EMERGENCY MANAGEMENT BASICS AND THE EMERGENCY MANAGEMENT CYCLE

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Emergency management might seem like a complex field filled with technical jargon and complicated processes. But at its core, it is about understanding and addressing risks, being ready when things go wrong, collaborating with others, and knowing how to recover from a variety of incidents. Hospitals must be prepared for a range of simultaneous or sequential threats (also known as cascading or compounding emergencies), which may include a pandemic during a natural disaster, a utility failure during a mass casualty incident (MCI), or a power outage during a prolonged heat wave. These cascading emergencies are increasing as severe weather incidents become more common. Even cyber attacks can require unique emergency management approaches. Even if there is no specific "incident," emergency management procedures and frameworks are commonly activated by hospitals to manage patient surge during the respiratory infection season.

Traditional disaster medicine training in health and medical response emphasizes hands-on clinical skills for managing emergencies (e.g., diagnosis, triage, and trauma care), while health care emergency management takes a broader approach by addressing the organizational, operational, and system-level challenges involved in disaster response.

Emergency managers in hospital settings prepare and respond differently compared to those who work in other settings, such as local and state emergency management and public health agencies. However, health care preparedness and response partners maintain consistency and align their emergency management activities with the principles found in the **National Incident Management**

Related Resources
Additional resources are available in ASPR TRACIE's Emergency Operations Plans/Emergency Management Program and Incident Management Topic Collections.

System (NIMS), facilitating a whole community approach to emergency response and streamlining planning and response as much as possible. [1]

It is also important to note that hospital emergency managers juggle multiple responsibilities – and often multiple roles – especially in smaller organizations where the emergency manager might also oversee safety, environment, and supplies. This chapter uses the term "emergency manager" to mean any personnel responsible for the development, implementation, maintenance, and administration of emergency management programs and plans for health care facilities or systems (e.g., hospitals, clinics, or community health centers). Refer to the Hospital Emergency Management Leadership chapter of this Guidebook for additional information.

What is Emergency Management?

Emergency management is the organized approach hospitals use to prepare for, respond to, mitigate, and recover from emergencies and disasters that disrupt normal operations. It provides the support, guidance, and structure that hospital departments and leadership need during both calm (blue sky days) and chaotic (grey sky days) times. It is not just about having plans on the shelf; it is about creating systems that work when they are needed the most.

Emergency management involves coordinating a wide variety of activities, which are organized by four core functions (**mitigation, preparedness, response, and recovery**), and managed using appropriate methods for each category. Adopting standardized templates and consistent processes helps streamline these activities and ensures that terminology and approaches remain uniform throughout the organization. This not only enhances efficiency and integration of emergency tasks but also builds broader organizational support for the emergency management program.

This chapter covers the following components of health care emergency management: protecting staff, facilities, and critical systems; ensuring effective incident management; protecting patients; supporting clinical care; coordinating with local partners; managing vital resources; integrating with community efforts; and handling non-clinical operations essential for emergency response.

Support, Guidance, and Structure for Departments and Leadership

A hospital emergency manager is responsible for ensuring that departments and leadership have the necessary support, guidance, and structure for tackling any hazard or threat. To maintain safe, high-quality care during periods of stress, a hospital must be able to shift authority and responsibility as needed so that essential tasks are carried out by the right people in the right places, even if patient volume surges or conditions are unusual. Achieving this requires robust preparedness planning, strong collaborative efforts, thorough training, and

[1] More information about the National Incident Management System can be found on FEMA's website.

effective resource management, with everyone understanding and supporting this flexible approach.

The **Incident Command System (ICS)** is a standardized approach to the command, control, and coordination of emergency responses in the United States and is based on the NIMS mission areas of Prevention, Protection, Mitigation, Response, and Recovery.[2] It provides a scalable and flexible structure that can be used in small or large-scale incidents. An effective command and control structure provides a hierarchical organization that establishes individual responsibility, lines of authority, and effective span of control of resources. The **Hospital Incident Command System (HICS)** followed by many hospitals and health systems tailors this organizational structure specifically for hospital operations. Communication and control can be challenging for complex health systems; therefore, HICS is recommended to help manage information and decision-making in a concise and clear manner, often in a dynamic emergency environment.[3] ICS is not the response plan.[4] It is a flexible framework that supports the implementation of many incident response plans depending on the incident type, impact, and duration. Additional details about this organizational structure and the roles within it may be found in the Practical ICS for Hospitals chapter of this Guidebook.

ICS is implemented by hospital leaders with the **Incident Commander** having the authority to manage the resources of the hospital. In some cases, designated staff members may be part of a **Hospital Incident Management Team (HIMT)**.[5] Best practice ensures that at least three staff members can fill each ICS position to cover multiple shifts and/or account for absences. ICS provides the hospital structure to support the policies and direction set by the organization's leadership and those outlined in the hospital Emergency Operations Plan (EOP). In health care organizations, the Incident Commander is typically not the most senior administrator. In fact, it may be best for the senior administrator *not* to assume the Incident Commander position while retaining overall authority for the organization and its incident response (even if not serving as Incident Commander). This individual also supports the Incident Commander and their decision-making.

Hospital emergency managers should be experts in ICS. Even if the emergency manager does not serve as the Incident Commander, the success of ICS depends upon it receiving proper attention in the emergency management cycle. The emergency manager must be able to adapt generic ICS to the specifics of the hospital (size, role, threats, setting) and the leadership staff available. The structure of ICS, positions, job action sheets, and training in ICS all must be

[2] Full list of HICS resources.
[3] The full HICS Guidebook provides additional information.
[4] For simplicity, this chapter uses "ICS" generally rather than "HICS" or other specific names for a hospital's incident response organizational structure.
[5] HIMT organizational chart.

adapted to the facility (access the Practical ICS for Hospitals chapter for information on tailoring job action sheets and materials to the facility and resources available).[6]

Though many online and in-person trainings can provide excellent ICS background for emergency managers and hospital leadership, they do not provide the facility-specific context and exposure that is critical to successful response. Leaders must understand what happens when the facility activates a response for a variety of incident types, what their expected roles may be, how the Hospital Command Center functions, the general unit-based response actions that will be taken, and the process of incident action planning.

