



Ohio Hospital Association

Disaster Exercise Handbook 2010

Hospital

→ EMERGENCY

→ Ambulance Entrance



Table of Contents

1.0 Introduction	2
2.0 Purpose	2
3.0 Exercise Compliance Standards and Requirements for Hospitals	2
3.1 Department of Homeland Security (DHS)	2
3.2 National Incident Management System Implementation Objectives for Healthcare Organizations	3
3.3 Department of Health and Human Services (HHS)	4
3.4 Joint Commission	6
3.5 Other Entities	7
3.6 Homeland Security Exercise and Evaluation Program (HSEEP)	7
4.0 Hospital-Based Exercise Programs	10
4.1 Strategy and Planning	10
4.2 Exercise Program Development	10
4.3 Training and Exercise Plan (TEP) Development	10
4.4 Community Exercise Program Participation	11
5.0 Exercise Design and Development	13
5.1 Exercise Types	13
5.2 Exercise Design Team	15
5.3 Exercise Development Process	15
5.4 Exercise Documentation	19
5.5 Exercise Enhancements	20
6.0 Evaluation	22
6.1 FEMA 8 Steps related to the Evaluation and Improvement Process	22
7.0 Improvement Planning	24
Appendix A: Workshop Checklist	25
Appendix B: Tabletop Exercise Checklist	26
Appendix C: Drill Checklist	27
Appendix D: Exercise Program Websites	28
Appendix E: Resources	29
Appendix F: Index of Attachments	30



1.0 Introduction

Communities across the United States are heavily dependent on the resilience and capabilities of local, regional and statewide healthcare systems. Within the last decade, accrediting bodies along with the federal government have placed increased demands and expectations for hospitals to be prepared for a multitude of emergencies and disasters. Hospitals are expected to maintain a level of readiness to respond to incidents that may moderately to severely impact their ability to provide patient care.

Disaster exercises have been recognized as a crucial element of preparedness activities for all types of organizations. While developing an exercise program may appear to be time-consuming, the benefits of validating emergency preparedness training and planning efforts through an all-hazards exercise program can positively impact an organization's bottom line through increasing employee competency and confidence in the organization's emergency operations plans.

2.0 Purpose

The purpose of this Disaster Exercise Handbook is to provide hospitals with enhanced tools and resources to augment existing exercise programs.

3.0 Exercise Compliance Standards and Requirements for Hospitals

This section highlights exercise standards, requirements and expectations for hospitals and healthcare organizations specifically focusing on the Department of Homeland Security, Department of Health and Human Services, Centers for Medicare and Medicaid Services and the Joint Commission.

3.1 Department of Homeland Security (DHS)

DHS published the National Preparedness Guidelines and Target Capabilities List to fulfill a major component of Homeland Security Presidential Directive 8 (December 2003), "National Preparedness," and to establish a framework for understanding what it means for the Nation to be prepared for all hazards. Exercises should incorporate all four elements of the National Preparedness Guidelines.

3.1.1 National Preparedness Guidelines

The four elements of National Preparedness Guidelines include:

- (1) **The National Preparedness Vision** provides a concise statement of the core preparedness goal for the Nation.
- (2) **The National Planning Scenarios** depict a diverse set of high-consequence threat scenarios of both potential terrorist attacks and natural disasters. The scenarios form the basis for coordinated Federal planning, training, exercises, and grant investments needed to prepare for emergencies of all types.
- (3) **Universal Task List (UTL)** is a listing of 1, 600 unique tasks that facilitate efforts to prevent, protect against, respond to, and recover from the major events represented by the National Planning Scenarios. The UTL uses common vocabulary and identifies tasks that support essential capabilities. No entity will perform every task.



(4) **Target Capabilities List (TCL)** defines critical prevention, protection, response and recovery capabilities needed for national preparedness. Currently, there are 37 target capabilities that states, communities and private sector entities should collectively develop in order to respond effectively to disasters.

Each TCL includes a definition; an outcome; preparedness activities, tasks, measures and metrics; activity process flow; capability elements; linked capabilities; planning assumptions; planning factors; national preparedness levels; and references.

Of all the TCLs, the ones that the hospitals and other healthcare organizations will most frequently utilize will probably be Medical Surge, Critical Resource Logistics and Distribution, Medical Supplies Management and Distribution, and Fatality Management. These TCLs, among others, will assist hospitals and healthcare preparedness planners as they develop training curriculum or design exercises that measure emergency management plans and programs.

Hospital emergency management professionals should also include capability-based planning activities as part of a comprehensive preparedness program. Capability-based planning focuses decision-making on building and maintaining capabilities to prevent and protect against challenges and to respond and recover when events occur using realistic scenarios. Planning considerations include: organization and leadership; personnel; equipment and systems; training; exercises, evaluations and improvement plans.

Resource: To review the complete National Preparedness Guidelines document visit: http://www.dhs.gov/xlibrary/assets/National_Preparedness_Guidelines.pdf

“A Capability is delivered when any combination of personnel, organized in accordance with plans, has been equipped, trained, and exercised and achieves the desired outcome.”

-As noted by the Department of Homeland Security at the G&T Conference on November 30, 2006.

3.2 National Incident Management System Implementation Objectives for Healthcare Organizations

Homeland Security Presidential Directive (HSPD) 5 *Management of Domestic Incidents* required the development of a single, all-inclusive national incident management system. In March 2004, the Department of Homeland Security produced the National Incident Management System (NIMS). This system calls for a systematic, hands-on approach which guides organizations and agencies at all levels of government, non-governmental organizations, and the private sector. In 2006 the Incident Management Systems Integration Division worked in coordination with the Department of Health and Human Services and the Hospital Incident Command System working group to develop NIMS implementation objectives for healthcare organizations. In FY 2007, 14 objectives were presented to healthcare organizations after much review. The 14 objectives are categorized in 5 sections:



1. Adoption
2. Preparedness: Planning
3. Preparedness: Training and Exercises
4. Communications and Information Management
5. Command and Management

Three of the fourteen objectives directly relate to exercises.

- **Objective 3.** Revise and update emergency operations plans (EOPs), standard operating procedures (SOPs), and standard operating guidelines (SOGs) to incorporate NIMS and National Response Framework (NRF) components, principles, and policies, to include planning, training, response, exercises, equipment, evaluation, and corrective actions.
- **Objective 7.** Promote NIMS Concepts and principles into all organization-related training and exercises. Demonstrate the use of NIMS principles and ICS Management structure in training and exercises.
- **Objective 11.** Manage all emergency incidents, exercises, and preplanned (recurring/special) events in accordance with ICS organizational structures, doctrine, and procedures, as defined in NIMS.

