PRQC DISASTER BUNDLE - DISASTER DOMAIN 1
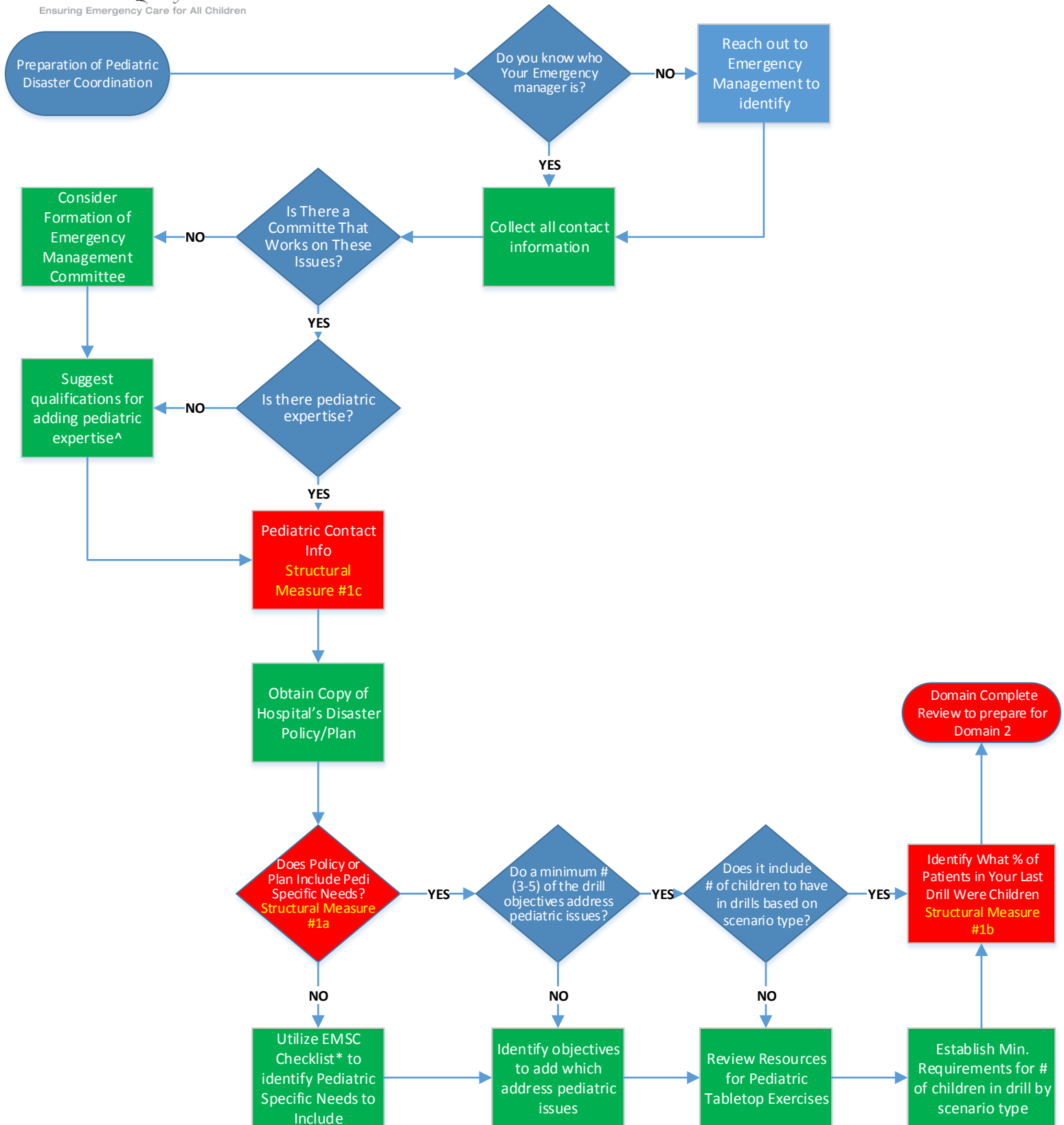
Pediatric Disaster Coordination

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National
PRQC
Pediatric Readiness Quality Collaborative
Ensuring Emergency Care for All Children

Preparation of Pediatric Disaster Coordination

Do you know who Your Emergency manager is?

NO → Reach out to Emergency Management to identify

YES ↓

Collect all contact information

Is There a Committe That Works on These Issues?

NO → Consider Formation of Emergency Management Committee

YES ↓

Is there pediatric expertise?

NO → Suggest qualifications for adding pediatric expertise^

YES ↓

Pediatric Contact Info
Structural Measure #1c

↓

Obtain Copy of Hospital's Disaster Policy/Plan

↓

Does Policy or Plan Include Pedi Specific Needs?
Structural Measure #1a

YES → Do a minimum # (3-5) of the drill objectives address pediatric issues?

YES → Does it include # of children to have in drills based on scenario type?

YES → Identify What % of Patients in Your Last Drill Were Children **Structural Measure #1b**

↑ ← Domain Complete Review to prepare for Domain 2

NO ↓ Utilize EMSC Checklist* to identify Pediatric Specific Needs to Include

NO ↓ Identify objectives to add which address pediatric issues

NO ↓ Review Resources for Pediatric Tabletop Exercises

→ Establish Min. Requirements for # of children in drill by scenario type

*Checklist attached

^Minimum qualifications attached

DOMAIN 1:7.29.18

PRQC DISASTER BUNDLE - DISASTER DOMAIN 1

Pediatric Disaster Coordination

1. Pre-Reading for Domain 1

American Academy of Pediatrics

DEDICATED TO THE HEALTH OF ALL CHILDREN™

Ensuring the Health of Children in Disasters

DISASTER PREPAREDNESS ADVISORY COUNCIL, COMMITTEE ON PEDIATRIC EMERGENCY MEDICINE

abstract

Infants, children, adolescents, and young adults have unique physical, mental, behavioral, developmental, communication, therapeutic, and social needs that must be addressed and met in all aspects of disaster preparedness, response, and recovery. Pediatricians, including primary care pediatricians, pediatric medical subspecialists, and pediatric surgical specialists, have key roles to play in preparing and treating families in cases of disasters. Pediatricians should attend to the continuity of practice operations to provide services in time of need and stay abreast of disaster and public health developments to be active participants in community planning efforts. Federal, state, tribal, local, and regional institutions and agencies that serve children should collaborate with pediatricians to ensure the health and well-being of children in disasters.

Although disasters have long caused destruction and suffering, events such as the 9/11 terrorist attacks, the 2004 Indian Ocean tsunami, Hurricane Katrina in 2005, the 2009 H1N1 influenza pandemic, the 2010 Haiti earthquake, Superstorm Sandy in 2012, the 2014 Ebola epidemic, and others show how citizens and responders continue to be surprised by the character and scope of such incidents. What all disasters have in common and what sets them apart from other emergencies are their precipitous nature and overwhelming effects on a community's response system. Disasters are unpredictable and generally cannot be prevented from occurring. Nevertheless, pediatricians and others involved in the care and well-being of children can prepare for and mitigate their effects, encourage preparedness and resiliency among children and families and within communities, and ensure that children's needs, including those of children and youth with special health care needs, are not neglected in planning, response, and recovery efforts.

CHILDREN HAVE UNIQUE NEEDS

The unique needs of children mandate specialized and appropriate planning for disasters. Children differ from adults in physiology, developing organ systems, behavior, emotional and developmental understanding of and response to traumatic events, and dependence on others for basic needs. Children's rapid minute ventilation, large surface

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area relative to body mass, more permeable skin, and proximity to the ground increase their risk of adverse outcomes from exposure to environmental hazards such as particulates or droplets, whether from debris or biological or chemical threats.[1] Children are in a critical period of development when toxic exposures can have profound negative effects. Exposure to carcinogens and radiation can damage DNA and increase children's lifetime cancer risk because of increased division of cells and longer remaining life span. Children may lack the developmental ability to flee hazards, or they may even approach them out of curiosity or inadequate comprehension of risk. Limited ability to understand the nature of the disaster can also lead to stress, fear, anxiety, inability to cope, and exaggerated response to media exposure. All of these responses can manifest as developmental regression, withdrawal, clinginess, tantrums, enuresis, or somatic complaints, among other symptoms. Infants and young children cannot care for themselves and require age-appropriate foods (including human milk) as well as assistance in feeding, toileting, and clothing.[2] Safe housing and safety in shelters are also critical. Equipment, medical or otherwise, must be appropriately sized; and medications must exist in formulations for appropriate dosing and administration to children.

Failing to address children's unique needs in advance of a disaster may put children in harm's way, resulting in morbidity and physical and emotional stress for them as well as for their caregivers. Local, state, and federal representatives involved in disaster planning and response have an obligation to prepare for meeting the needs of the whole community, including the unique needs of children.[3] Children represent approximately 25% of the US population, and the large majority of adults share a common concern in ensuring children's health and well-being.[4,5] Not all planners and responders in emergency and disaster response systems may be optimally familiar with the needs of children, and especially of children and youth with special health care needs. Pediatricians can educate emergency and disaster response teams and advocate for children to be appropriately served with regard to evacuation, sheltering, family reunification, medical needs, mental health, nutrition, and safety.

RETURN TO A DISASTER-AFFECTED AREA

To ensure their safety and protection, children of all ages should be directly supervised during and after a disaster. Disrupted, limited, or absent child care, schooling, clean water, and medical care can negatively affect the well-being of children as well as the ability of caregivers to carry out their own immediate postdisaster tasks. Before returning to a disaster-affected area, a family needs to consider the roles and capabilities of children as well as the services and care available for them. For instance, clean-up efforts may present dangers to young children that would preclude their participation. In general, children should be among the last individuals to return to areas affected by flooding or other disasters.[1] Public health officials and pediatricians are encouraged to jointly determine and announce when the environment is safe for children to return.

PREPARING TO SERVE CHILDREN IN A DISASTER

Pediatricians should be ready to provide care for patients even when normal operations are disrupted. Advance preparedness planning can mitigate risk, reduce material and operational losses, improve financial stability, strengthen the medical home, and help promote the health of the children in the community.[6]

Inpatient, outpatient, and emergency services should develop operational preparedness and resiliency planning, both individually and collaboratively, to continue providing care for children during and after disasters. Enhancing the capacity to meet the everyday needs of children is one way to increase operational resiliency for more severe, large-scale, or surge events. For example, the services and coordination used every day in the pediatric medical home become even more crucial in effectively addressing the heightened needs and potential loss of resources resulting from disaster.[7] Many aspects of continuity of operations planning are common to all businesses or medical practices, such as hazard insurance, staffing, supplies, and internal and external communications.[8] Pediatric practices face additional unique and significant needs, such as the preservation of vaccines, potential readjustment of service capabilities (eg, reducing or delaying well-child visits to accommodate more acute visits), and communicating with families who may have suffered devastating losses. The American Academy of Pediatrics (AAP) and other organizations have developed resources to help both hospitals and practices in all-hazards preparedness planning.[9–11] Pediatricians are also advised to undertake personal and family preparedness and to encourage coworkers and staff to do the same so they are better able to perform their professional responsibilities during a disaster.

PREPARING FAMILIES FOR DISASTER

Families view primary care physicians, such as pediatricians, as one of the most trusted sources of information about disasters.[12,13] Experiences during the 2009 H1N1 influenza pandemic showed that pediatricians must be prepared for a surge in communications with patients and families as well as with other health care and public health

agencies during disasters.[14] Part of this preparedness, planning, and response involves information management, such as knowing where to receive trustworthy, efficient, and relevant information. Pediatricians are encouraged to sign up for Health Alert Network notifications through the Centers for Disease Control and Prevention (CDC) and local and/or state health departments.[15] Pediatricians can also provide anticipatory guidance to help children and families prepare themselves before a disaster as part of ongoing preventive health care (see Table 1). Such guidance has been documented to be helpful and effective.[16] Children and youth with special health care

needs, including those with limited English proficiency, warrant particular targeting for preparedness because of their enhanced vulnerability and the challenges they may experience related to additional needs for medications, equipment, or specialized care during a disaster.[17] The Emergency Information Form, a validated resource developed by the AAP, the American College of Emergency Physicians, and the Emergency Medical Services for Children program, may be helpful in identifying the specific needs of children in this category.[18] Preparedness for families of children and youth with special health care needs may involve multiple aspects of

care and should include all members of the care team: primary care pediatrician, specialists, therapists, case managers, home care agencies, pharmacists, suppliers of durable medical equipment, and payors.

WHEN CHILDREN ARE AWAY FROM PARENTS OR CAREGIVERS

A majority of children spend time during the day away from their parents or guardians, in school or in child care.[19] Emergency planning should include an assessment of local hazard vulnerability and community assets; this assessment should consider places where children congregate, such as schools, child care

TABLE 1 Select Resources to Help Families and Communities Prepare for Disaster

Resource	Description	Link
AAP		
Family Readiness Kit	Family readiness materials and disaster-specific fact sheets for families	www2.aap.org/family/frk/aapfrkfull.pdf
How to Prepare for Disasters	AAP information to help families prepare a written disaster plan	www.healthychildren.org/English/safety-prevention/at-home/Pages/How-to-Prepare-for-Disasters.aspx
Emergency Information Form	AAP emergency information form template for children and youth with special health care needs	www2.aap.org/advocacy/blankform.pdf
Family Disaster Supplies List	AAP information and a list of important supplies to keep in a disaster supplies kit	www.healthychildren.org/English/safety-prevention/at-home/Pages/Family-Disaster-Supplies-List.aspx
Four Steps to Prepare Your Family for a Disaster	AAP information to help families prepare for a disaster	www2.aap.org/family/frk/FOurstepsFRK.pdf
Getting Your Family Prepared for a Disaster	AAP information; tips to prepare a family for a disaster	www.healthychildren.org/English/safety-prevention/at-home/Pages/Getting-Your-Family-Prepared-for-a-Disaster.aspx
Talking to Children About Disasters	AAP information; tips for talking to children about disasters	www.healthychildren.org/English/safety-prevention/at-home/Pages/Talking-to-Children-About-Disasters.aspx
Talking to Children About Tragedies and Other News Events	AAP information; how to talk to children of various ages about disasters and tragedies	www.healthychildren.org/English/family-life/Media/Pages/Talking-To-Children-About-Tragedies-and-Other-News-Events.aspx
American Red Cross		
Pets	Information to address the needs of pets in disaster planning	www.redcross.org/prepare/location/home-family/pets
Prepare Your Home and Family	Resources to help families prepare for a disaster	www.redcross.org/prepare/location/home-family
ASPCA		
Pet Care: Disaster Preparedness	Information to address the needs of pets in disaster planning	www.aspca.org/pet-care/disaster-preparedness
CDC Health Departments	State or territorial health department locator	www.cdc.gov/mmwr/international/relres.html
FEMA		
Emergency Shelter Information	Information to assist families to find a nearby shelter during a disaster	www.disasterassistance.gov/information/immediate-needs
Family Emergency Plan	Family emergency plan template	www.ready.gov/sites/default/files/documents/files/Family_Emegency_Plan.pdf
Ready Kids	Web site with information and materials for children to access directly	www.ready.gov/kids
State Offices and Agencies of Emergency Management	State offices and agencies of emergency management locator	www.fema.gov/state-offices-and-agencies-emergency-management

ASPCA, American Society for the Prevention of Cruelty to Animals.

facilities, community centers, after-school programs, camps, and playgrounds. Various resources are available to help pediatricians partner with schools and child care facilities in disaster planning.[20,21] Families, institutions, and planners must prepare for the possible separation of children from their usual caregivers in a sudden disaster. Children need to be identified and tracked, with protocols and provisions for temporary care in case parents or guardians cannot be located or reunited with their children.[22] Children and youth in foster care or the juvenile justice system need special consideration as well. Reunification should occur as quickly as feasible, with procedures to verify identity and to ensure safety. Unless strictly contraindicated because of medical needs, children should not be separated from their families or caregivers, to the extent possible, during evacuation, transport, sheltering, or the delivery of other services (eg, decontamination and quarantine).[23] Resources concerning reunification strategies are available, and reunification can be facilitated by organizations such as the Red Cross and the National Center for Missing and Exploited Children.[24–26]

PREPARING FOR PEDIATRIC SURGE EVENTS

All medical institutions need to be prepared for an influx of pediatric injuries and casualties in a disaster.[27] Even in everyday care in the United States, the majority of pediatric emergencies are handled by adult-oriented responders and within community hospitals, not specialized children's hospitals.[28–30] The National Pediatric Readiness Project, under the auspices of the Emergency Medical Services for Children program, seeks to improve pediatric emergency readiness for both routine and disaster situations.[31–34] Initial analysis of the 2013 Pediatric Readiness Assessment indicated that

less than half of all US hospitals had written disaster policies that addressed issues specific to the care of children.[35] In response, a national multidisciplinary workgroup was convened to create the Checklist of Essential Pediatric Domains and Considerations for Every Hospital's Disaster Preparedness Policies.[36] It is imperative that all hospital emergency departments and emergency medical services agencies have age- and size-appropriate equipment, staff, training, and policies to provide high-quality care for children.[28,37] Hospitals should also have written pediatric interfacility transfer procedures.[28,38] Community pediatricians are encouraged to work with their local hospitals to ensure adequate pediatric capabilities. Community institutions should include pediatric equipment and medicines in their local or regional stockpiles. The CDC Strategic National Stockpile contains many specialized pediatric resources but may take time to mobilize and distribute to the local level and still might not be sufficient to meet the needs of a large-scale event with significant numbers of pediatric victims.[39] Examples include the need for pediatric ventilators in the event of a respiratory pandemic or toxin or pediatric burn care after detonation of an explosive device. The problem of limited resources in the face of overwhelming need creates ethical dilemmas for utilization and allocation, which must be given careful consideration in planning ahead for disaster.[40,41] For instance, a mass casualty event may require that triage systems switch from providing the best level of care for an individual to the optimum care for a population; resources are prioritized to those patients who have the best chance of survival with immediate care, not necessarily those who are the most critically ill.[42] Most triage systems have been developed around adults and their physiology and vital signs. Pediatric mass triage

systems exist but are still in development and have been less rigorously tested than those designed for the general population.[43–45] Further research and education of responders are needed to refine and improve mass triage for pediatric patients.

MEDICAL COUNTERMEASURES

Stockpiles such as the CDC Strategic National Stockpile currently do not reach parity between children's and adults' needs, as reflected in the limited relative availability of pediatric equipment and medications. Many pharmaceuticals for adults do not yet exist or are not stockpiled in age-appropriate delivery formulations, whereas others lack pediatric pharmacokinetic and dosing data or have adverse effects, limiting their use in children. The federal Public Health Emergency Medical Countermeasure Enterprise recognizes the need for research, development, procurement, strategy, and guidance in medical countermeasures for children.[46] The AAP policy statement "Medical Countermeasures for Children Exposed to Public Health Emergencies, Disasters, or Acts of Terrorism" outlines many of these concerns in further detail.[47] Ethical issues surrounding research on children must be considered appropriately but should not serve to deter countermeasures development.[47–49] Such research and development may yield medication, devices, and equipment usable for the care of children in both disaster and everyday situations.

COLLABORATION AT FEDERAL, STATE, LOCAL, AND REGIONAL LEVELS

Federal agencies with primary responsibility for addressing children's needs in disasters include the US Department of Health and Human Services Office of the Assistant Secretary for Preparedness and Response, the CDC, the Department of Homeland Security/

Federal Emergency Management Agency (FEMA), and the Administration for Children and Families/Office of Human Services Emergency Preparedness and Response. Pediatricians and other child experts in government agencies, nongovernmental organizations, and the AAP Disaster Preparedness Advisory Council have advocated for and continue to ensure children's needs are properly and specifically addressed by national leaders and planning documents (www.aap.org/disasters). The National Commission on Children and Disasters issued a comprehensive set of recommendations in its 2010 report to the president and Congress.[50] The US Department of Health and Human Services National Advisory Committee on Children and Disasters will continue these awareness and implementation efforts.[51]

Government planners at the federal level are largely responsible for policy, guidance, and coordination; however, the implementation of plans addressing children's needs falls to state and local governments, tribal programs, and community organizations and collaborators. Emergency operations centers, activated during disasters, include representation from health care and public health; however, they may not have knowledge of, or advocate for, specific pediatric concerns. Many states and communities have developed coalitions to bring together the diverse government agencies, nonprofit organizations, health care providers, and other groups that collectively serve children. As experts in the health of children, it is imperative that pediatricians participate in such efforts and advise local and state officials. The AAP Pediatric Preparedness Resource Kit, created in conjunction with the CDC after the 2009 H1N1 pandemic, offers guidance on developing pediatric advisory councils or children's preparedness coalitions.[14] Regional coalitions for pediatric care, building

on models for trauma care and neonatal care, can also help by enlisting greater coordination and access to limited pediatric resources.[52,53] Resources that can be shared across regions include medical, surgical, and critical care equipment, beds, expertise, and staff as well as transportation and transfer of pediatric patients.[54]

THE ROLE OF THE COMMUNITY PEDIATRICIAN

Because the majority of pediatric medical care is delivered in outpatient practice settings, pediatricians from these settings must be included and engaged in disaster preparedness and response efforts.[55–57] Ideally, such cooperative, bidirectional relationships between pediatricians, nurses, other health care workers, public health agencies, emergency response planning teams, community hospitals, and nonprofit and community organizations would be established and grown in advance of any public health emergency or disaster. These collaborative efforts can also enhance routine care for children. Existing connections with public health programs and services, such as the Vaccines for Children program and disease surveillance, and partnerships with emergency medical services for office emergencies can serve as the starting points for collaboration. The expansion of existing outpatient capabilities can ease the burden on emergency departments and hospitals while providing more cost-effective care. Examples of outpatient roles in disaster include telephone triage or treatment, increased acute visit availability, distribution of countermeasures and vaccines, and long-term monitoring for psychological and physical effects.[58]

ENHANCING EXPERIENCE AND EDUCATION

Community, state, and federal disaster exercises and drills should be

performed routinely and should include community pediatricians, pediatric casualties, and pediatric scenarios as part of a "whole community" effort. Although those typically involved in disaster planning and response may have little experience or comfort with children's issues, these exercises provide an opportunity for education and discovery of potential problems in advance of an actual event; the more realistic and inclusive the drill is, the better the preparedness experience will be.[59] The inclusion of families with children or youth with special health care needs or those who have limited English proficiency or limited communication abilities may require additional planning but will further enhance preparedness. Older children and adolescents should be included, not only as mock victims, but also as helpers and responders. Programs have been initiated to train youth in disaster preparedness and to help them develop customized peer, family, and community initiatives that are culturally sensitive and inclusive; examples include Teen Community Emergency Response Teams (Teen CERT) and the FEMA Youth Preparedness Council.[60,61] The AAP has formally lent its support to the 2014 National Strategy for Youth Preparedness Education, developed by the FEMA, the US Department of Education, and the American Red Cross.[62] According to the National Strategy, "the vision of the National Strategy is to create a nation of prepared youth. Youth will be empowered to prepare for and respond to disasters; educated as to specific actions they can take before and after a disaster occurs; and prepared with knowledge and skills that will make them more resilient when faced with disasters. Instilling preparedness knowledge and skills in youth also will help develop a future population of prepared adults."[63] Ideally, youth preparedness programs should have clear goals and strategies, activities

appropriate to age and development, and evaluation methods to provide evidence-based proof of effectiveness and absence of untoward effects.[64]

In addition to educating others about pediatric needs in disaster, pediatricians should continually enhance their own education and engagement around these issues. Disaster education should be incorporated into curricula for medical students, residents, and fellowship trainees. Pediatricians are encouraged to register their credentials with their state Emergency System for Advance Registration of Volunteer Health Professionals (ESAR-VHP), consider enrollment in a local medical reserve corps (MRC), or participate on a federal disaster medical assistance team (DMAT) or state medical assistance team (SMAT).[65–67] Pediatricians should educate themselves about liability coverage, safety, risks, travel details, ground conditions, and provision of medical care in austere environments before deciding to participate in any volunteer response. Participation on an MRC, DMAT, or SMAT offers the benefits of training and certain governmental liability protections. Familiarity with the Incident Command System, a common system for emergency command and coordination, will help pediatricians integrate into organized response efforts. FEMA offers free online courses on the Incident Command System, as well as more comprehensive in-person incident training for health professionals at the Center for Domestic Preparedness in Anniston, Alabama.[68,69] Pediatricians also should take steps to remain informed by monitoring and participating in the CDC Clinician Outreach and Communication Activity, which provides free updates, webinars, and continuing medical education credit on emerging health threats and public health emergencies.[70] The AAP Children and Disasters Web site (www.aap.org/ disasters/educationandtraining) has links to many educational and training materials; Table 2 provides additional resources.

MENTAL HEALTH

After a disaster, children and families are likely to experience postevent adjustment reactions, including stress, depression, anxiety, regression, somatic symptoms, bereavement, exacerbation of preexisting conditions, or posttraumatic stress disorder.[71] The provision of mental health support can build on the accepted principles of psychological first aid, usually administered by trained lay people after a disaster. The preexisting and longitudinal relationship between family and medical home, as well as the advanced clinical expertise of the pediatrician, can enhance the effectiveness of such efforts. Pediatricians, health care workers, and disaster assistance volunteers are encouraged to take time to ask

TABLE 2 Educational and Training Resources for Pediatricians

Resource	Description	Link
AAP		
Education and Training	Various education and training resources on disaster preparedness and response compiled by the AAP	www.aap.org/disasters/EducationAndTraining
Feelings Need Checkups Too	AAP toolkit for pediatricians who wish to help children with emotional distress related to disasters	www.aap.org/en-us/advocacy-and-policy/ aap-health-initiatives/Children-and-Disasters/Pages/Feelings-Need-Checkups-Too-Toolkit.aspx
Pediatric Education in Disasters (PEDS)	AAP course materials to train pediatric leaders in the management of international disaster relief, care, and rescue for children	www.aap.org/en-us/advocacy-and-policy/ aap-health-initiatives/Children-and-Disasters/Pages/Pediatric-Education-in-Disasters-Manual.aspx
AHRQ Public Health Emergency Preparedness	AHRQ emergency preparedness tools and resources	archive.ahrq.gov/prep/
FEMA Independent Study Program (ISP)	Free self-paced courses designed for people who have emergency management responsibilities	training.fema.gov/IS/crslist.aspx
NCDMPH Knowledge and Learning	NCDMPH online learning resources	ncdmph.usuhs.edu/KnowledgeLearning/ KnowledgeLearning.htm
National Disaster Life Support Foundation Basic and Advanced Disaster Life Support Courses	Advanced disaster life support course	www.ndlsf.org/
NIH Disaster Information Management Research Center	NIH information resources and technology for disaster preparedness, response, and recovery	sis.nlm.nih.gov/dimrc.html
NIH Disaster Information Management Research Center: Health Resources on Children in Disasters and Emergencies	Compendium of resources related to medical and public health issues of children in disasters and emergencies	sis.nlm.nih.gov/dimrc/children.html
Hospital Guidelines for Pediatric Preparedness	Provides hospitals with useful, proactive strategies and tools for providing protection, treatment, and acute care for children during a disaster	www.nyc.gov/html/doh/downloads/pdf/ bhpp/hepp-peds-childrenindisasters-010709.pdf

AHRQ, Agency for Healthcare Research and Quality; NCDMPH, National Center for Disaster Medicine and Public Health; NIH, National Institutes of Health.

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families how they are coping, provide reassurance and guidance, and refer patients to other mental health professionals as needed.[10,72–74] Awareness of and partnership between pediatricians and other sources of mental health support, including psychiatrists, psychologists, social workers, school counselors, and clergy, are essential to optimizing community mental health. Ideally, these partnerships should be established in advance of a disaster. Pediatricians who may be hesitant or lacking confidence in their ability to provide disaster-related behavioral health services should remember that they already see and respond competently to other behavioral and mental health issues in daily practice.[75] Even a simple inquiry about a family's experiences demonstrates empathy and concern and reassures the family of the pediatrician's desire to help. Pediatricians and others who care for children should be aware that the need for mental health support does not fade once the acute disaster passes; secondary trauma, ongoing bereavement, anniversaries of the event, and physical and demographic changes in the community can affect children for months, years, or even a lifetime.[72]

RECOVERY

Recovery after a disaster can be a prolonged and difficult process. Pediatricians can provide a crucial source of stability by quickly restoring access to routine and familiar medical care. The resumption of routine vaccinations will reduce the risk of secondary infectious disease outbreaks. Pediatricians can also serve as advisors and advocates for children's needs in the context of the greater community recovery efforts. Children and families benefit from the security and routine provided by the rapid reinstitution of child care, schools, and safe play

spaces. The continued provision of safe education and play activities also allows parents and caregivers to proceed with the many tasks they face in recovery and rebuilding. Public health officials should partner with pediatricians to monitor children's physical and mental health and access to services during this time.[76]

PEDIATRICIANS' COPING WITH DISASTER

Finally, pediatricians should remember that they are not immune to the stress of disaster. Pediatricians may have experienced their own losses, yet they will still be tasked with delivering care in difficult environments, all the while hearing of others' tragic stories. Caregiver fatigue threatens the pediatrician's well-being, the ability to provide consistent, high-quality care to others, and the desire to continue serving the community.[77–79] Although treatment of burnout is important, the preferred goal should be preventive and anticipatory promotion of physician health, wellness, and resiliency. Pediatricians within a disaster-affected area need to be mindful of their physical and mental health, taking steps to alleviate stress and reach out to their peers and colleagues. Pediatricians are also encouraged to monitor and support the well-being of colleagues, employees, friends, and family members affected by disaster. State AAP chapters can be an important resource in providing support to affected pediatricians. The AAP offers information on connecting with and becoming a member of the AAP chapter in each state.[80] States are encouraged to identify chapter contacts for disaster preparedness and response who can educate chapter members and leadership, promote the pediatrician's involvement in disaster issues, and coordinate chapter activities in preparedness and response.

RECOMMENDATIONS FOR ENSURING THE HEALTH OF CHILDREN IN DISASTERS

Recommendations and key considerations (main points) in ensuring the health of children in disasters include the following:

1. National, state, tribal, local, and regional disaster planning must address the unique physical, mental, behavioral, developmental, communication, therapeutic, and social needs of all children.

2. Pediatricians should participate in disaster planning, response, and recovery efforts as subject matter experts, agents of public health surveillance, health care providers, and representatives of practices or institutions.

3. Inpatient, outpatient, and emergency services facilities should develop operational preparedness and resiliency planning, both individually and collaboratively, to continue providing care for children during and after disasters.

4. Pediatricians should work collaboratively with local hospitals, public health agencies, emergency management teams, volunteer emergency responders, educators and school personnel, child care programs, foster care agencies and the juvenile justice system, medical societies, and behavioral health providers, as well as nongovernmental organizations and other agencies that serve children, to effectively meet children's needs in the context of disaster.

5. Equipment, medications, and supplies for children should be available to meet children's needs during a disaster in parity with similar adult needs. Where parity does not exist, research, development, and procurement must be undertaken in a timely manner.

6. Federal, state, academic, and private institutions should conduct

more research on identifying gaps in knowledge of treatment of children in disasters and identifying best practices in addressing these deficiencies. Federal grants and funding support for such research need to increase accordingly. The federal government is encouraged to continue developing the infrastructure to facilitate ethical and timely research and data collection in a disaster environment.[81,82]

7. Disaster exercises and drills need to include children as both victims and responders as appropriate to their age, development, and capability.

8. Mass casualty triage (and related educational efforts) should effectively address children's unique physiology and development.

9. Pediatricians are encouraged to educate children and families in emergency and disaster preparedness and to promote resiliency at individual, family, and community levels.[83]

10. Pediatricians are encouraged to pursue ongoing postgraduate education on disaster issues. Pediatric trainees, nonpediatric health professionals, and first responders should be educated on children's physical and mental health needs in a disaster.

11. Pediatricians are encouraged to sign up for or engage with existing public health disaster response systems, such as Health Alert Network communications, CDC Clinician Outreach and Communication Activity announcements, Emergency System for Advance Registration of Volunteer Health Professionals (ESAR-VHP) registries, MRC teams, SMATs, and DMATs.

12. Pediatricians are encouraged to recognize and attend to their own needs in disasters and take steps to avoid burnout and compassion fatigue. The AAP, AAP chapters, medical societies, and state and federal government should also help pediatricians and pediatric practices survive and be resilient.

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ABBREVIATIONS

AAP: American Academy of Pediatrics
CDC: Centers for Disease Control and Prevention
DMAT: disaster medical assistance team
FEMA: Federal Emergency Management Agency
MRC: Medical Reserve Corps
SMAT: state medical assistance team

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Ensuring the Health of Children in Disasters

DISASTER PREPAREDNESS ADVISORY COUNCIL and COMMITTEE ON
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DEDICATED TO THE HEALTH OF ALL CHILDREN™

Joint Policy Statement—Guidelines for Care of Children in the Emergency Department

AMERICAN ACADEMY OF PEDIATRICS
COMMITTEE ON PEDIATRIC EMERGENCY MEDICINE
AMERICAN COLLEGE OF EMERGENCY PHYSICIANS
PEDIATRIC COMMITTEE
EMERGENCY NURSES ASSOCIATION
PEDIATRIC COMMITTEE

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abstract

Children who require emergency care have unique needs, especially when emergencies are serious or life-threatening. The majority of ill and injured children are brought to community hospital emergency departments (EDs) by virtue of their geography within communities. Similarly, emergency medical services (EMS) agencies provide the bulk of out-of-hospital emergency care to children. It is imperative, therefore, that all hospital EDs have the appropriate resources (medications, equipment, policies, and education) and staff to provide effective emergency care for children. This statement outlines resources necessary to ensure that hospital EDs stand ready to care for children of all ages, from neonates to adolescents. These guidelines are consistent with the recommendations of the Institute of Medicine's report on the future of emergency care in the United States health system. Although resources within emergency and trauma care systems vary locally, regionally, and nationally, it is essential that hospital ED staff and administrators and EMS systems' administrators and medical directors seek to meet or exceed these guidelines in efforts to optimize the emergency care of children they serve. This statement has been endorsed by the Academic Pediatric Association, American Academy of Family Physicians, American Academy of Physician Assistants, American College of Osteopathic Emergency Physicians, American College of Surgeons, American Heart Association, American Medical Association, American Pediatric Surgical Association, Brain Injury Association of America, Child Health Corporation of America, Children's National Medical Center, Family Voices, National Association of Children's Hospitals and Related Institutions, National Association of EMS Physicians, National Association of Emergency Medical Technicians, National Association of State EMS Officials, National Committee for Quality Assurance, National PTA, Safe Kids USA, Society of Trauma Nurses, Society for Academic Emergency Medicine, and The Joint Commission. *Pediatrics* 2009;124:1233–1243

INTRODUCTION

This policy statement delineates guidelines and the resources necessary to prepare hospital emergency departments (EDs) to serve pediatric patients. Adoption of these guidelines should facilitate the delivery of emergency care for children of all ages and, when appropriate, timely transfer to a facility with specialized pediatric services. This policy is an update of previously published guidelines.[1,2]

This statement has been endorsed by the Academic Pediatric Association, American Academy of Family Physicians, American Academy of Physician Assistants, American College of Osteopathic Emergency Phy-

sicians, American College of Surgeons, American Heart Association, American Medical Association, American Pediatric Surgical Association, Brain Injury Association of America, Child Health Corporation of America, Children's National Medical Center, Family Voices, National Association of Children's Hospitals and Related Institutions, National Association of EMS Physicians, National Association of Emergency Medical Technicians, National Association of State EMS Officials, National Committee for Quality Assurance, National PTA, Safe Kids USA, Society of Trauma Nurses, Society for Academic Emergency Medicine, and The Joint Commission.

BACKGROUND

The National Hospital Ambulatory Medical Care Survey reported that in 2006, there were approximately 3833 EDs in the United States. Most of these EDs routinely care for patients of all ages.[3–6] Of the 119 million ED visits in the United States in 2006, almost 20% were for children.[5,6]

In 1993, after nearly a decade of efforts to integrate the needs of children into emergency medical services (EMS) systems, the Institute of Medicine was asked to provide an independent review of emergency medical services for children (EMSC) and report to the nation on the state of the continuum of care for children within the EMS system.[7] Summary recommendations of that report concluded that all agencies with jurisdiction over hospitals "require that hospital emergency departments . . . have available and maintain equipment and supplies appropriate for the emergency care of children" and that they "address the issues of categorization and regionalization in overseeing and development of EMSC and its integration into state and regional EMS systems."