Defining Command Relationships

Chain of Command

- Refers to the orderly line of authority within the ranks of the incident management structure.

Unity of Command

- Means that every individual reports to a designated supervisor when managing the incident.

Building Relationships: Internal and External

Effective emergency management is built on relationships. Internally, this means connecting different hospital departments so they can work together seamlessly during a crisis. The emergency department (ED) needs to coordinate with surgery, surgery needs to work with the blood bank, and everyone needs to communicate with administration. Other vital relationships in the hospital setting include engineering/facilities management (for maintaining utilities, medical gases, and HVAC systems), administrative functions (like legal and regulatory compliance), information technology, and security (such as managing facility access and perimeter control).

Disruption to certain essential health care services can have serious consequences and requires additional internal relationships and understanding of risk. For example, many patients depend on services like inpatient and outpatient dialysis and urgent cardiac care services for survival. Additionally, relationships with outpatient clinics or offices that cover both medical and psychological needs after a hospital discharge are vital for patient recovery. Finally, it is crucial to maintain reliable relationships with support services such as the pharmacy to ensure their timely distribution of medications to those who need them.

From the Field

Communication can be confusing during a large-scale emergency. When an incident extends beyond a single facility, hospitals should use specific qualifiers such as "[Hospital X] Incident Commander" or "[Hospital Y] Operational Action Plan" to clearly distinguish their roles and documents from those at the health system or jurisdictional level, helping avoid confusion when collaborating with external response agencies.

[6] Course handouts and forms, including Incident Planning and Response Guides and an Incident Action Plan Quickstart Form, are available on the HICS webpage and can be customized by hospital emergency managers for their facilities.

Hospitals do not operate in isolation, especially during a critical incident, where they will work with local emergency management agencies, fire departments, law enforcement, other hospitals, public health departments, and community organizations. It is important to build these relationships and collect emergency contact information before an emergency happens. A great place to start is by joining the local health care coalition, which may require a participation agreement. These relationships may include memoranda of understanding (MOU) or supply chain agreements (e.g., with vendors).

Traditionally, hospitals and health care organizations have prepared for emergencies independently, often due to legal, financial, and logistical barriers separating public and private sectors. However, the field now increasingly recognizes the importance of integrated response systems, with external partners playing a vital role in coordinating efforts alongside acute care and mental health providers, especially during large-scale emergencies.

As hospitals coordinate both internal activities and with external response partners, it is important to understand the **Multiagency Coordination System** (MACS) and **Unified Command** (UC). MACS (e.g., emergency operations centers, health care coalitions) is a management approach that helps integrate agencies/entities to coordinate emergency response and recovery *above* the field level, prioritize competing demands for resources, and support field operations. MACS do not command incident resources directly but help coordinate and allocate resources before assignment and provide additional support to incident management.

UC enables multiple agencies, such as police, fire, and emergency medical services (EMS), to jointly manage complex incidents by sharing command responsibilities and strategic decision-making. This structure provides a unified leadership interface for coordinating response across organizations and ensures that key stakeholders, including health care and public health agencies, have direct input at the highest level of management of emergencies. Hospitals are much more likely to participate in MACS frameworks than UC.

From the Field
During the COVID-19 pandemic, it was difficult for rural hospitals to access certain medical supplies when vendors prioritized larger health system contracts. Local health care coalitions helped meet supply gaps through critical resource sharing.

Health System Considerations

Being part of a larger health system presents a hospital with both opportunities and challenges. While there is access to additional resources and standardized procedures, there may be a need to balance enterprise-wide policies with the facility's unique needs. Understanding the emergency manager role within the larger system and how decisions flow between the corporate level and individual facilities is crucial. Additionally, an emergency manager's scope may include multiple hospitals, affiliated clinics, and/or skilled nursing facilities, each with their own patient populations, hazards, threats, and resources.

If the hospital is not part of a large health system and operates in a rural, tribal, or frontier location, limited resources (such as insufficient equipment, supplies, staff, training

opportunities, and infrastructure) can impede readiness. Geographic isolation and low population density mean that access to advanced health care is difficult, and response times are often longer. There may be few EMS resources available for primary or secondary transport. Communication challenges, including inadequate warning systems and connectivity, can further complicate coordination during emergencies.[7] However, relationships and local support may be much stronger among smaller, tight-knit communities.

Components of the Emergency Management Cycle

Emergency management follows a continuous cycle as illustrated in Figure 1 with four main phases: mitigation, preparedness, response, and recovery. Picture a wheel that keeps turning, always operating in one phase while preparing for the next. Each component is discussed in the sections that follow.

