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During disaster events, hospital emergency departments (EDs) play a critical role in providing vital medical care to the community and individuals impacted by such events. Any natural or human-made event that causes loss of infrastructure or patient surge will require collaboration from teams from many disciplines to implement multifunctional response and recovery efforts. These efforts should include provisions for healthcare. Without appropriate education, training, and planning, EDs and healthcare systems can easily become overwhelmed when struggling to provide medical care during a disaster event.

Regardless of whether an ED is in an urban or rural area, limited resources, a surge in demand for medical care, and the interruption of communications and supplies can create a significant barrier to the delivery of adequate healthcare. To improve the readiness of emergency staff to manage the challenges of a disaster event, hospitals and especially EDs need to be prepared to initiate appropriately prioritized responses. This toolkit has been developed to provide an all-hazards approach, including guidance on key actions to be considered by any ED preparing for, encountering, or responding to a disaster event.

With the current focus on cost-containment, effective treatment, and efficient processes, EDs are frequently operating at or near capacity on a daily basis. During a disaster event, disruption of standard communications, external support, or supply delivery can interrupt fundamental healthcare operations. Even a minimal unexpected surge in patients can easily exhaust an ED’s functional reserves.

Shortages in resources such as staff, equipment, and supplies can add to occupational safety concerns and require coping strategies in the aftermath of a disaster. The many challenges that may arise can be complex even for a well-prepared ED. The systematic implementation of priority actions, planned and practiced, can help facilitate a timely and effective ED response.

All-hazards priority actions require immediate and effective responses to a critical event. The all-hazards approach focuses on essential capacities and capabilities needed for a full-spectrum of emergencies or natural disasters, including those that are internal and human-made. This approach is specific to the ED location and considers the hazards most likely to occur in the area. These could be care-related emergencies, such as an influx of patients owing to a specific issue, equipment and power failures, cyber-attacks, and interruptions in the normal supply of essentials, including water and food. Rather than managing planning initiatives for a multitude of threat scenarios, all-hazards planning focuses on developing capacities and capabilities that are critical to preparedness for a full spectrum of emergencies or disasters. Thus, all-hazards planning does not address each and every possible threat, but rather it ensures that hospitals and all other providers will have the capacity to address a broad range of related emergencies. This toolkit aims to support ED staff and leaders when managing a disaster and accomplishing the following:

- Restoration and maintenance of essential emergency services
- An organized implementation of emergency operation plans
- Clear and accurate internal and external communication
- Immediate adjustment to increased demands
- The appropriate use of scarce resources
- A safe environment for all staff

The resources included in this toolkit have been specifically chosen to assist ED staff and leaders in creating written disaster plans for their own departments. This toolkit is designed to be a reference for emergency nurses and nurse leaders along with key stakeholders during the disaster process from planning to recovery. While there is no single plan that can be used in all situations and for all hospitals, the concepts of this document should act as a mechanism for discussions and prompt the question: Are we prepared?
Emergency department emergency management is a continuous process requiring the amalgamation of planning and response efforts with local and national agencies. The principles and recommendations outlined in this toolkit are based on an all-hazards approach, and many of the tools are universal and easily applicable and adaptable to a wide-range of contingencies. The tools included are intended to complement existing hospital emergency-management plans and supplement standard operating procedures during a disaster event.

Purpose
The purpose of this toolkit is to help ED managers and staff develop ED-specific preparedness plans that address the specialized needs of their staff, patients, and communities before, during, and after disaster events.
Disaster Emergency Essentials Toolkit | Acknowledgements

Authors

2018 Emergency Management and Preparedness Committee (EMPC)
Angela Gentry, BSN, RN, Chairperson
Angela Hodge, DNP, RN, EMT-P, CEN, ACNS-BC, SANE
Jeffery Jones-Ritzler, BSN, RN, CEN, NE-BC, NHDP-BC
Daniel Nadworny, DNP, RN
Sharon Vanairsdale, DNP, APRN, ACNS-BC, NP-C, CEN, FAEN, FAAN

2018 EMPC Board Liaison: Mike Hastings, MSN, RN, CEN
2018 EMPC Staff Liaison: Monica Escalante Kolbuk, MSN, RN, CEN

Contributors
Sue Anne Bell, PhD, RN, FNP-BC, NHDP-BC
Cassandra Campbell, MSN, RN, CPEN
Sally K. Snow, BSN, RN, CPEN, CEN, FAEN

Reviewers
ENA 2018 Emergency Department Operations Committee
Pamela A. Assid, DNP, RN, CNS, CEN, CPEN, NEA-BC
India Owens, MSN, RN, CEN, NE-BC, FAEN
Eric S. Ringle, MS, BSN, RN

ENA 2018 Pediatric Committee
Cam Brandt, MS, RN, CEN, CPEN
Krisi Kult, BSN, RN, CPEN, CPN
Justin Milici, MSN, RN, CEN, CPEN, TCRN, CCRN, FAEN
Michele A. Redlo, MSN, MPA, RN, CPEN
Maureen Curtis Cooper, BSN, RN, CEN, CPEN, FAEN, Board Liaison

ENA 2018 Emergency Medical Services Advisory Council
Ann Brown, MSN, CEN, NREMT-P

ENA 2018 Institute for Quality, Safety and Injury Prevention (IQSIP) Advisory Council
Kelly L. Austin, PsyD
Leann Marie Briggs, BSN, BA, RN
Melinda S. Elayda, MPA, BSN, RN
Kathryn Starr Rogers, MSN, RN, CEN, CPEN, CPHQ, NEA-BC, TCRN

Developed: 2018-2019
Approved by the ENA Board of Directors: July 2019
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This toolkit, including the information and recommendations set forth herein (i) reflects ENA’s current position with respect to the subject matter discussed herein based on current knowledge at the time of publication; (ii) is only current as of the publication date; (iii) is subject to change without notice as new information and advances emerge; and (iv) does not necessarily represent each individual member’s personal opinion. The positions, information and recommendations discussed herein are not codified into law or regulations. Variations in practice and a practitioner’s best nursing judgment may warrant an approach that differs from the recommendations herein. ENA does not approve or endorse any specific sources of information referenced. ENA assumes no liability for any injury and/or damage to persons or property arising from the use of this toolkit.
Background
Disasters often occur with little warning and can have catastrophic consequences for the local community. Emergency nurses are positioned to have a key role in the operational management and planning of the responses to these events. Over the last 20 years, incidents such as Hurricane Katrina, Super Storm Sandy, the Joplin tornado, and Hurricanes Harvey, Irma, and Matthew have demonstrated the vulnerability of healthcare facilities to catastrophic failure from weather-related events. Novel outbreaks of the Ebola virus and severe acute respiratory syndrome (SARS) have challenged normal infection control practices used in hospitals daily. Acts of violence such as the Boston Marathon bombing, the Orlando Pulse nightclub and Las Vegas shootings, and other intentional mass casualty incidents have tested the ability of trauma systems to respond to high acuity, no-notice events. These events and others have had a significant impact on the affected communities and an even greater effect on the healthcare systems in those areas.

This toolkit is designed to be a reference for emergency nurses, nurse leaders, and other key stakeholders during the disaster process, from planning to recovery. Recognizing what actions to take during an emergency is an important aspect of being prepared and can make a huge difference when disaster strikes. While no single plan exists that can be used in all situations and for all hospitals, the concepts outlined in this document act as a prompt for discussions that ask, “Am I prepared?”

Scope of Disasters
The scope of disasters worldwide has increased since the Centre for Research on the Epidemiology of Disease (CRED) started keeping records. Between 1994 and 2013, 218 million people were impacted by natural disasters worldwide,¹ with 529 disasters occurring in 2013 alone, ranging from natural disasters to technological failures such as loss of power or the collapse of a highway bridge.² In all, some 75 percent of the world was impacted by a disaster in that 20-year period.³ Mass casualty events should be seen as an expected reality of emergency healthcare, and the plans to respond to these events should be as dynamic and active as those used for stroke and cardiac arrest in the hospital setting.

National Planning System
The National Planning Strategy (NPS) is a framework developed by the Federal Emergency Management Agency (FEMA) to help guide the planning and preparation phase across the community. The NPS breaks planning into three sections based on the goals of each level:

- Strategic-level planning sets the context and expectations for operational planning
- Operational-level planning provides the tasks and resources needed to execute the strategy
- Tactical-level planning shows how to apply resources in order to complete the operational tasks within a given time frame

This framework describes how communities, tribes, states, private sectors, non-governmental partners, and the federal government respond to disasters with an all-hazards approach for domestic situations. Local and state governments model their preparedness responses upon the principles laid out in the National Response Framework (NRF). For more information about the NRF, visit https://www.fema.gov/media-library/assets/documents/117791

State and Federal Organization
Depending on the state or territory, the type and level of local organization may vary. However, at each level there are coordinating groups. Depending on the scale of an event, local, state, or federal resources may be included as part of both planning and response. Both local and state levels will have a focus on public health along with resources to monitor and support these goals.⁴ Depending on the impact, the resources available to a specific region, state, or territory may be overwhelmed or may not exist. In these situations, memorandums of understanding (MOUs) can be proactively developed to enable agencies and organizations to assist, protect, and respond to events. The CDC has a model of a MOU that can be used as a template, found at: https://www.cdc.gov/aging/emergency/legal/agreements.htm

Author: Daniel Nadworny, DNP, RN
National Incident Management System

The organization of the response and the groups with responsibilities are included in the National Incident Management System (NIMS). NIMS is part of the NRF and provides a template for managing incidents at all levels of response. NIMS guides communities in their participation in preparedness and recovery efforts. It is important to understand that any hospital that wants to practice a plan and coordinate its preparedness efforts with outside partners will need to become familiar with both NRF and NIMS. For more information about NIMS, please visit: https://www.fema.gov/national-incident-management-system

Planning Basics

Before getting started with the planning process, it is best to identify your local team by learning about emergency plans that have already been established by your hospital and local government. Emergency nurse leaders can help promote a culture of preparedness and make staff feel eager to practice and be ready when a disaster occurs. Creating a yearly plan for training and exercises, and scheduling regular staff meetings to share emergency preparedness efforts can help staff feel involved and prepared. The development of a department-specific response team can also help preparation efforts. Assembling a team to practice assigned key roles will help improve preparedness for when an actual event occurs. Creating a master emergency contact list with contact information for staff, local government officials, and key partners will also aid staff during an event. However, keep in mind that these lists need to be maintained regularly because of staff turnover and changes in department roles. Assessing the ED preparedness plans annually and practicing drills can help improve staff engagement and preparedness. Another important aspect to remember is to support staff and their needs by ensuring counseling and other forms of mental health support are available. Helping staff to identify their personal needs and providing resources for staff and their families can help build a more supportive and engaged team.

Planning and Preparation

The preparation for events that range in magnitude and operational impact from temporary utility failures to long duration events such as Hurricane Katrina or the Haitian earthquake relies on the engagement of key stakeholders in the medical community. Since emergency nurses play a key role in any such event, increasing their knowledge and preparation will enable a higher level of success. In a 2009 report by the Institute of Medicine (IOM), education and preparation of the nurse for emergency situations is noted as “essential” to ensuring the availability of a well prepared and responsive health workforce when needed.

The American Nurses Association (ANA), Emergency Nurses Association (ENA), Association of Public Health Nurses (APHN), and other professional organizations all have statements that endorse the nursing role in disaster planning and response. Specifically, ANA (2002) recommended that nurses develop plans for themselves and their families, understanding that responding during emergencies can have an impact both at home and in the workplace. They also suggested that all nurses proactively gain knowledge and skills through continuing education courses and by participating in emergency drills.

The Planning Process

Preparation for emergency and disaster situations is best begun long before an event occurs. In the disaster life cycle, the planning and mitigation phases are the designated times to review risks, discuss vulnerabilities, and develop plans and ensure that staff receive education (Figure 1).
Hazard vulnerability assessments (HVA) have been advocated by groups such as The Joint Commission (TJC) as part of emergency preparedness standards. These tools can be used to identify the risks that may exist within the community for which a hospital or healthcare organization care. Depending on the geographic location, concerns such as hurricanes may be a significant risk for areas like the U.S. Gulf Coast. This is in contrast to greater concerns for an earthquake along the Pacific Coast with its dense population centers such as San Francisco, Los Angeles, or Anchorage. The review of the HVA can help identify areas to focus on for education and training.

Response and Recovery
When an event occurs, the nursing process can be used to guide the response: assess, diagnose, plan, implement, and evaluate. The first phase of the goal is to assess and understand the scope and details of the event. This information may be incomplete or inaccurate; however, it should be evaluated, and actions must be taken. The time from initial notification to first patient arrival can be fairly short, as was seen in the Orlando and Las Vegas shootings and the Boston bombing. In those events, patients arrived at the local hospitals in less than 20 minutes.

The diagnosis and planning phases occur when ED staff can reference plans and protocols to match the current incident with an established process. Those actions should first focus on staff and patient safety and security, including potential hazmat risks, depending on the event. As information regarding the event is validated, initial clinical and leadership decisions can be made. A hospital incident command system (HICS) should be utilized to organize the response and assign staff to areas of responsibility. Planning efforts should include not only initial management events but also recovery plans.

Finally, evaluation of any event, either actual or practice, should be completed. Evidenced-based practice is reliant on the ongoing improvement cycle and the sharing of best practices. After-action reports, hot washes, and staff surveys are all options for evaluating the outcomes of an event or drill.

Education
Disaster education has moved from the purview of military and emergency nursing to being seen as a core competency that is part of education for both the undergraduate and postgraduate educational groups. Ensuring that education takes place before an event occurs is an important step in guaranteeing that when events present, there is a well-prepared staff in place to respond until additional resources can be activated. Education related to disaster preparedness and the triage of resources is included in ENA’s Trauma Nursing Core Course.
Section 1 | References


Overview: Hazard Vulnerability Analysis

There are many aspects to the planning process that emergency nurses will need to coordinate with their facilities emergency management committee for congruency and input. The hazard vulnerability analysis (HVA) is a tool that organizations use to determine the probability or risk that an event will have an impact on the facility and/or its daily operations.¹ The HVA scoring tool helps to identify and prioritize likely hazards and assists the organizational leadership with determining their facility's top risks. It also aids with taking steps to prevent or reduce the identified risks, also known as mitigation, or with directly addressing potential post-disaster consequences, often referred to as preparedness.² It also guides the organization's prioritizing of planning, training, and exercises that require the most attention.¹ The HVA is a Joint Commission requirement for healthcare facilities and, typically, the responsibility of completing an annual HVA is managed by the organization’s emergency management committee.² It is important that ED leadership be aware of the top hazardous threats identified by the HVA to ensure that planning and training occurs and that those threats are included in the discussions and necessary training that relate to the ED.