Published data have suggested that compliance with national guidelines is low and that many EDs in the United States and Canada still do not have some of the basic equipment and supplies needed to care for children of all ages.[8–10] Middleton and Burt,[6] in the emergency pediatric services and equipment supplement of the 2002–2003 National Hospital Ambulatory Medical Care Survey, reported that only 6% of US EDs have all of the recommended pediatric supplies and equipment as outlined in previously published national guidelines. Gausche-Hill et al[10] reported similar results in a nationwide survey of EDs in the United States and cited reasons for the lack of equipment availability in many EDs (including lack of awareness, with only 59% of ED managers being aware of the published guidelines) and relative lack of pediatric experience among the workforce, with limited exposure to critically ill or injured pediatric patients at many US hospitals. In fact, 50% of EDs care for fewer than 10 pediatric patients per day; therefore, pediatric planning by these facilities is crucial.[10]

Access to optimal emergency care for children is affected by the lack of availability of equipment, appropriately trained staff to care for children, and policies and procedures that ensure timely transfer to definitive care.[11] Although advances have been made that promote access to emergency care for children, improved awareness of the pediatric resources available to hospitals, in addition to the development of regionalized and coordinated emergency and trauma care systems, may optimize access and outcomes for many acutely ill and injured children.[12,13]

The Institute of Medicine, in a comprehensive report on the state of emergency care in the United States in 2006, made a strong recommendation for regionalized systems of care and further recommended that hospitals and EMS systems appoint qualified coordinators for pediatric emergency care.[12] Only 18% of EDs in the United States currently appoint a physician coordinator, and 12% appoint a nursing coordinator for pediatric emergency care. EDs that do appoint these positions tend to be more prepared as measured by compliance with guidelines on the care of children in the ED published by the American College of Emergency Physicians and American Academy of Pediatrics.[10]

The Health Resources and Services Administration-EMSC program has also advocated for such regionalized systems, and in response to the need to document outcomes of the program's activities, performance measures for states and territories were outlined in 2009.[14] These performance measures call for the existence of a statewide, territorial, or regional standardized system that recognizes hospitals that are able to stabilize and/or manage pediatric medical emergencies and trauma. Target dates have been set for states to comply with these performance measures. Clearly, much work is left to be done to promote and measure pediatric preparedness in all EDs in the United States and for emergency and trauma care systems to be ready to meet the needs of children in disasters.

The following guidelines are intended for all hospital EDs that provide emergency care 24 hours a day, 7 days a week that are continuously staffed by a physician. Children may be cared for in other emergency settings, such as freestanding EDs or urgent care centers, critical access hospitals[15] or stand-by emergency facilities, retail-based clinics, and primary care office practices. These care settings are not addressed in this document, but administrators, physicians, nurses, and other health care providers who staff

these settings should ensure that these facilities maintain the necessary equipment, medications, and supplies and are staffed appropriately to care for pediatric patients. Pediatric emergency-preparedness guidelines have been created for urgent care centers as well as for offices of primary care providers.[16,17]

These guidelines provide current information on equipment, medications, supplies, and personnel considered essential for managing pediatric emergencies in EDs. This statement also offers guidelines for the administration and coordination of pediatric care in the ED; pediatric emergency care quality improvement (QI), performance improvement (PI), and patient safety activities; policies, procedures, and protocols for pediatric care; and key ED support services. It is expected that all EDs in the United States that are staffed by a physician 24 hours a day, 7 days a week can meet or exceed these guidelines and that some hospitals, such as pediatric critical care centers or children's hospitals with greater resources, will develop and implement even more comprehensive guidelines and share their expertise with their local and regional communities. New technology and research will require that such emergency drug, equipment, and supply lists be kept current and that updated recommendations be readily available to hospitals that provide emergency care to children.

I. GUIDELINES FOR ADMINISTRATION AND COORDINATION OF THE ED FOR THE CARE OF CHILDREN

A. A physician coordinator for pediatric emergency medicine is appointed by the ED medical director.

   1. The physician coordinator has the following qualifications:

      a. Meets the qualifications for credentialing by the hospital as a specialist in emergency medicine or pediatric emergency medicine. It is recognized that physicians in these specialties may not always be available in some communities; in these areas, the physician coordinator must meet the qualifications for credentialing by the hospital as a specialist in pediatrics or family medicine and demonstrate, through experience or continuing education, competence in the care of children in emergency settings, including resuscitation.

      b. Has special interest, knowledge, and skill in emergency medical care of children as demonstrated by training, clinical experience, or focused continuing medical education.

      c. Maintains competency in pediatric emergency care (see "III. GUIDELINES FOR QI/PI IN THE ED").

      d. May be a staff physician who is currently assigned other roles in the ED or may be shared through formal consultation agreements with professional resources from a hospital that is capable of providing definitive pediatric care.

   2. The physician coordinator is responsible for the following:

      a. Promoting and verifying adequate skill and knowledge of ED staff physicians and other ED health care providers (ie, physician assistants and advanced practice nurses) in the emergency care and resuscitation of infants and children.

      b. Overseeing ED pediatric QI, PI, patient safety, injury and illness prevention, and clinical care activities.

      c. Assisting with development and periodic review of ED policies and procedures and standards for medications, equipment, and supplies to ensure adequate resources for children of all ages.

      d. Serving as liaison/coordinator to appropriate in-hospital and out-of-hospital pediatric care committees in the community (if they exist).

      e. Serving as liaison/coordinator to a definitive care hospital (such as a regional pediatric referral hospital and trauma center), EMS agencies, primary care providers, health insurers, and any other medical resources needed to integrate services for the continuum of care of the pediatric patient.

      f. Facilitating pediatric emergency education for ED health care providers and out-of-hospital providers affiliated with the ED.

      g. Ensuring that competency evaluations completed by the staff are pertinent to children of all ages.

      h. Ensuring that pediatric needs are addressed in hospital disaster/emergency-preparedness plans.

      i. Collaborating with the nursing coordinator to ensure adequate staffing, medications, equipment, supplies, and other resources for children in the ED.

B. A nursing coordinator for pediatric emergency care is appointed by the ED nursing director.

1. The nursing coordinator has the following qualifications:

   a. Is a registered nurse (RN) who possesses special interest, knowledge, and skill in the emergency medical care of children as demonstrated by training, clinical experience, or focused continuing nursing education.

   b. Maintains competency in pediatric emergency care (see "III. GUIDELINES FOR QI/PI IN THE ED").

   c. Is credentialed and has competency verification per the hospital policies and guidelines to provide care to children of all ages.

   d. May be a staff nurse who is currently assigned other roles in the ED, such as clinical nurse specialist, or may be shared through formal consultation agreements with professional resources from a hospital that is capable of providing definitive pediatric care.

2. The nursing coordinator is responsible for the following:

   a. Facilitating ED pediatric QI/PI activities.

   b. Serving as liaison to appropriate in-hospital and out-of-hospital pediatric care committees.

   c. Serving as liaison to inpatient nursing as well as to a definitive care hospital, a regional pediatric referral hospital and trauma center, EMS agencies, primary care providers, health insurers, and any other medical resources needed to integrate services for the continuum of care of the pediatric patient.

   d. Facilitating, along with hospital-based educational activities, ED nursing continuing education in pediatrics and ensuring that pediatric-specific elements are included in orientation for new staff members.

   e. Ensuring that initial and annual competency evaluations completed by the ED nursing staff are pertinent to children of all ages.

   f. Promoting pediatric disaster preparedness for the ED and participating in hospital disaster-preparedness activities.

   g. Promoting patient and family education in illness and injury prevention.

   h. Providing assistance and support for pediatric education of out-of-hospital providers who are affiliated with the ED.

   i. Working with clinical leadership to ensure the availability of pediatric equipment, medications, staffing, and other resources through the development and periodic review of ED standards, policies, and procedures.

   j. Collaborating with the physician coordinator to ensure that the ED is prepared to care for children of all ages, including children with special health care needs.

II. PHYSICIANS, NURSES, AND OTHER HEALTH CARE PROVIDERS WHO STAFF THE ED

A. Physicians who staff the ED have the necessary skill, knowledge, and training in the emergency evaluation and treatment of children of all ages who may be brought to the ED, consistent with the services provided by the hospital.

B. Nurses and other ED health care providers have the necessary skill, knowledge, and training in providing emergency care to children of all ages who may be brought to the ED, consistent with the services offered by the hospital.

C. Baseline and periodic competency evaluations completed for all ED clinical staff, including physicians, are age specific and include evaluation of skills related to neonates, infants, children, adolescents, and children with special health care needs. Competencies are determined by each institution's medical staff privileges policy.

III. GUIDELINES FOR QI/PI IN THE ED

A pediatric patient care-review process is integrated into the QI/PI plan of the ED according to the following guidelines:

A. Components of the process interface with out-of-hospital, ED, trauma, inpatient pediatric, pediatric critical care, and hospital-wide QI or PI activities.

B. The QI/PI plan of the ED shall include pediatric-specific indicators. Minimum components of the QI/PI process should include collecting and analyzing data to discover variances, defining a plan for improvement, and evaluating the success of the QI/PI plan with measures that are outcome based.

C. Pediatric clinical-competency evaluations should be developed as a part of the local credentialing process for all licensed ED staff (eg, sedation and analgesia, airway management [Appendix 1]). Competencies should be age specific and include those for neonates, infants, children, adolescents, and children with special health care needs.

D. Mechanisms should be in place to monitor professional performance, credentialing, continuing education, and clinical competencies, including integration of findings from QI audits and case reviews.

IV. GUIDELINES FOR IMPROVING PEDIATRIC PATIENT SAFETY IN THE ED

The delivery of pediatric care should reflect an awareness of unique pediatric patient safety concerns[18,19] and should include the following policies or practices:

A. Children should be weighed in kilograms, with the exception of children who require emergent stabilization, and the weight should be recorded in a prominent place on the medical record, such as with the vital signs.

　1. For children who require resuscitation or emergency stabilization, a standard method for estimating weight in kilograms should be used (eg, length-based system).

B. Infants and children should have a full set of vital signs recorded to include temperature, heart rate, and respiratory rate. Blood pressure and pulse oximetry monitoring should be available for children of all ages on the basis of illness and injury severity.

C. A process should be in place for identifying abnormal vital signs according to the age of the patient and for notifying the physician of abnormal values obtained.

D. Processes for safe medication storage, prescribing, and delivery should be established[20,21] and should include the use of precalculated dosing guidelines for children of all ages.

E. Infection-control practices, including hand hygiene and use of per-

sonal protective equipment, should be implemented and monitored.

F. Pediatric emergency services should be culturally and linguistically appropriate,[22] and the ED should provide an environment that is safe for children and supports patient- and family-centered care.[23]

G. Patient-identification policies, consistent with the Joint Commission national patient safety goals, should be implemented and monitored.[24]

H. Policies for the timely reporting and evaluation of patient safety events and for the disclosure of medical errors or unanticipated outcomes should be implemented and monitored, and education and training in disclosure should be available to care providers who are assigned this responsibility.[18,19]

V. GUIDELINES FOR POLICIES, PROCEDURES, AND PROTOCOLS FOR THE ED

A. Policies, procedures, and protocols for the emergency care of children are developed and implemented; staff should be educated accordingly; and they should be monitored for compliance and periodically updated. These resources should include, but are not limited to, the following:

　1. Illness and injury triage.
　2. Pediatric patient assessment and reassessment.
　3. Documentation of pediatric vital signs, abnormal vital signs, and actions to be taken for abnormal vital signs.
　4. Immunization assessment and management of the underimmunized patient.[25]
　5. Sedation and analgesia for procedures, including medical imaging.[26,27]
　6. Consent (including situations in

which a parent is not immediately available).[28]

　7. Social and mental health issues.
　8. Physical or chemical restraint of patients.
　9. Child maltreatment (physical and sexual abuse, sexual assault, and neglect) and domestic violence mandated reporting criteria, requirements, and processes.
　10. Death of the child in the ED.[29,30]
　11. Do-not-resuscitate orders.
　12. Family-centered care,[31–35] including:

　　a. Involving families in patient care decision-making and in medication safety processes.
　　b. Family presence during all aspects of emergency care, including resuscitation.[35,36]
　　c. Education of the patient, family, and regular caregivers.
　　d. Discharge planning and instruction.
　　e. Bereavement counseling.

　13. Communication with the patient's medical home or primary health care provider.[37]
　14. Medical imaging policies that address age- or weight-appropriate dosing for children receiving studies that impart ionizing radiation, consistent with as-low-as-reasonably-achievable (ALARA) principles.[38]
　15. All-hazard disaster-preparedness plan that addresses the following pediatric issues[12,39–41]:

　　a. Availability of medications, vaccines, equipment, and appropriately trained providers for children in disasters.
　　b. Pediatric surge capacity for both injured and noninjured children.
　　c. Decontamination, isolation, and

quarantine of families and children of all ages.

d. A plan that minimizes parent-child separation and includes system tracking of pediatric patients, allowing for the timely reunification of separated children with their families.

e. Access to specific medical and mental health therapies, as well as social services, for children in the event of a disaster.

f. Disaster drills, which should include a pediatric mass-casualty incident at least every 2 years.

g. Care of children with special health care needs.

h. A plan that includes evacuation of pediatric units and pediatric specialty units.

B. Hospitals should have written pediatric interfacility transfer procedures that include the following pediatric components of transfer[42]:

1. Defined process for initiation of transfer, including the roles and responsibilities of the referring facility and referral center (including responsibilities for requesting transfer and communication).

2. Transport plan for delivering children safely and in a timely manner to the appropriate facility that is capable of providing definitive care.

3. Process for selecting the appropriate care facility for pediatric specialty services not available at the hospital. These specialty services may include:

a. Medical subspecialty and surgical specialty care.

b. Critical care.

c. Reimplantation (replacement of severed digits or limbs).

d. Trauma and burn care.

e. Psychiatric emergencies.

f. Obstetric and perinatal emergencies.

g. Child maltreatment (physical and sexual abuse and assault).

h. Rehabilitation for recovery from critical medical or traumatic conditions.

4. Process for selecting the appropriately staffed transport service to match the patient's acuity level (eg, level of care required by patient, equipment needed in transport) and appropriate for children with special health care needs.

5. Process for patient transfer (including obtaining informed consent).

6. Plan for transfer of patient information (eg, medical record and copy of signed transport consent), personal belongings of the patient, and provision of directions and referral institution information to family.

7. Process for return transfer of the pediatric patient to the referring facility as appropriate.

VI. GUIDELINES FOR ED SUPPORT SERVICES

A. The radiology department should have the skills and capability to provide imaging studies of children and have the equipment necessary to do so and must have guidelines for reducing radiation exposure that are age and size specific.[38]

1. The radiology capability of hospitals may vary from 1 institution to another; however, the radiology capability of a hospital must

meet the needs of the children in the community it serves.

2. A process should be established for the referral of children to appropriate facilities for radiologic procedures that exceed the capability of the hospital.

3. A process should be in place for the timely review, interpretation, and reporting by a qualified radiologist for medical imaging studies.

B. The laboratory should have the skills and capability to perform laboratory tests for children of all ages, including obtaining samples, and should have the availability of microtechnique for small or limited sample size.

1. The clinical laboratory capability must meet the needs of the children in the community it serves.

2. There should be a clear understanding of what the laboratory capability is for any given community and definitive plans for referring children to the appropriate facility for laboratory studies should be in place.

VII. GUIDELINES FOR EQUIPMENT, SUPPLIES, AND MEDICATIONS FOR THE CARE OF PEDIATRIC PATIENTS IN THE ED

A. Pediatric equipment, supplies, and medications should be appropriate for children of all ages and sizes and shall be easily accessible, clearly labeled, and safely and logically organized.

B. Resuscitation equipment and supplies shall be located in the ED; trays and other items may be housed in other departments (such as the newborn nursery or central supply) as long as the items are immediately accessible to the ED staff. A mobile pedi-

TABLE 1 Guidelines for Medications for Use in Pediatric Patients in EDs

Resuscitation Medications	Other Drug Groups
Atropine	Activated charcoal
Adenosine	Topical, oral, and parenteral analgesics
Amiodarone	Antimicrobial agents (parenteral and oral)
Antiemetic agents	Anticonvulsant medications
Calcium chloride	Antidotes (common antidotes should be accessible to the ED)[a]
Dextrose (D10W, D50W)	Antipyretic drugs
Epinephrine (1:1000; 1:10 000 solutions)	Bronchodilators
Lidocaine	Corticosteroids
Magnesium sulfate	Inotropic agents
Naloxone hydrochloride	Neuromuscular blockers
Procainamide	Sedatives
Sodium bicarbonate (4.2%, 8.4%)	Vaccines
	Vasopressor agents

For a more complete list of medications used in a pediatric ED, see ref.[44] D10W indicates dextrose 10% in water; D50W, dextrose 50% in water.

[a] For less frequently used antidotes, a procedure for obtaining them should be in place.

atric crash cart is strongly recommended.

C. ED staff shall be appropriately educated on the location of all items.

D. Each ED shall have a method of daily verification of proper location and function of equipment and supplies.

E. Medication chart, length-based tape, medical software, or other systems shall be readily available to ED staff to ensure proper sizing of resuscitation equipment and proper dosing of medications.

F. Table 1 and Appendix 2 outline medications, equipment, and supplies that are necessary for the care of children in the ED.

SUMMARY

The 2006 Institute of Medicine report *Emergency Care for Children: Growing Pains* uses the word "uneven" to describe the current status of pediatric emergency care in the United States.[12] Although programs such as EMSC have led toward improvement in the level of pediatric emergency readiness in many communities,[43] there remains a significant opportunity for further progress nationwide. The updated guidelines offered in this policy statement are intended to serve as a resource for clinical and administrative leadership of hospital EDs as they endeavor to improve their readiness for children of all ages. An important first step in ensuring readiness is the identification of both a physician and a nurse coordinator for pediatric emergency care.

All hospital EDs must be continually prepared to receive, accurately assess, and, at a minimum, stabilize and safely transfer acutely ill or injured children, which is necessary even for hospitals located in communities with readily accessible pediatric tertiary care centers and regionalized systems for pediatric trauma and critical care. The vast majority of children who require emergency services in the United States receive this care in a non–children's hospital ED, with 50% of EDs providing care for fewer than 10 children per day.[10] This relatively infrequent exposure of hospital-based emergency care professionals to seriously ill or injured children represents a substantial barrier to the maintenance of essential skills and clinical competency. Recognition of the unique needs of the ill and/or injured children served by a hospital, including children with special health care needs; the commitment to better meeting those needs through adoption of these guidelines; and the ongoing commitment to evaluating care quality and safety and maintaining pediatric emergency care competencies should provide a strong foundation for pediatric emergency and all-hazard disaster readiness.

APPENDIX 1: CLINICAL AND PROFESSIONAL COMPETENCY

Demonstration and maintenance of pediatric clinical competency may be achieved through a number of continuing education mechanisms including participation in local educational programs, professional organization conferences, and national life-support programs (ie, Pediatric Advanced Life Support [PALS], Advanced Pediatric Life Support [APLS]: The Pediatric Emergency Medicine Course, Emergency Nursing Pediatric Course [ENPC]) or through scheduled mock codes or patient simulation, team training exercises, or experiences in other clinical settings such as the operating room (ie, airway management).

Potential areas for the development of pediatric competency and professional performance evaluations may include but should not be limited to:

1. Triage

2. Illness and injury assessment and management

3. Pain assessment and treatment, including sedation and analgesia

4. Airway management

5. Vascular access

6. Critical care monitoring

7. Neonatal and pediatric resuscitation

8. Trauma care

9. Burn care

10. Mass-casualty events

11. Patient- and family-centered care

12. Medication delivery and device/equipment safety

13. Team training and effective communication

APPENDIX 2: GUIDELINES FOR EQUIPMENT AND SUPPLIES FOR USE IN PEDIATRIC PATIENTS IN THE ED

General Equipment

- Patient warming device
- Intravenous blood/fluid warmer
- Restraint device
- Weight scale, in kilograms only (not pounds), for infants and children
- Tool or chart that incorporates both weight (in kilograms) and length to assist physicians and nurses in determining equipment size and correct drug dosing (by weight and total volume), such as a length-based resuscitation tape
- Pain-scale–assessment tools appropriate for age

Monitoring Equipment

- Blood pressure cuffs (neonatal, infant, child, adult-arm and thigh)
- Doppler ultrasonography devices
- Electrocardiography monitor/defibrillator with pediatric and adult capabilities including pediatric-sized pads/paddles
- Hypothermia thermometer
- Pulse oximeter with pediatric and adult probes
- Continuous end-tidal CO_2 monitoring device*

Respiratory Equipment and Supplies

- Endotracheal tubes
  - Uncuffed: 2.5 and 3.0 mm
  - Cuffed or uncuffed: 3.5, 4.0, 4.5, 5.0, and 5.5 mm
  - Cuffed: 6.0, 6.5, 7.0, 7.5, and 8.0 mm
- Feeding tubes (5F and 8F)
- Laryngoscope blades (curved: 2 and 3; straight: 0, 1, 2, and 3)
- Laryngoscope handle
- Magill forceps (pediatric and adult)
- Nasopharyngeal airways (infant, child, and adult)
- Oropharyngeal airways (sizes 0–5)
- Stylets for endotracheal tubes (pediatric and adult)
- Suction catheters (infant, child, and adult)
- Tracheostomy tubes (sizes 2.5, 3.0, 3.5, 4.0, 4.5, 5.0, 5.5 mm)
- Yankauer suction tip
- Bag-mask device (manual resuscitator), self-inflating (infant size: 450 mL; adult size: 1000 mL)
- Clear oxygen masks (standard and nonrebreathing) for an infant, child, and adult
- Masks to fit bag-mask device adaptor (neonatal, infant, child, and adult sizes)
- Nasal cannulas (infant, child, and adult)
- Nasogastric tubes (sump tubes): infant (8F), child (10F), and adult (14F–18F)
- Laryngeal mask airway† (sizes 1, 1.5, 2, 2.5, 3, 4, and 5)

Vascular Access Supplies and Equipment

- Arm boards (infant, child, and adult sizes)
- Catheter-over-the-needle device (14–24 gauge)
- Intraosseous needles or device (pediatric and adult sizes)
- Intravenous catheter–administration sets with calibrated chambers and extension tubing and/or infusion devices with ability to regulate rate and volume of infusate
- Umbilical vein catheters (3.5F and 5.0F)‡
- Central venous catheters (4.0F–7.0F)
- Intravenous solutions to include: normal saline; dextrose 5% in normal saline; and dextrose 10% in water

Fracture-Management Devices

- Extremity splints, including femur splints (pediatric and adult sizes)
- Spine-stabilization method/devices appropriate for children of all ages§

Specialized Pediatric Trays or Kits

- Lumbar-puncture tray including infant (22-gauge), pediatric (22-gauge), and adult (18- to 21-gauge) lumbar-puncture needles
- Supplies/kit for patients with difficult airway conditions (to include but not limited to supraglottic airways of all sizes, such as the laryngeal mask airway,[2] needle cricothyrotomy supplies, surgical cricothyrotomy kit)
- Tube thoracostomy tray

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*End-tidal CO_2 monitoring is considered the optimal method of assessing for and monitoring of endotracheal tube placement in the trachea; however, for low-volume hospitals, adult and pediatric CO_2 colorimetric detector devices could be substituted. Clinical assessment alone is not appropriate.

†Laryngeal mask airways could be shared with anesthesia but must be immediately accessible to the ED.

‡Feeding tubes (size 5F) may be used as umbilical venous catheters but are not ideal. A method for securing the umbilical catheter, such as an umbilical tie, should also be available.

§A spinal stabilization device should be a device that can also stabilize the neck of an infant, child, or adolescent in a neutral position.

- Chest tubes to include infant, child, and adult sizes (infant: 10F–12F; child, 16F–24F; adult, 28F–40F)
- Newborn delivery kit (including equipment for initial resuscitation of a newborn infant: umbilical clamp, scissors, bulb syringe, and towel)
- Urinary catheterization kits and urinary (indwelling) catheters (6F–22F)

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Joint Policy Statement—Guidelines for Care of Children in the Emergency Department

American Academy of Pediatrics, Committee on Pediatric Emergency Medicine,
American College of Emergency Physicians, Pediatric Committee and Emergency
Nurses Association Pediatric Committee

The online version of this article, along with updated information and services, is
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American Academy of Pediatrics

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Abstract:

The frequency of national and international disaster events, increased media attention, and regulatory changes have all contributed to an improved public awareness of the vital role hospitals play in a crisis. Although hospital disaster preparedness efforts have matured dramatically since the September 11th 2001 terrorist attacks, much work still remains to prepare all hospitals for potential pediatric victims. This article emphasizes key emergency response aspects of hospital preparedness for disasters involving children, in particular (1) hospital-based incident command, (2) strategies for operational continuity, (3) pediatric principles of surge capacity, (4) development of decontamination protocols, (5) infection control, (6) sheltering in place, and (7) evacuation strategies.

Keywords:

pediatric hospital preparedness; infection control; shelter in place; evacuation

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Pediatric Aspects of Hospital Preparedness

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As our nation continues to develop and enhance its disaster response capabilities, the recent economic downturn and fierce competition for federal dollars have hampered progress. This was one of the key conclusions reported in the most recent annual report from the Trust for America's Health (TAH) and the Robert Wood Johnson Foundation, *Ready or Not? 2008*.[1] Among the most vulnerable populations affected by this slowing of progress are children. As a group, children represent 22% to 30% of the total population; because of their unique characteristics (ie, psychological, developmental, physiological and anatomical), children demand special consideration when conducting disaster planning. In addition, the TAH report supports the claim that children have significantly higher mortality rates in disasters when compared with adults. The TAH concludes that response planning remains incomplete for critical preparedness areas such as surge capacity, rapid disease detection, and food safety.[2] Because of their unique vulnerabilities, children and their needs must be incorporated into all stages of disaster planning to improve the response chain.

Hospitals are not exempt from this process. Given that 90% of America's children seek emergency care at general hospitals,[3] all hospitals must include pediatric needs in their emergency preparedness plans. In this article, we will discuss central components of hospital-based emergency preparedness programs with emphasis on pediatric preparedness. In addition, we will identify unique challenges to providing emergency response to children. Key emergency response aspects of hospital preparedness for disasters involving children include (1) hospital-based

incident command, (2) strategies for operational continuity, (3) pediatric principles of surge capacity, (4) development of decontamination protocols, (5) infection control, (6) sheltering in place, and (7) evacuation strategies.

HOSPITAL INCIDENT COMMAND SYSTEMS

One of the cornerstones of any emergency preparedness effort is the establishment of an Incident Command System (ICS). These crisis management systems are invaluable because they create a platform upon which to build a customized response to any hazard. Advantages provided by the ICS include the benefit of a clear reporting structure (chain of command), the ability to maintain accountability and management of multiple responders (span of control), and the standardization of terms that facilitates multidisciplinary coordination and decreases confusion (common language).

Hospitals have been using ICS for many years with the latest version of this system, Hospital Incident Command System (HICS) released in October 2006. A significant advantage of HICS is its reflection of the medical mission and infrastructure of a typical hospital while incorporating the standard ICS structure, enabling a seamless interface with other ICS agencies involved in disaster response. It is essential that health care agencies adopting HICS take the necessary steps to customize the system to reflect their own institutional capabilities and complexity. The standard HICS system model is shown in Figure 1. Highlighted in the figure are roles that should include pediatric focus.

Crisis Management Training for Key Leadership Roles

Strategies used by Children's Hospital Boston to support HICS activations include (1) limiting the number of eligible incident commanders, (2) supporting the incident commander pool with specialized training, and (3) creating a confidential review forum where each HICS activation is reviewed. Keeping the pool of potential incident commanders small increases each member's exposure to command opportunities

and facilitates more intensive training on advanced HICS strategies. In institutions that provide care for both adults and children having at least 1 of the members of this pool with pediatric expertise will help others understand the vulnerabilities and unique needs of children. Creating a confidential review forum allows for all HICS activations to be reviewed and critiqued. Modeled after Morbidity and Mortality rounds, this forum allows for open discussion of each event and after action recommendations and allows for all members to gain from the combined experiences. Additional data support for this forum can be achieved through an event-tracking process where frequency of activation, type, and duration of event are noted, analyzed, and reported.

Institutions that do not have an abundance of pediatric-trained staff should also consider building customized HICS roles that would be dedicated to addressing pediatric concerns for roles such as medical (inpatient and outpatient unit leaders) and mental health care, family support unit leader, supply, pharmacy, nutrition, and security. Specific pediatric responsibilities for these roles may include a pharmacist with pediatric experience that can compound adult tablets into size-appropriate oral solutions. Another example is having trained child life specialists in the mental health care unit to provide age-appropriate distraction to pediatric victims. A comprehensive list of pediatric-specific HICS roles and their responsibilities is shown in Table 1.

STRATEGIES FOR OPERATIONAL CONTINUITY

At the core of every hospital's mission is a desire to provide essential services to all who seek them. Disasters and unplanned disruptions threaten a hospital's ability to deliver on this mission. Strategies to enhance operational continuity and challenges are presented.

Emergency Staffing Strategies

When disasters occur, hospitals in the affected area often experience inadequate staffing. A large influx of patients seeking care can overwhelm the capacity of on-hand hospital staff. Concurrently, there will be immediate loss of some staff due to child care, eldercare, or pet care obligations with others unwilling to come to work.[4] Hospitals maintaining higher nurse-to-patient ratios are better positioned to surge with on-hand staff. Through the use of departmental emergency call back procedures, these same hospitals may also be
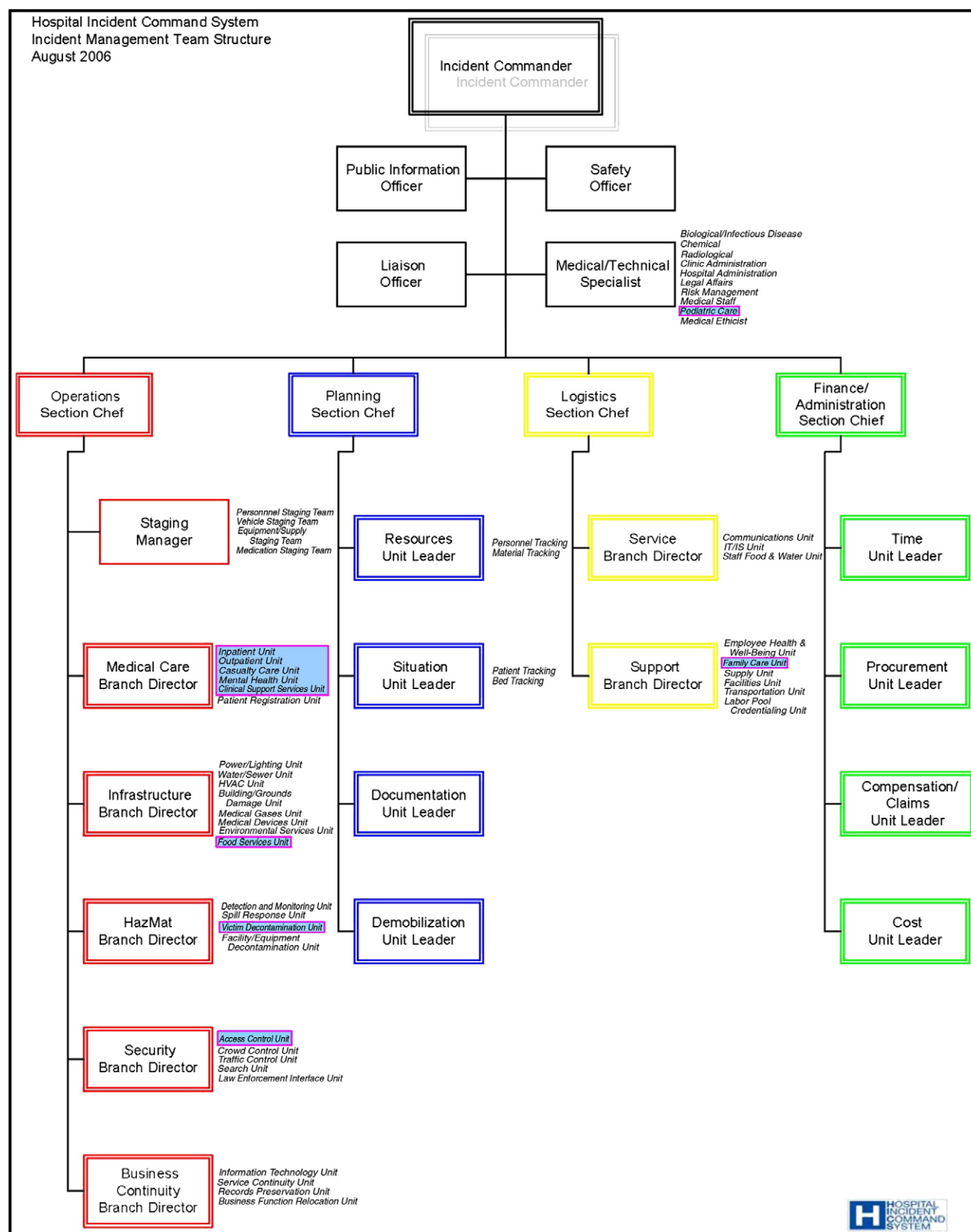
FIGURE 1. Sample HICS team chart with highlighted pediatric-specific roles. Standard Hospital Incident Command Team Chart. Available at http://www.emsa.ca.gov/HICS/files/color.pdf.

TABLE 1. Highlighted pediatric-specific roles.

HICS Position	Rationale for Pediatric-Specific Role
Medical technology specialist-pediatrician	Works within the incident command group to identify potential pediatric care related concerns and strategies
Family care unit	Helps coordinate issues of reunification and psychosocial issues of family (not victims)
Supply unit	Concerned with obtaining and distributing pediatric-specific equipment
Inpatient unit	Responsible for overall inpatient pediatric care (includes pediatric intensive care unit level care)
Outpatient unit	Responsible for overall outpatient pediatric care
Casualty care unit	Responsible for overall emergency department pediatric care
Mental health unit	Responsible for pediatric victim psychosocial and behavioral response
Food service unit	Responsible for nutritional needs of children
Victim decontamination unit	Responsible for providing age-appropriate communication and assistance while pediatric patients are undergoing decontamination
Access control unit	Responsible for security of pediatric patients (injured and well) and enforcing disaster credentialing identification/reunification policies as they relate to access control.

better positioned to surge their available pool of duty staff.

Another often-sited source for emergency volunteers is the Medical Reserve Corps (MRC). However, the number of pediatric-trained MRC volunteers is not known, and due to limited pediatric resources, those with pediatric knowledge may already be committed to their primary institution. A notable pediatric-specific issue is the lack of a required Criminal Offender Record Information or background check. For example, Children's Hospital Boston requires all employees and volunteers to complete Criminal Offender Record Information checks before being hired and credentialed. Applying these criteria to MRC's and other disaster volunteers may help to identify convicted sex offenders or other persons who should not have access to children during a disaster. Lastly, variable host hospital credentialing processes may force some MRC volunteers to be recredentialed to meet Joint Commission standards, causing potential delays.

Other challenges associated with disaster credentialing include registration, emergency credentialing, and verification. Several systems and methods exist to enable volunteer health care professionals to preregister in advance of a disaster with various medical response groups (eg, MRC, Red Cross, Community Emergency Response Teams, etc). However, standards for vetting information (eg, medical license source verification) vary from group to group. Often, volunteers are responsible for maintaining records of their credentialing and training. Therefore, it is possible that a health care worker who has recently been suspended by their licensing board may choose not to inform the medical response group.

Although neighboring facilities may have an abundance of licensed and available health care workers, without appropriate credentialing by the host site, these potential volunteers are prohibited from providing care. The creation and standardization of a hospital-based tool (ie, centralized database) housing privileged information on all the institution's licensed health care professionals have been proposed in the literature. One theoretical advantage is that linking such databases with a county health care agency or mutually acceptable organization will result in practitioners gaining disaster privileges faster and be able to assist impacted hospitals.[5]

Emergency Caches of Equipment

In the event that a disaster targets children, the use of predetermined pediatric disaster formularies will expedite disaster response. Formularies are a collection of prescribed items or supplies that can be requested through a single order number or code. Disaster formularies may include medical and pharmaceutical surge supplies and should augment the core pediatric equipment that may already be on-hand. Specific subformularies can be designed for specific hazards such as infectious outbreak, trauma, burns or hazardous material exposure, and contamination. Advantages of creating pediatric disaster formularies include the preidentification of essential equipment and pharmacological supplies, as well as a

TABLE 2. Pediatric-specific disaster surge formulary to support surge operations.[7]

Pediatric Formulary

Instruments/Equipment
 Disposable BP cuffs—neonatal, infant, child, small adult
 Artificial resuscitator bag masks—pediatric, infant

Patient personal care supplies
 Bath basin
 Cotton swabs
 Facial tissues
 Diapers
 Pacifier
 Belonging bag
 Cotton balls

Respiratory system supplies
 Nasal airways
 Oral airways
 Oxygen cannulas
 Oxygen masks

ER/trauma/surgical supplies
 Scalpel #11
 Sutures (to be ordered individually by box)
 General instrument tray
 Facial suture tray
 Chest drainage system
 Buretol tubing, 60 drops
 Thoracostomy tray
 Chest tubes (8, 10, 12, 24, 32 Fr)
 Thoracic catheter with tubing and container
 Sterile towels
 Sterile sheets
 Small sterile basins
 Electrodes
 Monitoring electrodes

Dressings
 Bandage scissors
 2 × 2 dressings
 4 × 4 dressings
 Adhesive IV dressing
 4 Bandage rolls
 1 Paper tape
 Adhesive bandages

Linen
 Disposable sheets
 Disposable pillows
 Disposable pillow covers

Muscle/skeletal supplies
 Limb restraints

TABLE 2. (continued)

Pediatric Formulary

Gastrointestinal system supplies
 Antireflux valve (10, 12, 14 Fr)
 Feeding tubes (5, 8 Fr)

Sharps: needle/syringes
 Bulb syringes
 Safety syringes (21, 25)
 Filter needles
 Catheter tip syringe 60 mL
 Sharps container
 Luer lock syringes, 20 and 60 mL
 Syringes 1, 3, 5, 10 ml

IV access/supplies
 IV start kits
 Stopcock
 T-connector
 IV start catheter (18, 20, 22, 24 G)
 Arm boards—infant, child
 Blood administration tubing
 IV filters (0.22 and 1.2 μm)
 Syringe pump tubing
 Microdrip tubing

IV solutions
 Glucose water
 Normal saline 10 mL
 Normal saline 1000 mL

Irrigation solutions
 Normal saline irrigation solution 2000 mL
 Sterile water irrigation solution 2000 mL

Miscellaneous
 Sterile lubricant
 Alcohol wipes
 Alcohol swab sticks
 Tongue blades
 Heel warmers
 Tape measure
 Body bag
 Disposable linen savers
 Safety pins
 Povodine iodine wipes
 Hydrogen peroxide
 Individual bottled drinking water

BP indicates blood pressure; ER, emergency room; IV, intravenous.
Data from ©2009 Association for Healthcare Resource & Materials Management of the American Hospital Association.

cost-effective method of identifying disaster surge supplies without having to incur costs or maintenance challenges associated with storing these items on-site. Such pediatric disaster formularies must include equipment with varying sizes to accommodate children of all ages. Lists of basic pediatric equipment are widely available.[6] Examples of pediatric disaster formularies have been created by the Association for HealthCare Resources and Material Management and can be found at http://www.ahrmm. org/ahrmm/news_and_issues/issues_ and_initiatives/ files/disaster_formularies.pdf. An example of such a formulary can be found in Table 2.