Resource: For a complete listing of all NIMS Implementation Objectives for Healthcare Organizations, visit:

<http://www.hicscenter.org/docs/NIMS%20%202008%20NIMS%20Implementation%20Objective%20for%20Healthcare%20Organizations.swf>

3.3 Department of Health and Human Services (HHS), Assistant Secretary for Preparedness and Response (ASPR), Hospital Preparedness Program

The Office of the Assistant Secretary for Preparedness and Response (ASPR), formerly the Office of Public Health Emergency Preparedness, serves as the Secretary's principal advisory staff on matters related to bioterrorism and other public health emergencies. ASPR also coordinates interagency activities between HHS, other Federal departments, agencies, and offices, and State and local officials responsible for emergency preparedness and the protection of the civilian population from acts of bioterrorism and other public health emergencies.

The Hospital Preparedness Program (HPP), which falls under the ASPR program, enhances the ability of hospitals and health care systems to prepare for and respond to bioterrorism and other public health emergencies. Current program priority areas include interoperable communication systems, bed tracking, personnel management, fatality management planning and hospital evacuation planning. Over the past five years, HPP funds have supported the improvement of bed and personnel surge capacity, decontamination capabilities, isolation capacity, pharmaceutical supplies, training, education, drills and exercises.



To enable hospitals, outpatient facilities, health centers, poison control centers, EMS and other healthcare partners to access funding and develop healthcare system preparedness through the ASPR program, each entity must work with the appropriate state or local health departments. In general, funding is distributed directly to the Health Department of the State or political subdivision of a State (cities and counties are considered political subdivisions of States).

The HPP supports priorities established by the National Preparedness Goal established by the Department of Homeland Security (DHS) in 2005. The Goal guides entities at all levels of government in the development and maintenance of capabilities to prevent, protect against, respond to, and recover from major events, including Incidents of National Significance. Additionally, the Goal is in place to assist entities at all levels of government in the development and maintenance of the capabilities to identify, prioritize and protect critical infrastructure.

The Pandemic and All Hazards Preparedness Act of 2006 transferred the National Bioterrorism Hospital Preparedness Program (NBHPP) from the Health Resources and Services Administration to the Assistant Secretary for Preparedness and Response (ASPR). The focus of the program is now all-hazards preparedness and not solely bioterrorism.

Resource: Department of Health and Human Services, Hospital Preparedness Program
<http://www.hhs.gov/aspr/opec/hpp/>

In a recent update from the Agency for Healthcare Research and Quality (AHRQ) it was stated, “Ensuring that hospitals are prepared to respond appropriately during any type of disaster situation-manmade or natural-is a priority for HHS. As of September 2008, hospitals participating in the Hospital Preparedness Program, administered through HHS, are required to provide executive summaries of the results of disaster drills they conduct.”

- **Ohio Department of Health, Regional Healthcare Coordination Preparedness Program**

The Ohio Department of Health (ODH), Office of Health Preparedness (OHP) provides ASPR grant funds that are passed from the Department of Health and Human Services through ODH to support the Regional Healthcare Coordination (RHC) Preparedness Program. The goal of the RHC program is to build medical surge capability through associated planning, personnel, equipment, training and exercise capabilities at the state, regional, and local levels.

The Ohio Department of Health requires hospitals to conduct exercises as part of their compliance with receiving Assistant Secretary for Preparedness and Response (ASPR) funds through the Ohio Department of Health. Exercise requirements for the ASPR grant will be communicated to hospitals via the Regional Healthcare Coordinators each grant year.



3.4 Joint Commission

The Joint Commission (JC) serves as an accreditation body for healthcare organizations. The JC produces a set of standards that outline requirements and elements of performance in specific areas to ensure patient care is provided in a safe and secure environment. In order for hospitals to receive Medicare and Medicaid funding they must be accredited by the JC or another other approved accreditation body and comply with the Centers for Medicare and Medicaid Services (CMS) Conditions for Participation.

“A hospital accredited by the Joint Commission or AOA is deemed to meet all Medicare requirements for hospitals (except the requirements for Utilization Review, the special conditions for psychiatric hospitals, the Skilled Nursing Facility Requirements for swing-bed designation, and any higher-than-national standards approved by the Secretary).”

-Centers for Medicare and Medicaid Services

In 2009, the Joint Commission released its 2009 Emergency Management Standards. Listed below is a summary of the Elements of Performance as they relate to emergency and disaster exercises.

Joint Commission Summary of Exercise Elements of Performance

- Twice a year, the hospital activates their EOP as an exercise.

- For each site of the hospital that offers emergency services or is a community-designated disaster receiving station, at least one of the two exercises a year includes an influx of patients.

- For each site of the hospital with a defined role in its community’s response plan, at least one of the two exercises must include participation in a community-wide exercise.

- For at least one of two exercises, the scenario includes an escalating event in which the local community is unable to support the hospital.

- Exercises focus on likely scenarios that allow the hospital to evaluate its handling of communications, resources and assets, security, staff, utilities, and patients.

- The hospital designates an individual(s) whose sole responsibility during exercises is to monitor performance and document opportunities for improvement.

- The hospital monitors the effectiveness of the following:
 - Internal communications
 - External communications
 - Resource mobilization and asset allocation
 - Management of safety and security
 - Management of staff roles and responsibilities
 - Management of utility systems
 - Management of patient clinical and support care activities



- Based on all monitoring activities and observations, the hospital evaluates all exercises and all responses to actual emergencies using a multidisciplinary process (which uses licensed independent practitioners).
- The evaluation of all exercises and all responses to actual emergencies is documented and includes the identification of deficiencies and opportunities for improvement.
- All deficiencies and opportunities for improvement are communicated to an improvement team responsible for monitoring environment of care issues.
- The hospital modifies its EOP based on its evaluations of exercises and actual emergencies.
- Subsequent exercises should reflect modifications and interim measures as described in the modified EOP.

3.5 Other Entities with Exercise Compliance Standards and Requirements for Hospitals

In addition to the organizations listed above, the following entities may also require hospitals to adhere to specific exercise compliance standards and requirements:

- Centers for Medicare and Medicaid Services:
http://www.cms.hhs.gov/CertificationandCompliance/08_Hospitals.asp
- National Fire Protection Association:
<http://www.nfpa.org>
- Occupational Safety and Health Administration:
<http://www.osha.gov/>

It is advised that hospital exercise design teams review all exercise requirements from all potential accreditation and governing bodies during the initial phases of exercise development. This process will help ensure compliance standards are met and maximize the effectiveness and participation in the exercise.