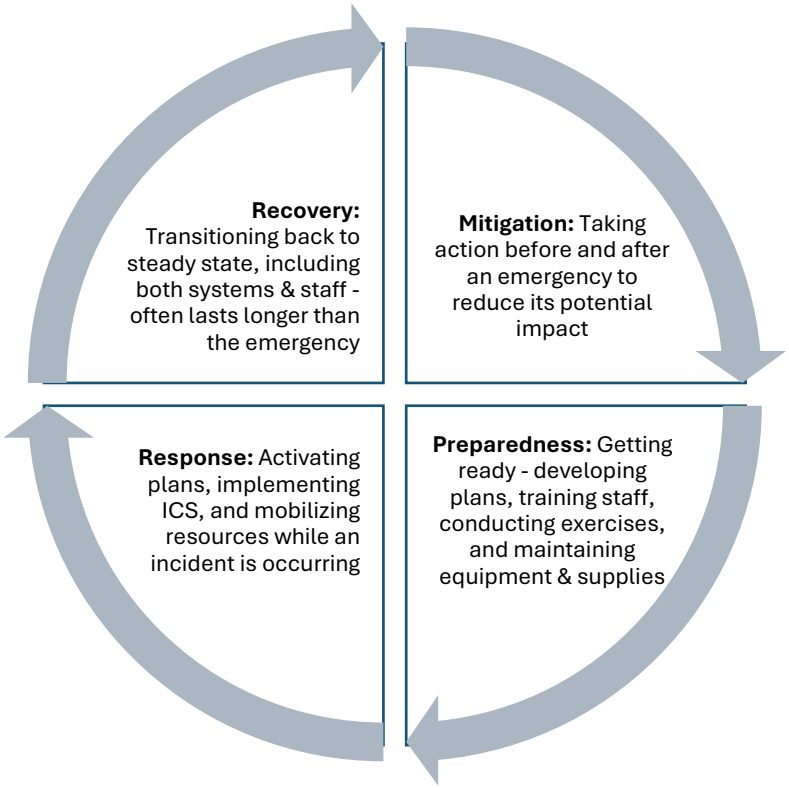

Figure 1: The Cycle of Emergency Management (Adapted from https://www.fema.gov/sites/default/files/documents/NRF_FINALApproved_2011028.pdf.)

Emergency Management Program at the Hospital

Every hospital needs a structured emergency management program and a leader. The following sections describe the emergency manager role and program in more detail.

[7] Rural Emergency Preparedness and Response.

The Emergency Manager

Responsibilities. Hospital emergency managers ensure development of emergency plans, coordinate training for staff, interface with community partners, and support the hospital's response to incidents like natural disasters, MCIs, system failures, supply chain collapse, and cyberattacks. They stay current with regulations and legal requirements affecting emergency response, collaborate with local agencies and officials, oversee drills and exercises, coordinate special topic-focused programs, and ensure compliance with relevant preparedness standards. Frequent communication and cooperation with both internal leaders and outside organizations, developing educational materials, and assessing post-incident needs are integral parts of the role.

Skills Needed. Success in this position requires organization, strong communication, focus on continuous improvement, and the ability to build effective relationships and manage stressful situations. Emergency managers must also excel in critical thinking, problem-solving, delegation, educating and training others, and writing clearly for diverse audiences. They should understand how each hospital function fits into emergency operations, know when and how to involve appropriate experts, and possess formal education—often at least a bachelor's degree—in emergency management or a related field. Additional information can be found in the Hospital Emergency Management Leadership chapter of the Guidebook.

Risk Analysis: The Foundation

Risk analysis is fundamental to the entire emergency management process and identifies what emergencies are most likely to affect the hospital and their potential impact. Conducting a risk analysis can help emergency managers understand the vulnerabilities specific to their facility and focus the preparation efforts where they will provide the most benefit. Assessing impact includes both the initial effects and the duration of an incident.

Related Resources
Additional resources are available in ASPR TRACIE's Hazard Vulnerability/Risk Assessment Topic Collection and Data Sources for Hazard Vulnerability Assessments Resource Page.

The **Hazard Vulnerability Analysis (HVA)** process allows emergency managers to systematically identify and prioritize risks that could disrupt facility services or create heightened demands and, in turn, develop a risk-informed, all-hazards approach to hospital emergency management. For example, after examining the top five HVA priorities, the emergency manager may identify incident-specific annexes as missing from the response plan to support continuity planning and surge capabilities. An effective HVA considers and analyzes all hazards with the potential to significantly affect both the facility and the community.

Because many variables affecting risk are difficult to predict or assess precisely, no HVA can perfectly rank every threat a facility or community might face. Still, following a structured HVA process helps organizations set priorities and allocate limited resources, supporting sound decisions for mitigation, preparedness, response, and recovery. This approach ensures planning and mitigation efforts are logical, defensible, and focus on jointly acknowledged priority areas.

Mitigation

In emergency management, **mitigation** refers to efforts that reduce or eliminate the chance of a hazard occurring or limit its impact. Some emergency management constructs differentiate prevention (an incident can be fully prevented by an intervention) and mitigation (reducing the risks of a hazard that cannot be prevented). Mitigation usually takes place before an incident though it may occur concurrently (e.g., adding security during civil unrest or stocking up on materials that may go into shortage as an epidemic starts). Part of the after-action review process after a disaster should identify mitigating factors to prevent or reduce the impact of future incidents.

From the Field
During the HVA process, a hospital discovers that the refrigeration units used for storing vaccines and essential medications in the pharmacy are not connected to emergency backup power following a recent facility upgrade. This creates a risk that, during a power outage, temperature-sensitive supplies could spoil and patient care could be compromised. Addressing this gap by ensuring reliable backup power for pharmaceutical refrigeration becomes a key priority in the hospital's mitigation plan.

While preparedness focuses on building the ability to respond and be resilient, mitigation prioritizes lowering hazard impact, and the two are managed differently. With mitigation, hospitals should focus on protecting mission-critical systems and life safety. Hazards that originate from within the organization (internal) often require higher priority because those are the organization's direct responsibility. However, all significant hazards and vulnerabilities should be addressed using a systematic, risk-informed approach.

To generate leadership buy-in and demonstrate the value of emergency management activities, it is important to examine benefits from multiple perspectives. **Cost-benefit analysis** is the most common justification and compares the expense of a mitigation action to its advantages. The value might be based on the degree to which the hazard might affect safe health care operations or in terms of anticipated financial protection, such as reduced risk of lost revenue or costly recovery. Some mitigation steps solve issues common to multiple hazards. For example, improving security at facility entrances could address safety across a variety of threat scenarios (e.g., on-campus violence, flooding that impedes traditional access, MCIs in progress). Finally, mitigation related to infrastructure is often more affordable when timed with renovations, damage repairs, or new construction, making these opportunities a higher priority, since they allow organizations to address vulnerabilities that may otherwise be too expensive to fix later. All major construction projects should include emergency manager input and specifically consider surge conditions, security, infrastructure, and infection prevention issues.

An annual **mitigation plan** serves as a written record to prioritize vulnerabilities, outline strategies, and set a course of action. It uses the HVA to identify major risks and classifies hazards into categories like natural (e.g., floods, infectious disease), technological (e.g., power failures, hazardous materials), and intentional (e.g., terrorism). The process may begin by cataloging ongoing and recent initiatives that address safety and continuity, ensuring efforts are not duplicated or conflicting.