Emergency Notification Systems

The ability to communicate effectively is a top priority during a disaster. Emergencies and disaster response can place immediate stress on an organization, and it is essential that staff, external organizations, patients, and their families are all well informed.[8] Health care institutions have recently placed a high priority on mass notification systems to help maintain communications throughout an event. Advantages include the ability to organize intended receivers into groups (ie, staff by department or role, patients, and their families, etc), send messages in a variety of forms (voice and/or text) with different communication devices (mobile and landline phones, pagers, computers, etc), and administer these messages by providing tools that prioritize and confirm message path progress. These mass notification systems can be combined with other communication tools such as the Government Emergency Telecommunications System. Automated mass notification systems offer a number of advantages over traditional emergency call trees. However, they are potentially vulnerable to system disruptions, and therefore, the traditional maintenance of emergency call trees remains an essential planning strategy and should be exercised routinely.

In contrast to the information "push" strategies outlined above, another mass notification system is the utilization of customizable Web sites where responders and interested parties can "pull" necessary information. A well-designed event-specific Web site can be an extremely valuable and scalable method of communicating to a variety of different stakeholders. This is especially useful when the information is rapidly changing, and the only other alternative is to continue to barrage a wide distribution list with numerous "blasts" updates.

Alternate Care Sites

Alternate Care Sites (ACS) can be called upon when disasters strike and threaten to overwhelm the current health care infrastructure. They are typically buildings of opportunity that can be quickly converted for the purposes of providing care outside of typical health care infrastructure. Alternate Care Sites can be used in a variety of roles including a primary triage point, public distribution of medications or vaccines, or a low-acuity patient care site.[9] Pediatric planning for ACS must include caring for children without guardians as well as children with their families. Additional attention to childproofing ACS for safety, providing adequate staff to care for pediatric victims, and assigning security is needed to prevent possible harm to children.

Enabling the Response, Staff Safety

Among reasons for staff not being able to report to work during a disaster are transportation issues, childcare and eldercare responsibilities, personal health concerns, and pet care obligations. Historically, the reasons cited for not being willing to report include fear and concern for family and for self.[4] Including alternative transportation options like car pools or arrangements with local emergency management agencies may enable staff to respond to emergency requests. In addition, the importance of comprehensive staff support, for example, child/ elder and pet care, and mental health support options must be addressed and communicated to staff in advance. Although staff response may still differ based on the nature of the catastrophe, generally staff awareness of the various forms of support services offered to staff will likely correlate with an increase in the number of employees who are able to respond. Lastly, the importance for each employee to create a personal preparedness plan should be supported by the institution. Without a personal preparedness plan, staff will have little alternative but to leave the response effort to tend to family-related needs.

In addition to providing the support services necessary to enable response, hospitals must also stockpile personal protective equipment. Stockpiles of N95 respirators, chemical decontamination or biohazard suits, and positive air-purifying respirators, and others, are critical to conveying to staff that their safety concerns have been adequately addressed. Also of paramount importance is the purchase and maintenance of pharmaceutical countermeasures and prophylactic agents for employees

and their families. Purchases of pharmacological agents may vary based on local community risks.

Lastly, hospitals must consider how they will further incentivize disaster response. Although Maryland and South Carolina have pursued legislation that obligate health care workers to respond to emergency requests for assistance or face a range of sanctions, this approach raises a number of ethical and legal concerns. An alternate strategy to increase disaster resources may include financial incentives, the use of volunteer networks, and protection from disaster-related liability.[10] For example, the California Disaster Service Worker Volunteer Program provides workers' compensation insurance coverage in the event a disaster service worker volunteer is injured while performing assigned disaster duties.[11] Hospitals that effectively create department-specific contingency plans and communicate comprehensive safety plans will ensure maintaining their operational continuity.

PEDIATRIC PRINCIPLES OF SURGE CAPACITY AND SURGE CAPABILITY

Before 2004, an established federal surge capacity planning guideline did not exist. Hospitals in rural and urban settings each crafted surge planning scenarios based on perceived risk and anticipated patient volumes. For example, Children's Hospital Boston established 2 different levels of surge response, the first dealing with 5 to 50 patients and the second dealing with more than 450 patients. In 2004, Health Resource and Services Administration set a critical benchmark for all States to establish a system that allows for the triage, treatment, and disposition of 500 adult and pediatric patients per 1 million population during a disaster.[12] One obvious advantage of moving to a population-based planning metric is that it is scalable. In addition, basing surge planning on population density facilitates a closer examination of the availability of pediatric specialty care resources within a local area.

Surge Capacity planning can be dissected into 2 planning categories: (1) surge capacity—defined as the ability to respond to a markedly increased number of patients, and (2) surge capability—defined as the ability to address unusual or very specialized medical needs.[13] By focusing on surge capabilities, specific pediatric planning aspects can be identified.

Children can be victims of a catastrophic event or direct targets of terrorism. After an event, children may be transported to a hospital for stabilization with limited pediatric resources. After large-scale disasters, most victims are not transported by ambulance; instead, they arrive at hospitals by their own means.[14] Therefore, reliance on prehospital responders to triage and transport children to specialized pediatric care hospitals will not mitigate the likelihood of all hospitals receiving injured children. Unfortunately, many emergency departments lack the basic equipment to adequately care for pediatric patients and remain unprepared for pediatric emergencies.[15]

Solutions and Recommendations for Pediatric Surge

The availability of pediatric equipment, trained medical staff, guidelines, and protocols for the care of injured children are essential to a successful response to catastrophic events. The American Academy of Pediatrics has created numerous tools to assist hospitals attempting to enhance their pediatric disaster response capability. Among them is a comprehensive guideline for pediatricians that can be found at http://www.aap.org/disasters/pdf/DisasterPrepPlanforPeds.pdf. In addition to the clinical guidance, there are numerous child care and school-based resources available at the American Academy of Pediatrics disaster Web site at http://www.aap.org/disasters/index.cfm.

Stockpiling critical supplies is another essential element of surge response. The potential for supply chain disruptions increases with the size and magnitude of the event. Therefore, hospital emergency management leaders must ensure adequate supplies by maintaining updated inventories on site and easy accessibility of supplies stored off site.

In planning for a surge of pediatric patients, it is essential to acquire and maintain plans for the following:

- pediatric equipment (ie, medical and non-medical supply);
- pediatric-trained emergency and intensive care unit staff;
- psychosocial support (ie, pediatric social workers, child life specialists, psychiatry, and psychology);
- pharmacological inventories (both treatment and prophylaxis medications) and protocols for weight-based dosing and pediatric-appropriate preparations (*need reference here*); and
- security protocols—for specialized holding areas for injured and noninjured unaccompanied children.[16] Recommendations for the care and oversight of noninjured children

include at minimum security/supervisory ratios of:

1 adult to 4 infants;
1 adult to 10 preschool children; and
1 adult to 20 school-aged children.

There is a significant amount of literature that proposes several surge strategies. Most immediate activities involve clearing the emergency department of minor injuries and canceling elective procedures and admissions to conserve capacity.[17] Other emergency department surge strategies incorporated at Children's Hospital Boston include the division of the emergency department to disaster victims and nondisaster victims, separate entrances for each group, and establishment of unidirectional flow of patients. In addition, pediatric victims should be cohorted to minimize confusion and prevent the misplacement of these victims.

Infection Control Issues in Response to an Influx of Contagious Patients

The possibility of transmission of infectious agents and environmental contamination must be considered as part of surge planning. Hospitals must be prepared for the possibility of a large influx of infectious patients and must have plans in place to address infection control issues in that scenario. In Chapter 5 of the New York City Department of Health and Mental Hygiene Children in Disasters Tool Kit, the authors provide a comprehensive overview of infection control issues based on point-of-entry infection control measure, response to the asymptomatic exposed child, and a well-organized scenario-based series of response strategies.[18] An event may involve as little as 1 patient infected with an epidemiologically significant pathogen (such as smallpox) or a large number of patients infected with a more common pathogen (such as influenza A). The precise response is contingent on the nature and magnitude of the event and the mode of transmission of the infecting organism. Regardless of the pathogen, a health care facility's resources may become stressed in regard to staffing, equipment, and supplies. Pediatric facilities may be disproportionately affected during infectious events, as many of the organisms with the potential to cause large outbreaks (including respiratory viruses such as influenza) are transmitted more easily among children as compared with adults because of frequent close contact with age-group peers and suboptimal hand hygiene and respiratory etiquette among young children.

Surveillance systems may indicate a potential infectious event in the early stages. A variety of surveillance activities from both internal and external sources are likely to be useful in this regard. Infection control departments at pediatric hospitals conduct routine surveillance to detect unusual infections or clusters of patients or staff with similar symptoms. In addition, emergency departments and public health authorities may perform real-time syndromic surveillance to identify clusters across a wider scale. These activities can facilitate a more timely response and initiation of the appropriate isolation precautions, which will minimize the risk of exposure and subsequent transmission of infection. Early response to a potential or actual influx of contagious patients should involve a collaborative effort between emergency services, hospital epidemiologists and infection control departments, pediatric infectious disease physicians, occupational health services, local and state public health authorities, and the incident commander for the facility.

One of the first steps in surge planning for infectious events is identifying a location for triaging or holding large numbers of patients that may present to a pediatric facility. Facilities should consider both outdoor locations (which may be helpful during an influx of patients with symptoms that may require airborne precautions) and indoor locations (for patients with symptoms requiring standard, contact, or droplet precautions). One important pediatric-specific aspect of this planning is consideration of the containment of young children who are ambulatory; safety is a prime concern in this setting (eg, if a parking lot or traffic circle is to be used during an influx, facilities must ensure that vehicles are not being driven through areas where large numbers of small children may be running freely).

Interventions to reduce the risk of exposure and transmission of infectious diseases among patients, families, and staff members will depend on the specific infecting organism and its mode of transmission. However, until a diagnosis is confirmed, there are several general precautions that can be taken to minimize these risks. For symptom complexes that suggest potential airborne or droplet transmission (such as fever with respiratory symptoms and/or rash), facilities should consider the following actions: (1) supply patients and family members with surgical masks (donning masks is not always feasible for young children, and families may require assistance in placing masks on their

children); (2) provide coverage (such as clean sheets or hospital gowns) for rashes or skin lesions that may be a source of transmission; (3) instruct patients and family members on cough etiquette and provide tissues, hand sanitizer, and red bag trash receptacles; (4) instruct patients and families to maintain at least 3 ft of spatial separation from other patients, if feasible; and (5) provide fitted respirators (eg, N95s) or powered air-purifying respirators, surgical masks, gowns, and/or gloves to employees caring for patients. In addition, for certain infections (such as viral hemorrhagic fevers), additional supplies may be required, including impermeable gowns, eye protection, and head and foot coverage. For symptom complexes that suggest potential contact transmission (such as vomiting and/or diarrhea), facilities should consider the following actions: (1) provide hand sanitizer and instruct patients, families, and staff members about the importance of careful hand hygiene; (2) provide emesis basins and instruct patients to use only dedicated bathrooms or portable toilet facilities; (3) provide gowns and gloves for employees caring for patients; and (4) emphasize proper cleaning and disinfection of the environment to reduce contamination.

Transporting patients with potentially contagious illnesses requires careful advance planning. Patients who are isolated should only leave the environment for essential medical purposes. If transporting a patient is necessary, isolation precautions must be maintained and appropriate supplies (such as surgical masks) must be supplied. Receiving departments must always be notified about the transport in advance so that appropriate precautions can be taken in the receiving location. Additional transport interventions, such as evacuation and securing of the transport route and elevators, may be required depending on the infecting organism.

Managing supplies is a critical component of surge planning for infectious events. Specific supplies that should be monitored include respirators (including both N95 and powered air-purifying respirators), surgical masks, gowns, gloves, eye protection (face shields or goggles), and hand hygiene agents (both alcohol-based hand sanitizers and soap). For pediatric events, consideration must be given to supplies of both pediatric- and adult-sized personal protective equipment such as masks. A dashboard showing each item, the number in stock, and the ideal par level can be updated daily and is helpful for planning purposes during such a scenario. When supplies are limited, facilities may consider alternative sources such as public health agencies or neighboring hospitals,

TABLE 3. A comprehensive pediatric and adult medical countermeasure stockpile.

Atropine	DTPA bulk	
BAL in oil	Hydroxocobalamin	Pralidoxime
Calcium DTPA	Mark I kits	Prussian blue
Cidofovir	Mark I trainers	Pyridostigmine
	Midazolam	Rimantadine
Ciprofloxacin	Oseltamivir	
Cyanide antidote kits	Pediatric atropine	Zanamivir
Doxycycline	Potassium iodide	Zinc DTPA

DTPA indicates diethylenetriamine pentaacetic acid. BAL indicates dimercaprol injections USP.

which may be able to lend supplies if the event is not widespread.

In addition to personal protective equipment, infectious events may necessitate the use of medications (such as antibiotics or antivirals used for prophylaxis or treatment), vaccines, or other agents. A pharmacological stockpile can also help to allay fear and uncertainty among the workforce that can drive absenteeism, especially as it relates to potentially infectious agents.[4,19] Limited resources prohibit the purchase of all agents for all potential scenarios, and stockpiles should ideally reflect the perceived and known risks inherent to each institution and patient population. Having a memorandum of understanding in place across institutions in a region allows for pharmaceutical supplies to be easily transferred to those hospitals in need. An example of a comprehensive pediatric and adult pharmaceutical stockpile may be found in Table 3.

Developing tiers that separate health care workers in different levels of risk exposure can be a useful strategy. The type of health care worker and the quantity in each tier will differ depending on the infectious agent and the route of exposure. These tiers enable planning groups to more accurately anticipate the costs associated with purchasing and maintaining a workforce protection pharmacy stockpile. Hospitals that have committed funds to the purchase and maintenance of a workforce pharmacological stockpile must also develop plans for emergency distribution. "Closed" or nonpublic points of distribution plans should focus on the

logistics of priority distribution of medication to identified essential staff. These plans should include how to distribute the on-hand workforce stockpiles as well as the method for requesting and obtaining additional distributions from regional caches (eg, Center for Disease Control and Prevention chempaks) and national push-paks from the Strategic National Stockpile.

Finally, communication is a key component of managing an influx of contagious patients. Timely dissemination of information to staff members, patients and families, public health authorities, and the media can ensure that education about symptoms and instructions about patient management are rapidly and widely circulated. This communication can also alleviate anxiety among patients, family members, and staff. Information about case counts, modes of transmission, and infection control measures may change rapidly during an infectious event, and facilities should use a variety of strategies to update key stakeholders, including signs, electronic communication, and Web sites that can be used for rapid posting of real-time updates and that can serve as a centralized source of current information and guidance. Pediatric facilities should be prepared to act as vocal advocates for pediatric-specific issues (such as school closures or instructions for childcare programs) during collaborations with neighboring facilities and local and state public health agencies, which often focus on strategies that are tailored to adult patients and may forget about necessary modifications for children.

DECONTAMINATION

Given the number of victims that will bypass prehospital systems and come directly to the hospital, each hospital must have plans for decontamination. Building a successful decontamination program requires understanding placement and accessibility of equipment, staff training, and communication capabilities for both workers and victims.

There are a number of issues that arise in the development of pediatric-specific decontamination strategies. To effectively prepare for these pediatric-specific challenges, all decontamination programs should include having sufficient on-hand supply of age-appropriate equipment (eg, decontamination cubbies for infants), a communication program that prepares children for the decontamination experience through visual and verbal communication channels, warm water to prevent hypothermia, age-appropriate protocols that minimize psychosocial issues of privacy, and a method of assuring

security and implementing tracking measures into all phases of the decontamination process.

SHELTERING IN PLACE

The importance of a substantial shelter in place capability is not only for the patients and families but also for the community. The former Joint Commission Vice President for Accreditation Field Operations, J. Cappiello recently identified hospitals as "critical to the survival and sustainability of the community during times of disaster…because hospitals may be the most fortified structure in the community".[20] Hospitals are able to use emergency generators for power and climate control and normally maintain stockpiles of food and medication. Buttressing this belief, 2008 standards by The Joint Commission explicitly require hospitals to adopt a "96-hour" stand-alone rule (Element of Performance: EM.02.01.01- 3), where each critical access hospital must carefully identify its "stand-alone" capability, should the community services and primary supply chains be disrupted or unavailable.

Important shelter-in-place strategies should include contingency planning for (1) food and water; (2) medical, nonmedical, and pharmacological supplies; (3) communication systems; (4) redundant and resilient infrastructure; and (5) information management procedures during "downtime."

Food stockpiling, both which items to store and how much, should be carefully considered because food preparation equipment may be adversely affected by the event. Also, items in the stockpile must meet the nutritional and developmental needs of all ages including formula for infants and table food for toddlers. Specific medical and nonmedical supplies were previously mentioned; however, where to store disaster supplies and issues of emergency access should be carefully considered. Telecommunication systems are jugular to any emergency response. Investing in redundant telecommunication systems decreases the likelihood of a complete failure. A strategy used at Children's Hospital Boston is to have 2 different telephone systems: traditional landline based and voice-over internet protocol telephone systems. Combined, these 2 systems greatly reduce the likelihood of a complete telecommunication failure. This redundant system strategy can be replicated for other mission critical systems such as potable water, electrical power, and reverse osmosis water filtration system (provided that your institution needs such a system to provide dialysis care). For hospitals that are migrating toward computer-

based documentation, considerations for alternate or "down-time" procedures must be created, should these electronic systems become inaccessible. Paper-based documentation forms and procedures should be well understood and easily accessible, even if the institution is committed to migrating to an online medical record.

By acknowledging the potential emotional and physical vulnerability of pediatric victims, planning efforts will consider the mental health and security implications of caring for children. Specifically, by providing (1) specific pediatric HICS roles (Family Care Unit Leader, Psychosocial Unit Leader, etc), (2) enhanced security, (3) pediatric and "safe" shelters, children are more protected throughout a shelter in place response. Family Care Unit leaders can assist families by providing updates and serving in reunification efforts for lost or missing children. Psychosocial responders (eg, psychologist, social workers, child life specialists) can also be useful in reducing fear and anxiety for pediatric victims. Enhanced security tracking systems can assist by limiting access to disaster victims. This is important because the number of on-hand security officers will likely not meet the demand caused by the disaster. Automated door access systems, surveillance cameras, and alarms all serve to help segregate and protect the vulnerable pediatric population while they are receiving care or awaiting reunification. Lastly, not all pediatric victims seeking shelter are medically injured. Plans for creating "safe" shelter conditions for uninjured children should also be developed. This is an area where hazards have been removed and age-appropriate toys and resources are available.

EVACUATION

Evacuation remains the final option for hospitals unable to function during and following a disaster. Over the last 5 years, numerous hospitals have been forced to partially or completely evacuate their patient population. Irrespective of the cause for evacuation, there are many risks associated with moving hospital patients. Preplanning for evacuation routes is essential. Identifying appropriate receiving facilities, security concerns, and family reunification all increase the complexity of evacuating children.

Universal recommendations for evacuation planning include mobilizing transportation resources in advance. This can be facilitated by creating a comprehensive evacuation memorandum of understanding with local and regional emergency ser-

vices providers. One challenge of transferring pediatric patients is that there are limited numbers of pediatric facilities compared with adult tertiary care centers (pediatric to adult hospital ratio: 75:4000). By understanding the regional pediatric capabilities, standard "distance-from-facility" mapping of potential receiving facilities can be developed. This reference would summarize the type and resource care capability by pediatric specialty in a region and be depicted by distance from the evacuation site (ie, 50-, 100-, and 150+-mile radius).

To ensure pediatric patients are transferred to the appropriate acute care facilities, a new evacuation concept is being tested at Children's Hospital Boston. This matrix uses a modified current inpatient acuity early-warning assessment tool[21] and cross references these scores to potential pediatric receiving facilities based on their capability. Although in draft form, this tool may enable staff to quickly assign potential evacuees to appropriate receiving facilities using data that is collected continuously in real time.

Other pediatric challenges for evacuation include lack of small child evacuation devices and the increased number of services and specialties that are necessary when attempting to provide age-appropriate care during an evacuation. For example, Sled-like evacuation devices are designed for adolescent and large children; however, they are not ideal for toddlers and infants. Depending on the age and the ability of the evacuee to understand the evacuation event, age-appropriate explanations must be provided constantly. The use of child life specialists and pediatric-trained psychosocial responders can help an evacuating pediatric patient cope with potential fears and confusion associated with the event. Increased security is necessary because children are at higher risk for unintentional separation from a parent or guardian. Although extremely challenging, tracking children throughout the evacuation process is essential because children may not be able to identify themselves or family members.

In every evacuation plan, there is a small segment of pediatric patients that cannot follow the standard plan. For example, patients with cystic fibrosis who harbor *Burkholderia dolosa* should be directly transported. Ideally, this group of patients should be cohorted to decrease spread to other cystic fibrosis patients. Immunocompromised patients should also be directly transported to the receiving facilities. Patients who are currently receiving life-saving care such as extracorporeal

membrane oxygenation and high-frequency ventilation will need specialized protocols and resources for transfer.

ALTERED STANDARDS OF CARE

Altered standards of care (ASC) is a topic of concern for many public health officials and health care providers. The failure to create a plan to address ASC will result in the perception of unjust allocation of resources, or actual unjust allocations.[22] The Massachusetts Department for Public Health guidelines for the development of ASC include (1) maximize positive patient outcomes when health care needs exceed available resources and (2) establish principles and guidelines to assist health care providers to continue to provide care in an ethical manner during circumstances that make delivery of [normal] health care…difficult, if not impossible.[23] A summary of specific ASC suggestions was outlined by a task force assembled by the American College of Chest Physicians. The task force organized their suggestions into categories including (1) optimizing surge capacity, (2) medical resources, and (3) a framework for allocation of scarce resources in mass critical care.[22] Although work on developing comprehensive pediatric-altered care standards for hospitals has begun, significant gaps still exist.

SUMMARY

Children are among the most vulnerable populations effected by disasters. Once a community has been impacted, the opportunities to build pediatric capabilities in a "just in time" fashion will be severely limited. The most successful planning efforts will include the needs of children and build on daily operational strategies. Hospital-based planning must anticipate and respond to the unique aspects of pediatric emergency preparedness.

ACKNOWLEDGMENTS

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Addressing Children's Needs in Disasters: A Regional Pediatric Tabletop Exercise

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ABSTRACT

Objective: Preparing and responding to the needs of children during public health emergencies continues to be challenging. The purpose of this study was to assess the usefulness of a tabletop exercise in initiating pediatric preparedness strategies and assessing the impact of the exercise on participants' understanding of and confidence in their roles during pediatric public health emergencies.

Methods: A tabletop exercise was developed to simulate a public health emergency scenario involving smallpox in a child, with subsequent spread to multiple states. During the exercise, participants discussed and developed communication, collaboration, and medical countermeasure strategies to enhance pediatric public health preparedness. Exercise evaluation was designed to assess participants' knowledge gained and level of confidence surrounding pediatric public health emergencies.

Results: In total, 22 participants identified over 100 communication and collaboration strategies to promote pediatric public health preparedness during the exercise and found that the most beneficial aspect during the exercise was the partnership between pediatricians and public health officials. Participants' knowledge and level of confidence surrounding a pediatric public health emergency increased after the exercise.

Conclusion: The tabletop exercise was effective in identifying strategies to improve pediatric public health preparedness as well as enhancing participants' knowledge and confidence surrounding a potential pediatric public health emergency. (*Disaster Med Public Health Preparedness*. 2018;page 1 of 5)

Key Words: children, public health, emergency preparedness, pediatric disaster response, disaster exercise

US children have been disproportionately impacted by emerging infectious disease outbreaks such as H1N1 pandemic influenza and enterovirus D68, as well as by the long-term effects of congenital Zika virus infection.[1-3] The public health community has needed to rapidly communicate with health care providers to develop appropriate pediatric screening and treatment protocols to ensure proper management. Pediatric expertise is essential in developing such protocols and communicating with families. The ongoing lessons learned from each outbreak continue to reinforce the importance and urgency of connecting pediatric and public health leaders and improving pediatric public health emergency preparedness and response.

Preparing for the unique needs of children during disasters and public health emergencies continues to pose challenges. Traditional approaches for "all-hazard and all-populations" preparedness may fail to fully address the needs of more vulnerable populations at increased risk for poor outcomes.[4] Although it is

widely accepted that children have unique care requirements due to their anatomic, physiologic, and developmental/behavioral characteristics, planning at federal, state, and local levels is insufficient to fully protect children throughout the disaster life cycle.[5]

Tabletop exercises have been widely adopted as proven and effective tools in promoting awareness and planning for disasters.[6] However, representation of the pediatric population in national and regional planning and exercises has been limited.[7] This article describes the process of developing and convening a pilot regional tabletop exercise for an infectious disease outbreak scenario disproportionately affecting children and reports collaborative strategies between pediatricians and public health providers that enhance pediatric planning for and response to public health emergencies.

METHODS
Development of Tabletop Exercise
The initial proposal for this exercise came during the 2014 Leadership Management Institute (LMI)

training program on pediatric preparedness at the Centers for Disease Control and Prevention (CDC) in which LMI team members designed a hypothetical project to address lack of coordination around the needs of children during disaster response. Subsequently, a planning team from the American Academy of Pediatrics (AAP) and CDC convened to create a scenario for a pediatric-centered infectious disease outbreak in a multistate region. The planning team included pediatric primary care, infectious disease, emergency medicine, critical care, developmental-behavioral pediatrics, and public health perspectives. The logistics and implementation of the exercise were refined over a 6-month period. The AAP Institutional Review Board (IRB) determined that these efforts were not subject to IRB review.

Participants

State teams from Federal Region VI (Arkansas, Louisiana, New Mexico, Oklahoma, Texas) were invited to participate. Each state team included 2 pediatricians chosen by the AAP state chapter and 2 state or local public health officials chosen by CDC-funded Public Health Emergency Preparedness grantees. Representatives from the CDC, Office of the Assistant Secretary for Preparedness and Response, and the Federal Emergency Management Agency observed the exercise. Participants were informed ahead of time that the exercise would involve a case of smallpox and were given background information on the virus.[a] Participants received an orientation call to review participant expectations.

Tabletop Exercise

The tabletop exercise was held at CDC offices in Atlanta, GA. The exercise was designed as an 8-hour event with opportunity for participant interactions and short presentations by CDC experts on smallpox and the federal strategic national stockpile. AAP facilitators introduced the scenario and led the exercise. State teams worked through pieces of the progressing scenario: a smallpox outbreak spread through accidental exposure to stored samples by high school students at a laboratory, which leads to possible exposures in multiple states. Facilitators encouraged the sharing of team experiences across states to discuss best practices. During the scenario, a call was made to AAP headquarters leadership, allowing exercise facilitators to summarize the situation and AAP leadership to describe how the organization would respond if confronted with this evolving emergency. At the conclusion, participants were led through a debriefing session to elicit feedback about the exercise and to discuss processes to further enhance pediatric preparedness. The meeting proceedings for the exercise are available (www.aap.org/disasters/tabletop).

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[a]While eradicated in 1980, the causative agent of smallpox (variola major virus) is a select agent with potential for uses in bioterrorism, and select agent regulations (42CFR part 73) must be followed once the virus has been identified. See https://www.selectagents.gov/regulations.html

Evaluation of the Tabletop Exercise

The primary objectives for the exercise were 3-fold: first, to have state teams identify at least 10 collaborative strategies that AAP chapters, pediatric clinicians, and public health leaders could implement to advance pediatric preparedness at state and local levels; second, for states to determine at least 5 steps that teams could take to improve communications, specific to children's issues, between public health and pediatric leaders; and third, for participants to discuss and evaluate strategies to optimize plans for the distribution and dispensing of medical countermeasures for children.

Secondary objectives included assessment of the impact on state team exercise participants. Participants were given an electronic survey 24 hours after the exercise. Participants were asked at that time to rate their knowledge and confidence before and after the exercise, on a Likert scale from 1 (totally unaware/unprepared) to 10 (completely aware/prepared), regarding: preparedness for a pediatric infectious outbreak, personal role during a public health emergency, communication strategies, partnerships, and resources. Wilcoxon's rank score tests were performed to compare pre- and post-exercise results. Statistical significance was determined a priori using $\alpha = 0.05$. All statistical analysis was performed using STATA statistical software, version 13.1 (StataCorp College Station, TX, USA). Participating state teams were asked to report on improvements in pediatric planning in their respective states during the 6 months post-exercise.

RESULTS

In total, 22 people participated in the exercise: 12 pediatricians and 10 public health officials from the 5 states. Participants identified 113 collaborative strategies and 25 communication strategies to promote pediatric preparedness. General recommendations for state public health agencies included reviewing emergency preparedness and response plans and initiatives to see if children are addressed, and connecting with or forming a state pediatric preparedness council. Communication strategies included developing pre-scripted communication materials and monitoring social media to address concerns. See Table 1 for examples of collaborative and communication strategies. State teams also identified vaccination strategies (including rationing), if a limited supply was available.

Survey Results

Out of 22 (86%) participants, 19 completed the survey (10 pediatricians and 9 public health officials). All respondents strongly agreed or agreed that the exercise generated productive discussion. All but 1 respondent strongly agreed or agreed that the exercise helped identify individual or agency strengths and weaknesses, as well as gaps in planning in their state and/or community. All but 1 respondent stated the exercise helped build relationships with participants outside of their agency and their area of expertise. Participants also described improvement in disaster readiness knowledge, their

TABLE 1

Examples of Communication and Collaboration Strategies Identified During the Exercise

Communication strategies	Reinforce parents as an integral part of the care team, especially when planning for or messaging about parental presence when children are potentially exposed to an infectious disease
	Use existing telephone banks or texting methods within school systems to disseminate accurate and factual information
	Leverage AAP, CDC, and other professional associations as sources of high-level and credible information to respond appropriately
	Offer education on children's needs and preparedness strategies to personnel who work in places where children congregate (child care programs, school, camps)
	Forward Health Alert Network (HAN) notices to physicians and hospitals
	Plan ahead to translate messages and materials into various languages, including American Sign Language (ASL); identify interpreters and translators to address specialized issues related to cultural competency, language barriers, and tribal medicine
	Implement a daily (brief) update for health care professionals
	Designate a web page to focus on preparedness issues specific to children
	Adapt the communication practices schools use to notify parents of key issues in an emergency for broader use (eg, reverse 911 system)
Exercise planning	Explore how to implement pediatric tabletop exercises for response to known threats in the geographical area
Partnership planning	Identify specific processes, outcomes and actions that the public health and clinical communities should jointly take to improve pediatric preparedness
	Expand the reach of the HANs to include medical trainees
	Engage hospital Public Information Officers in the development and dissemination of messaging to health care providers
	Form a state pediatric preparedness task force
Policy and guidelines	Develop clear guidance to improve state plans for distribution and dispensing of medical countermeasures to children

Abbreviation: AAP, American Academy of Pediatrics; CDC, Centers for Disease Control and Prevention.

TABLE 2

Participant (n = 19) Rating Pre- and Post-Exercise (Scale 1 [Least Confidence] to 10 [Most Confidence])

	Pre-Exercise Median (Interquartile Range Q1, Q3)	Post-Exercise Median (Interquartile Range Q1, Q3)	*P* value
My understanding/knowledge of how to prepare for an infectious outbreak that affects children	7 (5, 9)	9 (7, 9)	$P < 0.002$
My understanding of my role in an emergency event	9 (5, 10)	9 (7, 10)	$P < 0.016$
My understanding of the roles of others	6 (3, 9)	8 (7, 9)	$P < 0.001$
My understanding of the steps I might take to partner with others in an emergency	7 (5, 10)	9 (8, 10)	$P < 0.002$
My confidence in my ability to respond to a public health emergency	8 (3, 10)	9 (7, 10)	$P < 0.002$
My confidence in my ability to locate relevant AAP resources/contacts in an emergency	5 (3, 8)	8 (7, 9)	$P < 0.002$
My confidence in my ability to locate relevant public health resources/contacts in an emergency	8 (5, 10)	10 (8, 10)	$P < 0.002$
My awareness of opportunities to collaborate in pediatric-public health partnerships in my state	4 (3, 6)	8 (7, 9)	$P < 0.0001$
My awareness of ways to communicate between public health/pediatric professionals during a public health emergency to address pediatric needs in my state	5 (3, 7)	8 (7, 9)	$P < 0.0002$
My knowledge of distribution and dispensing of pediatric medical countermeasures strategies in my state	5 (2, 10)	9 (6, 10)	$P < 0.0008$

Abbreviation: AAP, American Academy of Pediatrics.

understanding of personal roles during a public health emergency, confidence, and awareness around a public health emergency (Table 2). A theme that consistently emerged when participants were asked to name the most beneficial exercise component was the potential collaboration and partnership between pediatricians and public health officials.

All participants recommended that this exercise be replicated with other states and regions.

As a result of the exercise, participants were asked to indicate the extent to which they were likely to follow up and take actions in the future. Eighty-four percent of respondents

indicated they were very likely to initiate new partnerships. When asked how likely they were to make changes to disaster preparedness and response planning, 100% reported they were likely to do so.

6-Month Follow-Up

Participants were contacted through e-mail for 6 months following the exercise to assess for further pediatric preparedness planning. Participants from 4 of the 5 states replied to the 6-month e-mail. Pediatricians and public health officials who replied stated that they continued to work together on pediatric preparedness topics after the exercise. One state received additional funding to implement a state pediatric preparedness and response plan that identified a pediatric contact in each of the regions within the state and brought these individuals to an exercise and workshop similar to the tabletop exercise described. Another state AAP chapter partnered with its state public health colleagues to collaborate in a hospital pediatric emergency readiness project. A third state AAP chapter and public health department developed a task force and plan to protect immunization supplies in clinic sites that may be at risk. Notably, states were only asked to report on changes that have been implemented as a direct result of having participated in the tabletop exercise, suggesting that these pediatric-public health partnerships and preparedness activities would not have occurred otherwise.

DISCUSSION

This article describes the development and pilot testing of a tabletop exercise designed to improve pediatric public health emergency preparedness and response by building partnerships between public health officials and pediatricians at the state and local level. This tabletop exercise is the first of its kind, as it was based on AAP and CDC collaboration and aimed to bring state public health officials and pediatricians in a region together as state teams for collaboration. A majority of participants agreed that the tabletop exercise was valuable towards building pediatric collaborations, with evidence of sustained partnerships in the 6 months after the exercise.

Ongoing collaboration between pediatricians and public health officials is essential for long-term partnerships to be maintained.[5] At the state and local level, pediatricians can assist public health departments with vetting and development of materials addressing the unique characteristics of infectious disease outbreaks that impact children, as well as collaborate on communication strategies to reach families. Those with pediatric expertise can also participate in health care coalitions to promote child- and family-appropriate response and recovery plans. Recent legislation now requires a representative to address children's needs at the state and local level for all major US Homeland Security emergency grants recipients.[8]

Tabletop exercises have been used to discover gaps and advance planning, including as they relate to health care.

Savoia et al showed that participants from a variety of disciplines including public health and health care who engaged in tabletop exercises were more confident about the availability and sufficiency of legal authorities for infectious disease emergencies.[9] Behar et al demonstrated that a tabletop exercise increased hospital physicians' and nurses' sense of knowledge and comfort with pediatric disaster medical topics.[10] This tabletop exercise differs from those in the literature in that pediatricians and public health officials in each state actively worked together during the tabletop exercise to identify gaps and strategies in operational planning for a pediatric-specific event. There was also a transmission of knowledge, as states that developed certain pediatric strategies shared those with other states.