Emergency Operations Plan: Activating an Emergency Response Plan

According to The Joint Commission, every hospital should have an Emergency Operations Plan (EOP), and for hospitals certified by The Joint Commission, this is a requirement under the emergency management standards.³ An EOP is a plan that describes how an organization will respond to and recover from all hazards.⁴ The EOP is comprehensive and consists of the six critical elements within the Joint Commission’s Emergency Management Standards, including communications, resources and assets, safety and security, staff responsibilities, utilities, and clinical support activities.⁴ It is a high-level document that is maintained by the organization’s emergency management committee and provides oversight for the healthcare facility in the event of an internal or external emergency outside of normal working conditions. A well-designed EOP provides the structures and processes that the organization uses to respond to and initially recover from an event. The all-hazards approach enables an organization to respond to a variety of emergencies differing in scale, duration, and cause. The EOP provides direction and addresses response procedures, capabilities and procedures for when the hospital cannot be supported by the community, recovery strategies, initiation and termination of response and recovery phases, and activating authority. It also identifies alternate sites for care, treatment, and services.⁴ The EOP guides hospital leaders, staff, and resources management in emergencies and disasters, identifies key roles of authority and actions to be taken during an event, and recognizes the staff needed during response efforts. The EOP is therefore considered the response and recovery component of the overarching emergency management plan. (For a sample department emergency operations plan, see Appendix A.) A completed EOP will have several components (Figure 2). Most common components of a plan include an executive summary, emergency management operations information, emergency response procedures, protocols, and any additional supporting documents.⁵

The executive summary describes the purpose and scope of the plan, listing key personnel and identifying roles of authority and the type of emergencies that the plan will address. Typically, executive summaries also address where response operations will be managed.⁶ The emergency management operations sections of the plan describe the approach of the organization and the ED to core elements of emergency management. This
section is ideal for listing internal command structure, communications, partnerships, and recovery vendors. The emergency response procedures section details what actions are necessary to assess the disaster situation and how to protect staff, patients, and resources. The emergency response procedures section is most commonly where checklists and templates for how to respond to specific situations during the preparedness, response, and recovery stages can be found. Lastly, the supporting documents include any materials or resources that will help staff immediately during a response. Some examples include an emergency contact list for employees, building maps, communication templates, patient information sheets, and a department emergency operations plan (DEOP).

**Operations Plan**

The DEOP is a unit-specific nuts-and-bolts response guide for real-time assistance and should be as concrete and as step-oriented as possible for ease of implementation. This document supplements the facility’s EOP while incorporating department-specific needs to ensure seamless workflows and communication between the department, the hospital, and the incident command center. The DEOP can be divided into sections, such as EOP activation criteria and process to include phone numbers for the hospital emergency operations center (EOC), as well as a list of information to provide to the EOC. Other sections can include department-specific processes for decontamination, surge, communication and utility outages. The DEOP is a tool that a leader inexperienced in disaster or mass casualty processes can utilize to begin the initial response until additional help arrives. All DEOPs are designed to be easily read in directional-bullet-point or step-by-step formats.

Some additional resources to help develop an EOP include the following:

- U.S. Department of Health & Human Services: TRACIE-EOPs
- Emergency Operations Basic Plan Template – Oklahoma State/FEMA

**Decision Trees**

When planning for a disaster response as ED staff, there are several additions to the EOP or DEOP that should be considered. A decision tree or an algorithm will be a helpful guide to assist staff with following steps or a sequence when responding to an incident. When organizing the DEOP, consider adding decision trees as part of the plan. Decision trees can assist with areas such as activation of the EOP, decontamination needs, and department or hospital evacuation needs. Figure 3 is an example of a decision tree from the U.S. Department of Homeland Security, Federal Emergency Management Agency.

![Decision Tree](image)

**Figure 3. Decision tree**

Warnings for only the most imminent and hazardous events should be issued during late night hours. The EAS may not be effective for delivering late night warnings via radio and television broadcast; therefore, additional, best available channels should be considered.
Notification

Notification of staff is important in the event of a disaster situation. For hospitals certified by The Joint Commission, Element of Performance 1 and 2 identified in Standard EM.04.01.01 outlines the communication plan needs. Standard 2 states that the hospital has “… implemented communication procedures for emergency planning and response activities in coordination with the system’s integrated emergency preparedness program.”

A notification process and/or system should be identified in the planning process and practiced. These systems can range from a simple call list to commercial products that offer additional features. For a staff contact list template, see Appendix B. Staff must be familiar with how notification of a disaster event will be sent to them as well as how and where to call in for staffing need including their individual assignments and additional staffing assistance. Staff not currently scheduled during the event should be aware of the procedures so that additional, unnecessary calls do not overwhelm the staff managing the event. Additional phone calls to the charge nurse and the coordination of off duty staff can become chaotic and cause unnecessary stress and distraction for those responsible with managing the event. Other types of contact lists are useful during a disaster situation. Knowing whom to call for support services like vendors or funding sources and community liaisons is helpful information to have. For a contact sheet template for practice support services, see Appendix C. For a sample external business phone list, see Appendix D, and for a sample disaster response contact list, see Appendix E.

Hospital Incident Command

When responding to an event, the organization’s EOP is the guidebook that should be continually referenced in the hospital incident command center or hospital emergency operations center (EOC). It is extremely important that any person working in the hospital EOC take the appropriate FEMA Incident Command System (ICS) courses so that the job functions are well understood. According to FEMA, the ICS is normally structured to assist activities in major functional areas including command, operations, planning, logistics, intelligence and investigations (security), finance, and administration. ICS is a fundamental form of management, with the purpose of enabling managers to identify the key concerns associated with the incident, often under urgent conditions, without sacrificing any component of the command system.

By dividing the command structure, leaders of each division can work on their assigned area of the response. Depending on the size of the response needed and span of control, a leader may be responsible for overseeing one or more areas. It is important to remember that flexibility must be incorporated in the disaster response. The ICS can flex up or down depending on needs, span of control, and scope of the event. In the ED, it is important that there is a departmental incident command area assisting specifically with the needs of the ED. This smaller EOC will report up to the hospital EOC and will aid in streamlined communication efforts and reduce duplication of work at an already busy and chaotic time. One person from the ED EOC should be in the hospital EOC to provide the two-way communication. Figure 4 is an example of an incident command structure.
Decontamination

The need to perform decontamination starts with recognition of a potential event or exposure. Some cases will be easy to recognize, such as an industrial accident where the chemical or the identification is known. For known agents, hospitals should have ready access to reference guides to aid in decontamination and treatment. Unknown cases will rely on the astute clinician to be aware of warning signs of exposure to toxins such as nerve agents. Once a hazard is identified, it is important to protect the hospital and the staff inside through clear decontamination procedures. Decontamination protocols enable adequate cleaning with large amounts of water under the supervision of hospital staff. Decontamination operations can occur through fixed structures, rapid deployment options, or portable options based on facility need and local hazard risk. Decontamination is best handled outside of a facility, with a protocol to manage waste water. General guidance is that decontamination is a linear process, with contaminated patients entering the area in the “Hot Zone” that is ideally at the base of a downward slope from the “Cold or Clean Zone.” Figure 5 is a diagram of a sample linear decontamination process.

A key aspect of decontamination operations is the validation of a completed process by a trained staff member. Validation of decontamination can be done visually or with detection devices such as pH paper or M8 strips to check for presence of the hazard agent. Each hospital will have customized policies and procedures for documenting and monitoring staff and patients as they are decontaminated. It is important that decontamination policies incorporate consideration for pediatric patients with the goal of keeping families together. For an example of a hazardous material decontamination medical monitoring worksheet, see Appendix F.

The following are additional resources that may assist hospitals in developing decontamination plans:

- American Academy of Pediatrics
- Occupational Safety and Health Administration (OSHA)
- Harvard School of Public Health, Emergency Preparedness and Response Exercise Program
- Hazardous Material Decontamination Medical Monitoring Worksheet (Appendix F)
- U.S. Department of Health and Human Services
- California Hospital Association
Triage

Triage in a mass casualty or disaster event differs from normal ED triage techniques. The goal of disaster triage, as stated in the provider manual for ENA’s TNCC course, “… is to do the greatest good for the greatest number.” This concept is difficult for healthcare providers to put into practice given that everyday procedures make the majority of resources available to the sickest patients. During disaster triage, the sickest patients may only receive comfort care. Common disaster triage formulas have been established with prehospital partners to include the Simple Triage Algorithm and Rapid Assessment (START) and Sort, Assess, Life-saving Interventions, Treatment, and Transportation (SALT) algorithms. Each have an identified algorithm to predict clinical needs, interventions, and outcomes. For pediatric patients, JumpSTART has been identified as a common triage method and is referenced in ENA’s ENPC course.

The previously mentioned established algorithms have been adopted to decrease emotional aspects of decision-making and establish parameters during a disaster or mass casualty incident (MCI).

Awareness of local, regional, and/or state prehospital triage plans is important for ED staff prior to an event. The ED staff should be knowledgeable regarding the use of the algorithm (START or SALT) so that on patient arrival, appropriate separation of patient categories is achievable. Upon patient arrival at the hospital, it is important that ED staff triage patients to appropriate care areas, taking into consideration prehospital triage parameters as well as a secondary triage (reassessment) to identify any changes in condition. In addition to the previously identified triage methods, there may be facility recommendations for triage needs that will be implemented (e.g., surgical triage). Preparedness efforts regarding planning will identify these situations. Also, it is important to note that triage tags are part of the patient tracking process and medical record, and should not be discarded. Each hospital will have customized policies and procedures; therefore, it is critical that all new employees are provided with education and training and continued practice to become familiar with site-specific protocols.

Recovery Efforts and Continuity of Operations Planning

Continuity of operations planning (COOP) is a high-level approach focused on planning for the recovery phase in a disaster event. This aspect of planning is a requirement for healthcare facilities as part of the Hospital Preparedness Program (HPP) supported by the Office of the Assistant Secretary for Preparedness and Response (ASPR). COOP, according to the ASPR Technical Resources, Assistance Center and Information Exchange (TRACIE), is plans that enable healthcare facilities and providers to sustain their mission, core essential functions, and services for patients already receiving care. COOP also enables facilities to respond to potential surges in patients with space, staffing (including leadership), and equipment/supplies.
COOP is included in all-hazards plans; in most hospital settings, the COOP plan is overseen by the emergency management committee and/or hospital safety officer. However, ED personnel should still be familiar with the COOP plans of their facility and region, and have input regarding needs. The COOP is a continuously evolving plan, not a one-time project, but rather an ongoing program that will change over time. Figure 6 is a diagram that shows some elements of a COOP.

Evaluation and Sustainability
Evaluation and sustainability of hospital operations is important to healthcare facilities and communities. Ninety-six hours of sustainability has been identified by The Joint Commission as an emergency management standard. The standard mandates do not obligate healthcare facilities to remain fully functional for 96 hours, but healthcare facilities are required to develop an understanding of capabilities and limitations in order to make effective decisions about curtailment or stopping of services in an organized and prioritized way, and to maintain those services most applicable to the emergency situation for as long as possible. Sustainability includes all necessary means to remain open with regard to normal operating procedures in the event of a disaster situation. The 96-hour sustainability refers to items such as, but not limited to, medical gases, generator power, water, food, personal protective equipment (PPE), linen, surgical supplies, and pharmaceutical needs. Hospitals must recognize potential needs prior to an event and have memorandums of understanding (MOU) or memorandums of agreements (MOA) in place to assist with needs before an event to ensure that normal operating procedures continue in the event of a mass casualty or disaster situation.

Conclusion
The planning process can be challenging and requires coordinated efforts of various professionals, both within the hospital setting and within the community. With proper education, training, and practice, preparing for any type of potential disaster is achievable. Conducting an environmental scan of the ED and performing an HVA is a good start to the planning process. Remember that all plans require continuous evaluation and will evolve over time. In the next section, it will become more evident how evaluation and sustainability of plans is important to emergency preparedness.
Section 2 | References


Overview

The content in this section is designed to provide basic information on different types of emergencies that may present to the ED. This information is not intended to be an all-inclusive list. The goal is to provide resources to help manage certain types of emergencies. For more information on planning for disasters, visit the official website of the Department of Homeland Security (https://www.ready.gov). Examples that follow will be grouped together under three broad categories: natural disasters, human-made disasters, and internal emergencies.

Identification of an Event

Information can come from multiple different sources. At times, the first information received is through social media. This can serve as a first warning but may not be reliable information. With the near-universal use of mobile telephones and convenience of social media posting, information can often be posted before first responders arrive. Mobile devices can be used to enhance direct communication and provide emergency nurses with quick access to information.¹ The Centers for Disease Control and Prevention (CDC) now includes social media in its Crisis and Emergency Risk Communication (CERC) manual to ensure proper and effective communication occurs.² Validation of an event should come through an official source such as your local Emergency Management Office (EMO), fire official/rescue service, law enforcement agency, or other civil entity.

The ED may also be the first to realize that an incident has occurred. The triage nurse may start to see specific cases presenting with similar symptoms, similar circumstances, and a common location. This type of information needs to be reported according to individual hospital guidelines.

Natural Disasters

Natural disasters are considered major events resulting from a natural process of the Earth. Natural disasters can occur with or without advanced warning, and taking steps to prepare and mitigate the impact of these events is important. Examples include earthquakes, extreme heat, hurricanes, floods, landslides and mudslides, lightning, tornadoes, tsunamis, volcanos, extreme winter weather, and wildfires.³ Natural disasters can result in high risk situations for loss of life and infrastructure. It is important to be familiar with the hospital’s hazard vulnerability assessment to determine the risk stratification for each type of disaster likely to occur in a specific area. For example, states located in Tornado Alley, such as parts of Texas, Oklahoma, Kansas, and Nebraska, may have more readiness plans for tornados, whereas hospitals in the state of California may have specific plans for other emergencies such as earthquakes or wildfires. Therefore, understanding the climate and region is important in anticipating potential natural disasters. While natural disasters can be unpredictable, planning and mitigation for them can help when an actual event occurs.