The plan sets clear goals for mitigation, defines objectives and strategies, and ranks interventions using risk, cost-benefit, and opportunity analyses. Some strategies may be short-term, while others require more time and resources or must be coordinated with facility upgrades. The plan also integrates mitigation efforts with everyday safety protocols and encourages collaboration with nearby organizations to address shared risks, especially those that could impact both the hospital and surrounding community.

A hospital's mitigation responsibilities primarily center on infrastructure and business continuity. It is important to understand the facility's systems, how they work, what could go wrong, and what backup options exist. This includes utilities, building systems, information technology, business processes, and medical equipment.

Infrastructure

Infrastructure is a major focus of mitigation efforts. This includes ensuring utilities (e.g., power, water, medical gases) are reliable and have backup systems, making sure the building can withstand local hazards like earthquakes or hurricanes, and understanding how facility systems work and where they might be vulnerable. The goal is to know the risks and have plans to address them using both internal resources and external partnerships.

To remain operational during large-scale emergencies and continue to safely care for patients and support the community, hospitals must have resilient physical infrastructure. Retrofitting hospitals so they can continue to function during and after severe weather incidents offers far greater value than the cost of rebuilding or repairing seriously damaged facilities. Examples of addressing infrastructure vulnerabilities include securing emergency power systems (with reliable backup fuel and robust generator capacity), protecting the building envelope from wind and water damage, ensuring continued access to potable water and waste disposal, preventing flood damage, and upgrading ventilation systems to support infection control and safe patient isolation during outbreaks. These types of proactive investments help hospitals stay open during disasters and serve as vital resources for their communities.

Business Continuity

Business continuity ensures that essential hospital business functions and care delivery can carry on even when usual systems are disrupted. It is a steady process aimed at identifying potential impacts from losses and ensuring that effective recovery strategies, recovery plans, and continuity of services components are in place and maintained. The key is knowing where this responsibility lies and how it connects to emergency management efforts.

> **Related Resources**
> Additional resources are available in ASPR TRACIE's Continuity of Operations/Business Continuity Planning Topic Collection.

Business continuity planning often falls under mitigation, though depending on the hospital's structure, this responsibility might not belong to the emergency manager. If there are separate positions, they must work in close collaboration. This process involves strengthening the organization so that its most critical business and clinical functions can continue despite a wide

range of possible threats, whether natural, technological, or intentional. A strong emergency management program in health care requires continuity planning across mitigation, preparedness, response, and recovery, ensuring that essential patient care, business operations, and support services are minimally disrupted or restored quickly. Some hazards (as identified in the HVA) may not cause many casualties but can still severely affect normal hospital operations and disrupt the business side of health care. The hospital or health system may conduct a dedicated **Business Impact Analysis** (BIA) to identify key business processes, consequences of disruption, dependencies, and recovery goals (usually both time and function-based). Results from the BIA can help make the case for investing in emergency management priorities such as mitigating utility, informatics systems, or supply chain vulnerabilities. Continuity plans should address both business disruption and direct impacts the incident has on patient care. This approach is widely used in the private sector and aligns closely with public sector continuity practices.

Continuity of Operations Program or Plan (COOP) refers to the coordinated efforts of all departments, including their subdivisions, to ensure that their critical functions are carried out without interruption. Continuity elements or functions can either be integrated into the response plan and other emergency management documents or presented in a standalone document that interfaces with existing base plans. Both methods are widely used; each hospital should carefully choose the documentation approach that best fits its structure and needs.

Preparedness

Preparedness is an ongoing process that includes planning, organizing, training, equipping, exercising, evaluating, and making improvements to ensure a coordinated and effective incident response. This cycle is outlined in Figure 2. Preparedness uses standardized processes to develop:

- Prioritized hazards from the HVA,
- A comprehensive response plan with consistent command structure,
- Procedural tools like notification systems linked to plan activation,
- A process for acquiring and maintaining physical resources such as decontamination equipment,
- An emergency management education, exercise, and evaluation framework for all facility/system staff.

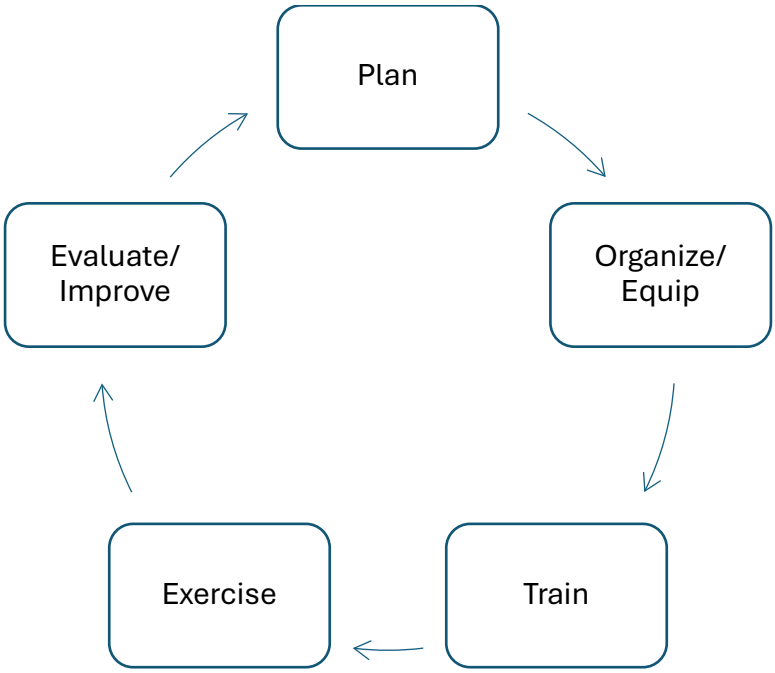

Figure 2. Components of the Preparedness Cycle. (Adapted from https://www.fema.gov/pdf/prepared/nps_description.pdf.)

Each component of the preparedness cycle is highlighted in the following sections.

