waivers	Under Section 1135, the secretary can waive or modify specific requirements to match the particular needs of the emergency event and service providers. Section 1135 allows the secretary to waive or modify the following reimbursement requirements.[101]
Strategic National Stockpile (SNS)	Designed to supplement and resupply state and local inventories of medicines and supplies during emergencies severe enough to exhaust local supplies. State governors or their designees request deployment of SNS assets when there has been an overt terrorist event that will harm the public's health or where epidemiological, laboratory, or other surveillance systems have identified unusual patterns of disease or deaths that may indicate a terrorist event or other national emergency.[102]
Threat and Hazard Identification and Risk Assessment (THIRA)	A four step common risk assessment process that helps the whole community—including individuals, businesses, faith-based organizations, nonprofit groups, schools and academia and all levels of government—understand its risks and estimate capability requirements.[103]
Whole Community	A means by which residents, emergency management practitioners, organizational and community leaders, and government officials can collectively understand and assess the needs of their respective

[98] *Basic Guidance for Public Information Officers*. FEMA. Nov. 2007. Web. 20 July 2016. <https://www.fema.gov/media-library-data/20130726-1623-20490-0276/basic_guidance_for_pios_final_draft_12_06_07.pdf>.

[99] *Regional Hospital Coordinating Center*. Northern Virginia Hospital Alliance. 2016. Web. 20 July 2016. <http://www.novaha.org/active-projects/regional-hospital-coordinating-center-rhcc1/>.

[100] *Commentary: psychiatric medications and lactation*. International Medical News Group. 2014. 20 July 2016 <http://www.thefreelibrary.com/Commentary%3a+psychiatric+medications+and+lactation.-a0363104087>.

[101] *Emergency Authorization and Immunity Toolkit*. Association of State and Territorial Health Officials. 2016. Web. 20 July 2016. <http://www.astho.org/Programs/Preparedness/Public-Health-Emergency-Law/Emergency-Authority-and-Immunity-Toolkit/Social-Security-Act,-Section-1135-Waiver-Authority-in-National-Emergencies-Fact-Sheet/>.

[102] *Emergency Use Authorization Toolkit*. Association of State and Territorial Health Officials. 2016. Web. 20 July 2016. <http://www.astho.org/Programs/Preparedness/Public-Health-Emergency-Law/Emergency-Use-Authorization-Toolkit/Strategic-National-Stockpile-Fact-Sheet/>.

[103] *Threat and Hazard Identification and Risk Assessment*. FEMA. 19 Mar. 2016. Web. 20 July 2016. <https://www.fema.gov/threat-and-hazard-identification-and-risk-assessment>.

Term	Definition
	communities and determine the best ways to organize and strengthen their assets, capacities, and interests.[104]
Whole of Hospital	All hospital departments including administration, clinical, and non-clinical support services.

1331

[104] *Whole Community*. FEMA. 10 June 2016. Web. 20 July 2016. <https://www.fema.gov/whole-community>.

1332 Appendix 1: The *2017 Health Care Preparedness and*
1333 *Response Capabilities* Revision Process

1334 The *2017 Health Care Preparedness and Response Capabilities* improve upon the 2012 *Healthcare*
1335 *Preparedness Capabilities: National Guidance for Healthcare System Preparedness.* ASPR incorporated
1336 the lessons learned from previous responses to emergencies and extensive stakeholder engagement.
1337 Stakeholder feedback included a Capability Needs Assessment in 2015, which involved surveys and
1338 facilitated discussions with awardees, HCCs, and other stakeholders, to obtain their reactions to the
1339 capability content, structure, and level of detail in the 2012 version, and suggested areas for revision.
1340 ASPR also solicited input from over 50 national associations whose members have an interest in
1341 emergency preparedness and response. Finally, ASPR facilitated discussions at emergency preparedness
1342 and response conferences, solicited public feedback on ASPR's TRACIE website, and consulted
1343 preparedness and health care subject matter experts. ASPR also conducted a thorough review of
1344 relevant preparedness and response literature and researched recent past events to inform the revision
1345 process.

1346 Based on stakeholder feedback, ASPR streamlined the eight capabilities in the 2012 version into four
1347 capabilities. While the number of capabilities have decreased, the concepts from all of the capabilities in
1348 the 2012 version can be found within the new set of four capabilities. As seen in the figure below, the
1349 2017 capabilities were informed by the content found in the 2012 capabilities.

1350 *Figure 1 – Crosswalk of the 2012 and 2017 Capabilities*
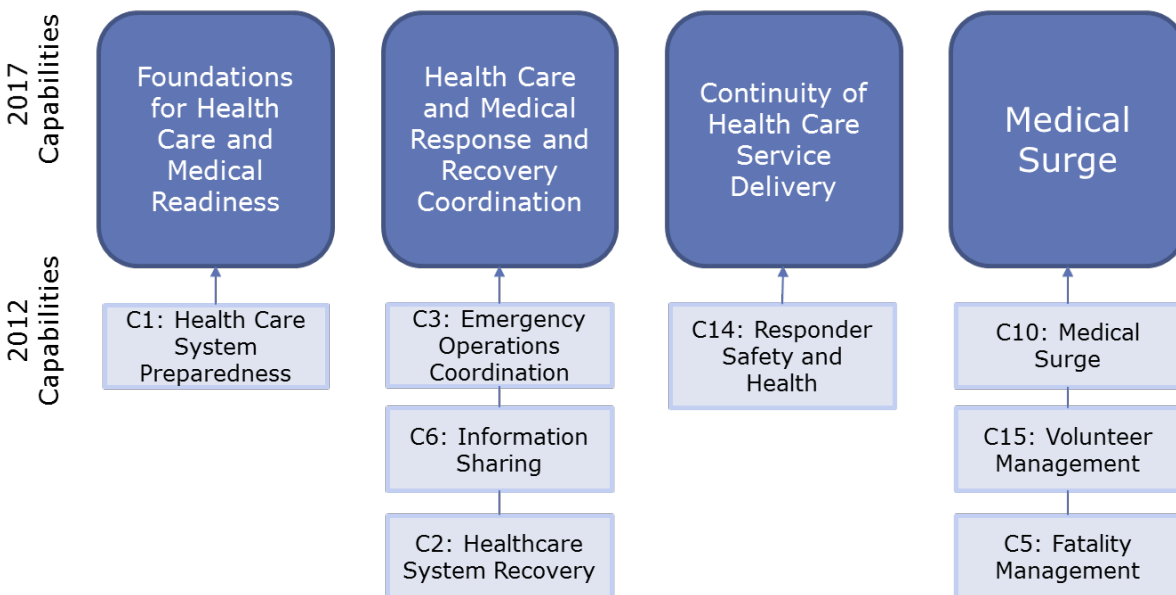
1351

1352 # Appendix 2: Health Care Preparedness and Response

1353 # Capabilities and Public Health Preparedness Capabilities

1354 # Areas for Alignment

1355 This appendix will be developed upon the completion of the Public Health Preparedness Capabilities in
1356 2017.