3.6 Homeland Security Exercise and Evaluation Program (HSEEP)

HSEEP is a capabilities and performance-based exercise program which provides a standardized policy, methodology and terminology for exercise design, development, conduct, evaluation, and improvement planning. HSEEP Policy and Guidance is presented in detail in HSEEP Volumes I-III. Adherence to the policy and guidance presented in the HSEEP Volumes ensures that exercise programs conform to established best practices and helps provide unity and consistency of effort for exercises at all levels of government.

Figure 3.6.1: HSEEP Cycle



HSEEP Volumes:

- Volume I: HSEEP Overview and Exercise Program Management
- Volume II: Exercise Planning and Conduct
- Volume III: Exercise Evaluation and Improvement Planning
- Volume IV Library: Sample Exercise Materials

The intent of HSEEP is to provide common exercise policy and program guidance capable of constituting a national standard of all exercises. HSEEP includes consistent terminology that can be used by all exercise planners, regardless of the nature and composition of their sponsoring agency or organization.

The HSEEP Toolkit, which includes the National Exercise Schedule (NEXS) System, Design and Development System (DDS), and Corrective Action Program (CAP) System, allows users to schedule, plan, evaluate and track corrective actions from exercises. In addition, there are several exercise training courses, including independent study (IS-120a, IS-130, etc.), mobile (HSEEP Training Course), and residence courses (Master Exercise Practitioner Program) that educate students on the principles of exercise planning, conduct, evaluation, and improvement planning.

“The purpose of a progressive emergency management exercise program is to promote hospital and community resilience by improving operational readiness.”

-DQE News, Vol.13, Issue 3, Fall 2008

As of June 2010, individual hospitals are not required to follow HSEEP guidance. However, if a hospital receives grant funding, some grants may require HSEEP compliance. The Center for Domestic Preparedness anticipates that HSEEP compliance will be mandated for hospitals within the next 3-5 years. Although individual hospitals are not currently required to adhere to the HSEEP guidance, Ohio Regional Healthcare Planning Regions that receive and utilize ASPR grant funds for exercises must comply with HSEEP doctrine.

Resource: The HSEEP website (<http://hseep.dhs.gov>) provides additional information regarding HSEEP Policy and Guidance, HSEEP Volumes I-IV, as well as the HSEEP Tool Kit.



Conclusion:

The Federal government, accreditation bodies and communities expect hospitals to provide critical services and patient care in times of disasters and emergencies. Exercises provide a proven method for validating emergency operations plans, policies and procedures while meeting the expectations and requirements of those who rely on hospitals and healthcare organizations during crises.



4.0 Hospital-Based Exercise Programs

4.1 Strategy and Planning

Whether a hospital is in the beginning stages of developing an exercise program or seeking to enhance an existing program, some may ask, “Why exercise?” Besides the reality that many hospitals are required to test and validate their emergency operations plan as noted in Section 3 above, exercises also provide the opportunity to:

- Validate training
- Test policies, procedures, plans and equipment
- Reveal strengths and areas for improvement in written documents
- Clarify roles and responsibilities
- Satisfy regulatory requirements
- Demonstrate operational capability
- Build confidence and competency among those assigned roles in a disaster response.

4.2 Exercise Program Development

The following actions should be considered during the development of a hospital-based exercise program.

1. Assemble an Exercise Planning Team. This Team will support the organization’s exercise program. Members should represent various departments, levels of authority, and should have knowledge of the facility’s emergency operations plans.
2. Review the facility’s current Hazard Vulnerability Assessment (HVA) as well as emergency operations plans, policies and procedures and identify risks, threats and activities to be tested.
3. Reference After-Action Reports/Improvement Plans from previous exercises and actual events for items to be re-evaluated.
4. Identify regulatory, funding, accreditation and any other requirements that must be satisfied and incorporate those into the overall exercise plan.
5. Create an exercise program budget.

“Because exercises are part of the broader preparedness cycle that also involves planning, equipment purchases and training activities, multi-year exercise scheduling should complement the full range of preparedness efforts and priorities being undertaken by the hospital.”

-DQE News, Vol.13, Issue 3, Fall 2008

4.3 Training and Exercise Plan (TEP) Development

Once the foundation for an Exercise Program is established, a detailed Training and Exercise Plan (TEP) should be developed. The TEP should outline program priorities, target capabilities, training, exercises and a multi-year schedule that reflects a building-block progression with an emphasis on coordination. The key is to link training and exercises. The exercises should validate the investment in training.



The TEP should outline how the organization will utilize a building-block approach that allows for increasingly complex training courses to be delivered and exercises to be performed that build upon lessons learned from previous training and exercises.

The following should be addressed as the Training and Exercise Plan is developed:

- What are the critical tasks that must be performed accurately to ensure an effective response to an emergency or disaster affecting our building and organization?
- What personnel / positions / departments are essential in performing these tasks?
- What community agencies are connected to the organization's capabilities to respond?
- What are the most common risks?
- What should be tested: emergency operations plans; policies and procedures; or the overall response system?

"What hospitals need to do is develop an integrated community response." For example, hospitals should work with local agencies to define roles and responsibilities in the event of a disaster and to create redundant communication systems. A veteran of many drills, Massey stressed the importance of 'bringing all the community players together': law enforcement, fire departments, emergency medical services, public health officials, community health care providers, and local industries. 'This isn't a battle to see which agency is best; this is a battle to prepare your community.'"

-Mary Massey, Disaster Coordinator at Anaheim Memorial Medical Center, on the importance of a community-wide plan.

A critical first step in creating a TEP is to facilitate a meeting with key departments and units who should have input on the updating and review of this multi-year plan. This forum should also be used to translate priorities into specific objectives and exercises; coordinate exercise activities; track improvement planning against current capabilities, training and exercises; and tie into regional or local training and exercise plans. During this forum, remember to review recent Hazard Vulnerability Analysis (HVA) reports to assess priorities and risk.