Emergency Management Committee

The **Emergency Management Committee** (EMC), or Emergency Preparedness Committee depending on organizational preference, plays a central role in ensuring the hospital's comprehensive readiness for emergencies by securing participation and input from all departments and services. This multidisciplinary group brings together representatives from across the hospital to ensure emergency plans reflect the reality of how different departments work together during a response. The committee's composition should reflect the hospital's mission and include multidisciplinary representation, such as the emergency manager, emergency department, surgical services, medical and nursing staff, clinical support (such as pharmacy, radiology, and laboratory), facilities engineering, safety, procurement, fiscal services, security, and departmental managers.

The EMC's job is to ensure the emergency plans are practical and comprehensive. By operating as an advisory group to the emergency manager and senior leadership, the EMC fosters organization-wide commitment to emergency management. Broad membership includes leadership, operating unit managers, and key representatives from both operational and support services. The EMC may also solicit input from external public and private partners.

One of the EMC's most vital functions is to oversee the ongoing review and improvement of the emergency management program, drawing on the practical knowledge of those who

understand the organization's systems. The committee should be well-integrated into the organizational structure and have the authority to commit resources from all crucial areas. Its mission and boundaries should be clearly defined, aligning with broader organizational policies and regulatory requirements. Each member's roles and responsibilities within the program should be clearly understood to support effective collaboration and ongoing program success.

Emergency Management Plan

The hospital **Emergency Management Plan** serves as the guiding document for all emergency management activities. It should outline the role, authorities, and responsibilities of the emergency manager and EMC members. The role of the emergency manager in business continuity should be specified along with any other intersecting responsibilities (e.g., safety, security). Expectations for completion of the HVA, the prioritization process for the annual mitigation and preparedness plans, and the education, exercise, and evaluation framework should all be documented in the plan. Responsibilities of the emergency manager to track these processes and notify hospital leadership of potential vulnerabilities and plans to address gaps through mitigation and preparedness activities should also be documented. Emergency management program reporting of activities and evaluation of the program should also be documented. The Emergency Management Plan is not designed to be a resource during emergencies; rather, it is a policy document that specifies how the emergency management cycle is maintained at the hospital or within the health system.

Emergency Operations Plan

The **Emergency Operations Plan** (EOP) or **Emergency Response Plan** (ERP) specifies the actions the hospital will take during a response. This includes activation, alerting/notification, and specifying basic features of the ICS (e.g., location of the Hospital Command Center, initial assignments) and departmental responsibilities during an emergency. EOP development requires input from multiple disciplines. It is vital to engage different departments to understand how their work intersects during emergencies and identify potential issues before they become real problems. A plan written by the emergency manager without engagement of the responding departments will fail. The emergency manager is a facilitator and formatter, but the response policies must come from the affected departments thinking through their resource and operational needs.

Though the EOP describes emergency actions it is not intended for direct use by line staff during a high-stress response. Instead, easily referenced materials like procedures and quick guides are placed in annexes and in specific physical work areas for rapid access in an emergency.

An effective healthcare EOP is both comprehensive and easy to use during emergencies, matching national standards like the National Response Framework.[8] The EOP begins with an introduction and executive summary, followed by a base plan that explains the organization's emergency response system, roles, and key procedures. Functional annexes add guidance for

[8] National Response Framework.

ICS sections or primary missions such as Command, Operations, Logistics, Planning, and Finance/Administration, and can include further annexes for areas like continuity of operations actions, medical surge, and security. Support annexes cover processes (like communications and financial tracking) relevant across most emergencies. For example, hospital surge plans may be integrated into the EOP or be an attachment. Finally, hazard- and incident-specific annexes provide strategies for unique threats, while appendices contain supplementary materials like glossaries, resource lists, and crosswalks for regulatory requirements.

The structure of an EOP should support both efficient plan maintenance and reference during a response. This includes organizing the document so updates are simple, using an **all-hazards approach** where core functions apply across scenarios and include specific annexes that document actions taken for unique risks. Incident-specific response plans may address the top three to five vulnerabilities identified in the HVA. These plans may be integrated within the EOP, included as addenda, or referenced as policies, procedures, and protocols linked to the EOP.

From the Field
Local health care coalitions can assist the planning process by sharing example plan templates and facilitating community-based exercises to test plans.

The EOP should clearly describe **response system structure, responsibilities, and operational procedures**, with varying levels of detail for different users and needs, from overviews to step-by-step tasks. The most critical task in emergency response planning is to clearly define how actions and interactions should unfold and how resources are mobilized (concept of operations) during an emergency response and recovery. Other considerations include:

- Using standard terminology and description of local systems to be compatible with community response plans.
- Reflecting how ICS principles are applied within the unique context of the organization, rather than simply repeating generic ICS concepts. This ensures personnel have their organization's own tailored response procedures, greatly facilitating use of job aids and references during an incident.
- Demonstrating regulatory compliance without sacrificing operational usability, allowing the organization to meet required standards and function effectively in an emergency.[9]
- Meeting the needs of all patient populations, including those at heightened risk, and tailored to the types of services the hospital is equipped to provide during an emergency.
- Basing the EOP on what has been done or will be done during an emergency to ensure it is realistic.

The EOP is a living set of documents that evolves based on lessons learned from exercises and actual incidents. EOP **development and revisions** should involve the right people, including those outside the EMC when needed. Input from both internal experts and external partners

[9] CMS Emergency Preparedness Rule information.

ensures that the EOP is comprehensive and integrates with broader community response plans. While a small group drafts the plan, the EMC reviews and finalizes it to maintain consistent content and format. The findings of the HVA should shape priorities and inform planning assumptions from the outset, ensuring the EOP addresses the organization's highest risk hazards and critical vulnerabilities.

Equipment and Supplies

Equipment and supplies need regular attention. The best plans in the world do not make up for faulty emergency equipment or expired supplies. Equipment and resource management involves more than just buying and storing supplies. It requires regular testing, maintenance, rotation of perishable items, and training on how to use specialized equipment.