There are limitations to this pilot tabletop exercise. Given the small number of participants, it is possible that the participants do not represent the perspectives of all pediatricians and public health officials, and these results may not be generalizable to other regions or states. Participant pre- and post-ratings of knowledge and confidence were assessed at the same timepoint post-exercise. The 6-month follow-up elicited self-reported impacts of the exercise. Positive impacts may have been inflated by social desirability bias and were not validated by other means. Preparedness plans are presumed to translate into increased effectiveness in meeting children's needs in the event of a disaster or crisis, but this hypothesis has yet to be tested. Continuity can be challenged by turnover of individuals, particularly in government; however, the institutionalization of collaborative face-to-face relationships between public health and pediatric health care holds promise for improved sustainability. There was a cost to assemble all participants in one area to participate, limiting options for replication. However, AAP and CDC are adapting this tabletop into a virtual exercise, allowing cost-effective widespread participation and applicability to all states. Further evaluation is needed to identify what aspects of the tabletop exercise produce positive strategies for pediatric preparedness and determine whether preparedness plans and the use of such exercises actually improve pediatric response during an incident.

CONCLUSIONS

The AAP/CDC pediatric and public health tabletop exercise was effective in determining strategies to enhance pediatric public health preparedness, including synergy from collaboration between pediatricians and public health officials at the state level. Participants' knowledge and level of confidence regarding a pediatric public health emergency increased following the exercise. A 6-month follow-up evaluation indicated continuing collaboration between pediatricians and public health officials.

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Conflicts of Interest

None.

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PRQC DISASTER BUNDLE - DISASTER DOMAIN 1

Pediatric Disaster Coordination

2. Tabletop Exercise Examples

Pediatric Tabletop Exercise Toolkit for Hospitals

2nd Edition   August 2008

Created by: Center for Pediatric Emergency medicine for New York City in collaboration with the New York City Department of Health and Mental Hygiene Healthcare Emergency Preparedness Program

Pediatric Tabletop Exercise Toolkit for Hospitals

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Pediatric Tabletop Exercise Toolkit for Hospitals

Table of Contents

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Chapter 1: Pediatric Tabletop Exercises in Healthcare Settings

Introduction to the Toolkit

This Chapter Discusses:

- Pediatric Tabletop exercises
- Considerations before planning begins
- Instructions for using the toolkit
- Instructions for modifying the toolkit
- Other Resources

A pediatric disaster, either occurring inadvertently, through nature or through intentional means, will significantly stress a hospital's preparedness efforts and the clinical skills of its health care providers, especially in a hospital without pediatric specialists. Tabletop exercises emphasize the importance of using a multidisciplinary approach to respond to a pediatric disaster. Tabletop exercises are designed to encourage free and open exchange of ideas in a low stress environment as well as to familiarize participants with roles, functions, plans, policies and procedures within an institution. They also provide an opportunity for institutions to identify areas of weakness where improvements can be made prior to a catastrophic event.

During tabletop exercises in this toolkit, the participants will be divided into two break-out groups: one for Emergency Department/Clinical representatives and one for Incident Command/Administrative representatives. After the moderator introduces each module, teams are asked to respond to a series of questions. Each team has a facilitator who is asked to monitor the discussion and encourage teams to focus on critical issues raised in each module. Exercise injects, bits of scenario specific information provided to participants, are inserted during these discussion periods. The teams, then, are asked to present their response in a session facilitated by the moderator, before proceeding to the next module. After the last module, a "hot wash" debriefing is conducted to discuss the initial reaction of participants to the drill, outline the major issues and gaps identified by the exercise, and potential next steps to address them.

Considerations Before Planning Begins

Tabletop exercises are an effective way to bring personnel from various hospital or primary care center's clinical departments within small or large, single or multi-institutions together. In order for a tabletop exercise to be effective, senior administration must recognize the importance of being prepared for a pediatric disaster through pre-event planning for all levels of the organization. Senior administration should participate in the tabletop exercise, and encourage key personnel (e.g., Chairman of Emergency Department, Medical Director, Nursing Director) to actively participate as well. Leadership support from the highest levels of the organization is

critical to the success of any exercise program. Senior administration should publicly and visibly endorse the program to the institution's executive staff, setting clear expectations regarding the success of the program.

A pediatric preparedness assessment should be performed on prior staff trainings at the heath care facility. Development of goals and objectives will be dependent on the institutions former experience with drills and staff training. An institution may discover that certain departments have received more training than others. However, regardless of prior training experience, the tabletop exercise will promote communication and intense teamwork among all departments. The frequency of exercises should be based on demonstrated performance in actual events or exercises, as well as local, state and federal mandates.

This toolkit provides a pediatric disaster scenario for general hospitals. The participants will be divided into two break-out groups: one for Emergency Department/Clinical representatives and one for Incident Command/Administrative representatives.

A post exercise evaluation (See Planning and Conducting a Tabletop Exercise: Evaluating the Exercise and Its Impact in Chapter 4) should be performed. This toolkit provides a detailed description of the exercise planning process (Chapter 2), instructions for conducting the exercise (Chapter 3), materials necessary to perform the specific tabletop exercise scenario (Chapters 5-8), and additional materials necessary for conducting any pediatric tabletop exercise in the Appendix.

How to Use This Toolkit

The Tabletop Exercise process is an integrated set of tasks that are described in the six chapters of this toolkit.

Chapter 1 provides a brief overview and purpose of tabletop exercises.

Chapter 2 explains the step-by-step process of planning the exercise.

Chapter 3 gives detailed information on conducting the exercise.

Chapter 4 provides guidance, procedures and tools for conducting the post-exercise evaluation and debriefings.

Chapter 5 provides the Pediatric Blast Exercise Scenario and Tabletop Timeline

Chapter 6 provides Moderator Instructions and Narration

Chapter 7 provides Facilitator Instructions

Chapter 8 provides Evaluator Instructions and Tools

Chapter 9 provides Participant Handouts

The Appendices include:

4. Pre-Event Trusted Agent Worksheet

5. Recommended Participants

6. Sample Sign-in Sheet

7. Exercise Planning Checklist and Timeline

8. Sample Agenda

9. Sample Floor Plan

10. Debriefing Session Guidelines

11. How to Modify Materials for Larger Hospitals

12. List of Acronyms

13. CDC Blast Scenario Fact Sheet

A PowerPoint® slide set of the Pediatric Tabletop Exercise is also provided in a separate document which should be modified by the planner(s) to include hospital specific information.

In addition, each chapter of this Program contains recommended task lists and timeframes for each activity necessary for successful presentation of the Pediatric Tabletop Exercise.

How to Use and Modify Exercise Materials in this Toolkit

Throughout the exercise materials (e.g., PowerPoint® slides, moderator notes, etc.) bracketed/red print text (e.g., [Your City]) should be edited to reflect your institutions policies, procedures, or demographic area. **Be sure that the moderator narrative reflects all changes in the slides.**

The moderator should be cautious not to reveal the nature of the disaster in advance of the scenario. All materials should be handed out in a step-wise fashion, one module at a time.

Chapter 9 contains a Packet of Handouts for Participants which are to be duplicated. The Handout Distribution Table lists the handouts and when they should be distributed to whom. **Remember to revise the bracketed information in all sections.** A Sample Agenda found in Appendix 5 should be modified for your exercise. A Pediatric Blast Fact Sheet is in Appendix 12, and should be duplicated as is for all participants.

The first 19 slides contain a general introduction to tabletop exercises, with an explanation of the organization as well as definition of key players. Then the exercise is divided into three modules,

each culminating with a breakout segment. During each breakout participants will be provided with a situation report and group discussion points. This information will be on the slides and with a hard copy distributed to the participants. After the groups have reported back, then you will go over the critical actions that should have been performed up to that point by each group.

A generic agenda **(see Appendix 5)** has been included in the toolkit. The agenda may be revised by adding your own timeframes (e.g., Introduction 8:00 am – 8:10 am) after each item.

The exercise is designed for use by a small general hospital without a pediatric emergency service, no Pediatric Intensive Care Unit and with a small or no pediatric inpatient ward. **Appendix 8** contains suggestions on how to modify the exercise to ensure a more appropriate experience for a larger hospital with some pediatric resources. *The intent of the exercise is to challenge the institution sufficiently to provide a good learning experience, but not discourage the participants.*

A fifteen-minute break has been written into each scenario. The placement of the break may be changed according to your institution's needs.

Other Pediatric Resources

The following resources might prove useful in preparing your disaster drill:

Children in Disasters: Hospital Guidelines for Pediatrics Preparedness (3rd Edition 2008), developed by the New City Department of Health and Mental Hygiene and the Centers for Bioterrorism Preparedness Planning (CBPP) Pediatric Task Force
http://home2.nyc.gov/html/doh/html/bhpp/bhpp-focus-ped-toolkit.shtml

Foltin G, Shannon M, Schoenfeld D. *Pediatric Terrorism and Disaster Preparedness Resource* AHRQ/AAP 2006. CD Rom, Website and Book.
http://www.ahrq.gov/research/pedprep/pedresource.pdf

Romig L. The JumpSTART Pediatric MCI Triage Tool http://www.jumpstarttriage.com/

Chapter 2: Planning the Exercise

This Chapter Discusses:

- Considerations before exercise planning
- Planning committee
- Planning committee position descriptions
- Roles of the moderator, facilitator, participants, evaluators, and observers
- Defining a tabletop exercise
- Modifying the tabletop exercise
- Breakout group format
- Exercise evaluation
- Scheduling and conducting planning meetings

> 1. **Early Development (*6–8 weeks prior to exercise*)**
>
>   (a) Determine/recruit members of Planning Committee and Evaluation Team
>
>   (b) Establish target date(s) for exercise

Considerations before Exercise Planning

Before you actually begin planning the tabletop exercise, you will want to consider the issues listed below. This will help you to structure, focus, and make the exercise as relevant to your staff and hospital as possible.

Objective of the Exercise

The overarching goal of all pediatric disaster tabletop exercises is for participants and the institution to increase preparedness. Defining what participants should learn depends on a variety of factors including:

- Exercise objectives;
- Population participating;
- Sophistication and experience of an institution and its participants regarding pediatric disaster preparedness; and,
- The availability of pediatric trained staff.

Participants for the Exercise

It is key to identify who will participate in order to develop an appropriate exercise, and knowing the participant population is critical to evaluating an exercise's success. An exercise designed for staff with little training or experience in dealing with a pediatric disaster will emphasize awareness about the emergence of terrorism events targeted at children and the urgent need to begin institutional or departmental planning. An exercise designed for staff well versed in pediatric disaster preparedness will emphasize testing assumptions and identifying gaps in existing plans. An evaluation of success should reflect these differences.

When deciding whom to invite to the exercise, keep the following questions in mind:

What are the objectives of the exercise? Who needs to participate to meet these objectives?

What level(s) of staff will participate? Will having different levels of staff in one exercise influence the groups' ability to communicate freely?

Is there appropriate space available for the number of staff invited?

After determining the above, you can consider qualities of ideal candidates serve on the Planning Committee.

The Planning Committee

A well-organized and dedicated planning committee is the key to successful execution of a tabletop (TT) exercise. The committee members should be knowledgeable of the emergency plans, procedures, equipment and functions that will be tested through the TT exercise process. It is also beneficial if these individuals have experience in emergency management and response. They are expected to maintain confidentiality of the scenario.

The planning committee is responsible for:

- Designing, developing, conducting and evaluating all aspects of the tabletop exercise;
- Developing exercise objectives;
- Tailoring the scenario to the needs of the healthcare facility;
- Determining date of exercise;
- Inviting exercise participants, including senior management and advisors; and,
- Coordinating and/or inviting outside agencies to participate, which may include:
    - Local Department of Health;
    - Local or State Emergency Management Office;
    - Local Police and Fire/Emergency Medical Services ;

- o Private Ambulance Service;
- o Affiliated Primary Care Centers and/or Home Healthcare Agencies; and,
- o Local or Statewide Medical Association.

The first step in conducting a TT exercise is the selection of a **planning committee**. The first three appointments to this committee are the **most important**:

- Planning committee leader;
- Logistical support person; and,
- Administrative support person.

In addition to the first three appointments, 4-5 representatives from among the following departments may be chosen as members of the planning committee:

- Pediatric Clinician/Nurse (this may need to be substituted by other clinician, such as Family Practice if no pediatric clinicians are on staff at your hospital);
- Emergency Department (Director/Manager or Chairperson or Medical Director);
- Surgeon (pediatric surgery, if available or trauma or general surgery);
- Safety, Health and Environmental Affairs;
- Office of Public Affairs/Media Relations; and,
- Disaster Planning or Emergency Management Office.

> **Invitations to the initial planning committee meeting should be endorsed by senior management/administration.**

Members of the planning committee distribute exercise materials during the exercise. They must be familiar with the institution's Emergency Management Plan (EMP) and be able to identify weaknesses in the plan. Membership of the committee should be modified to fit the type and scope of an individual facility.

> **Committee members are not active participants during the tabletop exercise but may have other roles (e.g., Moderator, Facilitator) that do not require decision-making during the exercise.**

The **Planning Committee Leader** should provide the planning committee members with clearly defined roles and responsibilities, and assign specific tasks and timelines to facilitate the exercise planning process and ensure that tasks are not overlooked, forgotten, or identified late in the planning process (see "Exercise Planning Checklist and Timeline", **Appendix 4**).

Taking the time to think ahead and plan for the exercise can mean the difference between a highly beneficial, well executed exercise, versus a muddled, confusing exercise that provides little to no value.

Planning Committee Position Descriptions

Planning Committee Leader

The Planning Committee Leader is responsible for:

- Ensuring the TT exercise is customized to the institution's needs;

- Ensuring that the TT is designed around clearly identified objectives;

- Assigning roles and responsibilities to committee members;

- Collaborating with experts (e.g. Pediatrics, Surgery, Emergency Medicine Physicians, Emergency Management Personnel) to ensure that the scenario is realistic and feasible;

- Providing pre-planning meeting agendas;

- Determining date of exercise;

- Inviting senior level administrators;

- Overseeing the logistics and administrative support staff;

- Approving the final modification on the exercise materials (e.g., PowerPoint® slides, injects);

- Overseeing the exercise evaluation process (See Chapter 4); and,

- Sending After-Action Report to senior administration

The Planning Committee Leader may also be the Moderator during the exercise.

Logistical Support

A member of the planning team responsible for:

- Coordinating the exercise location and securing the space for the day of the exercise;

- Scheduling the date and time of the exercise;

- Organizing the equipment to be used during the exercise (e.g., laptop, projector, microphone);

- Providing enhancements for the exercise which include:

  - Maps;

  - Pictures;

- o Charts;

- o White boards for groups to take notes;

- o Paper/pens for participants to take their own notes; and,

- o Table tents for each breakout group;

- Assuring room set up on day of exercise;

- Coordinating food and refreshments for exercise participants;

- Ensuring all equipment is returned and room is reassembled after exercise; and,

- Keeping abreast of all developments.

Administrative Support

A member of the planning team responsible for preparing all documentation and support materials for the exercise that include the following:

- Participant name badges and titles (if necessary);

- Sign in forms (attendance form) (see sample sign-in sheet, **Appendix 3**);

- Participant's manual;

- Sending out reminder notices about meetings and exercise;

- Maintaining RSVP list (see Recommended Participants list, **Appendix 2**);

- Tracking costs and personnel time;

- Being available to answer or screen questions about drill; and,

- Keeping abreast of all developments;

On the day of the exercise, the administrative support member is responsible for:

- Setting up the room (includes placement of table tents, e.g., Clinical Services, Ancillary Services, etc. and white boards);

- Signing in all exercise participants;

- Distributing name badges (if necessary);

- Distributing exercise materials after each module; and,

- Dispensing and collecting post evaluation forms.

Tabletop Exercise Position Descriptions

Moderator

The **moderator** provides the overall management, control, and direction during the TT exercise. The **moderator** is the "emcee" of the TT exercise; the primary authority for decisions related to initiation, suspension and termination of the TT. Responsibilities include:

- Explaining the TT exercise process;

- Presenting the slides;

- Controlling the timing and flow of the exercise;

- Keeping the TT in "real time";

- Keeping the participants focused on the activities at the facility; and,

- During the TT breakout sessions, the **moderator** decides when to distribute injects to the breakout groups to facilitate problem solving and is responsible for bringing out key issues.

The **moderator** should ideally be a clinical, dynamic individual who has the ability to call on people in the audience to participate. **The moderator must be familiar with the facility's EMP.**

> Examples of hospital personnel who may be the moderator include:
>
> - Pediatric Physician;
> - Emergency Department Physician; or,
> - Trauma Surgeon.
>
> Ideally, it should be someone with pediatric clinical experience.

Facilitator

Facilitators are assigned to each of the two breakout groups. The facilitator's role is to encourage participants to communicate with others playing the exercise (even if it requires walking to another table) and to raise awareness around key issues. The facilitator is neither meant to take the lead in the discussion nor is expected to direct specific actions or responses from the participants. Key functions of the facilitator include:

- Keeping side conversations to a minimum;

- Controlling group dynamics and strong personalities;

- Encouraging all to participate by asking key questions, keeping discussions on track and within established time limits;

- Being aware of local and healthcare facility emergency plans and procedures (Emergency Management Plan);

- Speaking confidently and competently about the subject at hand, yet not dominating the conversation; and,

- Encouraging interaction between breakout groups.

> **TIP:** Planning Committee Members often make excellent facilitators because they are intimately familiar with the objectives and scenario.

Participants

Participants should include healthcare facility personnel who have an active role in responding to an emergency. They will simulate performance of their normal duties and functions during the TT. Participants initiate actions that will control and mitigate the simulated event/ emergency. See Recommended Participants, **Appendix 2** for suggested list of invitees. **All participants should be encouraged to contribute to the discussion.** They should be reminded they are making decisions in a no-fault learning environment.

Evaluators

Evaluators are individuals who observe and document TT activities. They document and evaluate participant performance and the adequacy of the training based on established learning objectives. Evaluators do not interact with participants or interfere with the flow of the exercise. See Chapter 4 for more information about the evaluation process.

Observers

Observers may be present to watch the TT for either official or educational purposes. Observers should not interact with participants, contribute information or opinions, or interfere with the TT in any way. Examples of observers include employees from healthcare facility departments that are not actively participating in the exercise or individuals from outside agencies, who observe selected portions or the entire TT.

2. Planning the Exercise (*4–6 weeks prior to the exercise*)

(a) Schedule planning meetings

(b) Establish purpose

(c) Establish scope

(d) Develop objectives

(e) Review scenario provided in chapter 5.1

(f) Obtain most recent version of hospital's Emergency Management Plan (EMP)

(g) Distribute copies of EMP to members of planning committee

(h) Determine Moderator and 2 Facilitators

(i) Identify participants for exercise (invitee list)

(j) Invite proposed participants/distribute flyers/advertisements for exercise, if applicable

(k) Identify and reserve room (including electronic equipment, e.g. projector, screen) for exercise

(l) Consider space for registration/ beverages and breakout rooms, if applicable

(m) Identify observer/media area, if applicable

Tabletop Exercises Defined

Introduction

TT exercises involve healthcare facility staff or other key personnel in an informal setting, discussing simulated situations. This type of exercise stimulates discussion of various issues regarding a hypothetical situation. It can be used to assess emergency plans, policies, and procedures or to evaluate the types of systems needed to guide the prevention of, response to, and recovery from a defined event. TTs are aimed at facilitating understanding of concepts, identifying strengths and shortfalls, and/or achieving a change in attitude.

Participants are encouraged to discuss issues in-depth and develop decisions through slow-paced problem solving and communicate with appropriate staff to get answers to their questions as they would during a real event (e.g., calling ICU for an admission, calling pediatric specialists, and/or pharmacy for appropriate pediatric dosing).

The effectiveness of a tabletop is derived from the energetic involvement of all participants becoming engaged in the scenario as if it were a real event, and their honest assessment of gaps in preparedness in current institutional emergency policies, procedures, and plans.

Modifying the Tabletop Exercise Based on Healthcare Facility Experience

Exercise objectives are the cornerstone of design and development. The objectives provide a framework for the development of an appropriate scenario and provide exercise evaluation criteria. The exercise objectives should be realistic and measurable. You may choose to alter the objectives of the exercise depending on the audience.

TT exercises may be prepared for healthcare facilities that are more or less advanced in their preparedness. The differences are not related to the rollout of the exercise but to the topics emphasized. For example, a less experienced hospital will need more emphasis on disease recognition and activation of their Incident Command System compared to a more experienced hospital that will proceed more rapidly into the areas of surge capacity building and the provision for mass care. The slides, moderator narrative and breakout group discussion points may be modified according to the needs of the institution.

Use of Injects

To further modify the TT and stimulate conversation, the Moderator may introduce new pieces of information provided to participants or to a subset of participants to prompt discussion and decision-making (e.g., lab results, epidemiologic data, and news reports) during the breakout groups. These are called **injects**. Injects simulate the unpredictable nature of emergencies. Injects are already included in the slide set, but you may chose to develop some institutional specific injects. The inject should be handed to the participant representing the department involved in the decision making process for that topic (e.g., a question about security will be given to the hospital police representative).

Design of Tabletop Exercises

Prior to the exercise, the TT Exercise Planning Committee should determine how to best organize the participants during the TT exercise. The recommended format for this guide is two breakout groups: one for the incident command/administrative group and one for the emergency department clinical group.

Breakout Group Format

The Breakout Group format generally takes 3–4 hours:

- Breakout groups are divided in two types: incident command and emergency department.

- For each breakout group, participants are seated in a circle. **The circular seating arrangement promotes conversation.** A table may or may not be used (see Appendix 6, Sample Floor Plan).

- The scenario is presented to all groups simultaneously.

- Participants assemble into their breakout groups after each module to consider their own probable actions based on their facilities' and departments' plans, policies, and procedures. The breakout groups should be careful to focus only on the material presented in a given module.

- The breakout groups reconvene after each breakout group session to share key points and actions taken with the entire group.

- After the third module, the evaluation process, known as a ""Hot Wash"" occurs (see Chapter 4).

"Report Back" After Module Breakout Group Discussions

The Moderator should ensure that each breakout group assigns a recorder and a reporter before the group discussion.

A **recorder** is an individual participant from each breakout group who documents relevant and final comments from discussions during each module. An effective tool for capturing issues and action items during the TT is an easel pad. This allows the entire group to see comments and ensures that items are not repeated.

A **reporter** is an individual from each breakout group who reports on the group's discussion (from recorder's notes) when the tabletop participants reconvene.   The recorder and reporter may be the same person.

After each module breakout group discussion is completed, the **reporter**:

- Summarizes their group's discussion;

- Presents key findings and issues; and,

- Discusses any unresolved issues or questions.

PROS and CONS of Using Break Out Group Format

PROS:

- A highly interactive training model;

- Prompts real time decision making and problem solving;

- More specific detail can be discussed, among peer co-workers;

- More likely to elicit honest comments and criticisms;

- All perspectives are discussed across multiple departments and then shared with the group;

- Injects may be used; and,

- Creates accountability for all members.

CONS:

- Need a minimum of 5 participants per group; and,

- Requires more logistical organization.

Three components of successful breakout groups:

1. Round table used or circular arrangement of chairs for each group.

2. Enough space between tables so that conversations are not overheard between breakout groups.

3. Participants should be able to move freely from one group to another to present queries and obtain answers to questions, when needed.

Hot wash

A hot wash occurs immediately following a tabletop exercise to review key decisions made during the exercise and allows the participants the opportunity to provide immediate feedback.

A hot wash:

- Enables the moderator to capture thoughts, decisions made and other events while they remain fresh in the participants' minds and to describe what was learned;

- Determines any issues or concerns in the hospital's EMP; and,

- Identifies emergency preparedness gaps and proposed areas of improvement and next steps for modifying the hospital's EMP.

Exercise Evaluation

Evaluation is the cornerstone of TT exercises; it documents strengths, weaknesses and opportunities for improvement in a healthcare facility's preparedness and is a critical step in the improvement process. Through evaluation of the exercise, you can assess how well your EMP works for the staff at your institution and the types of changes needed in your EMP to improve preparedness. Instructions on how to conduct a TT evaluation are available in Chapter 4.

Members of Evaluation Team

The evaluation team could be as few as two people or as many as four. An ideal person to conduct the evaluation is a staff person who is able to be relatively unbiased and open to new and possibly unexpected staff feedback following the tabletop and evaluation exercises. Who this person is depends on the size and structure of your facility. He or she should be someone who is not participating in the tabletop exercise (although he or she should be in attendance as an

official **Evaluator**). An institution may decide to hire an outside consultant for this role. For more information about the evaluation process see Chapter 4.

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3. Exercise Development (*within 2 weeks of exercise*)

    (a) Revise scenario to reflect facility features and SOPs
    (b) Modify and finalize chosen scenario slides and associated materials
    (c) Develop agenda for the exercise
    (d) Finalize After-Exercise Survey
    (e) Finalize Agent Fact Sheet
    (f) Finalize Participant Narrative
    (g) Copy each inject onto separate sheets of paper for distribution during exercise
    (h) Make copies of all handouts
    (i) Distribute advance materials for exercise to participants, if desired
    (j) Develop attendance/sign–in form
    (k) Create name tags, if desired

Schedule and Conduct Planning Meetings

The **Planning Committee Leader** and the planning committee should decide on the number of meetings needed (three to four should be sufficient) to successfully design and conduct a given exercise. To effectively host planning meetings, the **Planning Committee Leader** needs access to the facility's EMP. Copies of the most recent version of the facility's EMP should be distributed to all members of the planning committee. The members are expected to familiarize themselves with the EMP before the first scheduled meeting.

These are **suggested** topics for discussion at each meeting (**See Appendix 4**). **The meetings and content may be varied according to your institutions size and needs.**

Meeting #1

The first meeting is held to identify the type, purpose, scope, and objectives of the TT exercise. This meeting should take place approximately six to eight weeks before the tabletop exercise. Topics to be discussed at this meeting may include:

- Purpose and scope of tabletop exercise;

- Development of objectives (Examples of objectives are available in the scenario – see Chapter 5);

- Determination of dates, times and locations for future planning meetings;

- Explanation of logistic and administrative support roles and delegation of these roles to two members:

  o   Identification and assignment of responsibility for logistical issues; and

      o   Identification and assignment of responsibility for administrative issues;

- Propose date, time, and location for TT exercise; and

- Distribution of scenario to members (Chapter 5) (Reiterate to members that the scenarios cannot be shared with anyone outside of the committee).

Meeting #2

- Review of objectives to ensure they are clearly defined and measurable;

- Identify local issues, concerns or sensitivities;

- Determine optimum duration of TT exercise;

- Determine which tabletop format to use (e.g., single group vs. breakout group format, three vs. four breakout groups);

- Identify participants for the TT exercise (see **Appendix 2**);

- Assign committee member to invite participants to TT exercise;

- Ensure that the committee members understand that they will participate as facilitators or subject matter experts rather than as participants;

      o   Determine who will be Moderator and choose a Facilitator for each breakout group;

- Assign responsibilities for exercise documents and presentations/briefings;

- Establish dates for completion of action items and tasks;

- Identify critical tasks for next planning meeting;

- Review each scenario and discuss scenario variables (e.g., pediatric-specific resources, number of casualties) in relation to objectives;

- Finalize Goals and Objectives for TT;

- Determine a setting for scenario, which includes:

      o   Time of year for scenario; and,

      o   Place;

- Delegate a committee member to modify the chosen scenario to be specific to the healthcare facility and locality issues;

- Develop agenda for TT exercise (see **Appendix 5**); and,

- Identify a room for the TT exercise.

Meeting #3

This is the final forum for reviewing exercise processes and procedures. The committee members should receive final drafts of all exercise materials prior to this meeting. No major changes to the design or scope of the exercise or its supporting documentation should take place at this meeting. Topics for the third meeting include:

- Review all TT logistical tasks (e.g., schedule, registration, equipment, refreshments and special needs);

- Confirm logistical elements including A/V equipment, room configuration and setup, refreshments and schedule;

- Conduct a comprehensive final review of and approve all exercise documents and presentation materials;

- Resolve any open issues related to exercise planning and identify last minute concerns that may arise; and,

- Determine extent of exercise evaluation process and assign responsibility for planning the evaluation (Chapter 4).

Choosing and Modifying a Scenario

This toolkit provides at this time, one pediatric explosive disaster scenarios for hospitals (See Chapter 5). In the future when other scenarios may be developed, a scenario should be chosen based on the purpose and objectives that were decided upon at Meetings #1 & 2. Each scenario involves the entire institution and all of its supporting facilities.

A pediatric disaster TT exercise can test anything from a full response to a major citywide health crisis to a smaller facility-specific protocol such as how to manage patients arriving at their emergency department. The decision of what to test should be based on a needs assessment conducted by the healthcare facility at an earlier date.

Once a scenario has been chosen, the following documents should be modified to reflect your organization's demographics, policies and procedures:

- Goals and Objectives;

- Scenario Injects;

- PowerPoint® slide presentation;

- Narrative for Moderator notes to accompany slide presentation;

- Integrated Timeline;

- Critical Actions; and,

- Patient Profiles.

Information to customize the slides for your facility may be obtained from the local Department of Health, local emergency management team, the fire department and/or police department. If you are unfamiliar with the emergency management system in your area, contact your local Department of Health.

The story-line may be modified; to do this, the planning committee members should consider previous real-world incidents and existing plans that have been developed for popular local attractions or large venues.

Chapter 3: Conducting the Exercise

This Chapter Discusses:

- Coordinating the TT Exercise

- Room set up two breakout groups

- Preparing for tabletop exercise

- Running the exercise

- Moderator and facilitator guidelines

- Conducting the "Hot Wash"

- An after-action plan

The logistics required to arrange a tabletop exercise for your healthcare facility are not difficult but require organization and accurate record keeping. There are checklists included in this toolkit that can make the job more manageable (see Appendix 4).

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4. Preparing for the Exercise (*24–72 hours prior to exercise*)

(a) Test electronic equipment (projector/screen, video camera, 2-way radios), if applicable

(b) Procure flip charts, markers, pens, and paper

(c) Provide radio/phone directories (if applicable)

(d) Order refreshments

(e) Provide entire scenario packet (narrative, slides, injects, generic and post-modular questions) to Moderator for review

(f) Review responsibilities with Moderator and Facilitators

(g) Conduct an abbreviated "dry-run" of the exercise presentation

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Coordinating the TT Exercise

Characteristics of Room

Two Group Format (see sample layout, Appendix 5)

- Select a room with two tables that can accommodate the chosen number of participants comfortably.

- The room chosen should be equipped with a projection screen, an LCD projector and a computer.

- Identify an area for participant registration. Provide a table large enough for all the name badges/ multiple sign-in sheets if necessary and agendas for the participants.

- A microphone may be necessary for the Moderator and several stand-alone microphones may be necessary for larger (30 or more) groups.

- Identify an area for participant registration. Provide a table large enough for all the name badges/multiple sign-in sheets if necessary and agendas for participants.

Breakout Group Format with 15 –60 participants

Participants may assemble in a large room for the slide presentations and move to an adjoining room or rooms for breakout group discussions or participants may stay in the same room for the slide presentation and breakout group discussions.

- Select a room large enough to accommodate 15-60 participants and that can accommodate the appropriate number of exercise tables and chairs for the 2 groups; or,

- An auditorium may be used for group discussions and an adjoining room or rooms may be used to hold the breakout groups. The entire group of participants would move to the new room or rooms after each module for breakout group discussions.

Room Setup for Two Breakout Groups

Breakout Group Format

- Set up table and chairs (if applicable). Table size depends on the number of participants in each group and number of breakout groups. Leave enough room between the tables to allow the participants to discuss issues without hearing each other's conversations and to freely move to other groups.

- Once the tables and/or chairs are arranged, label each breakout group area with table tents. Table tents provide signage to allow participants to sit in appropriate group.

- Arrange room so that projection screen is in view of all participants. A sample layout is in Appendix 5.

Setup for TT Exercise

- Modify agenda to reflect your time schedule (**Appendix 5**);

- Develop attendance/sign-in forms (see sample **Appendix 3**);

- Create name tags/badges for all participants, including breakout group category under name of each participant;

- Create table tents for breakout group categories (e.g., Administration/EOC, Clinical Services, or Ancillary Services); and,

- Make copies of all TT exercise material handouts for participants (see **Chapter 9** – Handout Distribution Table). The materials are placed in the order to be distributed.

- Provide a flip chart, markers, pens and paper at each breakout group table.

- Order refreshments/food.

- Notify the Security Department about the date and time of the TT exercise. Emphasize that this is a simulated event.

- Provide the Moderator and Facilitators with the entire scenario packet for review with the items provided in Chapter 5 as well as Appendices 5, 9 and 10. Additional information for specific leaders is provided in Chapters 6-8. Scenario packet includes:
  o Agenda (see **Appendix 5**);
  o Scenario and Timeline (Chapter 5);
  o Slide Narrative for Moderator (Chapter 6);
  o Patient Profiles for Facilitators & Evaluators (Chapter 7);
  o Evaluator Skill Sheets for Critical Action Assessment (Chapter 8);
  o List of Acronyms (see **Appendix 9**);
  o Pediatric Blast Fact Sheet (**Appendix 10**); and,
  o Slides (separate PowerPoint presentation);

- Have several copies of the EMP available for reference.

Running the TT Exercise

Prior to Exercise

The **logistical manager** and **administrative staff** need to be in the room an hour before the exercise is scheduled to begin.

- Post signage that a "Simulated Tabletop Exercise" is occurring.

- Check room set-up for proper table and chair placement.

- Check projector and laptop; run a few slides of the show to test.

- Check **moderator's** lectern and microphone if you are planning to use them.

- For each of the two breakout groups:
  o Place table tents for breakout group which identify the functional area (e.g., Incident Command, Clinical Services) represented.

     o   Place flip charts, pens, paper, and markers at each breakout group table.

- Set up registration with sign in sheets and name badges. Keep the sign-in sheet so that participants can receive follow-up correspondence such as copies of the After Action Report and the Corrective Action Plan.

- Have all desired handout sheets ready to distribute as per moderator instruction, and a person or persons designated to distribute handouts. The Handout Distribution Table in Chapter 9 delineates the names of the handouts, and when and to whom they should be distributed. Chapter 9 also provides the actual handouts for duplication in their order of distribution.

- Make sure the refreshment/food table is set up properly; call the day before to confirm delivery, and make sure the vendor can get in.

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5. Conducting the Exercise (*exercise day*)
(a) Review exercise ground rules with participants
(b) Discuss scope of the tabletop
(c) Review safety and security precautions
(d) Conduct the exercise
(e) Conduct a "Hot Wash"
(f) Distribute and collect After-Exercise Survey

During the TT Exercise

The Moderator should be sure to emphasize the exercise goal(s) to the participants, so that they keep them in mind while working through the exercise.

A Senior Administrator (e.g., CEO, COO, CNO) may speak to the group for 5 minutes before the exercise begins to illustrate the importance of evaluating the facility's Emergency Management Plan by use of a Tabletop Exercise.

Because in reality, the Incident Command and Emergency Department are physically separate, there should be no speaking between tables. Communications should be only through a courier or telephone/radio simulation.

Moderator Guidance

- Add any hints or lessons learned from your own experiences derived from running or participating in exercises to enhance the value of this presentation.

- Encourage communication among participants by asking probing questions (e.g., participant says they will set up a triage tent in the parking lot, ask "Where will you get the tent? How long will it take to set up? Who will keep watch over the supplies 24/7?).

- Keep the participants in "real time", the participants should respond as though the event is currently happening.

Facilitator Guidance:

- Meet with other **facilitators** and **moderator** prior to the exercise to ensure consistency in facilitator activities.

- Let communications and actions evolve naturally.

- Let participants guide the direction of the response actions.

- Allow participants to falter – address faults in the Hot Wash.

- Do not allow participants to act on information they overhear from another table. If they have a question for someone in another group, they must physically walk over and talk to that person.

- Track communications closely to make sure that a group's actions or reactions are exclusively based on, or in response to, information they have received via a communication/action from another group or via an inject.

- Avoid telling the group what to do or giving examples of what other facilities have done.

- Maintain focus of the group; prevent sidebar conversations from distracting the group.

Conducting the Hot Wash

The Hot Wash occurs immediately after completion of Module 3. The Moderator should remind the participants that this a no-fault exercise and they should feel free to be open and honest in their assessment about the TT exercise. It should be clearly stated that the exercise is no longer in progress. The Moderator needs to elicit feedback from each group. The observers, facilitators, and evaluators may be allowed to participate in this session.

During the Hot Wash, the goals and objectives of the exercise are reviewed to see if they have been met.

Goals

Goal 1: Heighten awareness of special pediatric needs during a disaster.

Goal 2: Plan for and implement equipment, staff, and space for the pediatric patient during a disaster.

Goal 3: Enhance comfort and self-efficacy for staff who do not generally deal with the pediatric patient.

Objectives

Objective 1. Specify pediatric ED triage strategy.

Objective 2. Determine pediatric surge capacity.

Objective 3. Activate Incident Command Center.

Objective 4. Identify need and quantity for stock equipment for initial pediatric management including resuscitation**,** airway, ventilation, intubation, vascular access in ED and Hospital Central Supply.

Objective 5. Determine the staffing patterns and critical numbers required for a pediatric disaster.

Objective 6. Identify space for critical and non-critical pediatric patient management

Objective 7. Identify assistance area for families and concerned citizens and media support space.

Objective 8. Recognize the need for screening blast victims for all types of contaminants.

Objective 9. Recognize the need for and facilitate inter-hospital transfer of pediatrics patients.

Objective 10. Ensure best possible care for pediatric blast patients.