Resource: To obtain a copy of the HSEEP Training and Exercise Planning Workshop User's Handbook, visit: [https://hseep.dhs.gov/support/TEPW_Users_Handbook_\(V30\).pdf](https://hseep.dhs.gov/support/TEPW_Users_Handbook_(V30).pdf)

4.4 Community Exercise Program Participation

By engaging community partners to be a part of internal hospital exercises and by designating a hospital representative on community-based exercise teams, hospitals will ensure exercises are designed using realistic scenarios and objectives that will reveal strengths and gaps in hospital/healthcare emergency operations plans, policies, and procedures.

Typically full scale and functional exercises are designed for multi-agency involvement. Whenever possible, hospitals should connect with their local Emergency Management Agency; First Responders such as Fire, EMS and Law Enforcement; Public Health and local organizations that receive and manage grants such as Urban Area Security Initiative, Metropolitan Medical Response System and Assistant Secretary for Preparedness and Response to engage in community-wide exercises. The more hospitals engage community partners in hospital preparedness activities, the greater the chance of improving overall community preparedness.



Conclusion:

By taking the time to assemble an exercise planning team, reviewing the organization's hazard vulnerability assessment, emergency operations plans, policies and procedures; referencing After Action Reports and Improvement Plans; identifying regulatory, accreditation and grant requirements; creating an exercise budget; developing a training and exercise plan; and engaging community partners, hospitals will lay the foundation for a successful exercise program.



5.0 Exercise Design and Development

Exercises identify an organization's practices, procedures and protocols that are proficient and those that need improvement. Lessons learned from exercises can be used to revise operational plans and provide a basis for training to improve proficiency in executing those plans. This section is designed to introduce you to the fundamentals of exercise design and to prepare you to design and conduct exercises for your organization. It will provide an overview of the types of exercises, addresses the exercise development process, organization of the design team, exercise documentation, and the steps in designing an exercise.

5.1 Exercise Types

There are seven types of exercises defined within HSEEP, each of which is either discussions-based or operations-based.

- **Discussion-based exercises:** familiarize participants with current plans, policies, agreements, and procedures, or may be used to develop new plans, policies, agreements, and procedures.

Types of discussion-based exercises include:

- **Orientation and Seminars**
 - Orients participants toward, or provides participants with an overview of plans, policies, procedures, protocols or other response concepts
 - Informal discussion led by a facilitator
 - Effective with both small and large groups
- **Workshops**
 - Focuses on the development of a product such as a draft plan or policy
 - Aided by facilitators or breakout sessions
- **Tabletop (TTX)**
 - Focuses on senior-level staff, elected officials or other key personnel in an informal setting
 - Designed to stimulate discussion of issues using simulated scenarios
 - Used to assess and/or validate plans, policies and procedures
- **Games**
 - Simulates operations, often involving two or more teams
 - Depicts an actual or assumed real-life situation
 - Does not involve actual response
 - Uses a sequence of events affected by the decisions made by the players



Examples of When to Use Discussion-Based Exercises

Capability	Orientation/Seminar	Workshop	Tabletop Exercise	Game
Interoperable Communications	Demonstrate how a piece of equipment works (e.g. MARCS Radio)	Review and train personnel on the hospital's communication plan	Discuss how, who and when communication modalities would be activated	N/A
Patient Tracking	Provide an overview of OHTrac-Patient Tracking	Review and train personnel on the hospital's patient tracking plan and/or procedures	Provide a scenario in which patient tracking is required and allow staff to discuss their actions	N/A
Hospital Evacuation	Demonstrate the use of hospital evacuation equipment (e.g. MedSled)	Review and train departmental staff on the hospital's evacuation plan	Discuss the indicators and roles and responsibilities associated with conducting a partial evacuation	Split the Hospital Command Center and Department Staff into teams to make decisions about evacuation

- **Operations-based Exercises:** validate plans, policies, agreements and procedures; clarify roles and responsibilities; and identify resource gaps in an operational environment.

Types of operations-based exercises include:

- **Drills**
 - Coordinated, supervised activity employed to test a single, specific operation or function within a single entity
 - Measures training, tests policies and practices skills
 - Conducted in a realistic environment
- **Functional Exercise (FE)**
 - Examines and/or validates the coordination, command, and control between various multi-agency coordination centers (i.e. Emergency Operations Centers, Joint Field Office)
 - Examines inter-agency/jurisdictional relationships
 - Utilizes a simulation cell to “activate” resources
 - There is no movement of resources.
- **Full-Scale Exercises (FSE)**
 - Mobilizes personnel and resources from multiple agencies, jurisdictions and/or disciplines in a “real time” environment
 - Tests major portions of operations plans under field conditions



Examples of When to Use Operations-Based Exercises

Capability	Drill	Functional	Full-Scale
Disaster Triage	Conduct a 30 minute drill in the Emergency Department to test staff on triage criteria using paper patients	N/A	Assess pre-hospital and hospital staff on their knowledge and use of disaster triage criteria
Medical Surge	Utilizing paper patients, assess the length of time it takes to decompress the Emergency Department	As part of a community-wide exercise, evaluate how patients will be distributed among area hospitals	Utilizing victim actors, evaluate all procedures associated with the facility's medical surge plan
Decontamination	Evaluate how long it takes for the Decon Team to set-up the decon tent	N/A	Assess the hospital's decon plan from activation through demobilization

5.2 Exercise Design Team

The exercise planning team is responsible for the successful execution of all aspects of an exercise, including exercise planning, conduct, and evaluation. The planning team determines exercise objectives; tailors the scenario to the entity's needs; and develops documents used in exercise simulation, control, and evaluation. While each exercise has its own planning team, personnel may carry over from one exercise to the next, and entities may find it advantageous to include team members with previous exercise planning experience.

The exercise planning team should seek to incorporate representatives from each major participating entity, but should be kept to a manageable size. The membership of an exercise planning team can be modified to fit the type or scope of an exercise. In the design and development phase, the exercise design team should first decide which exercise type is best suited for intent of the exercise objectives.

5.3 Exercise Development Process

Once the exercise design team has determined the type of exercise to be completed, planning conferences are conducted to ensure the exercise is designed, developed, and executed using agreed upon design elements such as scope, purpose and objectives.

The HSEEP methodology outlines a variety of planning conferences. The need for each of the conferences varies depending on the type and scope of the exercise. The various conference types include:



- **Concepts and Objectives Meeting**

- **Primary Focus:** A Concepts and Objectives (C&O) Meeting is the formal beginning of the planning process. It is held to identify the type, scope, objectives and purpose of the exercise. For less complex exercises and for entities with limited resources, the C&O Meeting can be conducted in conjunction with the IPC; however, when exercise scope dictates, the C&O Meeting is held first. For example, the C&O Meeting is held before the IPC for large-scale exercises, complex full-scale exercises (FSEs), or any high-profile exercise that necessitates a high level of support from executives or authorities.