The CDC provides resources for all types of natural disasters that can be found at https://cdc.gov/disasters/index.html. Each section provides information on what to do before, during, and after an incident.³ This website is a great resource for understanding each type of natural disaster, how to prepare, and what to expect. Additionally, there are readily available educational materials in various languages, resources for emergency health professionals, and social media buttons, badges, and mobile applications.
**Human-Made Disasters**

Essentially, the difference between a natural disaster and a human-made disaster is the human element. In a natural disaster, the event is due to a natural Earth process. In contrast, a human-made disaster is the result of human involvement. This human involvement can be an intentional act such as an active shooter or chemical attack, or as the result of negligence or an accident such as a forest fire resulting from careless disposal of ashes in a forest. The majority of incidents in this section will be industrial accidents. A great variety of chemicals are used in manufacturing processes, some in large quantities. A spill or leak can occur owing to mechanical failure, human error, natural disaster, or even as the result of a motor vehicle collision involving a tanker truck. It is recommended that a hospital representative attend local emergency management agency (EMA) meetings to become informed and familiar with some of the industries located in the area and the chemicals used. Many industries have very detailed crisis management plans for a chemical spill including an internal hazmat response team. All industries are required to maintain Material Safety Data Sheets (MSDS) on all chemicals that are present in their facility.

In the cases of exposure to an unknown chemical that present to the hospital, staff should maintain the highest level of protection until identification can occur. Identification of an unknown chemical may require the use of litmus paper or pH paper, which can provide visual indication of certain chemicals or agents such as chlorine and nerve agents. More extensive monitoring and identification can often be requested through the hospital environmental health and safety officer, industrial hygienist, or local hazmat team. The contact protocol should be made easily available to ED staff.

As stated, human-made disasters have the potential to be deliberate intentional acts, whether crimes directed at an individual or an act of terrorism. The emergency nurse is called upon to provide patient care for both victim and perpetrator. In addition to patient care, the emergency nurse must consider the preservation and collection of forensic evidence. The position statement from ENA states that “A component of emergency nursing practice includes safeguarding evidentiary material through proper identification, collection, and preservation of forensic evidence.” Foresman-Capuzzi (2014) states that the well-being of the patient takes priority over evidence collection. A thorough assessment and any life-saving treatment is never delayed. Evidence can be physical or informational. All physical evidence should be collected with care to avoid cross-contamination. A chain of evidence must be competed showing the possession of the evidence from collection to presentation in court. Informational evidence will be collected within the nursing documentation. Thorough, detailed and objective documentation can make the difference in criminal prosecution. It is recommended that all emergency nurses receive education on proper evidence collection.

The following are additional resources for more information on chemical hazards:

- **The Centers for Disease Control and Prevention (CDC)** has information on chemical, biological, and radiation emergencies can be found on the CDC website: https://emergency.cdc.gov/hazards-specific.asp
- The CDC also provide toxicological resources through the Agency for Toxic Substances and Disease Registry (ATSDR): https://www.atsdr.cdc.gov/
- **U.S. Department of Health & Human Services** also has information at its Chemical Hazards Emergency Medical Management (CHEMM) site. This information is also available as a smartphone app (Wireless Information System for Emergency Responders [WISER]). The app enables you to set your user profile based on your role: first responder, hazmat specialist, EMS, hospital provider, or preparedness planner: https://chemm.nlm.nih.gov/index.html
Disasters involving chemical release can be difficult to manage. The most recent Emergency Response Guide is designed for first responders, but it is an excellent reference for PPE use, initial first aid, and public safety concerns. It is available as a smart phone application for quick reference.

Any incident involving chemical release needs to be managed in conjunction with local emergency management agency (EMA) personnel. In most cases, some level of decontamination will be necessary. The diagram in Figure 7 provides a basic process for decontamination of chemical release, but each hospital may have a different protocol, therefore it is important to review and become familiar with the individual institution’s policies and procedures.

**Internal Emergencies**

Healthcare has become increasingly dependent upon technology. Whether it is electronic medical records or computerized diagnostics, many hospitals rely on wireless technology and, therefore, a disruption in either software or hardware can be crippling to the normal flow of the ED. But there are much more than just the electronic medical record systems. Scheduling diagnostics, diagnostic imaging, communication of laboratory results, prescriptions, patient monitoring, safety programs like infant tracking, and even staff access systems are all wireless-based or dependent on the Internet and a power source.

Information technology disruptions are significant concerns that need to be addressed during each facility’s annual HVA. Items that are technology dependent and essential to the continuity of operations must be identified. Redundancy of systems or other means of operations should be determined to ensure that patient safety and quality of care is maintained.

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**Figure 7.** Basic process for decontamination following a chemical release
Utility Failures
Utility failures can include loss of electricity, water, heating, ventilation, air conditioning, or disruptions to sewer services. Each facility’s EOP needs to address plans for scenarios involving all utility failures. The response needed will depend on which specific utility has been affected. The patient safety risk is dependent on the patient’s needs, type of failure, extent, and duration of the time that utilities are out of service. Proper air exchanges are required by regulatory agencies, and a failure of the heating, ventilation, and/or air conditioning systems may prevent an ED from being able to deliver its full care capabilities.

Facilities are required to have back-up generators to meet the electrical needs; however, there remains a risk of catastrophic failure that may lead to partial or complete electrical failure. This was demonstrated during Superstorm Sandy, when hospital emergency generators were flooded by rising water, leading to emergent hospital evacuation. Staff need to be aware of threats to patient safety during electrical outages. Patients that are dependent upon mechanical support, such as ventilators or mechanical circulatory support, are at highest risk. Such devices should be plugged into emergency outlets that are connected to the emergency generator system.

During a heating, ventilation, or air conditioning failure, staff should be able to recognize special populations that are most at risk, such as those like the elderly or very young who have difficulty thermoregulating. It is therefore critical that all patient-care staff be educated and trained in recognizing patients most at risk during heating, ventilation, or air conditioning failures. Changes in ambient room temperature will affect these vulnerable patients more quickly.

When utilities fail, contingency plans for water disruption are vital. Hospitals and EDs specifically need to plan for supply of both potable and non-potable water. In some communities, emergency management teams have already made pre-planned agreements with suppliers or local businesses to help supply bottled water for drinking or non-potable water that can be used for flushing toilets or cleaning. When developing preparedness plans, a well-defined conservation plan needs to be included in the EOP. Infection issues may arise if methods are not available to provide adequate infection control practices, cleaning, laundering, and removal of human waste.

Access Control/Lockdown
Multiple factors can lead to the decision to initiate a lockdown for an ED or hospital. Maintaining a safe environment for staff, patients, and visitors is a priority. The need to lock down an ED or hospital may be necessary to prevent entrance or access. Some examples of situations that may warrant limited access are civil unrest, criminal activity, infant abduction, biochemical incidents, need for quarantine, mass casualty incidents, environmental hazards, and natural disasters. On-site security and/or local law enforcement may also be needed to assist. But again, pre-planned contingency protocols should be a part of an EDs emergency preparedness plan prior to an event.

A question that often arises when considering locking down a unit is “Does the lockdown violate the Emergency Medical Treatment and Labor Act (EMTALA)?” EMTALA is a federal law that requires any person who presents to an ED and requests treatment or for whom treatment is requested, receive a medical screening exam (MSE) by a properly trained licensed provider. Once the MSE is completed, all EMTALA obligations are met. However, the MSE may be tailored to meet the circumstances of the current disaster scenario. Therefore, when locking down a unit, there are special considerations and, while EMTALA remains in effect during any type of disaster or surge situation, the EMTALA laws can be waived in certain circumstances. These include the following:

1. The President declares an emergency or disaster under the Stafford Act or the National Emergencies Act; AND
2. The Secretary of Health and Human Services declares that a Public Health Emergency (PHE) exists and also authorizes EMTALA waivers under section 1135 of the Social Security Act. Notice of EMTALA waivers will be provided through Centers for Medicare/Medicaid Services (CMS) to covered entities; AND

3. Unless EMTALA waivers are granted for an entire geographic area, the hospital applies for a waiver; AND

4. The hospital must have activated its emergency operations plan; AND

5. The State must have activated its emergency operations plan or pandemic plan for an area that covers the affected hospital.

There are special considerations that need to be well thought out when deciding to lock down an ED. Establishing a secure perimeter, re-routing foot and vehicular traffic, and controlling entry/exit points are examples of special considerations. There are various types of lockdown procedures, such as a total site lockdown, a controlled lockdown, a partial lockdown, or an immediate emergency lockdown. Each hospital is different in structure, resources, and staffing and may have varying policies, procedures, and protocols. Therefore, it is essential that all staff be aware of their individual hospital plans.

**Patient Surge**

Hospitals and healthcare facilities are faced with various challenges that only multiply after a natural or human-caused event or disaster. Surge planning — and immediate bed availability in particular — is a critical component of every healthcare facility’s emergency plan and response capability. Surge planning is more than providing adequate physical space to place patients; other resources must be considered such as staffing, resource availability, pharmaceutical inventory, and other resources. The distinction must be made between capacity and capability.

The first step in managing a surge situation is to safely discharge as many of the current patients as possible and admit those patients who have been designated to be admitted. Activating the EOP enables special considerations that may help to expedite patient dispositions and more rapid transitions to the inpatient status. In certain circumstances, activating the EOP may allow inpatient units to go above their capacity, which may ultimately help the ED to manage the influx or surge of patients.

When patient surges occur, ED leadership may consider using alternate care sites if appropriate. Surge tents can be very effective when dealing with pandemic diseases such as influenza or another symptomology. Most lobby areas in hospitals are open in some circumstances, and these areas can be used for triage or overflow of stable patients. Perioperative or post-anesthesia care units (PACU) can be used as alternative options for facilities that do not have surgery on a 24-hour basis or during off hours. Any other closed units, such as cardiac catheterization lab, endoscopy, or other units that have limited hours, can potentially be used for patient surge situations. With appropriate planning, private hospital rooms may need to be turned into semi-private rooms to accommodate multiple patients. Of course, infection control and other disease factors must be considered when coordinating inpatient rooming.

Emerging infectious diseases have become a challenging concern when planning for patient surges. Global pandemics such as the emergence of Ebola virus disease and SARS have tested standard infection control practices and training used in hospitals daily. When the patients are children, the issue of parental presence during transport or hospital admission should be discussed in advance. The following links provide some useful and additional information on this subject:

- Parental Presence During Treatment of Ebola or Other Highly Consequential Infection: https://pediatrics.aappublications.org/content/pediatrics/138/3/e20161891.full.pdf
As new diseases emerge, ED staff are on the front lines, yet transmission is not always evident. This leaves staff unsure of the type of PPE to use. There can also be an element of fear and panic that must be managed. An example of this was the beginning of the HIV/AIDS pandemic. It is the responsibility of ED staff to provide evidence-based and compassionate care to all that present. Simultaneously, it is the responsibility of ED staff to protect themselves, their families, and co-workers. It is imperative that staff are trained in the proper method to quickly and efficiently don and doff PPE.

For the latest information on recent outbreaks and incidents, the CDC is one of the most reliable and accurate informational websites. Recent outbreak and incidents can be found at https://emergency.cdc.gov/recentincidents/index.asp

**Evacuations**

Hospital evacuations are a multi-faceted process that involve more than simply moving patients from one place to another. Hospital evacuations require coordination of patients, staff and other personnel, movement teams, and outside resources as well as the efficient use of patient assessment tools, documentation forms, and mobility equipment. A successful evacuation capability must be built upon an incident management foundation that is well understood and is easily scalable. The Joint Commission requires that all hospitals have an evacuation plan. Evacuation plans are typically found within the facility’s EOP.

There are three different types of evacuations:

1. **Horizontal**: The moving of patients from one side of the ED or hospital to another
2. **Vertical**: The moving of patients from one level to another
3. **Total**: The removal of all patients and staff from the structure

Plans for an evacuation should include procedures for the operations and logistics of moving patients and a list of possible situations for when and why an evacuation order may occur. Most hospitals will develop two different decision trees, one for advanced-warning evacuation and another for no-advanced-warning events. Various templates and examples of decision trees can be found online, but it is best to develop specific decision trees to meet the needs of the individual institution. The following are examples and templates for hospital evacuation plans:

- **California Hospital Association:** https://www.calhospitalprepare.org/sites/main/files/file-attachments/hospitalevacuationplanchecklist102710.doc
- **Hospital Evacuation Template:** http://delhi.gov.in/wps/wcm/connect/837ffd004d7208ea8dd4ad9f250bbab7/Evacuation+Plan+Template.pdf?MOD=AJPERES&lmod=34360746

**Special Needs Evacuations**

Disasters disproportionally affect vulnerable, technology-dependent patients, including preterm and critically ill newborn infants. Often during disaster situations, many specialized units will depend on the ED to assist with caring for vulnerable populations, such as pediatric patients, because of the skill level of ED staff. It is not uncommon for special patient populations to be transferred to the ED or cared for by ED staff. For example, neonates in a neonatal intensive care unit are one special patient population that can easily be affected by a disaster situation, which can greatly impact the NICU. During a disaster, the delivery of highly skilled and specialized care for preterm and critically ill newborn infants can be compromised by the loss of electrical power, physical facilities, specialized equipment, personnel, and other resources that can occur as a result of environmental disruption or large-scale illness.
injury, or trauma. These children are completely dependent on technology for all of their life-sustaining support. Hurricane Katrina was one of the largest threats to NICU patients in U.S. history because it completely incapacitated the healthcare system’s ability to provide adequate care in a large, densely populated area owing to loss of supplies, staff, communications, and infrastructure. Superstorm Sandy also affected providers’ capability to care for women with high-risk pregnancies and newborn infants in metropolitan New York. However, in this instance, when Superstorm Sandy caused a power outage in a New York City medical center, 21 neonates were evacuated to other hospitals in the city in less than 5 hours.