After-Action Report

An institution may want to develop an After-Action Report to present to senior administration. An after-action report is a document developed after the exercise that describes the exercise scenario, player activities, preliminary observations, and lists major issues and recommendations for improvement.

Chapter 4: Evaluating the Exercise and Its Impact

This Chapter Discusses:

- Purpose of evaluation

- Timeline for conducting evaluation

- After-exercise survey

- Debriefing session and questionnaire

- Long-term impact assessment

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6. Evaluate the Exercise (*within a week after exercise*)

(a) Conduct post-exercise debriefing session

(b) Compile survey results and debriefing session notes

(c) Develop report of results

(d) Share results with participants and other appropriate staff

---

Evaluation is an invaluable tool for both: 1) assessing the efficacy of the tabletop drill for preparing your hospital's staff for a pediatric disaster; and 2) understanding the strengths, weaknesses and gaps in your hospital's overall preparedness for a pediatric disaster. An evaluation will be strongest and most useful if you begin to plan it in the early stages of your tabletop exercise planning. Preparing for the evaluation at this stage will help you focus on what you would like to achieve through the tabletop exercise and develop objectives to guide the exercise planning.

Purpose of Evaluation

The evaluation component of a tabletop exercise can be used to:

- Assess the impact of the exercise on staff and institutional preparedness;

- Revise pediatric disaster preparedness plans and procedures;

- Identify areas for improvement in pediatric disaster preparedness;

- Develop trainings on specific pediatric disaster-related topics or for specific staff groups; and,

- Inform and improve future pediatric disaster preparedness exercises.

The following is a list of steps intended to help you conduct the evaluation. You can refer to this list to understand the entire process. Each step is explained in more detail in the remainder of this chapter.

Steps for Conducting an Evaluation (in brief)

1. Determine and document the objectives for your institution.

2. After participants are identified, based on the exercise objectives, determine a sub-group of these participants that will be in the debriefing session.

3. Choose separate **moderators** to (a) conduct the exercise, and (b) conduct the evaluation.

4. Revise instruments to make them relevant to hospital.

5. If desired, identity stenographers or note takers to record tabletop exercise and debriefing session.

6. Conduct tabletop exercise.

7. Immediately after exercise, administer After-Exercise Surveys (**Appendix 10 and 11**).

8. Within a week of exercise, hold debriefing session.

9. Three to twelve months after the exercise, administer the long-term impact assessment.

10. Analyze and disseminate results to key stakeholders in emergency preparedness at your institution.

Conducting the Evaluation

Lead Evaluator

It is important to identify a lead evaluator and member of the evaluation team early on in the TT planning process- preferably within the first or second meeting of the planning committee. As stated in Chapter 2, an ideal person to lead the evaluation is a hospital staff person who is able to be relatively unbiased and open to new and possibly unexpected staff feedback following the tabletop and evaluation exercises. Who this person is depends on the size and structure of your hospital. The lead evaluator should not participate in the tabletop exercise and should not be an immediate supervisor of any of the participants. Some ideas of possible lead evaluators are:

- A hospital emergency preparedness program coordinator or director of pediatrics;

- An administrative manager;

- Medical, pediatric or nursing staff person; or,

- Risk Manager or Quality Improvement Manager.

Depending on hospital resources, it is also possible to hire an outside consultant to assist with evaluation activities such as designing or administering the After-Exercise Survey or conduct the debriefing session and analyze results. (See also Conducting a debriefing session).

The next step after selecting a lead evaluator is to review and tailor each of the following evaluation tools so each tool will be as useful as possible for your hospital and your exercise objectives. The purpose of each tool is explained below.

Template Evaluation Tools

Included here are descriptions of some template evaluation tools to assist you in evaluating your tabletop exercise, including:

- After-exercise survey;

- Debriefing questionnaire; and,

- Guidelines for assessing long-term exercise impact.

These tools are designed to be flexible, offering options for tailoring the tool to match various exercise goals and participant populations. The **After-Exercise Questionnaire for Participants** (Chapter 9) is intended to assess exercise impact and participant satisfaction. The **Exit Questionnaire for Facilitators and Evaluators** (Chapter 8) provides an opportunity for staff running the exercise to provide their immediate impressions of the preparedness demonstrated by the participants. The **Debriefing Session Questionnaire** (Appendix 7) features questions designed to elicit further feedback from participants in a more open-ended format. Finally, the **Guidelines for Assessing Long-Term Impact** are to assess the impact of an exercise on an institution's pediatric disaster preparedness 3 –12 months after the exercise (in this chapter). Following are further descriptions of each tool.

Timeline for Conducting Evaluation	
Activity	**Time**
Hot Wash	Immediately following conclusion of Module 3
After Exercise Surveys	Immediately after the Hot Wash
Debriefing Questionnaire	Within 7 days of the Tabletop Exercise

Long-Term Impact Assessment	Within 7-10 days of the Tabletop Exercise
Develop Corrective Action Plan	Within 1 month after the Tabletop Exercise
Track Lessons Learned	Within 1 month after the Tabletop Exercise

7. Post Exercise Activities (*no more than one month after exercise*)
(a) Develop Corrective Action Plan
(b) Track Corrective Actions
(c) Track Lessons Learned
(d) Recognition

After-Exercise Surveys

Purpose of After-Exercise Survey

An **After-Exercise Survey** is an opportunity to gather information from each exercise participant about general satisfaction with the exercise, specific areas where knowledge was/was not gained, and comments and suggestions participants have about the exercise. The survey should be distributed to all participants of the tabletop exercise and collected before the participants leave the exercise.

Goals of an **After-Exercise Survey** include:

1. Assessing the self-reported impact of the exercise on participants' pediatric disaster preparedness;

2. Determining the impact of the exercise on knowledge of participants in a variety of areas related to pediatric disaster preparedness; and,

3. Gathering suggestions for how to make future exercises most valuable for participants.

The **Exit Questionnaire for Participants** template (Chapter 9) includes three sections:

1. General impact: Measures participants' general perceptions of the impact and value of the exercise (Questions 1-3);

2. Knowledge impact: Identifies areas related to pediatric disaster preparedness where respondents increased their knowledge base, and specifically identifies new information learned during the exercise (Questions 4-10); and,

3. General participant feedback: Gathers various comments from participants as to their likes, dislikes and recommendations as to the form and content of the exercise (Questions 11-12).

The **Exit Questionnaires for Facilitators and Evaluators** template (Chapters 7 & 8) includes 12 questions concerning the performance of the participants in meeting the goals and objectives of the exercise. Questions cover such topics as use of a pediatric specific triage tool, surge capacity, staffing, supplies, treatment and disposition.

Debriefing Questionnaire

Debriefing Session

A debriefing session is a short (45-60 minute) group discussion in which a small group of participants assemble ideally within a week after the exercise to discuss in detail their experiences with the exercise.

Purpose of Debriefing session

A debriefing session offers the opportunity for participants to voice perceptions about the exercise. Goals of a debriefing session include:

1. Discovering in detail the impact of the exercise on participants and the institution;

2. Identifying how future exercises might be improved; and,

3. Probing responses to the After-Exercise Survey; exploring responses and clarifying comments.

Participants for Debriefing Session

Participants in the debriefing session should be:

- A small subset of exercise participants (8-12 people); and,
   o From a variety of departments and/or levels (if applicable).

Note: It is important that participants feel comfortable speaking frankly in the session. If having staff from different levels makes this a problem, then having more than one group is encouraged.

Leader for Debriefing Session

An appropriate leader for the debriefing session is:

- Objective and neutral;
- Knowledgeable about the exercise and its goals; however, not involved in the design or conduct of the exercise;

- Skilled at encouraging and mediating group discussion;

- A staff person who has not participated in the tabletop but who has observed it; and,

- An outside consultant.

> **The person conducting the debriefing section should only pose the questions and not answer them his/herself to avoid biasing the debriefing session.**

See **Appendix 7** for guidelines on how to conduct a debriefing session.

Long-Term Impact Assessment

Purpose of Long-Term Impact Assessment

In the "Hot Wash" portion of the exercise, participants are encouraged to identify the institution's strengths and weaknesses, and to develop a list of next steps to increase pediatric disaster preparedness. Performing an assessment of long-term impact is crucial in order to determine if questionable policies and practices have been addressed effectively and how the exercise may have assisted this process.

Determine Objectives

Determine the major objective(s) of performing a long-term impact assessment. For example, possible objectives are to:

- Gauge the more lasting impact of the tabletop exercise;

- Assess the effectiveness of the tabletop exercise; and,

- Concretely measure what changes have occurred in terms of hospital policy, organization, education and pediatric disaster preparation plans as a result of the tabletop exercise.

Identify Sources of Information

Decide who the most appropriate people are to answer questions about long-term impact.   When deciding whom to gather information from, consider which departments, levels within departments and roles can provide the information needed based on the long-term impact assessment objectives. Also consider the method to be used to gather information (see below).

Choose a method to gather information

According to the objectives and evaluation budget, determine the best method to gather the information needed to assess long-term impact. Following are possible methods that can be used alone or in combination.

Long-Term Impact Assessment Information Gathering Methods

	Advantages	*Disadvantages*
Written Survey	Do not need to schedule time for survey May be sent or delivered to respondent	Process may be slower, respondent has to go through more steps to complete the survey and he/she may ignore it Respondents need to contact a point person if he/she has questions about survey
Phone Interview	Can be completed quickly May be more convenient for respondents Survey administrator can probe for more information or clarify areas of uncertainty Respondent does not need to fill out survey and may offer more detail	Limited by the constraints of a phone conversation—miss some of respondents' subtle communication Less rapport established through phone conversation than in person
In-person interview	Increases ability to have a clear and detailed exchange of information	May be more difficult and costly to set up
Review of emergency management plan	Can be scheduled whenever is convenient for evaluator, very flexible Can concretely assess changes in plan before and after tabletop exercise	Does not include the viewpoint and perspectives of people who participated in table top Changes in a written plan may or may not reflect staff awareness of the changes and whether the plan has been effectively operationalized Takes more time to complete review

Long-Term Impact Assessment Tool Development

- After deciding on the objectives of the long-term impact assessment, determine who can best provide the information necessary to complete the assessment, and what method will work best. A tool(s) can be developed. Here are examples of possible questions that can be asked:

- Please talk about any changes in your hospital or department's pediatric preparedness since the TT exercise was conducted, for example:

  o Has anything changed? If so, what?

  o Have there been improvements? If so, what?

  o Have there been setbacks? If so, what?

  o To what extent do you attribute the changes to your tabletop exercise experience?

- What continue to be barriers in pediatric preparedness at your hospital or in your department? What strategies are you using to counter these barriers?

- Has anything happened in your hospital's experiences in the last 3 months to make pediatric preparedness seem more or less relevant to hospital training?

- In retrospect, what was the most helpful aspect of the tabletop exercise for your staff, do you think?

- What was the least helpful part of the tabletop exercise? How would you conduct an exercise differently in the future to improve its value for preparing your hospital/department for responding to a pediatric disaster?

> **Performing an assessment of long-term impact is key to determining if policies and practices brought up in the Hot Wash have actually been addressed and to what degree the exercise facilitated this process.**

Chapter 5: Pediatric Disaster Blast Tabletop Exercise Scenario and Timeline

The following section gives a summary of the Pediatric Disaster Blast Tabletop Exercise scenario and a timeline of the events that occur during the drill. Any area in [RED] should be modified by the trusted agent(s) a primary hospital planner with the hospital specifics. The **moderator, facilitators and evaluators** should all receive a copy of this chapter. Participants should not be told of the contents prior to the drill.

The Scenario

An explosion of unknown etiology occurs at a grade school play on the stage of [LOCAL ELEMENTARY SCHOOL] during a concert for parents. It is [TIME] on a [WEATHER] in [MONTH]. The school is located a [DISTANCE] from the hospital. There are multiple injured children including several who are critical. Some parents will carry patients directly into the ER, some children will be brought in by school staff and will not have parents with them; Ambulances will bring the rest. Once the media hears about the blast, they will descend on the ER in addition to other family members and concerned citizens.

Integrated Notational Timeline: Pediatric Blast Tabletop Exercise

Exercise

The following is an integrated timeline so that the **moderator, facilitators and evaluators** will know what each group should be considering or possible actions at a given point in time. When it becomes clear that a group isn't moving forward, the facilitator may use the stimulation points to assist the group in meeting the tabletop objectives.

Module One

Time 00:00

- *Event*

    PATIENT 1 arrives

    9 year-old girl arrives carried by hysterical parent who informs staff many additional injured are on their way. Child in pain holding her eyes, tearing and crying.

    Child refuses to open eyes because too painful

    P 110; R 30; BP 120/80; GCS 15

Time 00:05

- *Event*

    PATIENT 2 arrives

    12-year-old girl arrives with both parents covered in dust having difficulty breathing. Parent gives history of known asthma, no intubations, no PICU admissions; on Advair and Proventil rescue. Now she has expiratory wheezing with accessory muscle retraction.

    P 105; R 30; BP 120/70; GCS 15; O2 Sat 93

Time 00:10

- *Event*

    PATIENT 3 arrives.

    6 year old girl brought in by ambulance screaming she cannot see; numerous lacerations across face, neck, and chest; large soft tissue avulsion of L thigh; ongoing hemorrhage; and evidence of shrapnel penetrations. She has poor peripheral perfusion

    P 120; R 28; BP 85/60; GCS 15

Time 00:11

INJECT #2

An explosion of unknown etiology occurs at an elementary school on the stage of the auditorium during a concert for parents. The school is located four blocks from the hospital.

STOP CLOCK

First Breakout Group

(After situation report and discussion questions distributed; Duration – fifteen minutes)

A situation report and break-out group discussion questions are presented in slide form by the moderator. Moderator will give instructions to the two tables on completing situation reports and listing actions and needs on white boards. The facilitators for each table will handout the **Emergency Department/Clinical Table Module 1 Handouts** and the **Incident Command Module 1 Handouts** to each respective table. Handouts are available in Chapter 9 Participant Handouts.

Situation Report #1

Patients with blast injuries:

In ED	[3]
Patients admitted	[0]
Ventilated Patients	[0]
Total worried well in ED	[~15]
Fatalities	[0]

Total available beds by department:

Emergency Department	[3]
Med/Surg (larger children)	[10]
PICU	[2]
Other	[3]

Suggested Facilitator, Moderator, and Evaluator Actions during Break-out (fifteen minutes)

Facilitators and Moderator can stimulate discussion by encouraging the answers to the following questions:

- Are you experiencing a pediatric disaster?

- Would your emergency response plan/EOC be activated?

- Describe specific communication needs and how to address them.

- What are your staffing, supply and environmental needs at this point?

- How will your hospital meet the current demand for pediatric care (beds, staffing, supplies, etc.)?

Evaluators will use Evaluator Checklist for Module I to record if critical actions have been met.

Critical Action Assessments for 1st Breakout– ED

The following list includes critical actions that should be considered and listed by the Emergency Department group during first breakout group.

- Identify and use pediatric chart for drug dosage and equipment size.

- Notify administration of need to declare disaster; sets up ED for MCI response

- Prepare Situation Report

- Identify need for additional staffing requirements; begin contacts

- Institute pediatric triage methodology for MCI

Critical Action Assessments for 1st Breakout- IC

The following list includes critical actions that should be considered and listed by the Incident Command group during first breakout group.

- Command Center Established – roles assigned

- Establish liaison with outside agencies

- Obtain situation report from ED

- Determine hospital-wide staffing expertise for pediatrics with necessary personal data (e.g. pagers)

- Determine necessity for hospital lock-down

Break-out Groups Report Back

At the end of the 15 minutes, the moderator should bring all participants into discussion with each group reporting the actions they instituted. The moderator will ask the critical action

assessment questions for each group. At the conclusion of discussion the clock should be restarted.

*RE-START CLOCK *

Module Two

Time 00:20

- *Event*

    Volunteer ambulance arrives with 2 patients

Time 00:23

- *Event*

    PATIENT 4 arrives

    7 year old girl brought in by ambulance with severe respiratory distress and absent breath sounds R side; numerous lacerations across chest, and abdomen; tender R abdomen with no bowel sounds or peritoneal signs present.

    Poor perfusion P 140 R 38 BP 80/50 GCS 14

Time 00:26

- *Event*

    PATIENT 5 arrives

    11-year old male brought in by ambulance with facial burns; agonal respirations; and lacerations on face and upper neck.

    P 60; R 4; BP 80/50; GCS 4

Time 00:30

INJECT #2

No available Stretchers – ED requests more from Command Center

Time 00:30

INJECT #3

OEM request statements from Command Center, ED etc.

Time 00:39

INJECT #4

Staff becomes anxious that Geiger counter is being used; VERY anxious "is this radiologic event." What would you do to respond to Staff concerns?

Time 00:40

- *Event*

  PATIENT 6 arrives.

  11-year old girl brought in by teacher. She is unresponsive and missing left arm and left leg. Wounds are wrapped in crepe paper.

  P 0; R 0; BP 0/0; GCS 0

  Patient 6 is declared dead

Time 00:45

INJECT #5

No staff available to transport patients to CT. How would you respond to need for increased staffing?

Time 00:46

- *Event*

  PATIENT 7 arrives

  11-year-old girl brought in by teacher loudly sobbing and screaming "Don't touch me!" and hits or bites anyone who tries to hold her.

  P 100; R 28; BP 130/90; GCS 14

Time 00:55

INJECT #6

OR call, asks where are the patients, why they haven't been transferred

Time 00:56

INJECT #7

Over 100 family members, concerned citizens and media try to get in through ED entrance.

STOP CLOCK

Second Breakout Group

(After situation report and discussion questions distributed; Duration – fifteen minutes)

A situation report and break-out group discussion questions are presented in slide form by the moderator. Moderator will give instructions to the two tables on completing situation reports and listing actions and needs on white boards. The facilitators for each table will handout the **Emergency Department/Clinical Table Module 2** and **Handouts** and the **Incident Command Module 2 Handouts** to each respective table. Handouts are available in Chapter 9 Participant Handouts.

Situation Report #2

Patients with blast injuries:

In ED	[7]
Patients admitted	[2]
Ventilated Patients	[2]
Total worried well in ED	[~35]
Fatalities	[1]
Transfers (Requested/Sent)	[2]

Total available beds by department:

Emergency Department	[0]
Med/Surg (larger children)	[5]
PICU	[0]
Other	[1]

Suggested Facilitator, Moderator, and Evaluator Actions during second Break-out

Facilitators and Moderator can stimulate discussion by encouraging the answers to the following questions:

- How will you handle the increasing number of injured? Worried well? Hysterical parents?

- Where and how will you set up triage?

- Where will you identify and admit all unaccompanied pediatric patients?

- How will you keep track of all pediatric patients?

- What supply and materials management issues will be critical to address?

- What are your communication needs?

The evaluators will use Evaluator Checklist for Module II to record if critical actions have been met.

Critical Action Assessments for 2nd Breakout- ER

- Begin pre-triage screening for radiation

- Ensure all patients identified

- Establish safe child area; request IC assistance as needed

- Clear ED of all possible non-urgent patients

- Recognize ED over surge capacity; request additional personnel, stretchers, ICU, OR space; ED holds EMS stretchers if not already done (If surgeon went to OR, request replacement for stabilization of arriving ED patients)

- Request security and PR

- Request IC inform/educate hospital personnel re: radiation risk

- Inform IC of fatality (Recognize need for emotional support for staff and families)

- Request IC support for stretchers, transport personnel

- Order blood

- Request additional security

- Situation Report to IC (including staffing, equipment, on-call for OR, on-call for transfer, number waiting to be seen, number discharged, number of deaths)

- Provide triaging of calls from individuals seeking location of loved ones.

Critical Action Assessments for 2nd Breakout– IC

- Determine necessity for hospital lock-down

- Ensure pre-triage screening for contamination initiated

- Ensure all patients identified

- Ensure safe child area established

- Establish media information center; provide space for outside press

- Ensure ED is cleared of all possible patients

- Provide "Just in Time" training for staff

- Provide space for bereavement; establish family information center; arrange for food, communication; contact ME

- IC arranges for stretchers, transport and additional personnel

- Ensure crime scene integrity and evidence collection

- Facilitate any other agency's mission

- Ensure all patients identified and locatable

- IC contacts NYPD for outside security

- IC requests Situation Report from ED if not provided

- Provide triaging of calls for individuals seeking location of loved ones

Break-out Groups Report Back

After Break-out Report, the moderator will ask the critical action assessment questions for each group. Moderator will then announce a 15 minute break.

Fifteen minute break

RE-START CLOCK

Module Three

Time 00:57

- *Event*

    PATIENT 8 arrives

    5-year-old girl brought in by parents with scant blood on arms, covered in dust, Minor abrasions to arms, and appropriate reactions to parents

    P 115; R 25; BP 90/60; GCS 15

Time 00:57

INJECT #8

FDNY reports to ED Triage Officer no HAZMAT radiologic contaminants

Time 00:59

- *Event*

    PATIENT 9 arrives

    9-year-old boy walks in with parents covered in dust with appropriate reactions to parents and staff.

    P 95; R 18; BP 100/70; GCS 15

Time 00:60

INJECT #9

ED staff is demonstrating stress and fatigue. Rumors circulating within hospital of additional dirty bomb explosions in other areas in the region

Time 01:06

INJECT #10

Ambulance crews inquire about hospital status. They are being held in ED for extended periods of time (EMS stretchers being used)

STOP CLOCK

Third Breakout Group

(After situation report and discussion questions distributed; Duration – ten minutes)

A situation report and break-out group discussion questions are presented in slide form by the moderator. Moderator will give instructions to the two tables on completing situation reports and listing actions and needs on white boards. The facilitators for each table will handout the **Emergency Department/Clinical Table Module 3** and **Handouts** and the **Incident Command Module3 Handouts** to each respective table. Handouts are available in Chapter 9 Participant Handouts.

Situation Report #3

Patients with blast injuries:

In ED	[9]
Patients admitted	[6]
Ventilated Patients	[2]
Total worried well in ED	[~40]
Fatalities	[1]
Transfers (Requested/Sent)	[2]

Total available beds by department:

Emergency Department	[0]
Med/Surg (larger children)	[0]
PICU	[0]
Other	[0]

Suggested Facilitator, Moderator, and Evaluator Actions during second Break-out

Facilitators and Moderator can stimulate discussion by encouraging the answers to the following questions:

- How will you set up screening at entrances to your facility?

- How are you communicating with staff, patients, families, outside agencies?

- What type of support are you providing for staff? How are you dealing with staff fatigue? Mental health issues?

- What are the current policies to assure staff safety?

Critical Action Assessments for 3rd Breakout – ED

- Notify IC of FDNY report of no radiologic contaminants

- Notify MIS of need for emergency/disaster charts numbers available for continuity of patient care;

- Ensure availability of supplies and equipment; Request IC arrange for additional supplies

- Inform IC of need to relieve staff

- Provide updated Situation Report to IC

- Request IC contact FDNY for ambulance diversion

Critical Action Assessments for 3rd Breakout- IC

- Ensure MIS and registration has sufficient number emergency/disaster charts available for continuity of patient care

- Provide "Just in Time" training to public

- Establish early discharge from inpatient service unit and ambulatory care services

- Provide swing/ converted space for non-critical patients

- Additional calls to hospital staff to come in; assign staff where needed

- Obtain correct info from NYPD, FBI, OEM and issues report to staff

- Determine capacity of OR, inpatient service and ICU

- Determine staffing expertise for pediatrics; page more as necessary

- Arrange for transfer of patients to larger hospital

- Contact FDNY; provide Situation Report; request ambulance diversion

Break-out Groups Report Back (ten minutes)

After Break-out Report, the moderator will ask the critical action assessment questions for each group. The evaluators will use checklist to record if critical actions have been met. The evaluators will use Evaluator Checklist for Module II to record if critical actions have been met.

Hotwash to Follow 3rd Breakout Discussion

At the completion of the discussion of the third breakout discussion the moderator would then lead the participants through the post drill debriefing, also called a hotwash. The questions asked during the hotwash include the following:

Goals:

1. Was awareness heightened of special pediatric needs during a disaster?

2. Was there a plan for and implementing equipment, staff, and space for pediatric patients during a disaster?

3. Did this drill enhance comfort and self-efficacy for staff who do not generally deal with the pediatric patient?

Objectives:

4. Did the emergency department specify a pediatric triage strategy?

5. Did the hospital incident command determine pediatric surge capacity?

6. Did the hospital activate Incident Command Center?

7. Was the need and quantity for stock equipment for initial pediatric management including resuscitation, airway, ventilation, intubation, vascular access in ED and Hospital Central Supply identified?.

8. Did IC determine the staffing patterns and critical numbers required for a pediatric disaster?

9. Was space identified for critical and non-critical pediatric patient management?

10. Was an assistance area for families and concerned citizens and media support space identified and created?

11. Did staff recognize the need for screening blast victims for all types of contaminants?

12. Did staff recognize the need for and facilitate inter-hospital transfer of pediatrics patients?

13. Did staff ensure best possible care for pediatric blast patients?

Future Considerations for pediatric preparedness for the hospital

1. How well does did the Emergency Management Plan address pediatric surge capacity?

2. Based on earlier decisions, what might have done differently (hindsight)?

3. What was learned during this tabletop exercise?

4. What are the hospital's Pediatric Emergency Preparedness strengths?

5. What are the weaknesses/gaps in the Emergency Preparedness Plan?

6. What should be the hospital's next steps in preparedness to address pediatric patients?

7. List and prioritize five short and long-term actions for follow-up.

Conduct Post-Drill Evaluation

At the conclusion of the hotwash, the moderator should instruct participants to complete the post-drill evaluations that were included in the **Participant Handouts for Module 3.**

Thank participants and conclude drill.

Patient Profiles for Facilitators and Evaluators

Patient profiles are used by the ED/Clinical group to determine triage, treatment and disposition of the patients. The following profiles are for use by the ED/clinical group facilitator and evaluators, and they should have them all in a packet provided at the beginning of the exercise. This version of the profiles lists the necessary **treatment** and **interventions**, as well as **disposition** of the patients. In Chapter 9, there will be patient profiles for the ED group where there will be blank areas for the participants to fill in their suggested treatment and disposition. The participant version of the patient profiles should be distributed at the beginning of each breakout group.

MODULE 1

PATIENT 1

Description

9 year-old girl arrives carried by hysterical parent who informs staff many additional injured are on their way

Child in pain

Holding her eyes, tearing and crying

Child refuses to open eyes because too painful

Vital Signs, GCS, Obvious Injuries

P 110; R 30; BP 120/80; GCS 15

Treatment Check Off

__ Exposure

__ Secondary exam reveals no other obvious injuries

__ Local anesthetic applied to both eyes

__Flouriscene exam to both eyes reveals 20% corneal abrasions

Additional treatment before hospital discharge, but NOT using resources from Red pts:

__ Ophthalmology consult w slit lamp exam

__ Tetanus booster if needed

__ Ophthalmologic antibiotics

__ Follow-up

Actual Injuries

Bilateral corneal abrasions

Disposition

Treat and Release with close ophthalmologic follow-up

PATIENT 2

Description

12-year-old girl arrives with both parents

Covered in dust

Difficulty breathing

Parent gives history of known asthma, no intubations, no PICU admissions; on advir and proventil rescue

Expiratory wheezing with accessory muscle retraction

Vital Signs, GCS, Obvious Injuries

P 105; R 30; BP 120/70; GCS 15; O2 Sat 93

Expiratory wheezing

Accessory muscle retraction

Appropriate reactions to parent

Treatment Check Off

__ Exposure (change out of dusty clothes)

__ Secondary exam negative, except for wheezing, decreased breath sounds and retractions

__ Albuteral nebulizer, steroids

__ Follow-up for psychological first aid

Actual Injuries

None

Reactive airway disease secondary to environmental irritant

Disposition

Treat and Release

PATIENT 3

Description

6 year old girl brought in by ambulance

Screams she cannot see

Numerous lacerations across face, neck, and chest

Large soft tissue avulsion of L thigh

Ongoing hemorrhage

Shrapnel penetrations

Poor peripheral perfusion

Vital Signs, GCS, Obvious Injuries

P 120; R 28; BP 85/60; GCS 15

shrapnel penetrations

poor peripheral perfusion

Treatment Check Off

__Stop hemorrhage

__Oxygen

__IV access,

__Spine immobilization

__IV antibiotics

__Tetanus toxoid

__Head CT (if available SXR if not)

__Chest X ray

Actual Injuries

Blood loss

Shock, compensated

Shrapnel penetration

Large thigh soft tissue defect

Disposition

OR for irrigation and primary repair or stabilize and transfer

MODULE 2

PATIENT 4

Description

7 year old girl brought in by ambulance

Severe respiratory distress

Absent breath sounds R side

Numerous lacerations across chest, and abdomen;

Tender R abdomen

No bowel sounds, peritoneal signs present

Vital Signs, GCS, Obvious Injuries

Poor perfusion P 140 R 38 BP 80/50 GCS 14

Poor perfusion

Tender R abdomen

No bowel sounds

Peritoneal signs present

Treatment Check Off

__Oxygen

__Needle decompression R lung

__Chest tube R lung

__IV access

__IV fluids

__Abdominal X ray or CT scan

__Surgical repair Liver laceration and small bowel perforation

Actual Injuries

Right pneumothorax

Liver laceration

Perforated small bowel

Compensated shock

Disposition

OR for laporotomy and repair

PATIENT 5

Description

11-year old male brought in by ambulance

Facial burns

Agonal respirations

Lacerations on face and upper neck

Vital Signs, GCS, Obvious Injuries

P 60; R 4; BP 80/50; GCS 4

Treatment Check Off

__Assisted ventilation

__Spine immobilization

__Intubation

__Ventilation

__Vascular access

__Volume resuscitation until re perfused

__Volume restriction

__Intravenous antibiotics (dose)

__Tetanus toxoid

__Dry gauze applied to facial burns,

__CT (if available, SXR if not).

__ Chest X ray

Actual Injuries

Blast Lung

Smoke Inhalation

Shrapnel penetration

Superficial - no CNS or penetration

Disposition

Immediate transfer after intubation

PATIENT 6

Description

11-year old girl brought in by teacher

Unresponsive

Missing left arm and left leg

Wounds are wrapped in crepe paper

Vital Signs, GCS, Obvious Injuries

P 0; R 0; BP 0/0; GCS 0

Traumatic amputations

Treatment Check Off

__Recognize patient is not salvageable

__Triage to black category

__Remove from immediate resuscitation area

__Chaplain or Psych service for parents

Actual Injuries

Traumatic amputations

Cardiac arrest

Disposition

Morgue

Family IC notification

MODULE 3

PATIENT 7

Description

11-year-old girl brought in by teacher

Loudly sobbing and screaming "Don't touch me!" and hits or bites anyone who tries

Severe acute stress reaction

Vital Signs, GCS, Obvious Injuries

P 100; R 28; BP 130/90; GCS 14

Severe acute stress reaction.

Treatment Check Off

__ Psychological first aid

__ Sedation

Actual Injuries

Severe acute stress reaction

Disposition

Treat and release

PATIENT 8

Description

5-year-old girl brought in by parents

Scant blood on arms

Covered in dust

Minor abrasions to arms

Appropriate reactions to parents

Vital Signs, GCS, Obvious Injuries

P 115; R 25; BP 90/60; GCS 15

Minor abrasions to arms;

Appropriate reactions to parents

Treatment Check Off

__ Exposure

__ Secondary exam negative

__ Local first aid to abrasions (bacitracin)

__ Follow-up for psychological first aid

Actual Injuries

Minor abrasions to arms

Disposition

Treat and release

PATIENT 9

Description

9-year-old boy walks in with parents

Covered in dust

Appropriate reactions to parents, staff

Vital Signs, GCS, Obvious Injuries

P 95; R 18; BP 100/70; GCS 15

Covered in dust

Appropriate reactions to parents

Treatment Check Off

__ Exposure

__ Secondary exam negative

__ Follow-up for psychological first aid

Actual Injuries

None

Disposition

Treat and release

Chapter 6: Moderator Instructions and Narration

Moderator

The **moderator** provides the overall management, control, and direction during the TT exercise. The **moderator** is the "emcee" of the TT exercise; the primary authority for decisions related to initiation, suspension and termination of the TT. Responsibilities include:

- Explaining the TT exercise process;

- Presenting the slides;

- Controlling the timing and flow of the exercise;

- Keeping the TT in "real time"; and,

- Keeping the participants focused on the activities at the facility.

During the TT breakout sessions, the **moderator** decides when to discuss injects with the breakout groups to facilitate problem solving and is responsible for bringing out key issues.

The **moderator** should ideally be a clinical, dynamic individual who has the ability to call on people in the audience to participate. **The moderator must be familiar with the facility's EMP.**

During the TT Exercise

The moderator should be sure to emphasize the exercise goal(s) to the participants, so that they keep them in mind while working through the exercise.

Moderator Guidance

- Add any hints or lessons learned from your own experiences derived from running or participating in exercises to enhance the value of this presentation.

- Encourage communication among participants by asking probing questions (e.g., participant says they will set up a triage tent in the parking lot, ask "Where will you get the tent? How long will it take to set up? Who will keep watch over the supplies 24/7?).

- Keep the participants in "real time", the participants should respond as though the event is currently happening.

Use of Injects

To further modify the TT and stimulate conversation, the Moderator may introduce new pieces of information provided to participants or to a subset of participants to prompt discussion and decision-making (e.g., lab results, epidemiologic data, and news reports) during the breakout

groups. These are called **injects**. Injects simulate the unpredictable nature of emergencies. Injects are already included in the slide set, but you may chose to develop some institutional specific injects of your own. Injects should be handed to the participant representing the department involved in the decision making process for that topic (e.g., a question about security will be given to the hospital police representative).

HOT WASH

The moderator conducts the hot wash immediately after completion of Module 3, to review key decisions made during the exercise and allow the participants the opportunity to provide immediate feedback. The moderator will capture thoughts, decisions made and what was learned while they remain fresh in the participants' minds. The moderator will determine any issues or concerns regarding the hospital's EMP. S/he will identify emergency preparedness gaps, proposed areas of improvement and the next steps for modifying the hospital's EMP.

The moderator should remind the participants that this a no-fault exercise and they should feel free to be open and honest in their assessment about the TT exercise. It should be clearly stated that the exercise is no longer in progress.

During the Hot Wash, the goals and objectives of the exercise are reviewed to see if they have been met.

TT Goals	Fully Met = 1				
	1	2	3	4	5
Goal 1: Heighten awareness of special pediatric needs during a disaster.					
Goal 2: Plan for and implement equipment, staff, and space for the pediatric patient during a disaster.					
Goal 3: Enhance comfort and self-efficacy for staff who do not generally deal with the pediatric patient.					

TT Objectives	Fully Met = 1				
	1	2	3	4	5
Objective 1. Specify pediatric ED triage strategy.					
Objective 2. Determine pediatric surge capacity.					
Objective 3. Activate Incident Command Center.					
Objective 4. Identify need and quantity for stock equipment for initial pediatric management including resuscitation, airway, ventilation, intubation, vascular access in ED and Hospital Central Supply.					
Objective 5. Determine the staffing patterns and critical numbers required for a pediatric disaster.					
Objective 6. Identify space for critical and non-critical pediatric patient management.					
Objective 7. Identify assistance area for families and concerned citizens and media support space.					
Objective 8. Recognize the need for screening blast victims for all types of contaminants.					
Objective 9. Recognize the need for and facilitate inter-hospital transfer of pediatrics patients.					
Objective 10. Ensure best possible care for pediatric blast patients.					

In addition to the contents of this chapter, the Moderator should be provided with a complete copy of chapter 5.

NARRATIVE FOR MODERATOR

[Hospital Name]

Please note: Slides are in a separate PowerPoint document. All modifications in slides for your institution should be reflected in this narrative.

Pediatric Blast Disaster Tabletop Exercise

Slide 1 – Pediatric Disaster Tabletop Exercise

Welcome, and thank you for your time today. My name is [your name]. Our goal today is to challenge your thinking and to work collaboratively to improve the pediatric disaster response capability at [Your Facility].

Slide 2 – What is a Tabletop?

Briefly explain the rationale for conducting this exercise and define a tabletop: **A tabletop exercise is a facilitated analysis of an emergency situation in an informal, stress-free environment.** It is designed to elicit constructive discussion as participants examine and resolve problems based on existing operational plans and identify where those plans need to be refined.

Slide 3 – Primary Goal

Prepare non-pediatric specialty hospitals for disasters involving pediatric evaluation, treatment and transfer.

Slide 4 – Exercise Goals

Goal 1: Heighten awareness of special pediatric needs during a disaster.

Goal 2: Plan for equipment, staff, and space needs for the pediatric patient during a disaster.

Goal 3: Enhance comfort and self-efficacy for staff who do not generally deal with the pediatric patient.

Slide 5 – Rules of the Exercise

1. Only existing staff on site at the time of the event will provide initial patient care.

2. Respond based on your facility's current capability.

3. Interact with other breakout groups as needed.

4. Play the exercise as if it is presently occurring.

5. Allow for artificialities of the scenario – it's a tool and not the primary focus.

6. Participants should plan to stay in the room.

Slide 6 – Rules of the Exercise (cont'd)

7. All procedures should be described correctly; correct performance will be assumed.

8. Mistakes are part of the learning process. Varying viewpoints are expected.

9. Consider different approaches and suggest improvements to current resources, plans, and training.

10. The Evaluators will be evaluating the system and not the participant.

Slide 7– Exercise Format

You {participants} will engage in an interactive tabletop exercise. Over the next two hours a continuing scenario is presented in three modules. Each module portrays a segment of time in a simulated pediatric event in [Name of your city, borough, or county, etc.]