The C&O Meeting will help planners identify the capabilities and tasks that are going to be validated, design objectives based on those capabilities and tasks, and exercise planning team members.

- **Attended By:** Representatives from the sponsoring agency or organization, representatives from potentially participating organizations, the exercise planning team leader and senior officials typically attend the C&O Meeting.
- **Length:** Depending on the scope of the exercise, the C&O Meeting can range from 2 to 4 hours.
- **Discussion Points:** Possible topics or issues for a C&O Meeting include the following:
 - Exercise purpose
 - Proposed exercise scenario, capabilities, tasks and objectives
 - Available exercise resources
 - Proposed exercise location, date, and duration
 - Exercise planning team and exercise participants
 - Exercise assumptions and artificialities

- **Initial Planning Conference (IPC)**

- **Primary Focus:** The IPC marks the beginning of the exercise development phase. Unless a separate C&O Meeting is conducted, the IPC is typically the first official step in the planning process. Its purpose is to determine exercise scope by gathering input from the exercise planning team, design requirements and conditions (e.g., assumptions and artificialities), objectives, extent of play and scenario variables (e.g., time, location, hazard selection). The IPC is also used to develop exercise documentation by obtaining the planning team's input on exercise location, schedule, duration, and other relevant details.

During the IPC, exercise planning team members are assigned responsibility for activities associated with designing and developing exercise documents—such as the Master Scenario Events List (MSEL) and the Situation Manual (SitMan), which are described later in this volume—and logistics, such as scene management and personnel. In addition to conducting the conference, the exercise planning team gathers appropriate photographs and audio recordings to enhance the realism and informational value of the final document(s) and/or multimedia presentation(s) presented during the exercise.

- **Attended by:** Exercise Planning Team Members



- **Length:** Depending on the scope of the exercise, the IPC can range from 3 to 6 hours.
- **Discussion Points :** Possible topics or issues for an IPC include the following:
 - Understanding the rationale for exercise development
 - Ensuring clearly defined and measurable capabilities, tasks, and objectives
 - Incorporating community emergency operations plans (EOPs), memoranda of agreement (MOA), participating agency standard operating procedures (SOPs), and/or other relevant policy into the exercise design
 - Identifying local issues, concerns, or sensitivities
 - Determining the extent of play for each participating entity by establishing what each entity will demonstrate and be evaluated on at the exercise, allowing for appropriate logistical needs to be arranged in order to support those activities
 - Ensuring that exercise planners consider themselves trusted agents and understand that, in most cases, they will participate as facilitators, controllers, or evaluators (rather than as players)
 - Choosing subjects for photographs and/or audio/visual (A/V) recordings to incorporate into exercise documents and multimedia presentations (to enhance realism)
 - Deciding whether or not to record exercise proceedings (audio or video)
 - Determining the optimum duration of the exercise
 - Ensuring that exercise planners understand that the exercise is conducted in a no-fault environment intended to validate plans and procedures and identify problems and potential solutions
 - Selecting or customizing the appropriate Exercise Evaluation Guides (EEGs) to determine whether or not exercise capabilities, tasks, and objectives were achieved and to allow participants to provide feedback
 - Reaching a consensus regarding the date, time, and location for the next conference
- **Mid-Term Planning Conference (MPC):** Mid-Term Planning Conferences (MPCs) are typically used in more complex, operations-based exercises such as functional exercises (FEs) and full-scale exercises (FSEs). MPCs provide additional opportunities to settle logistical and organizational issues that may arise during planning.
 - **Primary Focus:** The MPC is a working session to discuss exercise organization and staffing concepts, scenario and timeline development, scheduling, logistics, and administrative requirements. It is also a session to review draft documentation (e.g., scenario, Exercise Plan [ExPlan], Controller and Evaluator [C/E] Handbook, MSEL). At the conclusion of the MPC, selected planners should conduct a walkthrough of the proposed exercise site. If only three planning conferences are scheduled (i.e., the IPC, MPC, and Final Planning Conference [FPC]), the second half of the MPC should be devoted to developing the MSEL. See the next section, *Master Scenario Events List Conference*, for more information.
 - **Attended by:** Exercise Planning Team Members
 - **Length:** Depending on the agenda, the MPC is generally a full-day conference (especially if no MSEL planning conference is scheduled). The exercise planning team should allow sufficient time to conduct a walkthrough of the exercise site and gather supporting pictures, maps, and other visual aids.



- **Discussion Points**
 - Possible topics or issues for an MPC include the following:
 - Comments on draft exercise documentation
 - Identification of exercise venue artificialities and/or limitations
 - Agreement on final logistical items
 - Assignment of additional responsibilities
 - Construction of the scenario timeline—usually the MSEL—if an additional MSEL planning conference will not be held
- **Master Scenario Events List (MSEL) Conference:** For more complex, operations-based exercises, one or two additional planning conferences—or MSEL conferences—may be held specifically to review the scenario timeline. If not held separately, MSEL conferences are incorporated into the MPC and FPC.
 - **Primary Focus:** The MSEL Conference focuses on developing the MSEL. The MSEL is a chronological list that supplements the exercise scenario with event synopses; expected participant responses; capabilities, tasks, and objectives to be addressed; and responsible personnel. It includes specific scenario events (or *injects*) that prompt players to implement the plans, policies, and procedures that require testing during the exercise, as identified in the capabilities-based planning process. It also records the methods that will be used to provide the injects (e.g., phone call, facsimile, radio call, e-mail).
 - **Attended by:** Exercise Planning Team Members
 - **Length:** The length of a MSEL Conference varies according to the scope of the exercise and variability of the injects. The exercise planning team allows 4 to 8 hours to conduct a MSEL Conference and assigns a person to be responsible for incorporating suggestions and constructing the MSEL after the conference.
 - **Discussion Points :** In developing a MSEL, the exercise planning team must first consider the tasks, conditions, and standards set forth by each exercise objective. As described in Chapter 4 of HSEEP Volume I, completing a task is one step toward demonstrating a capability. A *condition* is the environment in which a task is performed—it can be provided by the scenario or through the MSEL.