When hospital plans are designed, significant planning should be considered for specialized units. Logistical concerns for special populations like infants or bariatric patients, for example, may require transport baskets to airlift and evaluate. Preparation for special populations may even require regional planning with hospitals that have similar capabilities and that may be able to help care for such specific patient populations.

Often during disaster situations, the ED nurse may be required to help care for special populations as patients are being evacuated to other facilities or patients may present to the ED in labor despite a lack of a labor and delivery unit. When disaster strikes, any type of patient might present. It is essential that all special patient populations are considered because it greatly impacts patient outcomes. When neonates were evacuated during Hurricane Sandy, every neonate patient survived, attesting to the importance of advance planning, clear command structure, regional coordination, and the availability of backups in the form of personnel, information, and equipment.

Active Shooter
The U.S. Department of Homeland Security (DHS) defines an active shooter incident as a situation where “an individual is actively engaged in killing or attempting to kill people in a confined and populated area.” Hospital-based active shooter incidents have continued to increase in number. It is important that every healthcare facility have an active shooter scenario, policies, and protocols, including education and training for this potential situation. The DHS recommends a three-part response to an active shooter incident: run, hide, and fight. For more information on active shooter preparation, including pocket cards, workshop trainings, and additional resources, please visit the DHS website on active shooter preparedness at https://www.dhs.gov/active-shooter-preparedness
Media Access
During any disaster, coordinated and timely communication is critical to effectively help the staff and the community. Effective and accurate communication helps ensure credibility and public trust. Activation of the HICS during any type of disaster event initiates additional resources, including a trained media representative. This individual fills the role of public information officer (PIO) and is responsible for coordinating information, sharing information both internally to staff and externally to the media and the public. An area away from any patient care activity should be designated for the media. The PIO is the only person who conveys information to the media. This helps to ensure accuracy and consistency of messaging.

It is not uncommon for some media personnel to try and make their way into the clinical areas. The only way to prevent this is to have a secure perimeter and follow lock-down procedures for the ED. It is important that staff are instructed not to speak to the media or make any statements without prior authorization. Strict adherence to patient health information protection will be instrumental in preventing staff from accidentally releasing any information. The role of the PIO is very important during disaster situations. Figure 8 is a sample organizational chart that shows how closely the incident commander and the PIO work together.

Figure 8. Sample organizational chart
Section 3 | References

Population Requirements

Children account for approximately a quarter of the entire population in the United States. Because of this, concerted efforts to ensure pediatric readiness in EDs has been the focus of many organizations such as the American Academy of Pediatrics (AAP), the American College of Emergency Physicians, the Emergency Nurses Association (ENA), Emergency Medical Services for Children (EMSC), and Children’s Hospital Association (CHA).

The 2009 AAP/ACEP/ENA Joint Policy Statement Pediatric Readiness in the Emergency Department and its 2018 revision set the standard for everyday ED readiness for caring for children. It is reported that close to one million children sought care in the ED in 2014, making up approximately 21% of all ED visits, indicating that children do present to the majority of EDs for both sick care and emergencies. Because there is such a limited number of hospital EDs designated as pediatric-only (just ten percent of the national ED total), all other EDs should be equipped to care for ill or injured children. Current evidence suggests there is a higher mortality rate for children during disasters, yet planning for pediatric care during a disaster is still lacking.

Disasters, both human-made and natural, have continued to increase, and significant gaps in pediatric care during such disasters still exist. In fact, the National Pediatric Readiness Assessment conducted in 2013 showed that less than fifty percent of more than 4,000 EDs surveyed had a disaster plan that included pediatric considerations. Although much progress has been made to improve pediatric readiness across communities, there remains a significant opportunity for further progress nationwide. Obviously, there is still much work to be done for this population, including educating, planning, training, and creating disaster preparedness tools. Researchers suggest that regional drills include plans for special needs patients within the pediatric population, including children who are technology dependent. As suggested in the AAP/ACEP/
ENa Joint Policy Statement, all EDs must be continually prepared to receive, accurately assess, and, at a minimum, stabilize and safely transfer children who are acutely ill or injured. This is necessary even for hospitals located in communities with readily accessible pediatric tertiary-care centers and regionalized systems for pediatric trauma and critical care. Additional planning is required during disaster situations.

**Developmental Differences and Considerations**

Children are far more susceptible to severe physical and mental trauma during and after a disaster. In addition, children lack the cognitive ability to recognize the potential for disaster and may not know how to remove themselves from the danger. Children have physiologic differences from adults that must be considered when planning the care of pediatric victims of a disaster. Because of their smaller size, thinner skin, increased respiratory rate, and larger body surface area to weight ratio, children are more likely to suffer injury than their adult counterparts. Younger children may be unable to maintain their thermoregulation, thus injuries may be sustained due to heat or cold exposure. For example, children, especially young children, are more at risk of hypothermia and require heated water or decontamination conducted at a site more protected from cold environments. According to the AAP, children are vulnerable to aerosolized biologic or chemical agents because they generally breathe more times per minute than adults and would be exposed to larger doses than adults in the same period of time. Also, children are more vulnerable to agents that act on or through the skin because, as mentioned before, their skin is thinner, and they have a larger skin surface to body mass ratio than adults. Decontamination of children requires advanced planning and can be challenging. Thus, it is essential to include appropriate decontamination planning to address the specific needs of the pediatric population. Each hospital must have its own system or plan for decontamination, with protocols specific to children. For more information on decontamination of children, visit the American Academy of Pediatrics website: [https://www.aap.org/en-us/advocacy-and-policy/aap-health-initiatives/Children-and-Disasters/ Pages/Decontamination.aspx](https://www.aap.org/en-us/advocacy-and-policy/aap-health-initiatives/Children-and-Disasters/ Pages/Decontamination.aspx)

In addition, children depend on adults for basic needs such as food, water, and shelter, which makes them the most susceptible population when a disaster occurs. Infants, toddlers, and other children may not be able to communicate, or they may have an inability or unwillingness to communicate with first responders and healthcare staff. This communication barrier can make caring for these populations more difficult since healthcare staff or first responders may not be able to obtain pertinent medical history or conduct a thorough medical exam. A focused assessment of the pediatric patient during a disaster will be critical to providing appropriate care.

**Supplies and Equipment Considerations**

When developing emergency preparedness plans, ensuring there is pediatric-specific equipment available is critical in helping provide safe and quality care. There are many resources, such as the list within the AAP/ACEP/ENA/EMSC National Resource Center, and Children’s National Medical Center Guidelines for Care of Children in the Emergency Department Checklist and the EMSC pediatric readiness toolkit. Each ED should have the correct sizes of equipment needed to care for children of all ages. The basic needs of the pediatric patient are different from those of adults and therefore require special considerations such as dietary needs. Age-appropriate formula, meals, and snacks are important, along with supplies like diapers and clothing that is age specific.

In addition, children may lack basic coping skills that are normally learned throughout the life span. Therefore, when a disaster strikes, children may not yet have developed coping skills to manage the situation and may require additional support. Social workers can assist by helping children learn coping skills or by providing support during an event. Including social workers or other ancillary staff who may provide additional emotional support for the pediatric patient can help during a disaster event and free up more time for the nurse to address other patient needs.
Technology-Dependent Children: Children with Special Healthcare Needs

Advances in medical technology have provided the capability for many children to live and adapt to their chronic diseases. However, with these advances, some children are now dependent on electrically-powered equipment both at home and in the hospital setting. Technology-dependent patients may be drastically affected by the loss of power.\(^\text{11}\) In the aftermath of Hurricane Katrina, there was an increase in morbidity and mortality of children with special needs.\(^\text{10}\) This increase in morbidity and mortality was related to lack of preparedness by families and within-community services such as EMS and hospitals.\(^\text{10}\)

In the event of a disaster, healthcare-technology-dependent children may come into the ED because of loss of power or for other reasons. Ideally, knowing ahead of time which children may present to the ED would be helpful when developing a disaster preparedness plan. In fact, the AAP recommends that primary care physicians work with the patients to develop plans for disaster events.\(^\text{16}\) Please visit the AAP website, “Children & Disasters” (https://www.aap.org/en-us/advocacy-and-policy/aap-health-initiatives/Children-and-Disasters/Pages/default.aspx) for additional tools and resources that will aid in preparation. Additionally, some fire departments encourage families to register for special needs assistance programs. These programs provide information through computer-assisted dispatch (CAD) to identify technology-dependent patients associated with an address. This alert lets first responders know what to expect on arrival at a residence. State registries may also exist to aid in this effort. An example of one such program is the Fort Worth Fire Department in Texas’ Special Needs Assistance Program (SNAP).\(^\text{17}\) This program does not define special needs but instead provides 9-1-1 operators with additional information that may be useful for first responders, such as if the caller uses a wheelchair or walker, if the individual requires oxygen, or if someone living at the registered address has Alzheimer’s disease or autism. Any type of special need qualifies.\(^\text{17}\) Pediatricians, school nurses, home health nurses, emergency nurses, and others who provide care to children with special health needs can help the families prepare for a disaster by encouraging them to complete an Emergency Information Form (EIF) for children with special health needs. This form is an important tool that can help facilitate the transfer of relevant information for unique healthcare needs.\(^\text{18}\) This form can be accessed at http://www.emergencycareforyou.org/visiting-the-er/emergency-information-form-for-children-with-special-health-needs/#sm.OOayr5twlcstd9puxoij5nnk3u9. Additionally, the American Academy of Pediatrics has a policy that can be accessed at http://pediatrics.aappublications.org/content/pediatrics/104/4/e53.full.pdf.full.pdf and an EIF Form that is available here: http://www.emergencycareforyou.org/globalassets/ecy/media/pdf/eif-form.pdf

Reunification

During disasters children can be separated from their parents or caregivers, causing further distress to the patient, family, and the ED staff. The ED disaster plan should include steps to provide for reunification through families working with local public health and other governmental agencies. Nongovernmental groups such as the Red Cross may be able to work with local health officials for family reunification under MOUs in the region. Emergency staff may need to turn to sources outside of healthcare for reunification, including schools, child care facilities, and other programs within the community to help with identification.\(^\text{8}\) When conducting disaster training, it is ideal if scenarios that include reunification be practiced in order for staff to become more familiar with the necessary policies and protocols.\(^\text{8}\) Included in the training should be information for staff on local resources such as shelters, long-term care facilities, and other agencies that may help to house children who are unaccompanied by caregivers. EDs need to pre-plan by identifying a location within the facility to house children who do not need medical services but need a safe place to wait for reunification or proper authority to be given to assume care
of uninjured pediatric patients. If an external location is needed to house children, additional planning with external organizations may be required to help facilitate caring for unattended and injured minors. Local churches, community centers, shelters, and relief organizations like the Red Cross are some examples of external organizations that may be able to help develop a contingency plan.

Also, each ED should have some sort of system or plan in place to be able to track where unaccompanied minors are or to where they were discharged. For a sample template of a child identification survey, see Appendix G. The significance of reunification is important to the health and healing of the child. In a study conducted by Barthel et al. (2013), there was a significant correlation between early reunification and decrease in mortality. For more information on hospital planning for family reunification, please review the American Academy of Pediatrics’ Family Reunification Following Disaster: A Planning Toolkit for Health Care Facilities (2018), which can be accessed at https://www.aap.org/en-us/Documents/AAP-Reunification-Toolkit.pdf

Additional Considerations

Emergency nurses are well positioned to assist with planning for pediatric patients during and after a disaster situation. Emergency nurses should make certain that their facility’s disaster plan includes pediatric considerations and that these plans are integrated with the regional plan. There may be a requirement for pediatric-specific equipment, supplies, medications, training, and radiology considerations that needs to be evaluated before an event occurs. Hospitals should develop and maintain internal and external pediatric surge capacity plans.

Drills in the department should be done regularly with potential pediatric patient scenarios and use a sufficient number of pediatric patients related to the percentage of pediatric patients relevant in the planning scenario. Emergency nurses should maintain competencies in pediatric care and continue to learn about pediatric needs and disaster care. There are many educational resources and courses for nurses related to pediatric patients and disasters including the Emergency Nursing Pediatric Course (ENPC), Pediatric Disaster Life Support (PDLS), and EMSC’s pediatric readiness and disaster preparedness toolkits as well as the FEMA website (www.fema.gov) and CHA, which provides great resources for disaster alerts, fact sheets, reference materials, and standards and guidelines such as hospital discharge recommendations or safe transportation of children. Their main website is https://www.childrenshospitals.org/. Nurses need to be aware of resources available for social services in both their facility and community in order to help families with reunification. It is imperative that ED and emergency management leaders are involved at the regional level to provide pediatric expertise in regard to disaster preparedness in EDs. Integration with the regional disaster plan based on assets and specialties prior to disasters leads to better disaster preparedness. The American Academy of Pediatrics has several resources related to emergency preparedness that are more focused on information for pediatricians and pediatric practices but may also assist with disaster planning. See AAP’s Pediatric Preparedness Resource Kit for more information at https://www.aap.org/en-us/advocacy-and-policy/aap-health-initiatives/Children-and-Disasters/Pages/Pediatric-Preparedness-Resource-Kit.aspx
Section 4 | References


Disaster Mental Health

Disasters are infrequent occurrences that can have long lasting mental health effects. Responses to these stressful and traumatic events vary by the individual. Research has shown that when exposed to mild or short-term stressors, most people bounce back or return to their baseline level of functioning. However, coping mechanisms become problematic when the symptoms interfere with activities of daily living or last for an extended period of time. Further, individuals' reactions to a disaster or traumatic event and how they cope can differ based on their previous experiences, cultural traditions, beliefs, or economic and social status.

Treating patients who are experiencing mental health stressors resulting from a disaster differs from standard mental healthcare provision. Instead of identifying an individual with a health concern, professionals providing mental health services after a disaster must examine the entire impacted population to identify individuals who might be at risk for developing mental health sequelae due to the traumatic experience.

Healthcare providers themselves are at an increased risk for developing burnout and compassion fatigue.¹ Compassion fatigue develops among healthcare providers after caring for multiple instances of trauma experienced by patients. Those with compassion fatigue may not be able to offer needed emotional support to their patients; it is very likely that they may need some sort of mental health service themselves. These individuals need self-care strategies and should not be overlooked as a population who might need care.