Resource and asset management involves tracking, procuring, monitoring, and replenishing essential supplies from vendors, partners, or emergency caches. Hospitals must ensure the ongoing availability of personnel and critical items, such as fuel, food, water, pharmaceuticals, medical supplies, linens, medical equipment, and personal protective equipment, to meet the needs of both staff and patients during an incident, evacuation, or while sheltering in place.

Success in managing resources during a crisis depends on the following key principles of thorough preparedness:

- Planning collaboratively to identify, order, manage, and use resources, prioritizing those critical to operations based on the HVA.
- Establishing pre-incident agreements, like mutual aid and contingency contracts, to ensure resources can be shared or obtained quickly when needed.
- Categorizing and standardizing resources including standard labeling, which streamlines ordering, dispatching, and tracking across local and broader networks.
- Following clear, standardized procedures for identifying, requesting, mobilizing, conserving, and monitoring resources during incidents.
- Managing resources proactively, acquiring, maintaining, and storing them appropriately before an emergency, and ensuring efficient ordering and tracking systems are in place for response operations.
- Developing fair and consistent strategies for the allocation of scarce resources.

In addition, the emergency manager must work with partners in areas that maintain inventory for disasters to ensure that caches and par levels are updated based on evolving threats or lessons learned from facility or national incidents. In some cases, automated systems will adjust par levels of medications and other supplies to meet a standard "on hand" threshold that is inadequate for predicted disaster needs and overrides will need to be placed into the system to maintain adequate stock. Determining the right amount of the right supplies is difficult since the actual incident demands are unknown. Ensuring partner input and balancing cost, space, and risk

Related Resources
Using tools such as Disaster Available Supplies in Hospitals (DASH) can help hospital emergency managers establish a benchmark.

to arrive at reasonable goals for supplies and equipment is one of the key elements of preparedness.

For additional information on resource management during an incident, refer to the Surge Concepts and Mass Casualty Incident Planning chapters of the Guidebook.

Education, Training, and Exercises

To achieve strong performance during emergencies, it is crucial for emergency managers to understand the following distinctions between and connections among education, training, and exercises:

- **Education** focuses on building knowledge. It may cover broad emergency management concepts or targeted aspects of incident response and recovery.
- **Training** develops specific skills and abilities. It can range from general emergency procedures to job-specific tasks, enabling personnel to perform role-based functions.
- **Exercises** allow individuals and teams to apply their education and training by following a series of actions in response to a simulated event. Exercises may simulate one procedure or a variety of related activities, and they help link knowledge to action in real-life settings.

Education consists of structured instruction designed to achieve specific competency-based objectives, primarily focused on knowledge. This can include both general concepts that are valuable for all employees and job-specific information. General concepts may include "big picture" understanding of response systems and resilience education designed to improve employee performance and recovery (e.g., stress management). Job-specific information should be tailored to the responsibilities of the employee and their department during an emergency. Educational programs should be competency-based and clearly define the required proficiency level, such as awareness, operational (able to take action), or expert (able to direct/coordinate).

Training is ongoing. All staff should be trained to find and use the EOP sections or quick reference materials relevant to their roles in an emergency. This operational competency must be addressed for everyone involved in emergency response in both new employee orientations and regular refresher training as procedures evolve. Education should be tailored to different audiences and work environments. New employees need basic orientation to emergency procedures, while department heads need deeper understanding of their leadership roles during emergencies. Emergency managers should identify the staff members who may need to complete or benefit from additional ICS and NIMS training courses (such as ICS-100, ICS-200, ICS-300, IS-700, and IS-800), to ensure appropriate personnel are well-versed in ICS techniques.[10]

Exercising (including conducting drills and simulations) helps identify gaps in plans and gives staff practice working together under pressure. These exercises—starting with simple tabletop

[10] Basic NIMS training is available at FEMA's Emergency Management Institute.

discussions and gradually working up to more complex scenarios—should be realistic and build team confidence, not so stressful that they become counterproductive. Micro-drills testing specific small competencies are limited enough to be conducted during staff huddles or at shift changes. The goal of exercising is learning, not perfection.

The Homeland Security Exercise and Evaluation Program (HSEEP) is a standardized, capabilities-based system for designing, conducting, and assessing emergency preparedness exercises.[11] It sets national guidelines for exercise planning, execution, evaluation, and improvement, and is required for organizations that use federal funding for their exercises. Hospitals can use HSEEP to identify strengths and areas for improvement so they can address these gaps before a real emergency occurs.

After-Action Report and Evaluation

After-Action Reports (AARs) and improvement planning identify best practices, lessons learned, and actionable areas of improvement, after an incident or exercise. These evaluations can help the team understand what worked well, what gaps were identified, and the actions that can help address the gaps or reinforce successes. The AAR process is the formal mechanism for converting observations into actionable improvement plans. These reviews should be honest but constructive, focusing on improving future responses rather than assigning blame. These should be structured processes that capture lessons learned and translate them into specific areas for improvement. An **Improvement Plan** may also be developed in conjunction with the AAR that outlines specific actions to be taken to improve a future response and assigns a department/individual responsibility for leading that effort. The Improvement Plan should then be used to track progress on those issues to completion.

Program evaluation looks at the entire emergency management program, not just individual incidents. It asks whether program activities, resource use, and outputs are helping the organization achieve its stated mission and objectives, such as resiliency, continuity of operations, medical surge, and supporting external partners. It may use performance metrics (what "good" looks like) and observable measures (what actually happened) so leaders can compare planned capability to real performance and then decide what to change or reinforce. Programmatic evaluation should primarily support organizational learning, not just individual "lessons learned." The program uses AAR findings, exercise results, and program reviews to update the EOP, adjust mitigation and preparedness work plans, and refine performance metrics in a continuous improvement loop. Integrating emergency management into the hospital's quality/safety program helps protect evaluation materials legally while reinforcing that emergency management evaluation is a core part of organizational performance management.