This is an interactive facilitated tabletop exercise with three modules.

There are breakout group sessions after the first two modules, which are both followed by a moderator facilitated discussion with each breakout group reporting back on the actions taken.

After the third and final module there is a facilitated plenary discussion with all participants.

A Hot Wash is the final component of the exercise followed by an exercise evaluation.

Explain "Hot Wash" – an open discussion at the end of the exercise allowing participants to provide instant feedback about immediate lessons learned and to identify barriers/gaps in current procedures as well as allowing recorders to immediately capture the information.

Slide 8 – Situations & Assumptions

1. Staff members sent to the OR, ICU or performing a procedure are unavailable to care for additional patients until actual time has elapse to do the specific procedure.

2. Experts called will not arrive until an hour from time of notification.

3. Hospital security will be the only personnel available to maintain order, crowd control, etc. The local police will not be available.

4. Your EMS system will not be available to assist in hospital for triage, patient care or transfer.

Slide 9 – Set-up

There will be two tables set-up: one for Clinical/Emergency Department Staff; the other for Incident Command staff. The timeframe is as follows:

- Introduction/ half hour

- Exercise/2 hours

- Debriefing/half hour

Slide 10 – Breakout Groups

There are two groups for the breakout sessions: Incident Command Center as per HEICS and ED/Clinical services. Each participant has been assigned to a group. Interaction between groups is strongly encouraged, as would happen during a real event.

Slide 11 – Incident Command Center

The Incident Command Center is comprised of representatives from the services listed on the slide.

Slide 12 – Emergency Department/Clinical Services

The Emergency Department/Clinical Services group is comprised of representatives from the services listed on the slide.

Slide 13 – Participant Roles: Moderator

The Moderator serves as the host or "emcee" of the tabletop exercise. He or she manages the flow of the exercise, presents new scenario data in the form of modules or injects; provides key questions or issues for participants to consider; keeps the exercise on time; and does not participate in the breakout group discussions.

Slide 14 – Participant Roles: Facilitator

Each breakout group will be assigned one Facilitator. The Facilitator is responsible for monitoring group discussions, ensures that the group stays on track and considers key questions and issues. Prior to the exercise, each Facilitator is provided with prepared guidelines and questions to consider during discussions. They are not expected to lead conversation, but to keep discussion on topic and encourage communication between breakout groups.

Slide 15 – Participant Roles: Evaluator

Each breakout group will be assigned one Evaluator. The Evaluator summarizes the tabletop exercise's ability to assess its impact on staff and institutional preparedness. The Evaluator identifies areas for improvement in hospital pediatric disaster preparedness and suggests revisions or new policies.

Slide 16 – Participant Roles: Observer

Observers watch the tabletop exercise. They do not interact with participants, contribute information or opinions, or interfere with the exercise in any way. Depending on the level of expertise of the Observers and their reason for attending the exercise, you might choose to have them complete an Exit Questionnaire.

Slide 17 – Participant Roles: Players

Each player will be assigned to either the ED/Clinical or Incident Command Group. Each player will represent his/her department and area of expertise, and will be asked for responses about clinical care, administrative decisions and communication within your group, with the other group, and how one would communicate with families.

Slide 18 – [Your] Hospital

This slide presents information about our hospital including the number of available certified beds, staffed beds, FTEs, annual or monthly pediatric and adult ED visits in our facility, as well as the number of ICU beds, ORs etc.

Slide 19 – [Your] Hospital

This slide lists the number of pediatric ED visits as well as Staffing numbers, certified pediatric beds, crash carts, pediatric capable staff, nursery and/or NICU staff (if applicable).

Slide 20 – Module One

Now we will begin with Module One.

Slide 21 – THE EVENT

The participants will be in the dark about the actual event when the first patients arrive.

Slide 22 – General Info About Your Location

Today is [day & time]. The current local weather is [temp & weather].

Slide 23 – 00:00 Patient 1

We will be distributing patient profiles to the ED/Clinical table so they don't have to copy what is on the slide. They should decide what general treatment and disposition each patient requires. There will also be a form to summarize the situation and to request additional supplies, equipment and staffing. These forms will be filled out and given to the IC table.

Patient 1 is a 9 year-old girl who arrives carried by an hysterical parent who informs staff many additional injured are on their way. The child is in pain, holding her eyes, tearing and crying. She refuses to open eyes because it is too painful. You can see her vital signs on the handout which you may refer back to as the exercise continues.

Slide 24 – 00:05 Patient 2

Patient 2 is a 12 year-old girl who arrives with both parents. She is covered in dust and has difficulty breathing. Her parent gives a history of known asthma, no intubations, no PICU admissions. She is on Advair and Proventil rescue. She exhibits expiratory wheezing with accessory muscle retraction.

Slide 25 – 00:10 Patient 3

Patient 3 is a 6 year old girl brought in by ambulance. She is screaming that she cannot see. She presents with numerous lacerations across face, neck, and chest; a large soft tissue avulsion of her left thigh. She has ongoing hemorrhage, shrapnel penetrations, and poor peripheral perfusion.

Slide 26 – Inject #1

An explosion of unknown etiology occurs in the auditorium at [school near you]. An elementary school class is performing on the stage of the auditorium during a concert for parents. The school is located [distance] from the hospital.

Slide 27 – STOP CLOCK

Slide 28 – First Breakout Group

You are going to have ten minutes for group discussion. However, before you begin, we are supplying you with a situation report.

Slide 29 – Situation Report #1

Slide 30 – Module One: Breakout Group Discussion

The following are discussion points you should consider.

Are you experiencing a pediatric disaster?

Would your emergency response plan/EOC be activated?

Describe specific communication needs and how to address them.

What are your staffing, supply, and environmental needs at this point?

How will your hospital meet the current demand for pediatric care (beds, staffing, supplies, etc.)?

Please choose someone from your group who will report back the answers to these questions.

Slide 31 – First Breakout Group Report Back

Who is reporting for Incident Command? ED/Clinical?

Slide 32 – Critical Action Assessment – ED/Clinical

These are the critical actions that the ED/Clinical Group should have covered by this point in the scenario:

- Identify and use pediatric chart for drug dosage and equipment size

- Notify administration of need to declare disaster; sets up ED for MCI response

- Prepare Situation Report

- Identify need for additional staffing requirements; activate call/age system

- Institute pediatric triage methodology for MCI

Slide 33 – Critical Action Assessment – IC

These are the critical actions that the Incident Command Group should have covered by this point in the scenario:

- Command Center established – roles assigned

- Establish liaison with outside agencies

- Obtain situation report from ED

- Determine hospital-wide staffing expertise for pediatrics with necessary personal data (e.g. pagers)

- Determine necessity for hospital lockdown

Slide 34 – RE-START CLOCK

Slide 35 – Module Two

Slide 36 – 00:23 Patient 4

Patient 4 is a 7-year old girl brought in by ambulance. She is in severe respiratory distress with absent breath sounds on her right side. She has numerous lacerations across chest and abdomen. She has a tender R abdomen, no bowel sounds, and peritoneal signs are present.

Slide 37 – 00:26 Patient 5

Patient 5 is an 11-year old male brought in by ambulance. He has facial burns, agonal respirations and lacerations on his face and upper neck.

Slide 38 – 00:30 Inject #2

There are no available stretchers, so the ED requests more from the Command Center. How would you address the need for stretchers and bed space in the ED?

Slide 39 – 00:30 Inject #3

The Office of Emergency Management requests statements from the Command Center, ED etc.

Slide 40 – 00:39 Inject #4

Staff is becoming very anxious that Geiger counter is being used. They want to know, "is this a radiologic event?" What would you do to respond to Staff concerns?

Slide 41 – 00:40 Patient 6

Patient 6 is an unresponsive11-year old girl brought in by teacher. The child has a missing left arm and left leg. Her wounds are wrapped in crepe paper.

Slide 42 – 00:40 Patient 6

Patient 6 is declared DOA in the Emergency Department. Who has declared her dead? Where do you put her body? How do you handle staff upset? Who informs the teacher?

Slide 43 – 00:45 Inject #5

No staff available to transport patients. How would you respond to the needs for increased staffing?

Slide 44 – 00:46 Patient 7

Patient 7 is an 11-year-old girl brought in by teacher. The child is loudly sobbing and screaming "Don't touch me!" and hits or bites anyone who tries. She is suffering from a severe acute stress reaction.

Slide 45 – 00:55 Inject #6

Someone from the OR calls asking where are the patients? Why haven't any been transferred?

Slide 46 – 00:56 Inject #7

Over 100 family members, concerned citizens and media try to get in through ED entrance.

Slide 47 – STOP CLOCK

Slide 48 – Second Breakout Group

You are going to have ten minutes for group discussion. Here is the second situation report.

Slide 49 – Situation Report #2

Slide 50 – Module Two: Breakout Group Discussion

The following are discussion points you should consider.

How will you handle the increasing number of injured? Worried well? Hysterical parents?

Where and how will you set up triage?

Where will you identify and admit all unaccompanied pediatric patients?

How will you keep track of all pediatric patients?

What supply and materials management issues will be critical to address?

What are your communication needs?

Again, please choose someone from your group who will report back the answers to these questions.

Slide 51 – Second Breakout Group Report Back

Who is reporting for Incident Command? ED/Clinical?

Slide 52 – Critical Action Assessment – IC

These are the critical actions that the ED/Clinical Group should have covered by this point in the scenario:

- Ensure pre-triage screening for contamination initiated

- Ensure safe child area established

- Establish media information center; provide space for outside press

- Ensure ED is cleared of all possible patients

- Provide "Just in Time" training for staff

- Provide space for bereavement; establish family information center; arrange for food, communication; contact ME

Slide 53 – Critical Action Assessment – IC (continued)

- Arranges for stretchers, transport and additional personnel

- Ensure crime scene integrity and evidence collection

- Facilitate any other agency's mission

- Ensure all patients identified and locatable

- Contact NYPD for outside security

- Request ED Situation Report from ED if not provided

- Provide triaging of calls for individuals seeking location of loved ones

Slide 54 – Critical Action Assessment – ED

These are the critical actions that the Incident Command Group should have covered by this point in the scenario:

- Begin pre-triage screening for radiation

- Ensure all patients identified

- Establish safe child area; request IC assistance as needed

- Clear ED of all possible non-urgent patients

- Recognize ED over surge capacity; request additional personnel, stretchers, ICU, OR space; ED holds EMS stretchers if not already done (If surgeon went to OR, request replacement for stabilization of arriving ED patients)

Slide 55 – Critical Action Assessment – ED (continued)

- Request security and PR

- Request IC inform/educate hospital personnel re: radiation risk

- Identify and inform IC of fatality (Recognize need for emotional support for staff and families)

- Request IC support for stretchers, transport personnel

Slide 56 – Critical Action Assessment – ED (continued)

- Order blood

- Request additional security

- Situation Report to IC (including staffing, equipment, on-call for OR, on-call for transfer, number waiting to be seen, number discharged, number of deaths)

- Contact EOC re: situation, needs and place requests on HERDS

Slide 57 – BREAK

You will now have a break. Bathrooms are located [location]. Please be back in your seats in 15 minutes. Thank you.

Slide 58 – RE-START CLOCK

Slide 59 – Module Three

Slide 60 – 00:57 Patient 8

Patient 8 is a 5-year-old girl brought in by her parents. There is scant blood on her arms which have minor abrasions. She is covered in dust. She demonstrates appropriate reactions to her parents.

Slide 61 – 00:57 Inject #8

Local EMS agency reports to ED Triage Officer that there are no HAZMAT radiologic contaminants.

Slide 62 – 00:58 Patient 9

Patient 9 is a 9-year-old boy who walks in with his parents. He is covered in dust. He demonstrates appropriate reactions to his parents and staff.

Slide 63 – 00:60 Inject #9

ED Staff is demonstrating stress and fatigue. Rumors are circulating within hospital of additional dirty bomb explosions in other areas in the region. What actions would you take to respond to staff stress? What actions would you take to respond to rumors about other explosions?

Slide 64 – 01:06 Inject #10

Ambulance crews inquire about hospital status They are being held in ED for extended periods of time (EMS stretchers being used). How would you respond to questions from EMS crews and need for stretchers?

Slide 65 – STOP CLOCK

Slide 66 – Third Breakout Group

You are going to have eight minutes for group discussion. Here is the third situation report.

Slide 67 – Situation Report #3

Slide 68 – Module Three: Breakout Group Discussion

The following are discussion points you should consider.

How will you set up screening at entrances to your facility?

How are you communicating with staff, patients, families, outside agencies?

What type of support are you providing for staff? How are you dealing with staff fatigue? Mental health issues?

What are the current policies to assure staff safety?

Again, please choose someone from your group who will report back the answers to these questions.

Slide 69 – Third Breakout Group Report Back

Who is reporting for Incident Command? ED/Clinical?

Slide 70 – Critical Action Assessment – ED

These are the critical actions that the ED/Clinical Group should have covered by this point in the scenario:

- Notify IC of FDNY report of no radiologic contaminants

- Notify MIS of need for emergency/disaster charts numbers available for continuity of patient care

- Ensure availability of supplies and equipment; Request IC arrange for additional supplies

- Inform IC of need to relieve staff

- Provide updated Situation Report to IC

- Request IC contact FDNY for ambulance diversion

Slide 71 – Critical Action Assessment – IC

These are the critical actions that the Incident Command Group should have covered by this point in the scenario:

- Ensure MIS and registration has sufficient number emergency/disaster charts available for continuity of patient care

- Provide "Just in Time" training to public

- Establish early discharge from inpatient service unit and ambulatory care services

- Provide swing/ converted space for non-critical patients

- Additional calls to hospital staff to come in; assign staff where needed

Slide 72 – Critical Action Assessment – IC (continued)

- Obtain correct info from NYPD, FBI, OEM and issue report to staff

- Determine capacity of OR, inpatient service and ICU

- Determine staffing expertise for pediatrics; page more as necessary

- Arrange for transfer of patients to larger hospital

- Contact FDNY; provide Situation Report; request ambulance diversion

Slide 73 – HOT WASH

Slide 74 – HOT WASH – Goals

Were the goals for this exercise met??

Goal 1: Heighten awareness of special pediatric needs during a disaster.

Goal 2: Plan for and implement equipment, staff, and space for the pediatric patient during a disaster.

Goal 3: Enhance comfort and self-efficacy for staff who do not generally deal with the pediatric patient.

Slide 75 – HOT WASH – Objectives

Were the objectives for this exercise met??

Objective 1. Specify Pediatric ED triage strategy.

Objective 2. Determine pediatric surge capacity.

Objective 3. Activate Incident Command Center.

Objective 4. Identify need and quantity for stock equipment for initial pediatric management including resuscitation, airway, ventilation, intubation, vascular access in ED and Hospital Central Supply.

Objective 5. Determine the staffing patterns and critical numbers required for a pediatric disaster.

Slide 76 – HOT WASH – Objectives (continued)

Objective 6. Identify space for critical and non-critical pediatric patient management

Objective 7. Identify assistance area for families and concerned citizens and media support space.

Objective 8. Recognize the need for screening blast victims for all types of contaminants.

Objective 9. Recognize the need for and facilitate inter-hospital transfer of pediatrics patients.

Objective 10. Ensure best possible care for pediatric blast patients.

Slide 77 – "HOT WASH" – Future Considerations

1. How well does your Emergency Management Plan address pediatric surge capacity?

2. Based on your earlier decisions, what might you have done differently (hindsight)?

3. What have you learned during this tabletop exercise?

Slide 78 – "HOT WASH" – Future Considerations

4. What are the hospital's Pediatric Emergency Preparedness strengths?

5. What are the weaknesses/gaps in the Emergency Preparedness Plan?

6. What should be the hospital's next steps in preparedness?

7. List and prioritize five short and long-term actions for follow-up.

PLEASE BE SURE TO FILL OUT YOUR EVALUATION FORMS.

Thank you for attending. We hope it has been helpful to you.

Chapter 7: Facilitator Instructions

Facilitators are assigned to each of the two breakout groups. The facilitator's role is to encourage participants to communicate with others playing the exercise (even if it requires walking to another table) and to raise awareness around key issues. The facilitator is neither meant to take the lead in the discussion nor is expected to direct specific actions or responses from the participants.

Key Functions

- Keeping side conversations to a minimum;
- Controlling group dynamics and strong personalities;
- Encouraging all to participate by asking key questions, keeping discussions on track and within established time limits;
- Being aware of local and healthcare facility emergency plans and procedures (Emergency Management Plan);
- Speaking confidently and competently about the subject at hand, yet not dominating the conversation; and,
- Encouraging interaction between breakout groups via courier or simulated telephone/radio usage.

Guidance

- Meet with other **facilitators** and **moderator** prior to the exercise to ensure consistency in facilitator activities.
- Let communications and actions evolve naturally.
- Let participants guide the direction of the response actions.
- Allow participants to falter – address faults in the Hot Wash.
- Do not allow participants to act on information they overhear from another table. If they have a question for someone in another group, they must physically walk over and talk to that person.
- Track communications closely to make sure that a group's actions or reactions are exclusively based on, or in response to, information they have received via a communication/action from another group or via an inject.
- **Avoid telling the group what to do or giving examples of what other facilities have done.**
- Maintain focus of the group; prevent sidebar conversations from distracting the group.

In addition to the contents of this chapter, the Facilitators should be provided with a complete copy of chapter 5.

Facilitator Exit Questionnaire

	not met				fully met
1. Did the hospital identify the need for a pediatric specific triage tool for disaster victims?	1	2	3	4	5
2. Did the hospital determine that ED surge capacity was met, called a disaster, and activated incident command team?	1	2	3	4	5
3. Did the hospital identify the need and quantity for stock equipment for pediatric resuscitation, including airway, ventilation, intubation, and vascular access?	1	2	3	4	5
4. Did the hospital ensure that the ED and Hospital Central Supply had sufficient stock in for a pediatric disaster?	1	2	3	4	5
5. Did the hospital have a plan to procure supplies if they weren't available or they ran out?	1	2	3	4	5
6. Did the hospital have a plan for delivery of supplies from Central Supply to ED and other areas?	1	2	3	4	5
7. Did the hospital determine the staffing patterns and critical numbers required for pediatric disaster victims for medical, nursing, transport, surgical, anesthesia staff, other security, mental health, dietary?	1	2	3	4	5
8. Did the hospital recognize the need for screening blast victims for radiation contamination, and identified correct methods for screening?	1	2	3	4	5
9. Did the hospital identify space for critical and non-critical pediatric patients, families looking for pediatric victims, and extra space to cover surge capacity during a pediatric disaster?	1	2	3	4	5
10. Did the hospital appropriately treat patients?	1	2	3	4	5
11. Did the hospital institute a plan for inter-hospital transfer of patients once pediatric surge capacity is reached (i.e. who does it, who will accept, what and who has to travel with patient, how is family informed)?	1	2	3	4	5
12. Did the hospital determine appropriate disposition of patients?	1	2	3	4	5

Chapter 8: Evaluator Instructions and Tools

Evaluators

Evaluators are individuals who observe and document TT activities. They document and evaluate participant performance and the adequacy of the training based on established learning objectives. Evaluators do not interact with participants or interfere with the flow of the exercise.

After each Break-out Group Report, the evaluators will use the checklists provided in this chapter to record if critical actions have been met.

During the Hotwash, the evaluators will assist the Moderator in evaluating whether the goals and objectives have been met.

The Evaluator will fill out the Exit Questionnaire before leaving the TT.

In addition to the contents of this chapter, the Evaluators should be provided with a complete copy of chapter 5.

Module 1: Evaluator Check List – Incident Command Table

Evaluator Name: Date:

Critical Actions Incident Command Table	Fully Met = 1				
	1	2	3	4	5
Command Center Established – roles assigned					
Establish liaison with outside agencies					
Obtain situation report from ED					
Determine hospital-wide staffing expertise for pediatrics with necessary personal data (e.g. pagers)					
Determine necessity for hospital lock-down					
Other _____					
Other_____					
Other _____					
Other _____					
Comments on IC during 1st Breakout					

Module 2: Evaluator Check List – Incident Command Table

Evaluator Name: Date:

Critical Actions Incident Command Table	Fully Met = 1				
	1	2	3	4	5
Ensure pre-triage screening for contamination initiated					
Ensure safe child area established					
Establish media information center; provide space for outside press					
Ensure ED is cleared of all possible patients					
Provide "Just in Time" training for staff					
Provide space for bereavement; establish family information center; arrange for food, communication; contact ME					
Arrange for stretchers, transport and additional personnel					
Ensure crime scene integrity and evidence collection					
Facilitate any other agency's mission					
Ensure all patients identified and can be located					
Contact NYPD for outside security					
Request Situation Report from ED if not provided					
Provide triaging of calls for individuals seeking location of loved ones					
Other _____					

Other _____					
Other _____					
Comments on IC during 2ⁿᵈ Breakout					

Module 3: Evaluator Check List – Incident Command Table

Evaluator Name: Date:

Critical Actions Incident Command Table	Fully Met = 1				
	1	2	3	4	5
Ensure MIS and registration has sufficient number emergency/disaster charts available for continuity of patient care					
Provide "Just in Time" training to public					
Establish early discharge from inpatient service unit and ambulatory care services					
Provide swing/ converted space for non-critical patients					
Additional calls to hospital staff to come in; assign staff where needed					
Obtain correct info from NYPD, FBI, OEM and issues report to staff					
Determine capacity of OR, inpatient service and ICU					
Determine staffing expertise for pediatrics; page more as necessary					
Arrange for transfer of patients to larger hospital					
Contact FDNY; provide Situation Report; request ambulance diversion					
Other_____					
Other_____					
Other_____					
Other_____					

Comments on IC during 3rd Breakout

Module 1: Evaluator Check List – ED/Clinical Table

Evaluator Name: Date:

Critical Actions ED/Clinical Table	Fully Met = 1				
	1	2	3	4	5
Identify and use pediatric chart for drug dosage and equipment size.					
Notify administration of need to declare disaster; sets up ED for MCI response					
Prepare Situation Report					
Identify need for additional staffing requirements; begin contacts					
Institute pediatric triage methodology for MCI					
Other _____					
Other_____					
Other _____					
Other _____					
Other _____					
Comments on ED during 1st Breakout					

Module 2: Evaluator Check List – ED/Clinical Table

Evaluator Name: **Date:**

Critical Actions ED/Clinical Table	Fully Met = 1				
	1	2	3	4	5
Begin pre-triage screening for radiation					
Ensure all patients identified					
Establish safe child area; request IC assistance as needed					
Clear ED of all possible non-urgent patients					
Recognize ED over surge capacity; request additional personnel, stretchers, ICU, OR space; ED holds EMS stretchers if not already done (If surgeon went to OR, request replacement for stabilization of arriving ED patients)					
Request security and PR					
Request IC inform/educate hospital personnel re: radiation risk					
Inform IC of fatality (Recognize need for emotional support for staff and families)					
Request IC support for stretchers, transport personnel					
Order blood					
Request additional security					
Situation Report to IC (including staffing, equipment, on-call for OR, on-call for transfer, number waiting to be seen, number discharged, number of deaths)					
Provide triaging of calls from individuals seeking location of loved ones.					
Establish media information center; provide space for outside press					

Other _____					
Other _____					
Comments on ED during 2nd Breakout					

Module 3: Evaluator Check List – ED/Clinical Table

Evaluator Name: Date:

Critical Actions ED/Clinical Table	Fully Met = 1				
	1	2	3	4	5
Notify IC of FDNY report of no radiologic contaminants					
Notify MIS of need for emergency/disaster charts numbers available for continuity of patient care					
Ensure availability of supplies and equipment; Request IC arrange for additional supplies					
Inform IC of need to relieve staff					
Provide updated Situation Report to IC					
Request IC contact FDNY for ambulance diversion					
Other _____					
Other _____					
Other _____					
Other _____					
Comments on ED during 3rd Breakout					

Evaluator Exit Questionnaire

		not met				fully met
1.	Did the hospital identify the need for a pediatric specific triage tool for disaster victims?	1	2	3	4	5
2.	Did the hospital determine that ED surge capacity was met, called a disaster, and activated incident command team?	1	2	3	4	5
3.	Did the hospital identify the need and quantity for stock equipment for pediatric resuscitation, including airway, ventilation, intubation, and vascular access?	1	2	3	4	5
4.	Did the hospital ensure that the ED and Hospital Central Supply had sufficient stock in for a pediatric disaster?	1	2	3	4	5
5.	Did the hospital have a plan to procure supplies if they weren't available or they ran out?	1	2	3	4	5
6.	Did the hospital have a plan for delivery of supplies from Central Supply to ED and other areas?	1	2	3	4	5
7.	Did the hospital determine the staffing patterns and critical numbers required for pediatric disaster victims for medical, nursing, transport, surgical, anesthesia staff, other security, mental health, dietary?	1	2	3	4	5
8.	Did the hospital recognize the need for screening blast victims for radiation contamination, and identified correct methods for screening?	1	2	3	4	5
9.	Did the hospital identify space for critical and non-critical pediatric patients, families looking for pediatric victims, and extra space to cover surge capacity during a pediatric disaster?	1	2	3	4	5
10.	Did the hospital appropriately treat patients?	1	2	3	4	5
11.	Did the hospital institute a plan for inter-hospital transfer of patients once pediatric surge capacity is reached (i.e. who does it, who will accept, what and who has to travel with patient, how is family informed)?	1	2	3	4	5
12.	Did the hospital determine appropriate disposition of patients?	1	2	3	4	5

Chapter 9: Participant Handouts

HANDOUT Distribution Table

When	What	To Whom
Beginning of Module 1 Breakout Group	Patients Profiles 1, 2, 3	ED/Clinical Table participants
	Situation Report including Suggested Break-out Group Discussion Points	all participants
	Blank Summary Situation Report	For ED/Clinical Table participants to fill out and give to IC Table
Beginning of Module 2 Breakout Group	Patients Profiles 4, 5, 6	ED/Clinical Table participants
	Situation Report	all participants
	Blank Summary Situation Report	For ED/Clinical Table participants to fill out and give to IC Table
Beginning of Module 3 Breakout Group	Patients Profiles 7, 8, 9	For ED/Clinical Table participants to fill out and give to IC Table
	Situation Report	all participants
	Blank Summary Situation Report	For ED/Clinical Table participants to fill out and give to IC Table
	After Exercise Exit Questionnaire	all participants

ED /CLINICAL PARTICIPANT HANDOUT -- Breakout 1

PATIENT 1

Description

9 year-old girl arrives carried by hysterical parent who informs staff many additional injured are on their way

Child in pain

Holding her eyes, tearing and crying

Child refuses to open eyes because too painful

Vital Signs, GCS, Obvious Injuries

P 110; R 30; BP 120/80; GCS 15

Injury Identified

__ Dead on Arrival
__ Severe Head Trauma
__ Severe Blunt Abdominal Trauma
__ Respiratory Failure/ Pneumothorax
__ Limb amputation
__ Burn
__ Fractures
__ Respiratory Distress
__ Lacerations
__ TM ruptured
__ Agitation acute traumatic stress
__ Other_____

Management Needed

__ Intubation
__ Assisted Ventilation
__ Nebulized meds for reactive airway
__ IV or IO access
__ Fluid Resuscitation
__ Blood Transfusion
__ Antibiotics
__ Pain meds
__ Limb immobilization
__ Suture of lacerations
__ Psych consult
__ Sedation
__ Other_____

Disposition

__ Discharge to home
__ Discharge, awaiting care-giver
__ Transfer Operating Room / Surgeon
__ Needs Admission to Pediatric Critical Care bed
        (pts may need transfer)
__ Needs Admission to Inpatient pediatric bed
__ Needs Transfer to outside hospital for Pediatric critical care, burn care, general
    pediatric unit
__ Transfer to Morgue, contact Morgue Pastoral Services

ED /CLINICAL PARTICIPANT HANDOUT -- Breakout 1

PATIENT 2

Description

12-year-old girl arrives with both parents

Covered in dust

Difficulty breathing; expiratory wheezing with accessory muscle retraction

Parent gives history of known asthma, no intubations, no PICU admissions; on advir and proventil rescue

Vital Signs, GCS, Obvious Injuries

P 105; R 30; BP 120/70; GCS 15; O2 Sat 93

Injury Identified

 __ Dead on Arrival
 __ Severe Head Trauma
 __ Severe Blunt Abdominal
Trauma
 __ Respiratory Failure/
Pneumothorax
 __ Limb amputation
 __ Burn
 __ Fractures
 __ Respiratory Distress
 __ Lacerations
 __ TM ruptured
 __ Agitation acute traumatic
stress
 __ Other_____

Management Needed

 __ Intubation
 __ Assisted Ventilation
 __ Nebulized meds for reactive
airway
 __ IV or IO access
 __ Fluid Resuscitation
 __ Blood Transfusion
 __ Antibiotics
 __ Pain meds
 __ Limb immobilization
 __ Suture of lacerations
 __ Psych consult
 __ Sedation
 __ Other_____

Disposition

 __ Discharge to home
 __ Discharge, awaiting care-giver
 __ Transfer Operating Room / Surgeon
 __ Needs Admission to Pediatric Critical Care bed
   (pts may need transfer)
 __ Needs Admission to Inpatient pediatric bed
 __ Needs Transfer to outside hospital for Pediatric critical care, burn care, general
  pediatric unit
 __ Transfer to Morgue, contact Morgue Pastoral Services

ED /CLINICAL PARTICIPANT HANDOUT -- Breakout 1

PATIENT 3

Description

6 year old girl brought in by ambulance/ Screams she cannot see

Numerous lacerations across face, neck, and chest/ Shrapnel penetrations

Large soft tissue avulsion of L thigh

Ongoing hemorrhage/ Poor peripheral perfusion

Vital Signs, GCS, Obvious Injuries

P 120; R 28; BP 85/60; GCS 15

Injury Identified

__ Dead on Arrival
__ Severe Head Trauma
__ Severe Blunt Abdominal Trauma
__ Respiratory Failure/ Pneumothorax
__ Limb amputation
__ Burn
__ Fractures
__ Respiratory Distress
__ Lacerations
__ TM ruptured
__ Agitation acute traumatic stress
__ Other_____

Management Needed

__ Intubation
__ Assisted Ventilation
__ Nebulized meds for reactive airway
__ IV or IO access
__ Fluid Resuscitation
__ Blood Transfusion
__ Antibiotics
__ Pain meds
__ Limb immobilization
__ Suture of lacerations
__ Psych consult
__ Sedation
__ Other_____

Disposition

__ Discharge to home
__ Discharge, awaiting care-giver
__ Transfer Operating Room / Surgeon
__ Needs Admission to Pediatric Critical Care bed
    (pts may need transfer)
__ Needs Admission to Inpatient pediatric bed
__ Needs Transfer to outside hospital for Pediatric critical care, burn care, general pediatric unit
__ Transfer to Morgue, contact Morgue Pastoral Services

ED/CLINCIAL AND IC PARTICIPANT HANDOUT -- Breakout 1

Situation Reports – Module One

Patients with blast injuries:

In ED	[3]
Patients admitted	[0]

Ventilated Patients	[0]
Total worried well in ED	[~15]
Fatalities	[0]

Total available beds by department:

Emergency Department	[3]
Med/Surg (larger children)	[10]
PICU	[2]
Other	[3]

Suggested Break-out Group Discussion Points

Are you experiencing a pediatric disaster?

Would your emergency response plan/EOC be activated?

Describe specific communication needs and how to address them.

What are your staffing, supply, and environmental needs at this point?

How will your hospital meet the current demand for pediatric care (beds, staffing, supplies, etc.)?

ED/CLINICAL PARTICIPANT HANDOUT – Breakout 1

Summary Situation Report – Module One

During the breakout session, the ED/Clinical Group will provide a tally for Incident Command using this form.

Patients

_____# of Patients in ED total

_____ # of Patients in ED related to incident

_____# of Patients Requiring OR (if no OR availability, add to transfer of patients)

_____# of Patients Requiring Admission to Pediatric Critical Care (if no pediatric critical care add to transfer of patients)

_____# of Patients Requiring Admission to Gen Ped/Med Surgical

_____# of Patients awaiting discharge from ED

_____# Fatalities due to incident

_____# of Patients requiring transfer

_____ # ventilators used

Requests for Additional:

     Medications

     Supplies

     Staff

ED /CLINICAL PARTICIPANT HANDOUT -- Breakout 2

PATIENT 4

Description

7 year old girl brought in by ambulance

Severe respiratory distress

Absent breath sounds R side

Numerous lacerations across chest, and abdomen;

Tender R abdomen/No bowel sounds, peritoneal signs present

Vital Signs, GCS, Obvious Injuries

Poor perfusion P 140 R 38 BP 80/50 GCS 14

Injury Identified

__ Dead on Arrival
__ Severe Head Trauma
__ Severe Blunt Abdominal
Trauma
__ Respiratory Failure/
Pneumothorax
__ Limb amputation
__ Burn
__ Fractures
__ Respiratory Distress
__ Lacerations
__ TM ruptured
__ Agitation acute traumatic
stress
__ Other_____

Management Needed

__ Intubation
__ Assisted Ventilation
__ Nebulized meds for reactive
airway
__ IV or IO access
__ Fluid Resuscitation
__ Blood Transfusion
__ Antibiotics
__ Pain meds
__ Limb immobilization
__ Suture of lacerations
__ Psych consult
__ Sedation
__ Other_____

Disposition

__ Discharge to home
__ Discharge, awaiting care-giver
__ Transfer Operating Room / Surgeon
__ Needs Admission to Pediatric Critical Care bed
        (pts may need transfer)
__ Needs Admission to Inpatient pediatric bed
__ Needs Transfer to outside hospital for Pediatric critical care, burn care, general
        pediatric unit
__ Transfer to Morgue, contact Morgue Pastoral Services

ED /CLINICAL PARTICIPANT HANDOUT -- Breakout 2

PATIENT 5

Description

11-year old male brought in by ambulance

Facial burns

Agonal respirations

Lacerations on face and upper neck

Vital Signs, GCS, Obvious Injuries

P 60; R 4; BP 80/50; GCS 4

Injury Identified
__ Dead on Arrival
__ Severe Head Trauma
__ Severe Blunt Abdominal
Trauma
__ Respiratory Failure/
Pneumothorax
__ Limb amputation
__ Burn
__ Fractures
__ Respiratory Distress
__ Lacerations
__ TM ruptured
__ Agitation acute traumatic
stress
__ Other_____

Management Needed
__ Intubation
__ Assisted Ventilation
__ Nebulized meds for reactive
airway
__ IV or IO access
__ Fluid Resuscitation
__ Blood Transfusion
__ Antibiotics
__ Pain meds
__ Limb immobilization
__ Suture of lacerations
__ Psych consult
__ Sedation
__ Other_____

Disposition
__ Discharge to home
__ Discharge, awaiting care-giver
__ Transfer Operating Room / Surgeon
__ Needs Admission to Pediatric Critical Care bed
    (pts may need transfer)
__ Needs Admission to Inpatient pediatric bed
__ Needs Transfer to outside hospital for Pediatric critical care, burn care, general
    pediatric unit
__ Transfer to Morgue, contact Morgue Pastoral Services

ED /CLINICAL PARTICIPANT HANDOUT -- Breakout 2

PATIENT 6

Description

11-year old girl brought in by teacher

Unresponsive

Missing left arm and left leg

Wounds are wrapped in crepe paper

Vital Signs, GCS, Obvious Injuries

P 0; R 0; BP 0/0; GCS 0

Injury Identified
__ Dead on Arrival
__ Severe Head Trauma
__ Severe Blunt Abdominal
Trauma
__ Respiratory Failure/
Pneumothorax
__ Limb amputation
__ Burn
__ Fractures
__ Respiratory Distress
__ Lacerations
__ TM ruptured
__ Agitation acute traumatic
stress
__ Other_____

Management Needed
__ Intubation
__ Assisted Ventilation
__ Nebulized meds for reactive
airway
__ IV or IO access
__ Fluid Resuscitation
__ Blood Transfusion
__ Antibiotics
__ Pain meds
__ Limb immobilization
__ Suture of lacerations
__ Psych consult
__ Sedation
__ Other_____

Disposition
__ Discharge to home
__ Discharge, awaiting care-giver
__ Transfer Operating Room / Surgeon
__ Needs Admission to Pediatric Critical Care bed
        (pts may need transfer)
__ Needs Admission to Inpatient pediatric bed
__ Needs Transfer to outside hospital for Pediatric critical care, burn care, general
    pediatric unit
__ Transfer to Morgue, contact Morgue Pastoral Services

ED/CLINICAL AND IC PARTICIPANT HANDOUT

The **moderator** will provide participants with the following situation report and suggested breakout group discussion points that they can use to stimulate conversation once the breakout groups commence.

Situation Report – Module Two

Patients with blast injuries:

In ED	[7]
Patients admitted	[2]

Ventilated Patients	[2]
Total worried well in ED	[~35]
Fatalities	[1]
Transfers (Requested/Sent)	[2]

Total available beds by department:

Emergency Department	[0]
Med/Surg (larger children)	[5]
PICU	[0]
Other	[1]

Suggested Break-out Group Discussion Points

How will you handle the increasing number of injured? Worried well? Hysterical parents?