Preparedness Activities

Preparedness enables an effective response for coping with a traumatic event, making it possible for healthcare professionals to not only more effectively provide care for those impacted by the disaster but also lessens the emotional burden on themselves. For healthcare providers, appropriate planning that includes education and regular debriefings may limit both physical and mental health sequelae that can occur after disaster exposure.² Preparedness activities should include regular training, drills, and exercises — at the very least annually — and include all personnel that may be required to provide services during and after a disaster.

Most hospitals are bound by CMS Emergency Preparedness Rules and The Joint Commission standards, which delineate recommendations for the minimum amount of preparedness activities. These activities should include how to recognize signs of mental and physical fatigue among oneself and others.

Building networks in the local community and beyond is important. Establishing networks with local schools, religious organizations, and non-profits where personnel may turn for help is an important strategy. These groups often offer a variety of supports including faith-based counseling, support groups, meditation, disaster mental health training (such as offered through the American Red Cross), and referrals to mental health professionals.

Operational Debriefing

Operational debriefing is an important, routine and a formal part of an organization’s response to a disaster or traumatic event. It is generally acknowledged as an appropriate practice that helps individuals learn from the event and gain a degree of closure.³ Additional relevant information on these types of approaches is included in the American Academy of Pediatrics tabletop exercise article and webpage, which can be found here: https://www.aap.org/en-us/advocacy-and-policy/aap-health-initiatives/Children-and-Disasters/Pages/Pediatric-and-Public-Health-Tabletop-Exercise.aspx

The goal of this debriefing is not to find fault with an individual, but rather to process the event as a group and learn from those discussions how to improve the responses and written plans.
An operational debrief is intended to be a straightforward analysis of how the team involved functioned. It should be based on three main points:

- What occurred?
- How did it happen?
- What could be done differently to improve the end result?

Psychological or Stress Debriefing

Psychological or stress debriefing includes a variety of practices for which sound empirical evidence is still developing, and a decision as to whether it is an appropriate mental-health intervention is still being debated. To address this debate, the International Society for Traumatic Stress Studies issued guidelines recommending that debriefings be conducted by experienced, well-trained practitioners; not be mandatory; utilize some clinical assessment of potential participants; and be accompanied by clear and objective evaluation procedures.

Psychological First Aid (PFA) is perhaps the best-known type of psychological debriefing. The goal of PFA is to provide a supportive response to any person who is suffering and who may need support. It was originally designed to reduce initial distress from a traumatic incident and to enable short and long-term adaptive functioning. The end goal is to reduce the occurrence of post-traumatic stress disorder.

PFA is as described by the World Health Organization and enacted through seven main ideas:

- Provision of practical care and support (but does not intrude)
- Assessment of needs and concerns
- Assistance with helping people to address basic survival needs (such as food, water, information)
- Listening (but not pressuring individuals to talk)
- Providing comforting and support to help individuals feel calm
- Assistance with obtaining information, services, and social supports by those affected
- Protecting from further harm

While PFA is designed to meet an individual’s needs in the event of a traumatic experience, the steps do not necessarily need to be put into place immediately afterwards, and it does not need to involve discussion of the traumatic event.

PFA usually follows these steps:

- Contacting and engaging
- Maintaining safety and comfort
- Stabilizing
- Gathering information
- Assisting practically
- Connecting with social supports
- Providing coping information
- Linking with services

Critical Incident Stress Debriefing

Critical Incident Stress Debriefing (CISD) is a formal and structured method of review for response workers after the stressful experience of a disaster. It was developed for use by first responders and is not intended for the survivors of a disaster or their relatives. Also, it is not a replacement for mental health interventions such as therapy. Some confusion exists over the differences between CISD and PFA. These are two separate entities, with the debriefing focus of PFA being one component of Critical Incident Stress Management (CISM).

The components of CISM include pre-crisis intervention, disaster or large-scale demobilization and informational briefings (town hall type meetings), staff advisement, defusing, CISD, one-on-one crisis counseling or support, family crisis intervention and organizational consultation, and, if necessary, follow-up and referral mechanisms for assessment and treatment. CISD is a group intervention that is incorporated into the larger crisis intervention system labeled Critical Incident Stress Management.
Informal Debriefing and Personal Reflection

Individuals exposed to a traumatic event will often engage in informal debriefing and personal reflection. These practices can include talking about the event with a trusted colleague, friend, or loved one; checking in with others who experienced the event; and identifying stress symptoms in oneself or in others who were involved. While these are not formal methods of mental healthcare, they nevertheless are of great personal importance in the individual’s response to a traumatic event.

Resources

This section outlines a number of resources available to the those attempting to cope with the aftermath of disaster.

Support Hotline

The Disaster Distress Helpline is a national hotline with the goal of providing immediate crisis counseling for anyone who is experiencing emotional distress related to any natural or human-caused disaster. The confidential, toll-free hotline is open 24 hours a day, 365 days per year, and is multilingual. This crisis support service is available to all residents in the United States and its territories to address stress, anxiety, and other depression-like symptoms that are common reactions after a disaster. For English speakers, the contact information to speak with a trained crisis counselor is 1-800-985-5990, or they can text TalkWithUs to 66746 to connect with a counselor. If the English speakers reside in U.S. territories, they text TalkWithUs to 1-212-461-4635. For Spanish speakers, the contact information is 1-800-985-5990 and press “2,” or from the 50 States, text the word “Hablanos” to 66746, and from Puerto Rico, text the word “Hablanos” to 1-787-339-2663.

Pocket Guide for Response Professionals: Managing Stress During Crisis

Available through the United States Substance Abuse and Mental Health Services Administration (SAMHSA), the pocket guide focuses on broad principles of stress management, offering simple, practical strategies that can be incorporated into the daily routine of crisis response professionals. The pocket guide also provides a concise orientation to signs and symptoms of stress. The guide is targeted towards a variety of professionals including first responders, public health workers, construction workers, transportation workers, utilities workers, volunteers, and others. While every situation is unique, this document provides some basic tools that can inspire, spread optimism, and point the way to effective stress management.

Behavioral Health Disaster Response Mobile App

This smartphone application, also supported by the SAMHSA, is targeted towards disaster responders and provides critical disaster-related behavioral health resources. Users can access resources for any type of traumatic event, including tip sheets; guides for responders, teachers, parents, and caregivers; and a directory of behavioral health service providers in the impacted area. Resources can be pre-downloaded to a smartphone in the event of limited Internet connectivity in the field. Information can be shared from the app to colleagues and survivors via text message, email, or transferred to a computer for printing, which can be done in the planning phase.

Common Stress Reactions Checklist

Table 1 details common reactions to a stressful event. This table is useful for preparedness activities. In this checklist, the healthcare provider identifies in advance the types of reactions they may have to a stressful event to better understand how these reactions might be magnified after a traumatic event.
<table>
<thead>
<tr>
<th>BEHAVIORAL</th>
<th>COGNITIVE</th>
</tr>
</thead>
<tbody>
<tr>
<td>☐ Change in activity levels</td>
<td>☐ Memory problems/forgetfulness</td>
</tr>
<tr>
<td>☐ Decreased efficiency and effectiveness</td>
<td>☐ Disorientation</td>
</tr>
<tr>
<td>☐ Difficulty communicating</td>
<td>☐ Confusion</td>
</tr>
<tr>
<td>☐ Increased sense of humor/gallows humor</td>
<td>☐ Slowness in thinking, analyzing, or comprehending</td>
</tr>
<tr>
<td>☐ Irritability, outbursts of anger, frequent arguments</td>
<td>☐ Difficulty calculating, setting priorities, or making decisions</td>
</tr>
<tr>
<td>☐ Inability to rest, relax, or let down</td>
<td>☐ Difficulty concentrating</td>
</tr>
<tr>
<td>☐ Change in eating habits</td>
<td>☐ Limited attention span</td>
</tr>
<tr>
<td>☐ Change in sleep patterns</td>
<td>☐ Loss of objectivity</td>
</tr>
<tr>
<td>☐ Change in job performance</td>
<td>☐ Inability to stop thinking about the disaster or an incident</td>
</tr>
<tr>
<td>☐ Periods of crying</td>
<td>☐ Social</td>
</tr>
<tr>
<td>☐ Increased use of tobacco, alcohol, drugs, sugar or caffeine</td>
<td>☐ Withdrawing or isolating from people</td>
</tr>
<tr>
<td>☐ Hyper-vigilance about safety or the surrounding environment</td>
<td>☐ Difficulty listening</td>
</tr>
<tr>
<td>☐ Avoidance of activities or places that trigger memories</td>
<td>☐ Difficulty sharing ideas</td>
</tr>
<tr>
<td>☐ Prone to accidents</td>
<td>☐ Difficulty engaging in mutual problem solving</td>
</tr>
<tr>
<td>☐ Physical</td>
<td>☐ PSYCHOLOGICAL OR EMOTIONAL</td>
</tr>
<tr>
<td>☐ Increased heart rate and respirations</td>
<td>☐ Blaming</td>
</tr>
<tr>
<td>☐ Increased blood pressure</td>
<td>☐ Criticizing</td>
</tr>
<tr>
<td>☐ Upset stomach, nausea, diarrhea</td>
<td>☐ Intolerance of group process</td>
</tr>
<tr>
<td>☐ Increased or decreased appetite, which may be accompanied by weight loss or gain</td>
<td>☐ Difficulty in giving or accepting support or help</td>
</tr>
<tr>
<td>☐ Sweating or chills</td>
<td>☐ Impatient with or disrespectful to others</td>
</tr>
<tr>
<td>☐ Tremors or muscle twitching</td>
<td>☐ Feeling hero, euphoric or invulnerable</td>
</tr>
<tr>
<td>☐ Muffled hearing</td>
<td>☐ Denial</td>
</tr>
<tr>
<td>☐ Tunnel vision</td>
<td>☐ Anxiety or fear</td>
</tr>
<tr>
<td>☐ Feeling uncoordinated</td>
<td>☐ Worry about safety of self or others</td>
</tr>
<tr>
<td>☐ Headaches</td>
<td>☐ Irritability or anger</td>
</tr>
<tr>
<td>☐ Sore or aching muscles</td>
<td>☐ Restlessness</td>
</tr>
<tr>
<td>☐ Light-sensitive vision</td>
<td>☐ Sadness, moodiness, grief, or depression</td>
</tr>
<tr>
<td>☐ Lower back pain</td>
<td>☐ Vivid or distressing dreams</td>
</tr>
<tr>
<td>☐ Feeling a “lump in the throat”</td>
<td>☐ Guilt or “survivor guilt”</td>
</tr>
<tr>
<td>☐ Easily startled</td>
<td>☐ Feeling overwhelmed, helpless, or hopeless</td>
</tr>
<tr>
<td>☐ Fatigue that does not improve with sleep</td>
<td>☐ Feeling isolated, lost, lonely, or abandoned</td>
</tr>
<tr>
<td>☐ Menstrual cycle changes</td>
<td>☐ Over identification with survivors</td>
</tr>
<tr>
<td>☐ Change in sexual desire or response</td>
<td>☐ Feeling misunderstood or unappreciated</td>
</tr>
<tr>
<td>☐ Decreased resistance to colds, flu, infections</td>
<td></td>
</tr>
<tr>
<td>☐ Flare up of allergies, asthma, or arthritis</td>
<td></td>
</tr>
<tr>
<td>☐ Hair loss</td>
<td></td>
</tr>
</tbody>
</table>
Section 5 | References


Overview

FEMA was created on April 1, 1979, when President Jimmy Carter signed an executive order to create an agency that was committed to helping people before, during, and after disasters, both manmade and natural. Since then, FEMA has developed resources to prepare for, mitigate, respond to, and recover from disasters. Federal, state, and local agencies are in place to assist individuals in the event of a disaster, but preparedness, mitigation, response, and recovery are responsibilities shared with the people in the affected community.

Personal Preparedness

It is critical that individuals have a personal/family emergency preparedness plan. According to FEMA, 46% of the population in the United States is characterized as “Not On Their Radar,” meaning they are less likely to engage in preparedness behaviors because their perception of risk is not high.² The National Household Survey conducted by FEMA in 2014 found that 66% of individuals living in areas with a history of hurricanes had read, seen, or heard information about how to better prepare for a disaster compared with 30% of individuals living in areas with a history of wildfires.³

It is especially important for vulnerable populations, such as children, the elderly, and those with disabilities, to have disaster plans in place. The Preparedness in America survey revealed that individuals with disabilities perceived themselves at risk for disasters but believed they were less capable of responding.⁴ In a study that sampled persons with disabilities, 47.4% of those surveyed had an emergency plan in place with necessary appropriate emergency supplies, 29% had developed a communication strategy, and 32% had emergency supplies available.⁵

Creating a Family Plan

Preparedness planning should include families, children, pets, and vulnerable populations. Several resources are available for the community and patients to develop plans to prepare for, mitigate, respond to, and recover from a disaster. It is especially important for emergency responders, including emergency nurses and providers, to have a preparedness plan for their families and pets so they can quickly respond to the event. The following section provides tools and resources for individuals and patients.
Templates and Resources
The following resources can be found on websites hosted by the U.S. Department of Homeland Security and the Centers for Disease Control and Prevention. These include planning resources for both patients and families that can be used by ED staff and their significant others to help create individual and family plans.⁸

- Family Emergency Communication Plan
- Wallet-Sized Family Emergency Communication Plan
- Family Emergency Kit Checklist
- Pet Owner Checklist
- Pet Emergency Kit Checklist
- Emergency Supplies Checklist
- Emergency Supply Checklist for Children
- Children-Friendly Checklists
- Commuter Emergency Plan
- Critical Documents and Valuables Checklist
- Additional Children-Friendly Tools and Resources
- American Academy of Pediatrics: Family Readiness Kit

Disaster-Specific Tools and Resources
- How to Prepare for a Tornado
- Be Ready! Tornados
- How to Prepare for a Flood
- Be Ready! Floods
- How to Prepare for a Hurricane
- Be Ready! Hurricanes
- How to Prepare for an Earthquake
- Be Ready! Earthquakes
- During an Earthquake: Some Specific Situations
- How to Prepare for a Winter Storm
- Be Ready! Winter Weather
- How to Prepare for a Wildfire
- Be Ready! Wildfires
- How to Prepare for an Active Shooter
- How to Prepare for a Nuclear Explosion
- Radiation Emergencies: Where to Go
- Radiation Emergencies: Decontamination
- American Academy of Pediatrics Family Readiness Kit

Recovery and Support Resources
- Coping with a Disaster or Traumatic Event, CDC Website
- Coping with a Disaster or Traumatic Event, PDF
- Coping with Disaster, FEMA Website
- Helping Children Cope with Emergencies, CDC Website
- Activity Page for Children Coping with Disasters, PDF
- Substance Abuse and Mental Health Services Administration: Disaster Resources

Resources for Patients with Illnesses
- Emergency Resources for the Cancer Community, National Cancer Institute
- Preparing for Disaster for People with Disabilities and other Special Needs, FEMA
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Section 7 | Communication and Community Partnerships
Author: Angie Hodge, DNP, RN, EMT-P, CEN, ACNS-BC, SANE

Communication Plan
Disaster communication is the process of exchanging information between individuals, organizations, and communities during an emergency event. Communication is especially critical to help ensure public safety, protect property, facilitate response efforts, elicit cooperation, instill public confidence, and reunite families. Communication planning occurs during the emergency management phase of mitigation and preparedness. Consideration should be given to developing personal, internal, and external communication plans. Receiving, reviewing, and sending accurate, timely information is essential for situational awareness and coordination of response activities.