If scenario conditions do not stimulate performance of the appropriate task, the exercise planning team must develop a MSEL entry to simulate the desired situation. A well-written entry considers the following questions:

- Is the event key (i.e., is it directly related to meeting an exercise objective)?
- What is the desired task? Who will demonstrate the task?
- What will stimulate the behavior (e.g., course of play, phone call, actor, video)?
- Who originates the stimulant? Who receives it and how?
- What action is the player expected to complete?
- Should a contingency entry be developed for injection into the exercise in case the players fail to demonstrate the task?



- **Final Planning Conference (FPC)**

- **Primary Focus:** The FPC is the final forum for reviewing exercise processes and procedures. Prior to the FPC, the exercise planning team receives final drafts of all exercise materials. No major changes to the design or scope of the exercise, or its supporting documentation, should take place at the FPC. The FPC ensures that all logistical requirements have been met, all outstanding issues have been identified and resolved, and all exercise products are ready for printing.
- **Attended by:** Exercise Planning Team Members
- **Length:** Generally, the FPC is a half-day conference for discussion-based exercises and a full day for operations-based exercises.
- **Discussion Points:** The following items are addressed during the FPC:
 - Resolve any open issues related to exercise planning and identify last-minute concerns that may arise.
 - Review all exercise logistical activities (e.g., schedule, registration, attire, special needs).
 - Conduct a comprehensive, final review of—and approve—all exercise documents (e.g., SitMan, ExPlan, MSEL, C/E Handbook) and presentation materials.

Resource: Additional information regarding each of the types and purposes of the conferences can be found at the HSEEP website: (https://hseep.dhs.gov/pages/1001_About.aspx)

5.4 Exercise Documentation

Exercise documents are utilized to inform participants about various aspects of the exercise. Depending on the exercise type and the role of the participant, the appropriate document will be issued. Creation of these documents is assigned to exercise planning team members and they are reviewed and discussed during exercise planning conferences.

The list of documents below is a summary of the more frequently used documents associated with most exercises. Additional information about the documents described below can be found in *HSEEP Volume II: Exercise Planning and Conduct*.

Resource: HSEEP Volume II: *Exercise Planning & Conduct*:
https://hseep.dhs.gov/pages/1001_About.aspx

- **Situation Manual (SitMan)** is a participant handbook for discussion-based exercises, particularly TTXs. It provides background information on exercise scope, schedule, and objectives. It also presents the scenario narrative that will drive participant discussion during the exercise.
- **Exercise Plan (ExPlan)** typically used for operations-based exercises, provides a synopsis of the exercise and is published and distributed to players and observers prior to the start of the exercise. The ExPlan includes the exercise objectives and scope, safety procedures, and logistical considerations such as an exercise schedule. The ExPlan does not contain detailed scenario information.



- **Controller and Evaluator (C/E) Handbook** supplements the ExPlan for operations-based exercises, containing more detailed information about the exercise scenario and describing exercise controllers' and evaluators' roles and responsibilities. Because the C/E Handbook contains information on the scenario and exercise administration, it is distributed only to those individuals specifically designated as Controllers or Evaluators.
- **Master Scenario Events List (MSEL)** is a chronological timeline of expected actions and scripted events (i.e. injects) to be inserted into operations-based exercise play by controllers in order to generate or prompt player activity. It ensures that necessary events happen so that all exercise objectives are met.
- **Exercise Evaluation Guides (EEGs)** help evaluators collect and interpret relevant exercise observations. EEGs provide evaluators with information on what tasks they should expect to see accomplished during an exercise, space to record observations, and questions to address after the exercise as a first step in the analysis process. The EEGs are not meant as report cards. Rather they are intended to guide the evaluator's observations so that the evaluator focuses on capabilities and tasks relevant to exercise objectives to support the development of the After-Action Report/Improvement Plan (AAR/IP).
- **After-Action Report/Improvement Plan (AAR/IP)** is the final product of an exercise. The AAR/IP has two components: an AAR, which captures observations and recommendations based on the exercise objectives and an IP, which identifies specific corrective actions, assigns them to specific parties, and establishes targets for their completion. An After-Action Conference provides participants with an opportunity to review and validate the AAR/IP. The final AAR/IP is an outcome of the After-Action Conference and should be disseminated to participants no more than 60 days after exercise conduct.

5.5 Exercise Enhancements

Exercise enhancements such as maps, paper victims, radio messages and moulage assist with creating a realistic environment for players. For full-scale exercises and drills, the utilization of victim actors greatly enhances exercise play for hospital participants. Listed below is a list of moulage kit supplies as recommended by HSEEP.

5.5.1 Moulage Kit Supplies

Moulage is makeup applied to victim actors to add realism to an operations-based exercise. Local drama clubs, community theaters, mortuaries and professional make-up artists can be recruited as moulage staff.



Moulage Kit	
Makeup (various colors)	Mixing palette
Cotton balls	Effects gels (blood, clear, flesh colored)
Sterile gauze pads	Effects gel applicators
Glycerin	Stage blood
Palette knife	Scissors
Brushes (various sizes)	Utility knife
Tongue depressors	Plastic wrap
Sponges	Liquid starch
Pocket comb	Rubbing alcohol
Petroleum jelly	Liquid adhesive and adhesive remover
Empty mixing bottles	Flesh putty (various colors)
Prosthetics (various injuries such as blisters, burnt skin, bone fractures, open wounds)	

Conclusion

This section provided an overview of the resources and tools available to establish an exercise design program. If hospitals utilize the information provided, it will help ensure that the exercises are designed in such a manner that objectives are reasonable and challenge the preparedness levels of the hospital. In addition, a properly designed exercise will incorporate the correct personnel, comply with identified grant funding and accreditation requirements, as well as challenge the exercise players in a realistic manner. For more detailed information on exercise design and conduct, please visit www.hseep.dhs.gov.

Section 6.0 Evaluation, will discuss the eight steps as outlined by the Federal Emergency Management Agency (FEMA). The eight step process will provide the framework for hospitals to appropriately capture the observations and performance results of exercises.



6.0 Evaluation

From exercise design through conduct, evaluation serves as a critical piece of the facility's exercise program. Exercise evaluation is defined as the act of reviewing or observing and recording exercise activity or conduct, applying the behavior or activity against exercise objectives, and noting strengths, areas for improvement, deficiencies, and other observations.

The evaluation of an exercise is one of the most important activities within an exercise program. Conducting a straightforward assessment of a facility's plans and/or training can reveal strengths and areas for improvement. By demonstrating a commitment to a thorough evaluation of the facility's plans, policies and procedures, the hospital will have the opportunity to strengthen the competency and confidence of staff with roles in a disaster response by enhancing expected actions and/or modifying ones that need improvement.