Response

When an emergency occurs, the emergency manager's role shifts to supporting the active response. **Incident response** uses standardized ICS processes and templates to support the

[11] https://www.fema.gov/emergency-managers/national-preparedness/exercises/hseep

development of Incident Action Plans, conduct operational briefings, process information, develop situation reports, and manage other key activities during emergency response. The EOP provides the system description (ICS structure in the hospital) and concept of operations (how the hospital moves through incident recognition, activation, mobilization, incident operations, and demobilization) for all-hazards emergencies.

Activation Procedures

Hospital emergency response begins with **incident recognition**, which may occur through obvious cues (like MCIs or a chemical plume) or through more subtle signs (such as unusual patterns of illness or utility disruptions). A designated, 24/7 position (often referred to as the Duty Officer or a similar role) may be responsible for collecting, verifying, and analyzing incident information from both internal and external sources (e.g., EMS, media, public health, law enforcement, facility staff, and automated alarms). In smaller hospitals, the Nursing Supervisor or other individual may have the responsibility for recognizing an incident.

From the Field
Note that some hospitals use the term "alert" to mean advisory or activation. It may be helpful for health care coalitions to explore alerting terminology used by member hospitals and encourage adoption of standardized terminology in the region whenever possible.

Once an incident is recognized, the hospital must decide the activation level and notify appropriate personnel. Standardized messaging is key. Different terms may be used, but all staff should be clear on their meaning. The Alerting and Communication chapter of the Guidebook has more detailed information. The following terms are generalizable to most types of incidents:

- **Advisory** - Information about a potential threat, may include pre-activation actions (such as accessing job aids).
- **Activation** – Initiation of an emergency response plan (e.g., mass casualty, opening the Hospital Command Center) with specific actions relevant to the incident type. There may be levels of activation depending on the facility.
- **Update** – Subsequent incident-related information that may or may not require additional actions.
- **All Clear** – Once the emergency has subsided and the facility is able to return to normal operations.

Once an incident is identified, the Duty Officer or other designated individual (e.g., Nursing Supervisor) becomes the initial Incident Commander and decides whether to **activate the EOP**. Activations may be full or partial, depending on the hospital plans, incident severity, and anticipated impact. Different plans may be activated depending on the need. For example, a water leak on a patient care unit may require activation of a Command Staff Group, but a mass casualty incident will require the Command Staff plus many medical care providers and support staff.

From the Field
Not all incidents are defined by casualty numbers. Any situation with significant potential to impact day-to-day operations should be considered an incident.

Flexible activation levels prevent the "all-or-nothing" problem. Partial activation allows cost-effective, efficient response to unclear or small-scale incidents, but careful attention must be paid to avoid confusion and under-response. The activation process includes:

- Determining which parts of the EOP to activate.
- Notifying and mobilizing both onsite and offsite personnel.
- Using pre-planned notification systems (such as paging groups) to inform staff rapidly.
- Considering flexible activation options, such as initial heightened readiness (advisory), partial activation, or full activation for large-scale incidents.

All of this is designed to avoid unnecessary disruption, conserve resources, and match response scale to the incident's needs. Activation procedures need to be clear and well understood. Staff should know when emergency procedures are triggered, how they will be notified, and what their specific roles are.

Generally, the emergency manager is responsible for the policies and training to ensure an appropriate level of activation but is not involved in the activation process.

Hospital Command Center

Once the EOP is activated, the **Hospital Command Center** is established as the **central hub for incident management**. It is where proactive decisions are made, resources are coordinated, and communication flows during response. The emergency management program provides crucial support to keep this center functioning effectively. Usually this is a physical location, but use of virtual command centers is increasing, particularly for smaller incidents. The Hospital Command Center coordinates Command, Operations, Planning, Logistics, and Finance/Administration sections, as laid out in the ICS. Key support activities include:

- Setting up the physical command center with robust communications (e.g., landline phones, radios, intranet/internet, internal and external contact information).
- Assigning trained leaders and staff to Planning, Operations, Logistics, and Finance/Administration roles with clear responsibilities.

Hospital Command Center processes should be regularly exercised, and all staff assigned to command center roles must be familiar with their responsibilities, activation triggers, and communications procedures.

Response Activities

Response activities extend beyond just managing the immediate emergency. Support for response activities consists of all the systems and functions that enable Operations to do the actual tactical work (protecting life, sustaining services, and providing surge care) during an incident. In ICS, this support is primarily provided by the Logistics, Planning, and Finance/Administration Sections, plus pre-established resource management, personnel systems, and mutual aid arrangements described in the EOP.

In practice, as a hospital emergency manager, supporting response means making sure the Logistics, Planning, and Finance/Administration Sections and pre-incident resource systems are in place, staffed, trained, and exercised so that, in an incident, the Operations Section can focus on clinical and safety tasks while the rest of the HICS quietly ensures they have the people, supplies, information, space, and money to do the job. The emergency manager often supports the response by providing guidance on setting operational periods, gathering internal and external information via their relationships, helping provide structure to setting and achieving objectives, and ensuring appropriate documentation of activities.

Recovery

Recovery activities require as much attention as response, even though the immediate crisis has passed. Often, the emergency manager has a key, if not lead, role during recovery. Health care emergency recovery focuses on restoring a hospital's ability to deliver essential services, returning to normal, or sometimes a “new normal,” after an incident. This involves providing staff support, assessing and repairing facility damage, restocking supplies, reestablishing business and clinical services, rescheduling or catching up on deferred care, and communicating with the public about the resumption of services. Recovery is not done in isolation. Hospitals must coordinate with local, state, and, potentially, federal organizations, particularly for resource allocation, permitting, and public messaging.

Recovery planning and actions should begin early, often while response efforts are ongoing. The transition is marked by the intention to resume (even partially) normal services. Thus, formal demobilization of incident command often does not occur until recovery is well underway. ICS objectives shift to focus on restoring services (e.g., restoring laboratory capacity within 48 hours), supporting personnel, and addressing operational disruptions. The leadership and structure might shift as recovery progresses, with ICS roles and staffing reduced and adapted to focus on recovery needs (e.g., finance, human resources, behavioral health). Finance/Administration becomes increasingly prominent as direct life-safety pressures decrease. Capturing detailed personnel time and cost data supports continuity planning and reimbursement and informs leadership about the incident’s financial impact. As operations return to normal, the Hospital Command Center is demobilized (though the ICS structure can be continued if needed for days to weeks). Once the ICS structure is demobilized, much of the recovery responsibility tends to fall to the emergency manager to coordinate.