Strategies for disaster communication should enable redundancy. The more extensive the event, the greater the need for public and critical response personnel communication. Questions that should be addressed in the communication plan include the following:

• Who will be communicating and with whom?
• How will the communication take place?
• What is the plan if the primary communication system fails?

Crisis risk communication should provide a message that does not overly reassure, explains what is going on, and gives people things to do. It should also explain how the event will affect them, what they can do to protect themselves, who is in charge, where to get resources, and what to do next. Emergency communications may include: alerts and warnings; directives about evacuation, curfews, and other self-protective actions; and information about response status, family members, available assistance, and other matters that impact response and recovery.

Gaps in the communication plan can leave groups vulnerable to misunderstanding the message, while methods of sending the message and not knowing your organization/community can result in the message never reaching certain target populations.

Scarcity of Resources
Successful resource management during an emergency can mean catastrophic events are minimized or avoided altogether. Scarcity of resources occurs as the demand for needed goods and services are overwhelmed. In this age of organizational just-in-time inventory, it is essential that emergency planners include evaluation of organizational resources and planning for any identified gaps in their Emergency Operation Plan. Organizations should develop resource inventories using forms such as HICS 258 - Hospital Resource Directory. Organization should identify their partners, vendors, and MOUs to provide and/or share resources during emergency events.

Rural Communities
In 2016, the Director of the U.S. Census reported that rural areas covered 97% of the nation’s land while containing only 19.3% of its population. Populations in these rural areas and the respective response agencies may face socioeconomic challenges that can lead to difficulties responding to natural and human-made disasters. Competing priorities for time, personnel, and monetary resources may affect emergency planning and response.
Mutual Aid

Identifying emergency response partners locally and regionally to develop mutual aid agreements is a fundamental task of any emergency response plan. Federal response to emergency events is activated once state and local resources are activated. These resources are activated by a presidential declaration under the Stafford Act or National Emergency Act, public health emergency declaration by the secretary of the U.S. Department of Health and Human Services (HHS), or by congressional action to enact legislation for supplemental appropriations. Mobilizing these federal resources will depend on the type of disaster and state-identified requests. It may take up to 96 hours to arrive.

Identifying key stakeholders, organizational resources, vendor resources, and resource stockpiles, both locally and regionally, must be completed during the planning phase of emergency management. MOUs between response partners, vendors, and local governmental agencies, especially in resource-poor communities, list responsibilities of each agency or organization during an emergency event. MOUs offer organizations and agencies the opportunity to discuss, develop, and agree to terms of collaboration prior to an actual event. Collaboration agreements can be formal MOUs, mutual aid agreements, or inter-hospital agreements at both the local and regional level. Emergency planners should review vendor contracts to ensure that emergency management caveats are included.

Providers and Staff During an Emergency

Providers and medical staff must be aware of the legal liability ramifications in their state if they are providing services outside of their housing organization. Many states have developed liability protection for medical volunteers. Housing organizations will provide legal liability protection if they are supplying personnel resources as part of a MOU. Receiving organizations must develop plans for managing providers and staff who have volunteered or have been sent by response partners. These plans should address disaster privileges for licensed and non-licensed providers, monitoring of staff activities, and orientation to responsibilities expected.

Community Partners

In a 2009 report by the U.S. Department of Health and Human Services on the first five years of the Hospital Preparedness Program, it was noted that although significant improvements had been made, a coordinated effort for a mass causality event would still likely overwhelm a single hospital. Locally, communities had already realized that a single organization could not effectively respond to a major emergency event, and collaborations between key stakeholders had begun. These collaborations had variable structure, maturity, capabilities, and alignment with other agencies, but it was a grass roots beginning. Federal grant funding began to place increased emphasis on building resiliency by incorporating requirements for local and regional healthcare coalitions.

Healthcare coalitions provide an avenue for communication, planning, and response between traditional response partners such as Emergency Management Agency (EMA), Emergency Medical Services (EMS), law enforcement, and hospitals, and non-traditional partners such as nursing homes, home health agencies, and service agencies such as dialysis. These coalitions can play a critical role in providing and linking healthcare and public health preparedness and response capabilities. According to the National Association of County & City Health Officials (NACCHO), the healthcare coalitions’ response roles include the following:

- Sharing information
- Maintaining situational awareness
- Sharing and coordinating resources
- Analyzing public health and healthcare data
- Coordinating patient movement and evacuation
- Conducting disease surveillance functions
- Assisting with coordination of mass shelter operations
- Tracking patients and supporting family reunification
- Coordinating assistance centers and call centers
- Coordinating psychological care services
- Providing staff to support emergency operations centers
These coalitions may remain diverse in their structure and function, but provide a collaboration mechanism for emergency planning, resource management, and communication beyond the hospital walls. Some examples of healthcare coalition planning are listed below:

- **Community Acute Care Centers (ACCs):** A non-traditional medical facility that provides medical treatment when the normal healthcare system is overwhelmed as the result of a disaster. The Community ACC may be part of the state’s Modular Emergency Medical System (MEMS). The Community ACC can provide a medical scope of practice based on the needs of the community for non-complex care for a specific illness or injury due to a medical surge event. The community supplies the assets and resources to provide a Community ACC until state/federal resources are available, the event has been managed, or resources have been exhausted.

- **Community Neighborhood Help Centers:** A non-traditional medical facility that will provide care for non-critical, non-urgent patients, enabling hospital EDs to handle critical and urgent patient surge. Basic medical evaluation/triage, basic first-aid care, self-help information, instructions for care, and community resource information are provided. The community supplies the assets and resources to provide a Community ACC until state/federal resources are available, the event has been managed, or resources have been exhausted.

- **Family Reunification Centers:** An area(s) set up by community resources to provide a staging area for an individual to obtain the available information about family members or to reconnect with family members involved in the emergency event.

- **Volunteer Reception Centers:** An area(s) set up by community resources to provide a staging area for individuals who desire to volunteer during a disaster. Individuals are screened for their skill set and are matched with identified needs within the community.

**Personal Communication Plan**

Employees should develop personal communication plans to receive and send information during emergency events. Communication strategies include methods to receive disaster communication and exchange information with family and friends. Wallet cards, messaging services, social media pages, and out-of-town contacts are a few examples of possible strategies.

**Internal Communication Plan**

Internal communication involves obtaining information from all departments within the organization, sending out regular situational updates, giving response guidance, and gathering requests for assistance to the hospital incident command center. Internal communication should not only include the organizational staff but should keep corporate officials up to date. Another important component of an internal communication plan is keeping patients, families, and clients informed. Preplanning includes development of a contact list for key personnel and methods of communication.

Mass notification of provider and staff may occur by several methods depending upon organizational and community capabilities. Vendor-managed messaging software, 411 messaging, social media updates, phone-tree activation, state messaging programs, and other mass communication programs can be used effectively. Staff should be aware of individual organizational and community notification methods. Organizations should include internal notification as part of their emergency response exercises.

**External Communication Plan**

External communication involves sharing of information between key individuals, groups of individuals, and/or other response agencies. These agencies may be part of the local community, regional partnerships, or state or federal agencies. Effective communication is essential to providing an accurate picture of the events affecting citizens, organizations, and response personnel, including hospital staff. Based upon this information sharing, requests for assistance, sharing of assets, joint decision-making, and management of the event will be facilitated. Preplanning includes development of a contact list for key personnel and response partners, vendor and asset contact information, and methods of communication.

**Key Stakeholders**

Key stakeholders should be identified during planning activities. An emergency management stakeholder is an individual or entity who would be affected by decisions made or not made by policy makers in their community. These key individuals or entities not only have the potential to be affected by an emergency event, but also may be the difference between an optimal response and a catastrophe. Stakeholders can be differentiated by their types:
Households: individual citizens, group homes, functional needs populations

Community groups: social groups, economic groups, and political groups

Private sector groups: religious organizations, non-governmental organizations (NGOs), non-profit organizations (NPOs), community-based organizations (CBOs)

Economic Groups: businesses, public utilities, news media, colleges, universities, health organizations

Governmental: municipalities (city or towns), county, regional, state, federal

Community emergency management assessment and hazard vulnerability analysis should be completed to include these key stakeholders and their unique contributions to or drains on community resources. Key stakeholders should be fully integrated into response and recovery planning activities to fully utilize their resources. Community EOPs should reflect these assessments.

Government Agencies
The U.S Department of Homeland Security is the lead agency for national response and preparedness. FEMA provides coordination of disaster response between the federal government and local and/or state authorities when their resources are overwhelmed. Other national-level government agencies that have major disaster responsibilities are the U.S. Geological Survey, Army Corps of Engineers, National Weather Service, and the National Science Foundation.

Federal public health medical assistance may come in the form of medical supplies, personnel, and/or technical support. These resources will be requested by state agencies when state resources are or will soon be overwhelmed. The federal public health capabilities include triage, treatment, transportation, evacuation, infection control, mental health screening and counseling, environmental health service, and other emergency response needs under Emergency Support Function #8 – Public Health and Medical Services Annex plan.

- The U.S. Public Health Service Commissioned Corps, the uniformed public health arm of the federal government, has three teams that may be deployed during a disaster:
  - Rapid Deployment Force (RDF): Pre-defined teams of multi-disciplinary staff who deploy within 12 hours after activation to provide mass care at shelters, staff point-of-distribution centers, and casualty collections points, and conduct community outreach and assessment.
  - Applied Public Health Team (APHT): Teams of experts in applied public health that can function as a public health department when community infrastructure has failed. These teams can deploy within 36 hours and provide assistance in public health assessments, environmental health, infrastructure integrity, food safety, vector control, epidemiology, and surveillance.
  - Mental Health Team (MHT): Teams of mental and behavioral health experts who can assess stress and suicide risk in affected populations and assess and manage responder stress. These teams can deploy within 36 hours of notification and may also provide counseling, therapy, and crisis intervention.

- National Disaster Medical System is a coordinated partnership between the United States Departments of Health and Human Services, Homeland Security, Defense, and Veterans Affairs. This partnership enables delivery of quality medical care to supplement local or state health and medical systems, and increases response capabilities.
  - Disaster Medical Assistance Team (DMAT): Teams of medical professionals and support personnel who provide primary and acute care. They may also provide triage of mass causalities, initial resuscitation and stabilization, advanced life support, and preparation of sick or injured victims for evacuation. Teams consist of 35 physicians, nurses, medical technicians, and ancillary support personnel who can mobilize within 6 hours and will arrive within 48 hours with patient care assets. These teams can sustain operations for 72 hours without external support.
**Trauma and Critical Care Team (TCCT):** Teams of medical professionals and support personnel who have expertise in trauma, critical care, and emergent and surgical care during disaster events. These teams are deployed to supplement federal, state, and local resources at the request of local authorities. These teams are typically deployed for fourteen days or longer. They stay until local resources have started to recover or are being supplemented by other organizations.

**Disaster Mortuary Operations Response Team (DMORT):** These teams work under the guidance of local authorities to provide technical assistance and personnel to recover, identify, and process deceased victims. Teams consist of funeral directors, medical examiners, coroners, pathologists, forensic anthropologists, medical records technicians and transcribers, fingerprint specialists, forensic odonatologists, dental assistants, x-ray technicians, and other support personnel. The Department of Health and Human Services maintains Disaster Portable Morgue units that are used by DMORT teams to provide stand-alone morgue operations.

**Victim Information Center Team:** Teams of support personal who help families find closure by supporting local authorities and other NDMS teams collecting ante-mortem data to help identify victims of a disaster. These teams provide a link between government and victims’ families. They also provide technical assistance and consultation. They may be asked to collect dental records, medical records, and DNA; interview families; manage missing person lists; update the Victim Identification Program database; and coordinate with federal, state, and local law enforcement agencies.

**National Veterinary Response Team (NVRT):** Teams of clinician veterinarians, pathologists, animal health technicians, microbiologists, and other support personnel to help identify the need for veterinary services after events requiring federal support. These teams will assess the extent of disruption to animal and public health infrastructure, care for injured and displaced animals, and provide care to search dogs.

**Federal Medical Stations (FMSs):** are U.S. Department of Health and Human Services assets that can be used to provide surge beds and equipment in support of healthcare systems. An FMS cannot be relocated after it has been established. Each cache of supplies will provide 3 days of medical and pharmaceutical resources to sustain 50–250 stable primary or chronic care patients who require medical and nursing services. Possible roles of FMS are temporary holding and caring for patients to decompress local hospitals, receiving patients from evacuated nursing homes and skilled nursing facilities, or providing low-acuity care for patients with chronic illness whose access to care has been impacted. Once the request for FMS has been approved, the cache of equipment and supplies will be delivered in 24–48 hours, and 12 hours is needed for setup.