6.1 FEMA has outlined 8 Steps related to the Evaluation and Improvement Process

1. **Plan and Organize the Evaluation:** This includes assigning a lead evaluator who will oversee the evaluation process.

Specific lead evaluator tasks include:

- Assigning evaluators based on the knowledge and skills required to effectively evaluate a specific objective. (The evaluation team should be chosen for their knowledge of a particular functional area and should be familiar with the chosen plans and procedures.)
- Conducting evaluator training a day or two before the exercise.
- Providing exercise evaluation guides for the exercise.

2. **Observe the Exercise and Collect Data the Day of the Exercise:** Evaluators should report everything which is related to their assigned objective. This requires the evaluators to be objective, focusing on decisions made or actions taken, not a specific person.
3. **Analyze Data:** Evaluators should identify common issues among objectives; determine root causes of decision-making and/or actions taken by Players; develop recommendations for improvement per capability, activity or task if they are not achieved; and address what changes to a specific document should be made.
4. **Develop and Draft the After-Action Report (AAR):** The AAR is drafted by the lead evaluator and the Exercise Planning Team within 30 days of the exercise. The AAR provides feedback to Players on observations noted during the exercise. It includes a summary of events, analysis of performance and demonstrates capacity and recommendations for improvements.
5. **Conduct an After-Action Conference (AAC):** Within 30 days of the exercise, the exercise planning team should conduct an After-Action Conference (AAC) to present, discuss and refine the draft After-Action Report (AAR). This conference also leads to the development of an Improvement Plan (IP).



The After-Action Conference is a critical component of the exercise planning process to ensure that exercises are results-oriented and contribute to preparedness by translating AAR/IP analyses into concrete improvements for validation in subsequent exercises.

Should the healthcare facility or organization experience a “real event”, an After-Action Conference and Report should be completed close to the same manner as for an exercise.

6. **Identify Improvements:** Improvements should be targeted to a specific timeframe and should take into consideration budget and resource limitations.
7. **Finalize After-Action Report:** The AAR should be finalized within 60 days of the exercise according to HSEEP standards. Any corrections or clarifications related to observations, recommendations and improvement steps provided at the AAC should be incorporated into the final AAR.
8. **Track Implementation:** It is recommended that one person be assigned to track progress and completion of tasks listed in the Improvement Plan.

The eight step process provides an easy, straightforward approach to capturing observations and performance data related to an exercise. While this methodology may appear simplistic, committing to providing an honest evaluation of the facility’s capabilities will strengthen and enhance the hospital’s preparedness and readiness during emergencies.

Resource: FEMA IS 130: Exercise Evaluation and Improvement Planning
<http://training.fema.gov/EMIWeb/IS/IS130.asp>

Resource: HSEEP Volume III Exercise Evaluation and Improvement Planning
<https://hseep.dhs.gov/support/Volumelll.pdf>

Conclusion:

Section 6.0 provided eight essential steps in capturing the performance of exercise participants and validating the plans or training being assessed. The evaluation process is one of the most important elements of the exercise process as it justifies the need for on-going preparedness activities, validates monetary and time investments related to training and equipment, as well as identifies deficiencies in a simulated environment.

Section 7.0 will outline the Improvement Process.



7.0 Improvement Planning

Once the After-Action Report is completed, hospitals should engage in the improvement planning process. Improvement planning should involve staff from all departments; seek and incorporate information that meets the needs of all stakeholders; evaluate more than the immediate day to day issues; address limitation, barriers, and weaknesses as well as strengths; set priorities so that people know where to focus their efforts and demonstrate collaboration and integration of resources from all departments or entities involved.

Following a thorough exercise evaluation, improvement planning will highlight the action plans to correct the deficiencies that were observed during a designated exercise. The After Action Report will outline gaps or shortfalls in plans, policies and procedures, whereas the Improvement Plan will outline the mitigation steps, assign tasks to specific personnel, and define the acceptable period of time for which each of the corrective actions should be completed.

The Improvement Plan (IP) includes issues and recommendations taken from the After-Action Report.

The Improvement Plan details:

- Actions necessary to address areas for improvement and associated recommendations presented in the After Action Report
- Individuals or groups responsible for completing corrective actions
- Timelines for corrective action completion

Once completed, these corrective actions should be implemented, tested, and validated through future exercises. In order for the improvement planning process to be successful, one individual should be assigned primary responsibility for tracking the progress of implementing each corrective action. The individual assigned this responsibility should establish a schedule in which he/she interacts with each person who has a specific improvement assignment and outline the progress and challenges associated with completing each of the corrective actions. The progress and challenges for each corrective action should be documented and tracked.

See **Attachment H** for a sample After Action Report and Improvement Plan format.

Conclusion:

The improvement planning process is crucial to the success of the overall exercise and emergency management program. The Improvement Plan will outline measureable and achievable goals that focus the organization on building and maintaining preparedness competencies and capabilities. The improvement plan is a means by which future training, equipment purchases and additional exercises are requested. The Improvement Plan will serve as a mechanism for incorporating lessons learned back into the organization's plans, policies and procedures.

Once the Improvement Plan is completed, the exercise cycle should start over.



Appendix A: Workshop Checklist

The checklist below is intended to serve as an aid for facilities planning a workshop. Workshops are discussion-based exercises that focus on the development of a product such as a draft plan or policy. They are led by a facilitator and at times utilize breakout sessions to assist with the discussion.

Materials needed:

- Sign-in Sheet
- Multi-media presentation (PowerPoint)
- Agenda
- Applicable documents (i.e. draft plans, policies, etc.)

Conferences:

- Concepts and Objectives and/or Initial Planning Conference
- Final Planning Conference

See **Attachment A** for a sample workshop agenda.



Appendix B: Tabletop Exercise Checklist

The checklist below is intended to serve as an aid for facilities planning a tabletop exercise. Tabletop Exercises (TTX) are discussion-based exercises that focus on senior-level staff, elected officials or other key personnel discussions utilizing an informal setting. TTX's are designed to stimulate discussion of issues using simulated scenarios and are used to assess and/or validate plans, policies and procedures.

Materials needed:

- Sign-in sheet
- Multi-media presentation (i.e. PowerPoint)
- Situation Manual
- Participant Feedback Forms
- Exercise Evaluation Guide
- Appropriate exercise enhancements (i.e. maps, etc.)
- An After-Action Report (AAR) and Improvement Plan (IP) is required within 60 days of the exercise

Conferences:

- Concepts and Objectives (C+O) and/or Initial Planning Conference
- Final Planning Conference
- After Action Conference

Refer to:

Attachment B for a sample conference agenda.