Where and how will you set up triage?

Where will you identify and admit all unaccompanied pediatric patients?

How will you keep track of all pediatric patients?

What supply and materials management issues will be critical to address?

What are your communication needs?

ED /CLINICAL PARTICIPANT HANDOUT   --   Breakout 2

Summary Situation Report – Module Two

During the breakout session, the ED/Clinical Group will provide a tally for Incident Command using this form.

Patients

_____# of Patients in ED total

_____ # of Patients in ED related to incident

_____# of Patients Requiring OR (if no OR availability, add to transfer of patients)

_____# of Patients Requiring Admission to Pediatric Critical Care (if no pediatric critical care add to transfer of patients)

_____# of Patients Requiring Admission to Gen Ped/Med Surgical

_____# of Patients awaiting discharge from ED

_____# Fatalities due to incident

_____# of Patients requiring transfer

_____ # ventilators used

Requests for Additional:

Medications

Supplies

Staff

ED /CLINICAL PARTICIPANT HANDOUT -- Breakout 3

PATIENT 7

Description

11-year-old girl brought in by teacher

Loudly sobbing and screaming "Don't touch me!" and hits or bites anyone who tries

Severe acute stress reaction

Vital Signs, GCS, Obvious Injuries

P 100; R 28; BP 130/90; GCS 14

Injury Identified

__ Dead on Arrival
__ Severe Head Trauma
__ Severe Blunt Abdominal
Trauma
__ Respiratory Failure/
Pneumothorax
__ Limb amputation
__ Burn
__ Fractures
__ Respiratory Distress
__ Lacerations
__ TM ruptured
__ Agitation acute traumatic
stress
__ Other_____

Management Needed

__ Intubation
__ Assisted Ventilation
__ Nebulized meds for reactive
airway
__ IV or IO access
__ Fluid Resuscitation
__ Blood Transfusion
__ Antibiotics
__ Pain meds
__ Limb immobilization
__ Suture of lacerations
__ Psych consult
__ Sedation
__ Other_____

Disposition

__ Discharge to home
__ Discharge, awaiting care-giver
__ Transfer Operating Room / Surgeon
__ Needs Admission to Pediatric Critical Care bed
        (pts may need transfer)
__ Needs Admission to Inpatient pediatric bed
__ Needs Transfer to outside hospital for Pediatric critical care, burn care, general
    pediatric unit
__ Transfer to Morgue, contact Morgue Pastoral Services

ED /CLINICAL PARTICIPANT HANDOUT -- Breakout 2

PATIENT 8

Description

5-year-old girl brought in by parents

Scant blood on arms

Covered in dust

Minor abrasions to arms

Appropriate reactions to parents

Vital Signs, GCS, Obvious Injuries

P 115; R 25; BP 90/60; GCS 15

Injury Identified

__ Dead on Arrival
__ Severe Head Trauma
__ Severe Blunt Abdominal Trauma
__ Respiratory Failure/ Pneumothorax
__ Limb amputation
__ Burn
__ Fractures
__ Respiratory Distress
__ Lacerations
__ TM ruptured
__ Agitation acute traumatic stress
__ Other_____

Management Needed

__ Intubation
__ Assisted Ventilation
__ Nebulized meds for reactive airway
__ IV or IO access
__ Fluid Resuscitation
__ Blood Transfusion
__ Antibiotics
__ Pain meds
__ Limb immobilization
__ Suture of lacerations
__ Psych consult
__ Sedation
__ Other_____

Disposition

__ Discharge to home
__ Discharge, awaiting care-giver
__ Transfer Operating Room / Surgeon
__ Needs Admission to Pediatric Critical Care bed
          (pts may need transfer)
__ Needs Admission to Inpatient pediatric bed
__ Needs Transfer to outside hospital for Pediatric critical care, burn care, general
      pediatric unit
__ Transfer to Morgue, contact Morgue Pastoral Services

ED /CLINICAL PARTICIPANT HANDOUT -- Breakout 2

PATIENT 9

Description

9-year-old boy walks in with parents

Covered in dust

Appropriate reactions to parents, staff

Vital Signs, GCS, Obvious Injuries

P 95; R 18; BP 100/70; GCS 15

Injury Identified
- __ Dead on Arrival
- __ Severe Head Trauma
- __ Severe Blunt Abdominal Trauma
- __ Respiratory Failure/ Pneumothorax
- __ Limb amputation
- __ Burn
- __ Fractures
- __ Respiratory Distress
- __ Lacerations
- __ TM ruptured
- __ Agitation acute traumatic stress
- __ Other_____

Management Needed
- __ Intubation
- __ Assisted Ventilation
- __ Nebulized meds for reactive airway
- __ IV or IO access
- __ Fluid Resuscitation
- __ Blood Transfusion
- __ Antibiotics
- __ Pain meds
- __ Limb immobilization
- __ Suture of lacerations
- __ Psych consult
- __ Sedation
- __ Other_____

Disposition
- __ Discharge to home
- __ Discharge, awaiting care-giver
- __ Transfer Operating Room / Surgeon
- __ Needs Admission to Pediatric Critical Care bed
      (pts may need transfer)
- __ Needs Admission to Inpatient pediatric bed
- __ Needs Transfer to outside hospital for Pediatric critical care, burn care, general pediatric unit
- __ Transfer to Morgue, contact Morgue Pastoral Services

ED /CLINICAL and IC PARTICIPANT HANDOUT -- Breakout 3

Module Three

The **moderator** will provide participants with the following situation report and suggested breakout group discussion points that they can use to stimulate conversation once the breakout groups commence.

Situation Report #3

Patients with blast injuries:

In ED	[9]
Patients admitted	[6]

Ventilated Patients	[2]
Total worried well in ED	[~40]
Fatalities	[1]
Transfers (Requested/Sent)	[2]

Total available beds by department:

Emergency Department	[0]
Med/Surg (larger children)	[0]
PICU	[0]
Other	[0]

Suggested Break-out Group Discussion Points

How will you set up screening at entrances to your facility?

How are you communicating with staff, patients, families, outside agencies?

What type of support are you providing for staff? How are you dealing with staff fatigue? Mental health issues?

What are the current policies to assure staff safety?

ED /CLINICAL PARTICIPANT HANDOUT -- Breakout 3

Summary Situation Report – Module Three

During the breakout session, the ED/Clinical Group will provide a tally for Incident Command using this form.

Patients

_____# of Patients in ED total

_____ # of Patients in ED related to incident

_____# of Patients Requiring OR (if no OR availability, add to transfer of patients)

_____# of Patients Requiring Admission to Pediatric Critical Care (if no pediatric critical care add to transfer of patients)

_____# of Patients Requiring Admission to Gen Ped/Med Surgical

_____# of Patients awaiting discharge from ED

_____# Fatalities due to incident

_____# of Patients requiring transfer

_____ # ventilators used

Requests for Additional:

Medications

Supplies

Staff

After-Exercise Evaluation Form for Participants

Please circle your answer to the following questions (Questions 1-3):

1. I learned a significant amount of new information about pediatric blast terrorism preparedness by participating in this exercise.

STRONGLY AGREE	SOMEWHAT AGREE	SOMEWHAT DISAGREE	STRONGLY DISAGREE

2. This exercise gave me an opportunity to practice utilizing my knowledge and skills related to pediatric blast terrorism preparedness.

STRONGLY AGREE	SOMEWHAT AGREE	SOMEWHAT DISAGREE	STRONGLY DISAGREE

3. I feel this exercise was valuable to me in preparing for a possible pediatric blast terrorism event.

STRONGLY AGREE	SOMEWHAT AGREE	SOMEWHAT DISAGREE	STRONGLY DISAGREE

Please answer yes or no to the following questions, and give specific details where applicable. Please write legibly - your feedback is very important!

(Questions 4-10) During this exercise, did you learn anything you did not know before re:

4. Your hospital's pediatric disaster preparedness response plan (e.g. where it is located, content, when it should be activated)?

   a. Yes (please specify)

   b. No

5. Communication resources available to you in an emergency (e.g. dedicated phone/fax lines, where/how to access communication resources, etc)?

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a. Yes (please specify)

b. No

6. Your hospital's incident command system (e.g. who are the incident commanders, who activates the emergency response plan, its role, etc.)

    a. Yes (please specify)

    b. No

7. Your specific role in your hospital's plan for pediatric disaster response?

    a. Yes (please specify)

    b. No

8. Your hospital or department's emergency communication tree (e.g. how staff in your department will be contacted with important information)?

    a. Yes (please specify)

    b. No

9. Your hospital can deal effectively with the mental health needs of the community in the case of a pediatric blast terrorism event (e.g. triaging, allaying concerns of community)?

    a. Yes (please specify)

    b. No

10. The role of your local or state health department in the case of a pediatric blast terrorism event (e.g. when they should be contacted, what number to call, resources available to hospitals, etc)?

    a. Yes (please specify)

b. No

11. What did you **like/not like** about the format or content of this exercise?

12. What **suggestions** do you have to make the exercise a better learning experience?

APPENDICES

Appendix 1: Pre-Event Trusted Agent Worksheet

(filled out a minimum of 1 week before drill; for use by moderator and evaluators)

Trusted Agent_____   Phone_____

Title_____   Fax_____

Hospital_____   Email_____

Append: Hospital Incident Command Table of Organization

Emergency Department Resources: Information anticipated *at the time* of the event:

Staffing numbers		
Doctors		
Nurses		
PAs		
NPs		
Transporters		
Clerks		
Actual # of stretchers		
Equipment numbers available without calling central supply		
ED Equipment includes sizes (where applicable) and numbers:		
Beds		
ET tubes		
Laryngoscope blades		
C-collars		
Backboards		
Vascular access/IO needles		
Child size masks and bags		
Block of pre-assigned chart numbers for Disaster patients		
ID bracelets		
Medications Guidelines for pediatric dosing readily available and location known to staff (length-based resuscitation tape and weight or age-based chart/table/booklet for tables and liquid medications)		
Pediatric IV flow drip rate charts		

Operating Room Resources

# OR's	
# OR's in use (OB & GI may have OR type space)	
# OR, nursing and anesthesia staffing	
Staff trained to handle children? Surgeons	
Nurses	
Anesthesiologists	
Average length of time for typical surgery/time OR will be vacated	

Availability and OR staff knowledge of location of the following:

Pediatric equipment		
Medication charts for common pediatric medications		
Pediatric IV flow drip rate charts		
Length-based resuscitation tapes (e.g. Broselow Tapes)		

ICU Resources

# beds	
# open beds	
# physician and nurse staffing	
Staff trained to handle children? Physicians	
Nurses	
Does ICU handle pediatric patients?	
What lowest age limit?	

Availability and ICU staff knowledge of location of the following:

Pediatric equipment		
Medication charts for common pediatric medications		
Pediatric IV flow drip rate charts		
Length-based resuscitation tapes (e.g. Broselow Tapes)		

Inpatient Service

# beds	
# open beds	
# physician and nurse staffing	
Staff trained to handle children? Physicians	
Nurses	
Does ward handle pediatric patients?	
What lowest age limit?	

Availability and Inpatient staff knowledge of location of the following:

Pediatric equipment		
Medication charts for common pediatric medications		
Pediatric IV flow drip rate charts		
Length-based resuscitation tapes (e.g. Broselow Tapes)		

Appendix 2: Recommended Participants

Organizers

Moderator

Facilitators

Evaluators

Observers

Trusted Agent from Hospital

Incident Command

Incident Command

Safety

Public Affairs

Risk Management

Security

Environmental Services

Radiation Safety

Materials Management

Employee Health

Ancillary Services

      Pharmacy

      Laboratory

      Radiology

Emergency Department/Clinical Services

Emergency Medicine

Nursing

Surgery

Respiratory Therapy

Anesthesia

PICU

NICU

Pediatric Inpatient

Social Work

Appendix 3: Attendance Sign In Sheet

[YOUR] HOSPITAL

Pediatric Blast Table Top Exercise

[DATE]

Name	Department/Title	Signature
	Moderator	
	Facilitator (Clinical)	
	Evaluator (Clinical)	
	Observer (Clinical)	
	Facilitator (IC)	
	Evaluator (IC)	
	Observer (IC)	

Appendix 4: Tabletop Exercise Checklist and Timeline

This checklist and timeline is intended to provide the Tabletop Exercise Planner with an organizational tool to manage the exercise planning process from beginning to end. The timeline provided along the side of the table is a rough estimate based on NYC DOHMH experience with actual hospital tabletop exercises. Your experience may vary.

Complete 6 – 8 weeks prior to the

Task	Start Date	End Date	Staff Assigned	Status
1. Early Development				
Determine/recruit members of Planning Committee and Evaluation Team				
Establish target date(s) for exercise.				
2. Planning the Exercise				
Schedule planning meetings				
Establish purpose				
Establish scope				
Develop objectives				
Review all scenarios				
Obtain most recent version of hospital's Emergency Management Plan (EMP)				
Distribute copies of EMP to members of planning committee				
Choose a scenario				
Determine which tabletop model to use				
Determine Moderator and 3-4 Facilitators (if breakout model is to be used)				
Identify participants for exercise (invitee list)				
Invite proposed participants/distribute flyers/advertisements for exercise, if applicable				
Identify and reserve room (including electronic equipment, e.g. projector, screen) for exercise.				

Pediatric Tabletop Exercise Toolkit for Hospitals

Task	Start Date	End Date	Staff Assigned	Status
Consider space for registration/ beverages and breakout rooms, if applicable)				
Identify observer/media area, if applicable				
3. Exercise Development				
Revise scenario to reflect facility features and SOPs				
Modify and finalize chosen scenario slides and associated materials				
Develop agenda for the exercise				
Finalize After-Exercise Survey				
Finalize Agent Fact Sheet				
Finalize Participant Narrative				
Copy each inject onto separate sheets of paper for distribution during exercise				
Make copies of all handouts				
Distribute advance materials for exercise to participants, if desired				
Develop attendance/sign–in form				
Create name tags, if desired				
4. Preparing for the Exercise				
Test electronic equipment (projector/screen, video camera, 2-way radios), if applicable				
Procure flip charts, markers, pens, and paper.				
Provide radio/phone directories (if applicable)				
Order refreshments				
Provide entire scenario packet (narrative, slides, injects, generic and post-modular questions) to Moderator for review				
Review responsibilities with Moderator and Facilitators				
Conduct an abbreviated "dry-run" of the exercise presentation				

Complete 6 – 8 weeks prior to the

Complete within 2 weeks of

Complete 24 – 72 hours

Task	Start Date	End Date	Staff Assigned	Status
5. Conducting the Exercise				
Review exercise ground rules with participants				
Discuss scope of the tabletop				
Review safety and security precautions				
Conduct the exercise				
Conduct a "Hot Wash"				
Distribute and collect After-Exercise Survey				
6. Evaluate the Exercise				
Conduct post-exercise debriefing session				
Compile survey results and debriefing session notes				
Develop report of results				
Share results with participants and other appropriate staff				
7. Post Exercise Activities				
Develop Corrective Action Plan				
Track Corrective Actions				
Track Lessons Learned				
Recognition				

Complete 6 – 8 weeks prior to the

- Conduct debriefing session **within a week after the exercise.**
- Complete and share report, lessons learned

Appendix 5: Suggested Agenda

Introduction to Disaster Drills   [8:00 – 8:30 am]

Module One   [8:30 – 9:00 am]
      Situation briefing
      Breakout groups
      Plenary reporting/discussion

Module Two   [9:00 – 9:30 am]
      Situation briefing
      Breakout groups
      Plenary reporting/discussion

Break   [9:30 – 9:45 am]

Module Three   [9:45 – 10:15 am]
      Situation briefing
      Breakout groups
      Moderated discussion

Hot Wash   [10:15 – 10:45 am]

Wrap-up and next steps   [10:45 – 10:55 am]

Evaluations   [11:55 – 12:00 pm]

Appendix 6: Sample Floor Plan

Table for staff person with handouts

Communication between tables is via courier or simulated phone/radio

Incident Command Table

Moderator

Slide Presentation

Emergency Department /Clinical Table

Table for Sign in sheet Agenda Refreshments

Appendix 7: Debriefing Session

Guidelines

A debriefing session is a short (45-60 minute) group discussion in which a small group of participants (8 –10) assemble after the exercise to discuss in detail their experiences with the exercise.

Components of a Session

Staff

Debriefing Session Leader

The Debriefing Session Leader leads the session, asking participants questions, probing for details, and facilitating the group's discussion.

Notetaker(s)

One or two persons in addition to the facilitator should observe the session, taking detailed notes on the discussion. The notetaker(s) should sit at the perimeter of the group and generally do not participate

Space

The session should take place at a location convenient to participants in a quiet, private room. Participants can be seated around a table or, if no table is available, chairs should be arranged in a circular shape to promote discussion.

Equipment needed

Notepaper and a pen/pencil for each participant

Tape recorder (optional)

Structuring the discussion

Begin the group with an introduction in which the Debriefing Session Leader:

Introduces him/herself and the notetaker(s) and describes their roles in the session.

Makes a statement about the purpose of the session in the context of the lessons learned from the recent tabletop exercise and preparedness goals of the institution.

Assures the group the session is confidential- no comments will be attributed to individuals.

Encourages participants to be vocal and honest about their experiences.

Example of Introduction: Thanks for agreeing to come to this debriefing. The reason we organized this group was to obtain your ideas about the TT exercise. We'd like to hear more about whether or not it was useful to you, why or why not, and recommendations you have for improving our hospital's emergency response plans based on what you have learned from this experience. It will be valuable for us to have this feedback from you.

Tips for Debriefing Leader:

Allow 5 or 10 minutes for participants to greet each other, make themselves comfortable and get refreshments. At the time, be respectful of the value of participants' time, as well as assessing the group dynamic throughout the focus group. Let participants leave early if they seem restless and you think you've already addressed all the questions.

It's fine to allow some group pauses and silences after asking each question and prior to asking probes. This allows participants time to gather their ideas.

Try rephrasing questions that are met with silence to encourage different ways of thinking about the topic.

Supportively ask more talkative or dominating participants to allow others in the groups to share their views.

Debriefing Questionnaire

The Debriefing Questionnaire is developed by the staff from the individual institution based on the needs of the hospital as outlined by the planning committee. After the introduction, the Debriefing Session Leader begins discussion by asking, one-by-one, pre-prepared questions and appropriately probing the group to explore pertinent areas more deeply as needed. It is important to consider the goals of your exercise and its evaluation when deciding what questions to include in the debriefing discussion.

Some suggested questions and probes include:

What did/didn't you like about the exercise?

Probe: What did you like about the content of the exercise (e.g. the scenarios, the discussion)?

Probe: What did you like about the format or structure of the exercise (e.g. schedule, groups)?

What are some of the new things you learned from the exercise?

Probe: What was the most important thing you learned form the exercise?

What, if anything, would you have liked to have covered but didn't get to discuss in the exercise?

Are there barriers that exist that make it difficult for staff to receive pediatric preparedness training?

Probe: What might help break down these barriers?

Do you believe your institution is more prepared for a pediatric disaster as a result of the exercise?

Probe: Specifically, why/why not?

How did you like the format of the exercise? What worked for you and what did not?

Appendix 8: How to Modify Materials for Larger Hospitals

Formula to stress the system without overwhelming it

- Use at least 1 more pediatric critical patient than you have Pediatric ICU beds

- Use 1 more pediatric patient who needs surgery than you have pediatricians or surgeons to handle the case

- Use 3-4 more pediatric moderately injured who need admission than you have inpatient beds

- Use a minimum of 5-10 green triage pediatric patients who need space in a separate area

Stressors for Large Hospitals

- Increase the numbers of patients presenting to the ED

- Have the incident occur on a weekend

- Have less availability of staff and supplies

- There is radiation

- Staff have children at site of the explosion

Additional Injects

- Switchboard overloaded – no calls can get through.

- A patient is the child of ED Nurse

- Incident commander is on vacation

- Parents looking for their children

Additional Patient Profiles

For hospitals that elect to increase the number of patients additional profiles have been provided in four categories:

- Walking wounded

- Moderate/Needs Stabilization

- Critical Care/OR

- DOA

Select those which will further tax your system without overloading it. These are formatted for the Moderator/Facilitator package. You will need to modify them to match the ones for the ED clinical group by removing actual treatment and disposition and adding summation to reverse side. You will need to add it to slide set, narrative, and renumber slides throughout this document.

ADDITIONAL PATIENT 1 Walking Wounded

Description

12 y/o M, near explosion site, where there was an adjacent store room, as per teacher who brought patient into ED

L side, T-shirt is tattered, possible chemical burn

Vital Signs, GCS, Obvious Injuries

P80, RR 20, BP 120/80, GCS 15

Treatment Check Off

__Erosive chemical exposure (remove clothing, and thoroughly irrigate affected area)

__Topical first aide

__Td booster

__Sterile dressings applied

__Pain meds

__Topical antibiotics to prevent secondary infection

__Pain meds prn

Actual Injuries

1-2 degree chemical burn

BSA 10% affected, no grafting nor debridement needed

Disposition

Discharge with follow-up to primary physician

ADDITIONAL PATIENT 2 Walking Wounded

Description

5-year-old girl with one flip flop, accompanied by hysterical father

Foot without flip flop covered in blood

Child is consolable and playful

Is in pain and pulls lower left extremity away from any handling

Vital Signs, GCS, Obvious Injuries

P100, RR 25, BP 110/70, GCS 15

Treatment Check Off

__ Thoroughly clean lower left extremity

__ Lidocaine

__ Exploration of embedded foreign body in the palmer aspect of the left foot.

__ Foreign body removal

__ X-ray s/p foreign body removal shows no foreign body present, complete removal accomplished

__Sterile dressing

Actual Injuries

Embedded glass in foot

Disposition

Discharge with follow-up to primary physician

Antibiotics to prevent secondary infection

ADDITIONAL PATIENT 3 Walking Wounded

Description

13 year-old male tried to jump a mid-sized fence, brought in by teacher.

5 cm laceration along the inner thigh of the right lower extremity

Active bleed

Vital Signs, GCS, Obvious Injuries

P 90, RR 20, BP 120/80, GCS 15, O2 sat 100% on RA.

Treatment Check Off

- __ ABC stable

- __ Intermediate laceration through dermis to epidermis

- __ Slow active bleed

- __ Hemostasis with pressure

- __ Laceration repair in ED

- __ Td toxoid

Actual Injuries

Right lower extremity laceration of the medial aspect of proximal thigh

Disposition

Discharge with follow up to primary physician

Antibiotics to prevent secondary infection

ADDITIONAL PATIENT 4 Walking Wounded

Description

12-year-old male brought in by parent

Loudly sobbing

Physically aggressive

Inconsolable

Harmful to others

States he "prefers" to die than live with what he's just lived through, regarding seeing a friend of his lose his arms in the explosion

Vital Signs, GCS, Obvious Injuries

P95, RR 22, BP 125/80, GCS 15, O2 sat unobtainable because patient pulled probe off.

Treatment Check Off

__ ABC stable

__ Psychiatric evaluation

__ Sedative medication

Actual Injuries

Acute stress disorder

Suicidal ideation

Disposition

Admit to psychiatric ward

ADDITIONAL PATIENT 5 Walking Wounded

Description

5-year-old female brought in by hysterical parents

Scant blood on arms

Covered in soot

Minor abrasions on arms and back

Parents convinced that patient has abdominal trauma, kidney trauma or intra-abdominal bleed – despite any arguments as to the contrary.

Vital Signs, GCS, Obvious Injuries

P 110, RR 25, BP 110/70, GCS 15, pulse Ox: 100%

Treatment Check Off

__ ABC stable

__ Thoroughly cleanse bloody areas and explore if needed

__ No signs of acute abdomen

__ Psychological First Aid for parents

__ Bacitracin and local first aid to abrasions

Actual Injuries

Minor superficial abrasions

Disposition

Treat and Release

Refer parents to social worker, or designated staff to deal with their "concerns"

ADDITONAL PATIENT 6 Walking Wounded

Description

9-year-old male walks in with parents

Hyperactive, can't stand still

Covered in dust

Cupping left hand with right hand

Complains of pain to the back of hand

Vital Signs, GCS, Obvious Injuries

P 80, RR 20, BP 110/70, GCS 15, Pulse Ox: 100% on RA.

Treatment Check Off

__ ABC stable

__ Swelling and bruising to the dorsal aspect of the left hand

__ Left hand x-ray

__ Pain medication

__ Immobilizing splint to left hand and wrist

Actual Injuries

ADHD

Left fifth metacarpal fracture

Disposition

Treat and release

Follow-up with primary physician or orthopedist in 5-7 days

ADDITONAL PATIENT 7 Walking Wounded

Description

13-year-old brought in by coach, was playing football during the explosion. He lost his focus when he heard the explosion, and made a weird twist of his left foot, causing him to fall to the ground clutching his foot in pain.

Vital Signs, GCS, Obvious Injuries

P 85, RR 23, BP 120/80, GCS 15, O2 Sat 100% on RA.

Swelling and bruising to the dorsal aspect of the left foot

Treatment Check Off

__ ABC stable

__ Left foot x-ray

__ Posterior orthoglass splint formed, molded and applied.

__ Patient given crutches.

__ Second foot X-ray shows well aligned fragments of the 5th metatarsal

Actual Injuries

Foot Fracture

Disposition

Treat and release

Follow-up with primary physician or orthopedist in 5-7 days

Crutches

ADDITIONAL Patient 8   Walking Wounded

Description

10 year-old female brought in by teacher. Complains of chest wall pain, after being hit with flying debris

Scant blood over chest and abdomen

Vital Signs, GCS, Obvious Injuries

P 90, RR 23, BP 115/73, GCS 15, Pulse Ox 100% on RA.

Treatment Check Off

__ Local first aide to abrasions

Actual Injuries

Minor abrasion to chest and abdomen

Disposition

Treat and release

ADDITIONAL PATIENT 9 MODERATE INJURY

Description

14-year-old female patient, arrives hysterically screaming "she's blind", frightened and inconsolable.

Adolescent in pain

Holding her R eye, tearing/crying, blood coming from eye

Refuses to open eye

Vital Signs, GCS, Obvious Injuries

P 98, RR20, BP 110/76, GCS 15

Embedded shrapnel in conjunctiva, crossing iris

Treatment Check Off

__ Exposure

__ Sedatives and pain meds to calm hysterical child,

__ Florescence exam positive for corneal abrasions

__ Ophthalmology consult

__ Slit lamp exam and FB removal

__ Tetanus booster

__ Antibiotic drops

__ Sterile eye patch

Actual Injuries

Penetrating corneal foreign body

Corneal abrasions

Disposition

Treat and Release with close follow-up with ophthalmologist

ADDITIONAL PATIENT 10 Moderate Injury

Description

9-year old female arrives with teacher slow to respond to verbal commands, responsive to painful stimulus. Otherwise alert and awake. Teacher states patient was hit over the head, directly over left side of face/head.

Vital Signs, GCS, Obvious Injuries

P 98, RR20, BP 110/76, GCS 13

Evidence of acute hearing loss

Treatment Check Off

__ Conductive hearing loss to the left ear

__ Left tympanic membrane has air rushing out, as patient blows her nose, as per patient

__ Otoscopic exam

__ Cover left ear

Actual Injuries

Left tympanic membrane rupture

Disposition

Follow-up with ENT

ADDITONAL PATIENT 11 Moderate Injury

Description

6-year-old female hit by falling heavy debris (brick) as per witness, brought in by parent
Right upper extremity pain
No deformity

Vital Signs, GCS, Obvious Injuries

P 120, RR 25, BP 110/68, GCS 15

Treatment Check Off

__ Right upper extremity with good perfusion, crepitus, without posterior deformity

__ Orthopedist consult

__ Plaster Cast applied

__ Post cast x-ray shows same good alignment of fragments

Actual Injuries

Right upper extremity closed radius/ulnar fracture

Disposition

Treat and release; follow-up with orthopedist

ADDITONAL PATIENT 12 Moderate Injury

Description

6-year-old male hit by flying heavy debris, large wood shrapnel, as per witness; brought in by parent

Right lower extremity pain and no deformity

Open laceration and active bleeding

Vital Signs, GCS, Obvious Injuries

P 120, RR 25, BP 110/68, GCS 15

Treatment Check Off

__ Good perfusion of right lower extremity

__ Crepitus

__ No posterior deformity

__ Foreign body noted after thorough irrigation and exploration of open wound

__ Right lower extremity x-ray

__ Laceration repaired at bedside in ED.

Actual Injuries

Right lower extremity contusion

Right lower extremity laceration

Disposition

Treat and release with follow-up with primary physician

CRITICAL CARE

ADDITIONAL PATIENT 13 Critical Care

Description

8-year old male brought in by good Samaritan stating having heard screams he went into an area of the explosion where fire erupted and found patient unconscious. He scooped him up and drove him to ED.

Soot at base of nostrils, dark nasal mucosa

Excessive use of respiratory accessory muscles

Poor air entry

Conscious now upon arrival to ED.

Slightly confused, alert, awake and oriented x 3

Vital Signs, GCS, Obvious Injuries

P 130, RR 38, GCS 12, O2 sat 89% on RA

Treatment Check Off

__Exposure – fire inhalation

__CXR (+) patchy increased density

__ 100% O2, if no response Hyperbaric O2

__ CBC – check Hb, CO (carbon monoxide) levels

Actual Injuries

Fire inhalation, burnt airways

Hypoxemia

Disposition

Admit to PICU

ADDITIONAL PATIENT 14 Critical Care

Description

5-year-old male brought in by parents, presenting with bilateral lower and upper extremity burns

circumferential burn over the right lower extremity

good strength and tone

moves all extremities

Vital Signs, GCS, Obvious Injuries

P 135, RR 30, BP 120/80, GCS 15, O2 sat 100% on RA.

Right lower extremity pulseless

Treatment Check Off

__ Pain meds

__ Silvadene Cream

__ Local first aide, wet, sterile dressing

__ 24h-48h watch in ICU, debridement of any necrotic tissue

__ Later patient to OR, once stable and debrided to have skin grafting done

Actual Injuries

2-3 degree burns >40% Body surface area

Disposition

Admit to ICU for stabilization

Later OR for grafting

Transfer to Burn Care Center

ADDITIONAL PATIENT 15 Critical Care

Description

13-year-old female brought in by ambulance via stretcher, unable to move her left lower extremity. Fire fighters extracted patient from being pinned under a support beam for 20 minutes. Patient complains of red urine.

Vital Signs, GCS, Obvious Injuries

P 120, RR 25, BP 110/70, GCS 15, O2 Sat 100% on RA

Lower left extremity very painful to touch

Swelling and ischemia to lower left extremity

Treatment Check Off

__ Urine dip for blood

__ Blood work

__ IV fluid given to maintain good urinary output

__ Pain meds

__ Consider Urine alkalinization vs. Mannitol

__ Patient placed under observation to follow kidney function

Actual Injuries

Rhabdomyolysis

Acute renal failure secondary to myoglobinuria

Compartment syndrome possible need for fasciotomy

Disposition

Admit for observation

Later OR for fasciotomy tomorrow if not improved compartment syndrome

ADDITIONAL PATIENT 16 Critical Care

Description

10-year-old male brought in by parents, reporting falling and hitting head against stairs.

Headache

Bilateral periorbital bruising

Acute onset of rhinorrhea

Vital Signs, GCS, Obvious Injuries

P 110, RR 23, BP 110/70, GCS 15, O2 Sat 98% on RA

Treatment Check Off

__ Look for occipital crepitus, Battle's sign and raccoon eyes consistent with basilar skull fracture

__Head CT

__ Check for CSF leak secondary to skull fracture

__ "Head-up" position, avoidance of coughing sneezing, nose blowing and straining

__ Laxatives, restricting oral intake, use of steroids, diuretics or osmotically active medications

__ Prophylactic antibiotics

Actual Injuries

Basilar skull fracture

Head injury

CSF leak

Disposition

Admit to ICU

Repeated lumbar for CSF drainage

Patient should be followed closely for at least one year for signs of recurrent or occult rhinorrhea and warned about the increased risk for meningitis.

ADDITIONAL PATIENT 17 Critical Care

Description

5-year-old male, brought in by school teacher while running to get outside, ran into a door frame, after tripping, hitting left side of head. Unconscious for 20 seconds.

Fluid coming from left ear

Patient cannot hear out of that ear.

Vital Signs, GCS, Obvious Injuries

P 120, RR 28, BP 90/60, GCS 15, O2 98% on RA

Treatment Check Off

__ Check for crepitus over temporal bone

__ Check for conductive hearing loss to the L ear

__ Head CT Scan

__ Otoscopic exam

Actual Injuries

Left temporal bone Fracture, with secondary CSF leak, via left ear

Left tympanic membrane rupture

Disposition

Admit to PICU for observation

ADDITIONAL PATIENT 18 Critical Care

Description

10-year-old male brought in by ambulance states he was thrown in a blast, causing him to slam against a corner of the building, while outside running.

Chest pain exacerbated with deep breathing.

Vital Signs, GCS, Obvious Injuries

P 120, RR 28, BP 90/60, GCS 15

Tachycardia

Crepitus over body of sternum

Crepitus over right clavicle

Treatment Check Off

__ Chest CT

__ IV fluids to stabilize BP

Actual Injuries

Cardiac contusion

Sternal fracture

Disposition

Admit to CCU for observation

ADDITONAL PATIENT 19 Critcal Care

Description

8-year-old female brought in by ambulance via stretcher had slammed against monkey bars with chest/thorax, falling from the blast.

Vital Signs, GCS, Obvious Injuries

P 130, RR 45, BP 100/60, GCS 15, Pulse Ox: 89% on RA

Shortness of breath

Treatment Check Off

__ Decreased breath sounds on left side

__ Nebulized O2 administered

__ Chest X-ray

Actual Injuries

Lung contusion

Disposition

PICU for 24 hour observation

ADDITIONAL PATIENT 20 Critical Care

Description

5-year-old male thrown by blast, hit left side of head, brought in unconscious by school teacher.

Fluid coming from left ear

Still unresponsive upon arrival to ED

Vital Signs, GCS, Obvious Injuries

P 100, RR 35, BP 120/80, GCS 6, O2 sat 95% on RA.

Treatment Check Off

__ Head CT

__ Assisted ventilation

__ Endotracheal intubation

__ CO2 35

__ Maintain BP

__ Otoscopic exam

Actual Injuries

Left temporal bone fracture

Cerebrospinal fluid leak via left ear

Subdural hematoma

Left tympanic membrane rupture

Disposition

Transfer to Neurosurgery tertiary care facility

OR to drain subdural hematoma to relieve midline shift

ADDITIONAL PATIENT 21 Critical Care

Description

6-year-old female hit by falling heavy debris (brick) as per witness, brought in by parent
Left upper extremity pain and deformity

Vital Signs, GCS, Obvious Injuries

P 120, RR 25, BP 110/68, GCS 15
Flexed wrist with posterior deformity
Bulge consistent with dislocation of radial fragment
Open wound over deformity.

Treatment Check Off

__ Left upper extremity x-ray

__ Orthopedist consult

Actual injuries

Left upper extremity open radius/ulnar fracture

Disposition

Admit to Ortho OR

PATIENT 12

Description

9-year-old male complaining of shortness of breath brought in by ambulance via stretcher
Hemoptysis

Vital Signs, GCS, Obvious Injuries

P 130, RR 45, BP 100/60, GCS 15, Pulse Ox: 89% on RA
Decreased breath sounds on left side

Treatment Check Off

__ Chest x-ray CXR

__ Chest Tube placement in ED

Actual injuries

Left lung laceration

Tension hemothorax

Posterior 4th rib fracture

Disposition

OR to repair left lung and stabilize patient

DOA

ADDITONAL PATIENT 22 DOA

Description

10-year-old female brought in by a Good Samaritan stating he went into an area of the explosion, where fire erupted having heard screams, found patient unconscious, scooped her up and drove her to ED.

Patient now rag-doll hypotonia upon arrival to ED.

Slightly confused, unresponsive.