**Local and/or state emergency response must supply the building to establish an FMS based upon strict guidelines such as a structurally intact, accessible building with adequate hygiene facilities and functioning utilities, including internet accessibility.**

**Staff for an FMS can be provided by local, regional, or EMAC partners. The U.S. Public Health Service Commissioned Corps may be requested by state agencies.**

**The National Guard** is under the jurisdiction of the federal government during war time, but during peacetime, troops work within the state governments. Each state maintains its own National Guard bureau, which works with local and state authorities during disaster events. The National Guard has two missions. In its federal government role, the National Guard provides combat-ready reserve troops for the Army and Air Force. In its state role, the National Guard provides trained personnel and equipment to support state and local authorities during disasters. Once requested by local/state agencies, the National Guard assets include medical personnel, equipment, and expertise to assist in rescue, recovery, and medical care. The National Guard’s capabilities are expected to supplement, not take over, local functions. Once notified, the National Guard can mobilize in 12–24 hours.
Non-Governmental Organizations

Non-governmental organizations (NGOs) vary in their size and complexity, based on community needs and availability of resources. Churches are often used as shelters during evacuations and help with recovery funding activities. Social groups such as search and rescue teams provide specific expertise. Large scale national NGOs such as the Salvation Army or the American Red Cross have historically played a role in emergency management both at the national and local level. Communities can and should engage their local NGOs to fulfill gaps in their emergency response plans.

Medical Partners

Emergency response planners should look beyond the doors of their hospital for medical partners. As mentioned previously, healthcare coalitions at the local, regional, and state level are an effective strategy for evaluating, coordinating, communicating, and responding to emergency events. Including healthcare coalition partners not only in planning but also in situational assessment and resource sharing during an event will ensure that medical services are provided efficiently. Healthcare associations such as regional hospital coordination or trauma consortiums can provide linkages between healthcare organizations or systems during emergency events. MOUs between agency partners can be used to describe roles, responsibilities, and resources available.

Volunteers

There is a long history of volunteerism in communities. Any individual who performs services without expectation of compensation is considered a volunteer. During an emergency event, volunteers share their skills and abilities with those who need them. The difficulty develops when volunteers spontaneously appear without appropriate orientation/training or resources to care for themselves or others. These spontaneous unaffiliated volunteers may be a drain on already exhausted resources. Communities should plan for an influx of volunteers. Affiliated groups will bring resources such as food, shelter, and equipment with them.

- **Citizen Emergency Response Team (CERT):** Volunteers who have completed a national curriculum that provides education about disaster preparedness for the hazards that may impact their area and trains them in basic disaster response skills such as fire safety, light search and rescue, team organization, and disaster medical operations. CERT members provide basic skills, thus enabling professional responders to focus on more complex tasks. CERT teams can be sponsored by public health or emergency management agencies.
• Medical Reserve Corps (MRC): Volunteers at local, state, regional, and federal level whose goal is to strengthen public health; reduce vulnerability; build resilience; and establish proved preparedness, response, and recovery capabilities. MRC members provide healthcare skills for various missions such as alternate care centers, support hospital services, and vaccination clinics.

• NGO volunteer groups: Volunteers that are affiliated with an organization such as the American Red Cross, Salvation Army, Church groups, or others.

• Unaffiliated volunteers (volunteer reception center): Communities may develop a system to manage spontaneous volunteers by use of a volunteer reception center. Volunteers are registered and verified, then matched with identified community needs based upon their skill level.

Public Information
The public must be kept up-to-date on current information regarding the emergency event to decrease panic, provide information for resources, and facilitate community recovery. Each organization will assign a PIO as part of their hospital incident command (HICS) to coordinate external communication to the public and manage the media. In large scale events, a joint information center (JIC) of representatives from the major key partners as part of the community emergency operation center will be responsible for coordinating external communications to deliver a consistent message.

Methods of Communication
The methods for communicating should be multifaceted, and redundancy at all levels must be included. Communication plans should list all available technologies, contact information for the technologies, and uses.

Types of technology include:

Social Media: organizational, news outlet, state and federal agencies
- Facebook
- Twitter
- Snapchat
- Websites

Messaging systems
- Vendor managed
- 411
- Texting

Phone lines
- Cellular phones
- Landline
- Organization emergency phones
- Satellite phones

Radios
- Two-way radios
- Fire/EMS/law-enforcement radio systems
- Multi-agency radio communications systems
- Citizens band radio (CB)
- Amateur radio (HAM)

Meetings
- Town meeting
- Briefings
- HICS planning
- Conference calls
- Voice over IP
Section 7 | References


Section 8 | Training and Exercises
Author: Jeffery A. Jones-Ritzler, RN, BSN, CEN, NE-BC, NHDP-BC

General Preparedness Trainings
Training and preparedness are the main aspects of successful management of a disaster situation. The observed evidence for much of emergency preparedness is insufficient, and as a result, it is challenging to clearly define what it means to be completely prepared.¹ Despite published competencies, the nursing community is lacking a consensus on the type and frequency of training that would achieve these competencies.² Emergency personnel respond to many types of natural disasters, acts of terrorism, and other mass casualty events at any given time. The nature of incidents can vary widely, but the common thread is preparedness.³ Preparedness needs to be based on an all-hazards approach. However, the all-hazards approach is not being prepared for every possible hazard, but rather recognizing what is common among the distinct incidents such as emergency communications or the need for evacuations.

Training Priorities
It is imperative that training and drills be held on a regular basis to ensure staff are prepared, have up-to-date education and training, and have confidence in their ability to react when disaster strikes. It is the responsibility of the department leadership to engage staff and promote active participation in the drills. Drills should be designed to meet the needs of each facility and should include tabletop exercises and full-scale activities.

Successful training typically starts by targeting or remediating open items from past after-action reports (AARs). When an event occurs, a retrospective analysis of the event is completed with goals for improvement noted. This is what constitutes an AAR.⁴ An AAR can be compared to a performance evaluation. (For an example of an AAR improvement plan template, see Appendix H). How well did the facility do in response to an event? When determining priorities for ongoing training and drills, the review of previous AARs, and the hospital's HVA can guide training priorities. The training should begin with items that have the highest risk of occurrence along with the highest impact on hospital operations.

Training should be developed to focus on common elements of a disaster:
• Patient surge and throughput
• Safety and security
• Setting up incident command
• Management of finite/scarc resources
• Development of and access to a 96-hour sustainability plan

Types of Training
There are various types of training, and each facility will have to tailor training to best suit the needs of the staff and the facility. Exercises or training provide an opportunity to practice and test plans as part of ongoing preparedness efforts. Some types of training include policy and/or guideline review. These discussion-based reviews can include seminars, workshops, tabletop exercises, and games. Discussion-based training is used to familiarize staff and other participants with current plans, policies, agreements, and procedures, or may be used to develop new plans, policies, agreements, and procedures. This type of training generally requires fewer participants, fewer resources, and is more cost effective than operations-based exercises. Plan reviews can be accomplished as part of a staff meeting or team huddle. When conducting training that is based on policy and/or guidelines review, topics that are often covered are the facility's EOP, or reviewing current updates in education and training for emergency preparedness. Reviewing policies, procedures, or protocols provides staff the opportunity to understand their facility's guidelines, become comfortable knowing what to expect, what their individual roles are, and where to find resources. This type of training may be useful for providing updates or general information, but lacks the opportunity to practice hands-on simulation.

Segmented training is a way to teach certain aspects of emergency preparedness. Segmented training occurs in pieces rather than as a whole, entire training session. Segmented training is often done to increase technical skill and proficiency. Examples of this type of training would be the practicing of donning and doffing...
of PPE. Having staff demonstrate donning and doffing PPE and related activities is a segmented way of teaching emergency preparedness. While knowing how to don and doff PPE is critically important in certain emergencies, it is a small aspect of emergency preparedness as a whole. Training like this enables staff to participate in short training activities to understand the importance of one task rather than providing an entire drill that encompasses several activities. Another type of segmented training is reviewing disaster triage protocols and practicing with case studies.

Looking at the larger picture can also be helpful when conducting training. Sometimes it may be easier for some learners to visualize the event on a smaller scale. Tabletop exercises (TTX) or drills can help staff become more comfortable with decision-making in a disaster situation. The scope of a tabletop exercise can range from a small unit event to a regional event. Use of department layouts or inclusion of partner departments or organizations can increase the scope and complexity of a TTX.

Operations-based exercises include drills, functional exercises, and full-scale exercises. These types of training require advance planning and coordination of many agencies and are used to validate plans, policies, agreements, and procedures. Operations-based training helps clarify roles and responsibilities, and identify resource gaps in an operational environment. Operations-based exercises provide opportunities for testing partnerships and multiagency or multijurisdictional coordination.

### Training Resources

The following list provides short descriptions of resources and organizations that may assist in developing a more robust ED disaster plan. Many of the resources listed provide templates, practice scenarios, and additional education and training that can help ED staff prepare for a disaster.

**California Hospital Association - Emergency Preparedness**
Website with resources and frameworks covering all aspects of emergency preparedness: [https://www.calhospitalprepare.org/](https://www.calhospitalprepare.org/)

**Centers for Disease Control and Prevention**
Offers training and education on specific types of emergencies and also has an abundance of resources for public health professionals, including information specifically for emergency health professionals: [https://emergency.cdc.gov/training/index.asp](https://emergency.cdc.gov/training/index.asp)


**FEMA Center for Domestic Preparedness**
The Center for Domestic Preparedness (CDP), located in Anniston, Alabama, is the United States Department of Homeland Security’s only federally chartered weapons of mass destruction (WMD) training center. Training and travel are provided at no cost to state, local, or tribal government emergency responders. Federal, civilian, and international requests are considered upon inquiry: [https://cdp.dhs.gov/](https://cdp.dhs.gov/)


**FEMA Emergency Management Institute**
The Emergency Management Institute (EMI), located in Emmitsburg, Maryland, is the emergency management community’s flagship training institution and provides training to federal, state, local, tribal, volunteer, public-, and private-sector officials. EMI directly supports the implementation of the National Incident Management System (NIMS), the National Response Framework (NRF), the National Disaster Recovery Framework (NDRF), and the National Preparedness Goal (NPG): [http://training.fema.gov/EMI/](http://training.fema.gov/EMI/)

**The Emergency Management Institute**
Offers self-paced online courses that support the nine mission areas identified by the NPG. The courses are designed for people who have emergency management responsibilities and the general public. All courses are offered free-of-charge to those who qualify for enrollment: [http://training.fema.gov/IS/](http://training.fema.gov/IS/)

**Johns Hopkins Preparedness and Emergency Response Learning Center**
The Johns Hopkins Preparedness and Emergency Response Learning Center (JH-PERLC) has developed a variety of training opportunities that include over 50 free online just-in-time training modules, as well as RAPID-Psychological First Aid Workshop and Incident Command Training for Public Health Agencies

- Agencies and core-competency-based preparedness trainings for mid-level public health workers: [http://www.jhsph.edu/preparedness/training/](http://www.jhsph.edu/preparedness/training/)

**The National Ebola Training and Education Center (NETEC)**
Combines the resources of healthcare institutions experienced in treating Ebola to offer training, readiness assessments, and expertise to help facilities prepare for Ebola and other special pathogens. NETEC offers several infectious-disease-specific training and exercise templates online at [https://netec.org/exercises/](https://netec.org/exercises/) as well as pre-recorded webinars that were done in collaboration with ASPR TRACIE.
Section 8 | References


The goal of this toolkit is to give emergency nurses and nurse leaders a starting reference from which to build, adjust, or validate disaster and emergency management plans. While this toolkit is a comprehensive review, additional research and analysis should be completed to match the needs of the individual healthcare setting. Emergencies and large-scale disasters are an inevitable reality that will impact our communities. Since emergency departments are the entryway into the healthcare setting at such times, emergency nurses will play a critical role in the response to and recovery from disaster-related incidents.

Recent events have highlighted the wide variety of situations from hurricanes to mass shootings that emergency nurses may face. These events require a hospital to respond dynamically, and although this toolkit was written with a focus on the emergency care setting, it is essential that the planning, training, and review include the entire hospital and community stakeholders.

While the likelihood of an emergency nurse being exposed to a disaster situation is high, the level of awareness of disaster plans, roles, and responsibilities remains low.¹ Similarly, it has been reported that only 39.4% of emergency nurses felt comfortable with their hospital’s level of preparedness.² The associated vulnerabilities related to disaster events and need for preparedness and planning in the hospital setting for such events have been well demonstrated and include Hurricane Katrina, the Joplin Tornado, Hurricane Harvey, the Pulse Nightclub shooting, the Las Vegas shooting, the West Africa Ebola outbreak, and the Paris terrorist attacks, to name a few. With each of the aforementioned events and others, the need for readiness in the healthcare setting is essential for the best outcomes. The scale and type of disaster events will vary from region to region; a common thread is the need for preparedness and education to raise the level of emergency nurses’ comfort with these types of events.

Appendix A | Sample Department Emergency Operations Plan

Hospital Name

Department Name:

Date Issued:

1. **EOP Activation Signal:**

2. **Department Mission** during EOP Activation:

3. **Department Functions** during EOP Activation:

4. Upon notification of EOP activation, the on-duty person-in-charge (senior supervisor or senior staff member on duty) in this Department shall:
   a. **Assume command** of Department activities until relieved
   b. **Restrict telephone** usage to essential functions only
   c. Compile Department Status Report (STATREP)
   d. **Contact Hospital Command Center (HCC)** at (phone #) or by runner with status report within 15 minutes
   e. **Notify on-duty staff** of current situation and any special instructions
   f. **Notify department head** at (phone #) and/or (alternate) at (phone #) to report situation
   g. **Initiate department functions** based on EOP level as noted in Section 3, above
   h. Prepare to discontinue non-essential functions as directed
   i. Report available staffing to the Labor Pool, at (phone # and location)
   j. Establish Department Operations Center at (phone # and location)
   k. At shift change, hold all staff on duty until released by the HCC

5. If incident involves **FIRE** or other **INTERNAL HAZARD**, refer to FIRE PLAN (“Doctor Red”).

6. If **EVACUATION** is required, refer to **EVACUATION PLAN**
   a. Bring necessary portable equipment/supplies
   b. Unless immediate danger exists, do not evacuate until directed by Command
   c. **HORIZONTAL EVACUATION:** Move occupants to adjoining smoke compartment (other side of nearest fire doors)
   d. **VERTICAL EVACUATION:** Move DOWN (insert) levels (not lower than main floor). Use stairways.
   e. **BUILDING EVACUATION:** Move occupants out of building to (exterior location)
   f. During FIRE, do not use elevators unless authorized by Fire Department
   g. Keep occupants and staff together at relocation site and maintain accountability for occupants and staff
   h. Last staff member out should perform final search of all areas, and close (but not lock) all doors. Report to HCC that a search and evacuation is complete.