A key part of recovery for the emergency manager includes capturing lessons learned, evaluating performance, updating emergency plans, and revising training. Conducting AARs and incorporating feedback into ongoing planning and mitigation can make the system more resilient for future incidents. Post-incident recovery is a great time to make structural improvements, revise HVAs, and reinforce resilience so that the hospital is better prepared for future emergencies.

During recovery, the hospital emergency manager should focus on three essential aspects: demobilization, restocking,

Related Resources
Additional resources are available in ASPR TRACIE’s Recovery Planning Topic Collection.

and employee support. Each aspect is critical for a seamless transition back to normal operations and for ensuring ongoing patient care and staff resilience.

Demobilization and Transition

Demobilization of incident resources and teams is planned in advance and carefully coordinated by the incident management team before normal hospital leadership resumes control. Demobilization is the process of releasing or reassigning resources and personnel whose roles in the emergency response are no longer needed. This step should be carefully planned to ensure a smooth transition into recovery and rapid return to regular readiness, with clear communication of changes in management or staffing.

Often, the Hospital Command Center and ICS are demobilized too soon, while critical decisions and strategic leadership are still needed. Priorities include restoring the physical facility, safely returning patients and staff, ensuring the supply chain and key infrastructure (water, power, HVAC) are operational, and communicating effectively with the public and partner organizations about hospital status.

Restocking

Restocking is the systematic process of replenishing medical and non-medical supplies, equipment, pharmaceuticals, food, water, and other critical materials that were depleted during the emergency. Restocking begins with a thorough assessment of supply usage during the incident. The initial focus should be on mission-critical supplies like medications, personal protective equipment, respiratory, patient care, and surgical supplies, laboratory reagents, and food/water. It is important to track supplies used and replaced for compliance, financial reimbursement (especially for federally declared disasters), and AARs. The goal is to restore supply stocks to pre-incident levels as quickly as possible.

Employee Support

Employee support can include providing debriefings and psychological support, tracking exposures, managing schedules, and accommodating recovery time for staff who participated in the response or were personally affected by the incident. Staff may need time off, counseling services, or other assistance as they process what happened. Staff may be exhausted, traumatized, or dealing with personal losses. Even if the hospital emerged unscathed, a disaster in the community may damage or destroy the homes of staff, complicate their access to childcare or transportation, place them in difficult financial situations, or physically harm them or their loved ones. Providing initial and ongoing support helps with both individual well-being and organizational resilience. Effective employee support ensures physical, emotional, and operational needs are met as the organization returns to normal.

Key employee support activities include:

- **Staff Wellbeing and Support**: Provide psychological first aid, debriefings, rest periods, and, if needed, counseling to staff who worked during the incident. Address fatigue, stress, and exposure-related health monitoring.

- **Personnel Management**: Adjust staffing schedules as needed to manage recovery workload, provide relief, and support those needing time off. Track workforce physical and psychological exposures and ensure appropriate occupational health protocols.
- **External Aid Coordination**: This may involve managing food donations or bringing in specialized teams. In some cases, external staffing may be needed to allow adequate time away to address personal impacts.

In summary, recovery is a structured process that focuses on resuming and improving normal operations, supporting staff, repairing facilities, learning from the incident, and sometimes redefining what "normal" looks like for the organization after a major disruption.

Conclusion

Emergency management is both an art and a science. While this chapter provides the foundational concepts, it is important to remember that every hospital is unique, and the emergency management program should reflect each facility's characteristics, risks, and resources. The framework based on the HVA, EMP, EOP, and ICS provides that foundation. A hospital emergency manager's job is to ensure the readiness of their specific health care organization through continuous preparedness activities, realistic training, and commitment to improvement after every incident or exercise.

Hospital emergency management is ultimately about people: protecting patients, supporting staff, and serving the community. Keeping the human element in mind throughout the emergency management cycle is key to programmatic success. These practical tips can help hospital emergency managers achieve success at every component of the cycle:

1. Train continuously: Everyone needs to understand their role before, during, and after an incident.
2. Exercise regularly: Test systems, policies, and procedures and identify gaps.
3. Build relationships: With EMS, public health, law enforcement, other hospitals.
4. Develop operational checklists: Position-specific guidance for rapid reference.
5. Write activation/notification templates: For each message category, prior to an incident
6. Know your HVA: The HVA drives program priorities.
7. Document: During preparedness and in response. Use ICS and IAP forms, maintain accountability.
8. Think beyond casualties: Mass effect and cascading incidents (power, water, IT failures) are more common.
9. Do not wait for an incident to figure out who monitors for threats and has authority to activate a response.

Acknowledgements

ASPR TRACIE thanks the author of this chapter, **Brianna Rooney**, DrPH, Assistant Research Professor, Mel and Enid Zuckerman College of Public Health, Department of Applied Population

Health and Policy, Center for Rural Health, University of Arizona, and the following subject matter experts who comprehensively reviewed it (listed alphabetically): **Eric Alberts**, CEM, CHEP, CHPP, Assistant Vice President, Emergency Management, Orlando Health; **John Hick**, MD, Hennepin Healthcare and Senior Editor, ASPR TRACIE; **Syra Madad**, DHSc, MSc, MCP, CHEP, Assistant Vice President, Office of Biopreparedness and Emergency Management, Chief Biopreparedness Officer, Clinical Services and Population Health, Office of the System Chief Medical Officer, NYC Health + Hospitals; **Mary Massey**, BSN, MA, PHN, Vice President, Emergency Management Hospital Preparedness Program, California Hospital Association;, and **Michele Tanton**, MSSSEM, CHEP, Emergency Preparedness Manager, BJC Everbridge System Administrator, Mid-Campus Center, St. Louis Children's Hospital.