Attachment C for a sample situation manual.

Attachment D for sample participant feedback form.

Attachment E for sample exercise evaluation guides.

Attachment F for sample scenarios.



Appendix C: Drill Checklist

The checklist below is intended to serve as an aid for facilities planning a drill. Drills are a type of operations-based exercises that are coordinated to test a single, specific operation of function within a single entity. They can be used to measure training, policies and skill competency. Drills are conducted in a realistic environment.

Materials needed:

- Sign-in sheet
- ExPlan (optional)
- Controller/Evaluator Handbook (optional)
- Master Scenario Events List
- Exercise Evaluation Guides
- Exercise Enhancements (i.e. Victim cards, radio transmissions, etc.)
 - See **Attachment I** for sample victim cards.
- After-Action Report and Improvement Plan

Conferences:

- Concepts and Objectives (C+O) and/or Initial Planning Conference
- MSEL Conference
- Final Planning Conference
- After Action Conference

Refer to:

Attachment B for a sample conference agenda.

Attachment D for sample participant feedback form.

Attachment E for sample exercise evaluation guides.

Attachment F for sample scenarios.

Attachment G for sample MSEL.



Appendix D: Exercise Program Websites

- AHRQ Tool for Evaluating Core Elements of Hospital Disaster Drills: www.AHRQ.gov/prep/drillelements
- FEMA classes-IS-120.A: An Introduction to Exercises: <http://training.fema.gov/EMIWeb/IS/IS120A.asp>
- FEMA class-IS-130: Exercise Evaluation and Improvement Planning: <http://training.fema.gov/EMIWeb/IS/IS130.asp>
- FEMA classes-IS-139: Exercise Design <http://training.fema.gov/EMIWeb/IS/is139.asp>
- Homeland Security Exercise and Evaluation Program: <http://www.HSEEP.dhs.gov>
- Hospital Preparedness Program: <http://www.hhs.gov/aspr.oepo.hpp>
- Homeland Security Presidential Directive/HSPD-8: National Preparedness. The White House, Office of the Press Secretary. December 2003: <http://www.whitehouse.gov/news/release/2003/12/20031217-6.html>
- Lessons Learned Information System: <http://www.LLIS.gov>
- Master Exercise Practitioner Program: <http://training.fema.gov>
- Metropolitan Medical Response System: <http://fema.mmrs.gov>
- National Incident Management System and National Response Framework, U.S. Department of Homeland Security: <http://www.dhs.gov>
- Occupational Safety and Health Administration: www.osha.gov



Appendix E: Resources

It should be noted that the information contained within this Handbook was taken from the sources listed below unless otherwise cited:

- Centers for Medicare and Medicaid Services:
http://www.cms.hhs.gov/CertificationandCompliance/08_Hospitals.asp
- Department of Health and Human Services, Hospital Preparedness Program
<http://www.hhs.gov/aspr/oepo/hpp/>
- Federal Emergency Management Agency (FEMA) Independent Study-IS-120.A: An Introduction to Exercises <http://training.fema.gov/EMIWeb/IS/IS120A.asp>
- FEMA Independent Study-IS-130: Exercise Evaluation and Improvement Planning
<http://training.fema.gov/EMIWeb/IS/IS130.asp>
- FEMA classes-IS-139: Exercise Design
<http://training.fema.gov/EMIWeb/IS/is139.asp>
- FEMA Master Exercise Practitioner Program Series #9 October 2007-February 2008
- Homeland Security Exercise and Evaluation Program (HSEEP) <http://www.HSEEP.dhs.gov>
- To obtain a copy of the HSEEP Training and Exercise Planning Workshop User's Handbook, go to:
[https://hseep.dhs.gov/support/TEPW_Users_Handbook_\(V30\).pdf](https://hseep.dhs.gov/support/TEPW_Users_Handbook_(V30).pdf)
- National Fire Protection Association
<http://www.nfpa.org>
- National Preparedness Guidelines
http://www.dhs.gov/xlibrary/assets/National_Preparedness_Guidelines.pdf
- NIMS Implementation Objectives for Healthcare Organizations
<http://www.hicscenter.org/docs/NIMS%202008%20NIMS%20Implementation%20Objectives%20for%20Healthcare%20Organizations.swf>
- The Ohio Emergency Management Agency Exercise Design Course G132 March 2007
- The Ohio Emergency Management Agency Exercise Evaluation Course G130 March 2007.

Appendix F: Index of Attachments

- Attachment A:** Sample Workshop Agenda
- Attachment B:** Sample Conference Agenda
- Attachment C:** Sample Situation Manual
- Attachment D:** Sample Participant Feedback Form
- Attachment E:** Sample Exercise Evaluation Guides
- Attachment F:** Sample Scenarios
- Attachment G:** Sample Master Scenario Events List
- Attachment H:** After Action Report and Improvement Plan Template
- Attachment I:** Victim Symptom Cards
- Attachment J:** Hospital Incident Command System Forms

Tips for Designing a Successful Exercise

- Drills and exercises should be conducted to test or practice only what staff has been taught. Asking staff to undergo a drill or exercise before they have been trained is like asking students to take a final exam before attending the course.
- Allow several months to design the drill or exercise.
- Drills and exercises should be based on the real hazards that a health care facility faces—that is, threats identified in its HVA and addressed in its emergency management plan.
- Maintain a limited focus. Don't try to test too many things at once.
- When undertaking a full-scale exercise, make sure that real patients continue to receive care. For example, if the exercise is taking place in the emergency department, make sure that staff continue to treat patients. Have a mechanism in place for terminating the exercise if necessary—for example, if the exercise is causing harm to volunteers.
- Consider conducting an exercise that addresses multiple facets of an emergency at one time (for example, preparing for a large influx of patients while experiencing a power loss).
- When “paper patients” (sheets of paper or index cards with symptoms and other information written on them) are used, they should be triaged, put on stretchers or in wheelchairs, and transported through the hospital as if they were real patients.
- Remember to conduct drills and exercises during all shifts—day, evening, night, and weekend—to test responses with various staffing levels. Use realistic staffing patterns in exercises.
- Remember to revise your emergency management plan based on what you learn from the drill or exercise.

(Effective Emergency Management Drills and Exercises, Greater New York Hospital Association)