Refer to **EOP Manual** located at (nearest manual location) for Department-specific and event-specific directions.

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Appendix B | Staff Contact List

Staff Contact List

If a disaster response is activated, each person will call the next two people on the list. If you cannot reach one of the people you call, leave a message (if possible) and call the next person. Note the name of the person you could not reach and call again one hour later. If unsuccessful, report name to Incident Manager. *This list contains sensitive information and should remain confidential.*

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# Appendix C | Practice Support Services List

## Contact List: Vendors/Funding Sources/Community Liaisons

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<td>• Equipment Provider</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>• Equipment Repair</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Service Provider</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Facility Management</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Facility Maintenance</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Property Insurance</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Liability Insurance</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Information Technology Support</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Medical Supply and Equipment</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Vendor</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>• Vendor</td>
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<td>• Vendor</td>
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<tr>
<td>• Vendor</td>
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<tr>
<td>• Repair</td>
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<td>• Repair</td>
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<td>• Repair</td>
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<tr>
<td>• Maintenance</td>
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<td>• Maintenance</td>
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<td>• Maintenance</td>
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<td>• Maintenance</td>
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<td></td>
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<tr>
<td>• Maintenance</td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>
### Contact List: Vendors/Funding Sources/Community Liaisons

<table>
<thead>
<tr>
<th>Contact List: Vendors/Funding Sources/Community Liaisons</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Contact Number</strong></td>
</tr>
<tr>
<td>Local Emergency Management Agency</td>
</tr>
<tr>
<td>Local Red Cross</td>
</tr>
<tr>
<td>Community Partners</td>
</tr>
<tr>
<td>• Partner</td>
</tr>
<tr>
<td>• Partner</td>
</tr>
<tr>
<td>• Partner</td>
</tr>
<tr>
<td>Other Numbers</td>
</tr>
</tbody>
</table>
## Incident Facilities Matrix

<table>
<thead>
<tr>
<th>Incident Facility</th>
<th>Mission</th>
<th>Responsible Officer</th>
<th>Pre-planned Location</th>
<th>Telephone</th>
</tr>
</thead>
</table>
| **Hospital Command Center (HCC)**  
**(HICS 3: Emergency Operations Center/EOC)** | Command and control point for overall incident management. Location of incident commander, command staff, and section chiefs. | Incident Commander | Room Name/Number (Location)  
2nd Choice Room Name/Number (Location) | xx-xxxx (tie line, full number and FB line)  
xx-xxxx (tie line and full number) |
| **Planning Section Center** | Operations control point for Planning Section (may be located in or adjacent to HCC) | Planning Section Chief | Room Name/Number (Location) | xx-xxxx (tie line and full number) |
| **Logistics Section Center** | Operations control point for Logistics Section (may be located in or adjacent to HCC) | Logistics Section Chief | Room Name/Number (Location) | xx-xxxx (tie line and full number) |
| **Finance Section Center** | Operations control point for Finance Section (may be co-located with EOC) | Finance/Administration Section Chief | Room Name/Number (Location) | xx-xxxx (tie line and full number) |
| **Operations Section Center** | Operations control point for Operations Section (may be co-located with EOC) | Operations Section Chief | Room Name/Number (Location) | xx-xxxx (tie line and full number) |
| **Media Staging Area** | Holding area for media awaiting briefing | Public Information Officer | Room Name/Number (Location)  
2nd Choice Room Name/Number (Location) | xx-xxxx (tie line and full number)  
xx-xxxx (tie line and full number) |
| **ED Operations Area** | Operations control point for the Emergency Department | Casualty Care Group Supervisor | Room Name/Number (Location) | xx-xxxx (tie line and full number) |
| **Immediate (Red) Treatment Area** | Treatment location for acute incoming patients | Casualty Care Group Supervisor | Room Name/Number (Location) | xx-xxxx (tie line and full number) |
| **Delayed (Yellow) Treatment Area** | Overflow treatment location for patients with urgent, but not life-threatening, injuries/illnesses | Casualty Care Group Supervisor | Room Name/Number (Location) | xx-xxxx (tie line and full number) |
| **Minor (Green) Treatment Area** | Overflow treatment location for patients with minor injuries/illnesses | Casualty Care Group Supervisor | Room Name/Number (Location) | xx-xxxx (tie line and full number) |
| **Labor Pool and Credentialing Area** | Mobilization point and credentialing area for medical and non-medical personnel and volunteers | Labor Pool and Credentialing Unit Leader | Room Name/Number (Location) | xx-xxxx (tie line and full number) |
| **Medical Staff Pool Area (if applicable)** | Mobilization point and credentialing area for physicians and other medical staff | Labor Pool and Credentialing Unit Leader | Room Name/Number (Location) | xx-xxxx (tie line and full number) |
| **Radiology Services Area** | Operations control point for radiology services | Clinical Support Services Unit Leader | Room Name/Number (Location) | xx-xxxx (tie line and full number) |
| **Laboratory Services Area** | Operations control point for laboratory services | Clinical Support Services Unit Leader | Room Name/Number (Location) | xx-xxxx (tie line and full number) |
| **Pharmacy Services Area** | Operations control point for pharmacy services | Clinical Support Services Unit Leader | Room Name/Number (Location) | xx-xxxx (tie line and full number) |
| **Cardiopulmonary Services Area** | Operations control point for cardiopulmonary services | Clinical Support Services Unit Leader | Room Name/Number (Location) | xx-xxxx (tie line and full number) |

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## Appendix E | Disaster Response Contact List

### Contact List: Disaster Response Officials

<table>
<thead>
<tr>
<th>Contact Number</th>
<th>Email</th>
<th>Contact Person</th>
</tr>
</thead>
<tbody>
<tr>
<td>County EMA/Warning Center</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Med/health Op Area Coordinator</td>
<td></td>
<td></td>
</tr>
<tr>
<td>County:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Division of Epidemiology Bioterrorism Emergency</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CDC emergency response Office</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Local EMS Agency</td>
<td></td>
<td></td>
</tr>
<tr>
<td>County:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Health Department</td>
<td></td>
<td></td>
</tr>
<tr>
<td>County:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Medical Society</td>
<td></td>
<td></td>
</tr>
<tr>
<td>County:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Office of Emergency Services Director</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nearest Level 1 Trauma Center</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nearest Hospital</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Media: Television</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Media: Television</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Media: Television</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Media: Radio</td>
<td></td>
<td></td>
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<tr>
<td>Media: Radio</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Media: Radio</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Media: Newspaper</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Media: Newspaper</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other:</td>
<td></td>
<td></td>
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<tr>
<td>Other:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other:</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Appendix F | Hazardous Material Decontamination Medical Monitoring Worksheet

Hazardous Materials Decontamination Medical Monitoring Worksheet

Date: ________________________________
Name: ________________________________  Department: ________________________________
Outside Temperature °F: ________________________________

Donning of personal protective equipment may be denied to any person with:
Temperature >99.2 °F | Respirations >24/Min | Pulse >110/ min | Blood Pressure >150/90

<table>
<thead>
<tr>
<th>Pre-Mission Vital Signs</th>
<th>Post-Mission Vital Signs</th>
</tr>
</thead>
<tbody>
<tr>
<td>(measure prior to donning PPE)</td>
<td>(measure after doffing PPE)</td>
</tr>
<tr>
<td>BP: _________________________</td>
<td>BP: ____________________________</td>
</tr>
<tr>
<td>Pulse: ______________________</td>
<td>Pulse: _________________________</td>
</tr>
<tr>
<td>Respiration: __________________</td>
<td>Respiration: __________________</td>
</tr>
<tr>
<td>Weight: _____________________</td>
<td>Weight: ________________________</td>
</tr>
<tr>
<td>Temperature: ________________</td>
<td>Temperature: _________________</td>
</tr>
</tbody>
</table>

Time In: ___________________________  Time Out: ___________________________

Decontamination Personnel will not exceed 1 hour in chemical protective suits and PAPR hood. There must be a minimum of 20 minutes of rest prior to return to work.

Return to work is permitted when the following guidelines have been met:

<table>
<thead>
<tr>
<th>Vital Sign</th>
<th>Minimum Guidelines</th>
</tr>
</thead>
<tbody>
<tr>
<td>Temperature</td>
<td>A return to within .5 degrees of pre-mission vital sign</td>
</tr>
<tr>
<td>Body weight</td>
<td>A return to within 1.5 % of pre-mission body weight</td>
</tr>
<tr>
<td>Pulse</td>
<td>A return to within 5% and &lt;90 beats per minute</td>
</tr>
<tr>
<td>Blood Pressure</td>
<td>&lt;150/90</td>
</tr>
</tbody>
</table>

Replenish lost fluids with cool drinking water
Appendix G | Child Identification Questionnaire

Child Identification Questionnaire

Child's Name: _______________________________________________________

Child's Usual Address: _______________________________________________

Phone: _____________________________________________________________

Parent's or Guardian's Name(s): _______________________________________

<table>
<thead>
<tr>
<th>Receiving Facility</th>
<th>Date and Time of Arrival</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Accompanied or Unaccompanied and by whom</th>
<th>Age of Child</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Pediatrician's Name, Address, and Phone Number</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Where did the child come from?</th>
<th>Where was he/she found?</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Be as specific as possible, including neighborhood or street address*

<table>
<thead>
<tr>
<th>Description of the Child (attach photograph if possible)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Where did the child come from?</th>
<th>Where was he/she found?</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Be as specific as possible, including neighborhood or street address*

<table>
<thead>
<tr>
<th>Race, if known:</th>
<th>Hispanic, Black non-Hispanic, White non-Hispanic, Asian, Middle Eastern, Native American, unable to determine</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Is the child verbal?</th>
<th>If speaking, language spoken</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Hair Color</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Eye Color</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Glasses</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Height</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Birthmarks, scars or other markings</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Clothing worn when found/presented</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
</tbody>
</table>
### If the Child Was Accompanied

Where and when was the parent/guardian last seen?

<table>
<thead>
<tr>
<th>Are the whereabouts of the parent or guardian currently known?</th>
</tr>
</thead>
<tbody>
<tr>
<td>☐ No</td>
</tr>
<tr>
<td>☐ Yes (location): ____________________________</td>
</tr>
</tbody>
</table>

Phone number: ____________________________  Cell phone number: ____________________________

E-mail address:

Has the parent or guardian been contacted?

| ☐ No |
| ☐ Yes (contacted by): ____________________________ |

Time: ______  Date: ______

Plans for reuniting child with parent/guardian:

---

### Patient Disposition/Discharge

☐ The child was transferred to another facility for a higher level of care. Facility to which the child was transferred.

<table>
<thead>
<tr>
<th>Phone number:</th>
<th>Date:</th>
<th>Time:</th>
</tr>
</thead>
</table>

☐ The child was released to another agency.

<table>
<thead>
<tr>
<th>Agency:</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Agency Contact:</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Phone number:</th>
<th>Date:</th>
<th>Time:</th>
</tr>
</thead>
</table>

☐ The child was released to an individual.

<table>
<thead>
<tr>
<th>☐ Parent  ☐ Guardian</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Name: ____________________________</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Phone number:</th>
<th>Date:</th>
<th>Time:</th>
</tr>
</thead>
</table>
### After Action Report: Improvement Plan Template

<table>
<thead>
<tr>
<th>Exercise Goal</th>
<th>Evaluation</th>
<th>Needed Change</th>
<th>Individual Responsible</th>
<th>Due Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>EXAMPLE 1. Communications: Notify staff of plan activation on holidays</td>
<td>40% of the phone numbers were out of date</td>
<td>Update primary contact phone numbers for all staff</td>
<td>ED manager</td>
<td>January 1, then quarterly</td>
</tr>
</tbody>
</table>
Capacity
The amalgamation of all the attributes, strengths, skills, and resources available within an institution, including its infrastructure, people, leadership, and management, that can be used to achieve agreed goals.¹

Contingency planning
An organized and coordinated process with clearly defined roles that analyses potential events or emerging situations that may threaten a community and establishes arrangements that would aid a timely, effective, and appropriate response to such potential events should they occur.¹

Disaster
Any event, whether natural or human-made, that causes a serious disruption of a community’s infrastructure, and is frequently associated with widespread destruction, including human, material, economic, or environmental loss and impact, to an extent that exceeds the ability of an affected community to mitigate using existing resources.¹

Disaster Triage
The process of sorting by categorizing and prioritizing patients with the aim of providing the best care to as many patients as possible with the available resources.

Emergency
An unexpected and acute event that calls for immediate measures to mitigate effects.

Emergency response plan
A collection of written policies and procedures that help guide emergency actions, facilitate and expedite recovery efforts, and reduce the impact of an emergency event.

Incident command system (ICS)
The designated system of management that is intended to empower effective and efficient domestic incident management using a combination of resources with a common organizational structure. ICSs are normally structured to aid activities in at least six major functional areas including command, operations, planning, logistics, intelligence and investigations, finance and administration.²

Preparedness
The knowledge and abilities of governments, professional response and recovery organizations, communities and individuals to effectively foresee, respond to, and recover from the impacts of likely, imminent, or current hazardous events or conditions.¹

Recovery
Reestablishing or improving the functions of an institution affected by a disaster through decisions and actions taken after the event.

Resources
The combination of staffing, facilities, equipment, and supplies available or potentially available for assignment to incident operations.

Response
The provision of emergency services and public assistance during or immediately after a disaster to save lives, reduce health impacts, ensure public safety, and meet the basic subsistence needs of the people affected.¹

Risk assessment
A methodology for analyzing the nature and extent of risk that involves examining potential hazards and evaluating the potential impact in the context of existing conditions of vulnerability that, together, could harm exposed people, property, services, livelihoods, and the environment on which they depend.¹

Standard Operating Procedure
A reference manual that details the reason for performing a particular function or a number of functions in a specific manner and also provides information regarding the duration of the operation, those involved, and other relevant details.

Surge capacity
A measurable depiction of the ability of an institution to manage a sudden influx of patients and to expand beyond normal capacity to meet an increased demand for clinical care.³
Glossary | References