Vital Signs, GCS, Obvious Injuries

Weak P 30, apneic, GCS 8, O2 sat unobtainable

Soot at base of nostrils, dark nasal mucosa

Weak respiratory accessory muscle use, poor air entry on route

Treatment Check Off

__ Exposure – fire inhalation

__ Endotracheal tube placement

__ Assisted ventilation

__ 100% O2, if no response Hyperbaric O2 via ventilator

__ CBC – check Hb

__ CPR; PEA on EKG

Actual Injuries

Fire inhalation, burnt airways

Hypoxemic brain injury > 5min – brain death

Disposition

Pronounce dead, discuss with medical examiner

Appendix 9: List of Acronyms

BP	Blood Pressure
CEO	Chief Executive Officer
CNO	Chief Nursing Officer
COO	Chief Operating Officer
DOA	Dead on Arrival
DOH	Department of Health
ED	Emergency Department
EMP	Emergency Management Plan
EMS	Emergency Medical Services
EOC	Emergency Operations Center
ER	Emergency Room
ET	Endotracheal Tube
FBI	Federal Bureau of Investigation
FDNY	Fire Department of New York
GCS	Glasgow Coma Scale
GPS	Global Positioning System
HazMat	Hazardous Material
HCW	Healthcare Workers
HERDS	Hospital Emergency Response Data System
ICP	Intra-cranial Pressure
IC	Incident Command
ICS	Incident Command System
ICU	Intensive Care Unit
ID	Identification
IO	Intraosseus
IV	Intravenous
JCAHO	Joint Commission on Accreditation of Healthcare Organizations
MCI	Multiple Casualty Incident
ME	Medical Examiner
MIS	Medical Information System
NICU	Neonatal Intensive Care Unit
NP	Nurse Practitioner

NYPD	New York Police Department
OEM	Office of Emergency Management
OR	Operating Room
P	Pulse
PA	Physician's Assistant
PICU	Pediatric Intensive Care Unit
PPE	Personal protective equipment
PR	Public Relations
R	Respiration
SNS	Strategic National Stockpile
TT	Tabletop exercise

APPENDIX 10: CDC Disaster Blast Fact Sheet

Explosions and Blast Injuries: A Primer for Clinicians

Key Concepts
- Bombs and explosions can cause unique patterns of injury seldom seen outside combat.
- The predominant post explosion injuries among survivors involve standard penetrating and blunt trauma. Blast lung is the most common fatal injury among initial survivors.
- Explosions in confined spaces (mines, buildings, or large vehicles) and/or structural collapse are associated with greater morbidity and mortality.
- Half of all initial casualties will seek medical care over a one-hour period. This can be useful to predict demand for care and resource needs.
- Expect an "upside-down" triage - the most severely injured arrive after the less injured, who bypass EMS triage and go directly to the closest hospitals.

Background

Explosions can produce unique patterns of injury seldom seen outside combat. When they do occur, they have the potential to inflict multi-system life-threatening injuries on many persons simultaneously. The injury patterns following such events are a product of the composition and amount of the materials involved, the surrounding environment, delivery method (if a bomb), the distance between the victim and the blast, and any intervening protective barriers or environmental hazards. Because explosions are relatively infrequent, blast-related injuries can present unique triage, diagnostic, and management challenges to providers of emergency care.

Few U.S. health professionals have experience with explosive-related injuries. Vietnam era physicians are retiring, other armed conflicts have been short-lived, and until this past decade, the U.S. was largely spared of the scourge of mega-terrorist attacks. This primer introduces information relevant to the care of casualties from explosives and blast injuries.

Classification of Explosives

Explosives are categorized as **high-order explosives** (HE) or **low-order explosives** (LE). HE produce a defining supersonic over-pressurization shock wave. Examples of HE include TNT, C-4, Semtex, nitroglycerin, dynamite, and ammonium nitrate fuel oil (ANFO). LE create a subsonic explosion and lack HE's over-pressurization wave. Examples of LE include pipe bombs, gunpowder, and most pure petroleum-based bombs such as Molotov cocktails or aircraft improvised as guided missiles. HE and LE cause different injury patterns.

Explosive and incendiary (fire) bombs are further characterized based on their source. "Manufactured" implies standard military-issued, mass produced, and quality-tested

weapons. "Improvised" describes weapons produced in small quantities, or use of a device outside its intended purpose, such as converting a commercial aircraft into a guided missile. Manufactured (military) explosive weapons are exclusively HE-based. Terrorists will use whatever is available – illegally obtained manufactured weapons or improvised explosive devices (also known as "IEDs") that may be composed of HE, LE, or both. Manufactured and improvised bombs cause markedly different injuries.

Blast Injuries

The four basic mechanisms of blast injury are termed as primary, secondary, tertiary, and quaternary (Table 1). "Blast Wave" (primary) refers to the intense over-pressurization impulse created by a detonated HE. Blast injuries are characterized by anatomical and physiological changes from the direct or reflective over-pressurization force impacting the body's surface. The HE "blast wave" (over-pressure component) should be distinguished from "blast wind" (forced super-heated air flow). The latter may be encountered with both HE and LE.

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Explosions and Blast Injuries
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Table 1: Mechanisms of Blast Injury

Category	Characteristics	Body Part Affected	Types of Injuries
Primary	Unique to HE, results from the impact of the over pressurization wave with body surfaces.	Gas filled structures are most susceptible - lungs, GI tract, and middle ear	- Blast lung (pulmonary barotrauma) - TM rupture and middle ear damage - Abdominal hemorrhage and perforation - Globe (eye) rupture - Concussion (TBI without physical signs of head injury)
Secondary	Results from flying debris and bomb fragments	Any body part may be affected	- Penetrating ballistic (fragmentation) or blunt injuries -Eye penetration (can be occult)
Tertiary	Results from individuals being thrown by the blast wind	Any body part may be affected	- Fracture and traumatic amputation - Closed and open brain injury
Quaternary	- All explosion-related injuries, illnesses, or diseases not due to primary, secondary, or tertiary mechanisms. - Includes exacerbation or complications of existing conditions.	Any body part may be affected	- Burns (flash, partial, and full thickness) - Crush injuries - Closed and open brain injury - Asthma, COPD, or other breathing problems from dust, smoke, or toxic fumes - Angina - Hyperglycemia, hypertension

LE are classified differently because they lack the self-defining HE over-pressurization wave. LE's mechanisms of injuries are characterized as due from ballistics (fragmentation), blast wind (not blast wave), and thermal. There is some overlap between LE descriptive mechanisms and HE's Secondary, Tertiary, and Quaternary mechanisms.

Explosions and Blast Injuries
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Table 2: Overview of Explosive-related Injuries

System	Injury or Condition
Auditory	TM rupture, ossicular disruption, cochlear damage, foreign body
Eye, Orbit, Face	Perforated globe, foreign body, air embolism, fractures
Respiratory	Blast lung, hemothorax, pneumothorax, pulmonary contusion and hemorrhage, A-V fistulas (source of air embolism), airway epithelial damage, aspiration pneumonitis, sepsis
Digestive	Bowel perforation, hemorrhage, ruptured liver or spleen, sepsis, mesenteric ischemia from air embolism
Circulatory	Cardiac contusion, myocardial infarction from air embolism, shock, vasovagal hypotension, peripheral vascular injury, air embolism-induced injury
CNS injury	Concussion, closed and open brain injury, stroke, spinal cord injury, air embolism-induced injury
Renal Injury	Renal contusion, laceration, acute renal failure due to rhabdomyolysis, hypotension, and hypovolemia
Extremity injury	Traumatic amputation, fractures, crush injuries, compartment syndrome, burns, cuts, lacerations, acute arterial occlusion, air embolism-induced injury

Note: Up to 10% of all blast survivors have significant eye injuries. These injuries involve perforations from high-velocity projectiles, can occur with minimal initial discomfort, and present for care days, weeks, or months after the event. Symptoms include eye pain or irritation, foreign body sensation, altered vision, periorbital swelling or contusions. Findings can include decreased visual acuity, hyphema, globe perforation, subconjunctival hemorrhage, foreign body, or lid lacerations. Liberal referral for ophthalmologic screening is encouraged.

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Selected Blast Injuries

Lung Injury

"Blast lung" is a direct consequence of the HE over-pressurization wave. It is the most common fatal primary blast injury among initial survivors. Signs of blast lung are usually present at the time of initial evaluation, but they have been reported as late as 48 hours after the explosion. Blast lung is characterized by the clinical triad of apnea, bradycardia, and hypotension. Pulmonary injuries vary from scattered petechae to confluent hemorrhages. Blast lung should be suspected for anyone with dyspnea, cough, hemoptysis, or chest pain following blast exposure. Blast lung produces a characteristic "butterfly" pattern on chest X-ray. A chest Xray is recommended for all exposed persons and a prophylactic chest tube (thoracostomy) is recommended before general anesthesia or air transport is indicated if blast lung is suspected.

Ear Injury

Primary blast injuries of the auditory system cause significant morbidity, but are easily overlooked. Injury is dependent on the orientation of the ear to the blast. TM perforation is the most common injury to the middle ear. Signs of ear injury are usually present at time of initial evaluation and should be suspected for anyone presenting with hearing loss, tinnitus, otalgia, vertigo, bleeding from the external canal, TM rupture, or mucopurulent otorhea. All patients exposed to blast should have an otologic assessment and audiometry.

Abdominal Injury

Gas-containing sections of the GI tract are most vulnerable to primary blast effect. This can cause immediate bowel perforation, hemorrhage (ranging from small petechiae to large hematomas), mesenteric shear injuries, solid organ lacerations, and testicular rupture. Blast abdominal injury should be suspected in anyone exposed to an explosion with abdominal pain, nausea, vomiting, hematemesis, rectal pain, tenesmus, testicular pain, unexplained hypovolemia, or any findings suggestive of an acute abdomen. Clinical findings may be absent until the onset of complications.

Brain Injury

Primary blast waves can cause concussions or mild traumatic brain injury (MTBI) without a direct blow to the head. Consider the proximity of the victim to the blast particularly when given complaints of headache, fatigue, poor concentration, lethargy, depression, anxiety, insomnia, or other constitutional symptoms. The symptoms of concussion and post traumatic stress disorder can be similar.

Emergency Management Options

- Follow your hospital's and regional disaster system's plan.
  Expect an "upside-down" triage - the most severely injured arrive after the less injured, who by-pass EMS triage and go directly to the closest hospitals.
  Double the first hour's casualties for a rough prediction of total "first wave" of casualties.
- Obtain and record details about the nature of the explosion, potential toxic exposures and environmental hazards, and casualty location from police, fire, EMS, ICS Commander, regional EMA, health department, and reliable news sources.
- If structural collapse occurs, expect increased severity and delayed arrival of casualties.

Explosions and Blast Injuries
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Medical Management Options

- Blast injuries are not confined to the battlefield. They should be considered for any victim exposed to an explosive force.
- Clinical signs of blast-related abdominal injuries can be initially silent until signs of acute abdomen or sepsis are advanced.
- Standard penetrating and blunt trauma to any body surface is the most common injury seen among survivors. Primary blast lung and blast abdomen are associated with a high mortality rate. "Blast Lung" is the most common fatal injury among initial survivors.
- Blast lung presents soon after exposure. It can be confirmed by finding a "butterfly" pattern on chest X-ray. Prophylactic chest tubes (thoracostomy) are recommended prior to general anesthesia and/or air transport.
- Auditory system injuries and concussions are easily overlooked. The symptoms of mild TBI and posttraumatic stress disorder can be identical.
- Isolated TM rupture is not a marker of morbidity; however, traumatic amputation of any limb is a marker for multi-system injuries.
- Air embolism is common, and can present as stroke, MI, acute abdomen, blindness, deafness, spinal cord injury, or claudication. Hyperbaric oxygen therapy may be effective in some cases.
- Compartment syndrome, rhabdomyolysis, and acute renal failure are associated with structural collapse, prolonged extrication, severe burns, and some poisonings.
- Consider the possibility of exposure to inhaled toxins and poisonings (e.g., CO, CN, MetHgb) in both industrial and criminal explosions.
- Wounds can be grossly contaminated. Consider delayed primary closure and assess tetanus status. Ensure close follow-up of wounds, head injuries, eye, ear, and stress-related complaints.
- Communications and instructions may need to be written because of tinnitus and sudden temporary or permanent deafness.

Explosions and Blast Injuries
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Selected Readings

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This Explosives Primer was developed from published and unpublished sources. If quoted, please cite date and time as changes will be made as new information becomes available or is cleared for public distribution.

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HOSPITAL & HEALTH FACILITY EMERGENCY EXERCISE GUIDE
Part 1 - The Table Top Exercise

HSEEP Compliance Principles for Exercise Development, Conduct, Evaluation, and Improvement Planning

💿 **CD-ROM INCLUDED**

Table of Contents

Introduction

This guide was created to help hospitals design, implement, and evaluate emergency exercises following the The Homeland Security Exercise and Evaluation Program (HSEEP) format. HSEEP enhances and supports prevention, response, and recovery capabilities through the recommended routine practice of comprehensive incident management scenarios intended to reduce risks and protect lives, regardless of the specific emergency.

Hospitals and other health care facilities participate in exercises to help prepare for and respond to bioterrorism and other public health emergencies. Current hospital emergency preparedness priority areas include interoperable communication systems, bed tracking, alternate care sites, hospital partnership development, mobile medical assets, fatality management planning, and hospital evacuation planning. Planning and exercises should also be done to improve surge capacity, decontamination capabilities, isolation capacity, personal protective equipment, pharmaceutical supplies, and preparedness for at-risk populations.

Utilizing the HSEEP format in hospital exercises provides consistent terminology that can be used by all exercise planners, regardless of the nature and composition of their sponsoring agency or organization. It reflects lessons learned and best practices of existing exercise programs and can be adapted to a variety of scenarios and incidents within a hospital. HSEEP is also consistent with all of the current national initiatives and policies including the National Incident Management System (NIMS), Hospital Incident Command System (HICS), the National Preparedness Goal, National Response Framework, the Target Capabilities List (TCL), and the Universal Task List (UTL).

Our hope is that the material contained in this guide will help hospitals and other health care facilities effectively and efficiently conduct and evaluate required emergency preparedness exercises and drills. Most hospitals that are accredited by a regulatory agency are required to test emergency operation procedures and plans twice a year while utilizing certain capacities. This emergency exercise series will help hospitals format and conduct a community-wide table top exercise while following the HSEEP format.

Conducting a discussion-based table top exercise with community partners (surrounding hospitals and government agencies) should be the first step in testing emergency plans. Once a table top exercise has been evaluated and action plans have been completed, functional and full-scale exercises should follow.

This workbook was compiled after consulting with emergency planning experts and utilizing the current resources and published literature available. Hospitals and other health care facilities should watch for future installments of this HSEEP-based emergency exercise guide series.

Additional information can be found in the "References and Resources" tab of this guide.

The CD-Rom included at the back of this guide contains samples of the HSEEP TTX materials referenced.

Homeland Security Exercise and Evaluation Program (HSEEP) Basics

What Is HSEEP?

The Homeland Security Exercise and Evaluation Program is a capabilities- and performance-based exercise program that provides a standardized policy, methodology, and terminology for exercise design, development, conduct, evaluation, and improvement planning. The HSEEP Policy and Guidance is presented in detail in HSEEP Volumes I-IV, which are maintained by the Federal Emergency Management Agency's National Preparedness Directorate, Department of Homeland Security. 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. You can download complete versions of HSEEP Volumes I-IV (in PDF format), from http://hseep.dhs.gov.

This section provides terminology, methodology, and compliance guidelines for all entities involved in exercises, including federal, state, and local governments, departments, and agencies; private sector entities; and non-governmental organizations. It defines the key requirements for an entity to be considered HSEEP-compliant.

HSEEP Terminology and Methodology

Below is an overview of key components of HSEEP terminology and methodology.

Exercise Types

There are seven types of exercises defined within HSEEP, each of which is either discussion-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, and agreements. Types of discussion-based exercises include the following:

- **Seminar**: A seminar is an informal discussion designed to orient participants to new or updated plans, policies, or procedures (e.g., a seminar to review a new Evacuation Standard Operating Procedure).

- **Workshop**: A workshop resembles a seminar but is employed to build specific products, such as a draft plan or policy (e.g., a Training and Exercise Plan Workshop is used to develop a Multi-year Training and Exercise Plan).

- **Table Top Exercise (TTX)**: A table top exercise involves key personnel discussing simulated scenarios in an informal setting. TTXs can be used to assess plans, policies, and procedures.

- **Game**: A game is a simulation of operations that often involves two or more teams, usually in a competitive environment, using rules, data, and procedures designed to depict an actual or assumed real-life situation.

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:

- **Drill**: A drill is a coordinated, supervised activity usually employed to test a single, specific operation or function within a single entity (e.g., a fire department conducts a decontamination drill).

- **Functional Exercise (FE)**: A functional exercise examines and/or validates the coordination, command, and control between various multi-agency coordination centers (e.g., emergency operation center, joint field office, etc.). A functional exercise does not involve any "boots on the ground" (i.e., first responders or emergency officials responding to an incident in real time).

- **Full-Scale Exercise (FSE)**: A full-scale exercise is a multi-agency, multi-jurisdictional, multi-discipline exercise involving functional (e.g., joint field office, emergency operation centers, etc.) and "boots on the ground" response (e.g., firefighters decontaminating mock victims).

Exercise Documentation

The list below briefly describes the important document types associated with most exercises. The types of documentation described here are discussed in more detail in *HSEEP Volume II: Exercise Planning and Conduct*.

- **A 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 discussions during the exercise.

- **The 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.

- **The 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.

- **The 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 necessary events happen so that all exercise objectives are met.

- **A Player Handout** is a 1- to 2-page document, usually distributed at the start of an exercise, which provides a quick reference for exercise players on safety procedures, logistical considerations, exercise schedule, and other key factors and information.

- **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. In order to assist entities in exercise evaluation, standardized EEGs have been created that reflect capabilities-based planning tools, such as the Target Capabilities List (TCL) and the Universal Task List (UTL). The EEGs are not meant as report cards. Rather, they are intended to guide an evaluator's observations so that the evaluator focuses on capabilities and tasks relevant to exercise objectives to support development of the After-Action Report/Improvement Plan (AAR/IP).

- **An 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 as associated with the capabilities and tasks, and an IP, which identifies specific corrective actions, assigns them to responsible parties, and establishes targets for their completion. The lead evaluator and the exercise planning team draft the AAR and submit it to conference participants prior to an After-Action Conference (see below). The draft AAR is distributed to conference participants for review no more than 30 days after exercise conduct. 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.

Planning and After-Action Conferences

The HSEEP methodology defines a variety of planning and after action conferences. The need for each of these conferences varies depending on the type and scope of the exercise. They include:

- Concepts and Objectives Meeting

- Initial Planning Conference (IPC)

- Mid-term Planning Conference (MPC)

- Master Scenario Events List (MSEL) Conference

- Final Planning Conference (FPC)

- After Action Conference (AAC)

HSEEP Volume II: Exercise Planning and Conduct provides details on the outcomes, products, and associated timelines for each of these planning conferences.

HSEEP Compliance

For the purpose of this document, HSEEP Compliance is defined as adherence to specific HSEEP-mandated practices for exercise program management, design, development, conduct, evaluation, and improvement planning. In order for an entity to be considered HSEEP compliant it must satisfy four distinct performance requirements:

1. Conducting an annual Training and Exercise Plan Workshop (T&EPW) and developing and maintaining a Multi-year Training and Exercise Plan

2. Planning and conducting exercises in accordance with the guidelines set forth in HSEEP Volumes I-III

3. Developing and submitting a properly formatted After-Action Report/Improvement Plan (AAR/IP). The format for the AAR/IP is found in HSEEP Volume III

4. Tracking and implementing corrective actions identified in the AAR/IP

The checklist provided below is intended to serve as a guide to assess whether or not a particular exercise program is HSEEP compliant.

Training and Exercise Plan Workshop

- All HSEEP-compliant entities conduct a T&EPW each calendar year in which they develop a Multi-year Training and Exercise Plan, which includes:

  - The entities' training and exercise priorities (based on an overarching strategy and previous improvement plans)

  - The capabilities from the TCL that the entity will train for and exercise against

  - A multi-year training and exercise schedule that:

    - Reflects the training activities that will take place prior to an exercise, allowing exercises to serve as a true validation of previous training

    - Reflects all exercises in which the entity participates

    - Employs a "building-block approach" in which training and exercise activities gradually escalate in complexity

  - A new or updated Multi-year Training and Exercise Plan must be finalized and implemented within 60 days of the T&EPW.

  - All scheduled exercises must be entered into the National Exercise Schedule (NEXS) System.

  - The Multi-year Training and Exercise Plan must be updated on an annual basis (or as necessary) to reflect schedule changes.

Exercise Planning and Conduct

- The type of exercise selected by the entity should be consistent with the entity's Multi-year Training and Exercise Plan.

- Exercise objectives should be based on capabilities and their associated critical tasks, which are contained within the EEGs. For example, if an entity, based on its risk/vulnerability analysis, determines that it is prone to hurricanes, it may want to validate its evacuation capabilities. In order to validate this capability it would first refer to the "Citizen Protection: Evacuation and/or In-Place Protection" EEG. Tasks associated with this capability include: *"make the decision to evacuate or shelter in place," "identify and*

mobilize appropriate personnel," and *"activate approved traffic control plan."* An entity may wish to create its own Simple, Measurable, Achievable, Realistic, and Task-oriented (SMART) objectives based on its specific plans/procedures associated with these capabilities and tasks, such as: 1) examine the ability of local response agencies to conduct mass evacuation procedures in accordance with standard operating procedures; and 2) evaluate the ability of local response agencies to issue public notification of an evacuation order within the time frame prescribed in local standard operating procedures.

- The scenarios used in exercises must be tailored toward validating the capabilities and should be based on the entity's risk/vulnerability assessment.

- Exercise planners should develop the following documents in accordance with HSEEP Volume IV to support exercise planning, conduct, evaluation, and improvement planning:

  - For Discussion-based Exercises:

    - Situation Manual (SitMan)

  - For Operations-based Exercises this requires:

    - Exercise Plan (ExPlan)

    - Player Handout

    - Master Scenario Events List (MSEL)

    - Controller and Evaluator (C/E) Handbook

  Templates and samples of these documents can be found in *HSEEP Volume IV: Sample Templates and Formats*, available on the HSEEP website (http://hseep.dhs.gov).

- Exercises should adhere to the planning timelines laid forth in HSEEP Volume I.

- Exercises must reflect the principles of the National Incident Management System (NIMS).

After-Action Reporting

- AAR/IPs created for exercises must conform to the templates provided in HSEEP Volume III: Exercise Evaluation and Improvement Planning.

- Following each exercise, a draft AAR/IP must be developed based on information gathered through use of Exercise Evaluation Guides (EEGs).

- Following every exercise, an After-Action Conference (AAC) must be conducted in which:

  - Key personnel and the exercise planning team are presented with findings and recommendations from the draft AAR/IP.

  - Corrective actions addressing a draft AAR/IP's recommendations are developed and assigned to responsible parties with due dates for completion.

- A final AAR/IP with recommendations and corrective actions derived from discussion at the AAC must be completed within 60 days after the completion of each exercise.

Improvement Planning

- An improvement plan will include broad recommendations from the AAR/IP organized by target capability as defined in the Target Capabilities List (TCL).

- Corrective actions derived from an AAC are associated with the recommendations and must be linked to a capability element as defined in the TCL.

- Corrective actions included in the improvement plan must be measurable.

- Corrective actions included in the improvement plan must designate a projected start date and completion date.

- Corrective actions included in the improvement plan must be assigned to an organization and a point of contact (POC) within that organization.

- Corrective actions must be continually monitored and reviewed as part of an organizational Corrective Action Program. An individual should be responsible for managing a Corrective Action Program to ensure corrective actions resulting from exercises, policy discussions, and real-world events are resolved and support the scheduling and development of subsequent training and exercises.

Additional Information

The HSEEP website, http://hseep.dhs.gov, provides additional information regarding HSEEP Policy and Guidance. Available on the website are the revised versions of HSEEP Volumes I-III, which provide detail and context regarding many of the terms, processes, and requirements described above. Volume IV is a searchable library that provides many of the sample materials described above. 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 Mobile Course), and residence courses (Master Exercise Practitioner Program) that teach students the principles of exercise planning, conduct, evaluation, and improvement planning.

Steps Involved in Planning a Health Care Table Top Exercise (TTX)

There are 12 fundamental steps involved in planning and executing a health care TTX to ensure its success. Below are brief descriptions of those steps, along with recommended timetables and outcomes for each step.

1. Concept and Objectives Meetings

A Concept 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. The C & O Meeting helps planners identify the capabilities and tasks that are going to be substantiated, design objectives based on those capabilities and tasks, and exercise planning team members.

The C & O Meeting for a TTX should take place at least 4 to 5 months before the exercise.

The following outcomes are expected from the C & O Meeting:
- Purpose and goals of the exercise
- Type of exercise
- Budget for the exercise
- Timeframe and location
- Participating jurisdictions, agencies, and organizations
- Who should be represented on the exercise planning team
- Date for the Initial Planning Conference (IPC)

2. Initial Planning Conference

The Initial Planning Conference (IPC) marks the beginning of the exercise development phase of the planning process. Its purpose is to outline 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)—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.

The IPC for a TTX should take place 4 months before the exercise.

The following outcomes are expected from the IPC:
- Scope of the exercise
  - Purpose
  - Type of exercise
  - Participants—level of participation
  - Date
  - Location
  - Goals and objectives (must be associated with Target Capabilities)
  - Exercise assumptions and artificialities (requirements and conditions)
  - Scenario variables—time, location, hazard selection)
- Exercise Director, Control Lead, Evaluation Lead, and Logistics Lead identified.
- Documentation started—Emergency Operations Procedures (EOP) Exercise Notification Form (mirrors information that is submitted to the National Exercise Scheduler [NEXS] at the HSEEP site).
- Responsibilities assigned for SitMan and C/E Handbook.

3. Mid-term Planning Conference

The Mid-term Planning Conference (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, SitMan, C/E Handbook, MSEL). MPCs provide additional opportunities to resolve logistical and organizational issues that may arise during planning. At the conclusion of the MPC, selected planners should conduct a walk-through of the proposed exercise site.

The MPC for a TTX should take place at least 4 months before the exercise.

The following outcomes are expected from the MPC:
- Review documentation—ExPlan, draft of C/E Handbook with the MSEL.
- Possible walkthrough of exercise site/layout.
- Develop the MSEL exercise timeline and associated scenario injects or determine if one or more MSEL conferences will be needed.
- Review logistics needs for the exercise.
- Assign additional responsibilities with date of completion.
- Determine date and time for MSEL conference(s) and Final Planning Conference (FPC).

4. Master Scenario Events List Conference

The Master Scenario Events List (MSEL) Conference focuses on developing the MSEL—a chronological list that supplements the exercise scenario with event summaries; expected participant responses; capabilities, tasks, and objectives to be addressed; and responsible personnel.

The MSEL Conference for a TTX should take place at least 90 days before the exercise.

The following outcomes are expected from the MSEL Conference:
- Identify major and minor events that should occur during the exercise.
- Determine expected responses event by each player.
- Determine if the conditions established will trigger the expected response; provide a secondary prompt through a message/data inject to be used if needed.
- Determine what responses need an informational inject to stimulate the expected response.
- Identify the method used to introduce each message/data inject.

- Organize major and minor events and messages chronologically; assigning a time for each event/message.
- Create the draft MSEL document.
- Determine additional assignments and date to complete the MSEL.

5. Final Planning Conference

The Final Planning Conference (FPC) is the last 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.

The FPC for a TTX should take place at least 45 days before the exercise.

The following outcomes are expected from the FPC:
- Review the entire exercise processes and procedures. No major changes should occur at the FPC.
- Resolve any open issues related to the exercise documents and materials.
- Review and verify the logistics needs of the exercise.
- Determine additional assignments and completion date.
- Conduct a final comprehensive review of all documents:
  - SitMan
  - C/E Handbook with the MSEL
  - Player Handout
  - Briefing materials (for player briefing and controller/evaluator training)
  - Reference materials to be provided to players

6. Controller and Evaluator Briefing

The Controller and Evaluator Briefing is an exercise overview that covers location and area, schedule of events, scenario, control concept, controller and evaluator responsibilities, and any miscellaneous information.

The Controller and Evaluator Briefing for a TTX should take place 2 to 5 days before the exercise.

The following outcomes are expected from the Controller and Evaluator Briefing:
• Review the C/E Handbook
• Identify all assignments and locations
• Provide badges/identification
• Walk-through of exercise site if possible
• Q&A

7. Player Briefing

A Controller conducts the Player Briefing for all players to address individual roles and responsibilities, exercise parameters, safety, badges, and any other remaining logistical exercise concerns or questions.

The Player Briefing for a TTX should take place 15 to 30 minutes before the start of the exercise.

The following outcomes are expected from the Player Briefing:
• Provide badging/identification
• Review the Player Handout
• Review references
• Overview of exercise site
• Review safety and exercise call-off procedures

8. Exercise Conduct

Health care TTX conduct includes presentation, facilitation, and discussion of the scenario.

Table Top Exercise Begins

During TTX Conduct, Controllers:
• Initiate the play and monitor players' actions
• Monitor and record the injects and player expected actions
• Ensure participants' safety

During TTX Conduct, Players:
• Respond to the events and injects

During TTX Conduct, Evaluators:
• Observe players' actions
• Record significant decisions/actions/outcomes
• Help ensure safety of participants by reporting to the controller

9. Player Hot Wash

Subsequent to the end of a TTX, a controller leads a Hot Wash so players can provide feedback. This allows controllers and evaluators to capture information about events while they are still fresh in the players' minds. The Hot Wash is an opportunity to determine the level of satisfaction with the exercise, identify issues or concerns, and propose areas for improvement.

The Player Hot Wash should occur immediately after the exercise (or the next day at the latest if the exercise ends late or not all players are present).

The following outcomes are expected from the Player Hot Wash:
• Secure Participant Feedback Forms
• Determine what went well and should be continued, and what did not go well and should be improved
• Recommendations on how to improve
• Recover badges/identification
• Recover reference materials

10. Controller and Evaluator Debriefing

The Controller and Evaluator (C/E) Debriefing provides a forum for controllers and evaluators to review the exercise. The exercise planning team facilitates this debriefing, which allows each controller and evaluator to provide an assessment of their observations and to discuss both strengths and areas for improvement.

The C/E Debriefing should occur no later than one week after the exercise.

The following outcomes are expected from the C/E Debriefing:
• Review the exercise and note changes from the MSEL.
• Document controller and evaluator observations.
• Secure completed EEGs and Participant Feedback Forms.
• Recover badges/identification.

11. After-Action Report and Improvement Plan

To prepare the After-Action Report and Improvement Plan (AAR/IP), exercise evaluators analyze data collected from the Hot Wash, Debriefing, Participant Feedback Forms, EEGs, and other sources (e.g., plans, procedures) and compare actual results with the intended outcome. An AAR/IP is used to provide feedback to participating entities on their performance during the exercise. The AAR/IP summarizes exercise events and analyzes performance of the tasks identified as important during the planning process. It also evaluates achievement of the selected exercise objectives and demonstration of the overall capabilities being validated. The IP portion of the AAR/IP includes corrective actions for improvement, along with timelines for their implementation and assignment to responsible parties.

A draft of the AAR/IP is due within 3 to 5 weeks after the exercise.

The following outcomes are expected from the AAR/IP:
- Content from:
  - Exercise documents
  - Participant feedback forms
  - Player Hot Wash notes
  - Controller and Evaluator debriefing notes
- Identify the participants for the After-Action Conference (AAC).
- Date and invitations sent out for After-Action Conference
- Draft AAR/IP reviewed by exercise planning team
- Draft AAR/IP sent to participants of After-Action Conference at least a week prior to the date

12. After-Action Conference

The exercise planning team, evaluation team, and other stakeholders meet for an After-Action Conference to present, discuss, review, and refine the draft AAR/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.

The After-Action Conference occurs no later than 60 days after the exercise is conducted.

The following outcomes are expected from the After-Action Conference:
- Review the draft After-Action Report.
- Review, revise, accept, or decline each recommendation in the Improvement Plan matrix.
- For accepted recommendations, define the corrective actions.
- Assign corrective actions and due dates.
- Finalize the AAR/IP.

Developing A Health Care Table Top Exercise

The following heat surge scenario was developed by the Exercise, Training, and Education Overarching Committee of the Chicago Health System Coalition for Planning and Response. It was developed to emulate the 1995 Chicago heat wave, which led to more than 600 heat-related deaths in Chicago over a period of five days. Creating a scenario of this nature offered members of the Chicago Partnership for Health Care System Planning and Response to train on and evaluate their ability to effectively handle a citywide emerging health crisis compounded by a failure in hospital infrastructure that requires some facilities to begin evacuation. This scenario was developed to:

- Test partnership collaborative agreements to provide mutual benefit and response.
- Use previously tested communication methods to transmit public information messages.
- Provide real-time bed availability.
- Test medical surge response.
- Test morgue surge response.

In 1995, the City of Chicago was gripped by an unprecedented heat wave, causing medical and morgue surge throughout the City. Subsequent seasonal heat waves have demonstrated extreme temperatures and required that the City of Chicago implement heat wave response plans each summer. The City's main power distribution provider, Commonwealth Edison, experienced significant equipment failures during previous outages resulting in power failure for multiple days affecting large segments of Chicago neighborhoods. Hospitals are routinely equipped with backup power generators. These facilities vary in their ability to distribute power to an entire hospital campus allowing for an orderly evacuation during an extended power outage. Some have all systems tied into emergency power. Others are older facilities where only vital patient care systems are linked to the emergency power distribution system.

Health Care Tabletop Exercise Example

HEAT SURGE - EVACUATION SCENARIO

An unusually early heat wave has severely affected the city of Chicago. This deadly heat wave has extended its grip on the city of Chicago with temperatures exceeding 100 degrees and expected to remain above 90 degrees for over seven continuous days. The city has activated the Joint Operation Center (JOC). City officials are encouraging residents to use the city's cooling centers and have provided free bus transportation to the centers. The city has also engaged in an aggressive public information campaign communicating health and safety warnings to the citizens, including vulnerable populations such as the elderly and the chronically ill. Despite these proactive efforts, the Cook County Medical Examiner's office has reported a substantial increase in heat related fatalities in Chicago and its surrounding communities.

All Chicago area hospitals have also experienced an increase in emergency admissions, and most Emergency Departments (EDs) are near full capacity. Within the past few days, EDs city-wide have seen a dramatic increase in the number of elderly citizens (65 years and older) suffering from heat stroke and/or heat exhaustion. Chicago Fire Department (CFD) paramedics have experienced a surge of heat-related calls, and all vacations have been cancelled. Hospital staffing has also been addressed, and all vacations for Emergency Room (ER) personnel have been temporarily suspended until further notice.

At approximately 11: 00 PM on 29-May-09, a major electrical switch station supplying energy to three major hospitals located within a three-mile radius has suffered catastrophic loss due to an electrical explosion. The facility has reported that alternate switching stations will not be in operation to tie into other power stations for at least four days. As a result, hospitals have switched to back up generator power, but this power is not adequate to maintain overall hospital and cooling operations for an extended period of time.

Hospital surge and loss of power has forced all affected hospitals to initiate immediate evacuation operations requiring the transportation of patients to supporting facilities. These simultaneous evacuations have put a tremendous strain on transportation of patients, critical medical resources, and surge capacity at alternate hospital facilitates. Many of the affected hospitals have also lost primary sources of communication and have activated two health department interoperable two-way operations to facilitate command and control during evacuation operations.

What Is a Table Top Exercise (TTX)?

Table Top Exercises involve key personnel discussing hypothetical scenarios in an informal setting. This type of exercise can be used to assess plans, policies, and procedures or to assess the systems needed to guide the prevention of, response to, and recovery from a defined health care incident.

Planning a TTX for hospitals and health care agencies has different components to consider in order to sustain patient care operations and maintain the safety of the facility. Some health care components that should be evaluated during a health care TTX include:

- **External Communications**
  - What governmental agencies were contacted (health departments, emergency management agency, police, fire)?
  - What other external entities were contacted (electric company, gas company, etc.)?
  - Were other hospitals contacted for assistance?

- **Resource Mobilization and Allocation**
  - Was labor pool activated? If so, was it effective?
  - Did non-clinical departments participate in the incident?
  - Were clinical or non-clinical assets redirected?
  - Were any caregivers credentialed using the emergency credentialing procedures? If so, when were they demobilized?

- **Equipment**
  - What equipment was activated (attach inventory list if available)?
  - What equipment was purchased?
  - What equipment was taken from normal stock levels?
  - What equipment needs to be demobilized (add to action plan)?

- **Supplies**
  - What supplies were used? (attach inventory list if available)
  - What stock levels were depleted?
  - What supplies need to be replaced during demobilization (add to action plan)?

- **Personal Protective Equipment**
  - What PPE was distributed?
  - How were caregivers deemed competent to use PPE?
  - What PPE supplies were depleted?
  - What PPE needs to be replaced during demobilization?

- **Transportation**
  - Were there any extraordinary transportation needs?
  - What assets were mobilized to meet needs?
  - What assets need to be returned to loaning entity (add to action plan)?
  - What PPE needs to be replaced during demobilization?
  - Were any departments relocated? If so, describe nature and include transfer back to original location.

- **Review of Critical Systems**
  - Identify if and how system was affected by incident (e.g., heating, ventilating, and air conditioning [HVAC], overhead paging, personal pagers, tube system, information system, telephone system, security surveillance, fire alarm system).
  - Were operating rooms taken out of service? If so, list procedures to put them back on line.

TTXs are effective for evaluating group problem solving, personnel contingencies, group message interpretation, information sharing, interagency coordination, and achievement of specific objectives.

Materials to Bring to or Use for a Health Care TTX

REQUIRED

Patient Load: Current Inpatient Census

- Adults - Ambulatory and non-ambulatory
- Pediatric - Ambulatory and non-ambulatory
- Adult - ICU
- Adult - Ventilated
- Pediatric - ICU
- Pediatric - Ventilated
- Women in labor or deliveries per day or week
- Transplant patients
- Rehab patients
- Those needing direct observation — mental health and law-enforcement detainees
- Patients needing isolation precautions — respiratory (negative-pressure), contact, and droplet
- Bariatric patients

Surge Capacity:

- Estimate total numbers of surge beds you could provide within 4 hours
- Estimate number of additional staff you could mobilize within 4 hours
- Total number of deceased patients you can accommodate for up to 48 hours

STRONGLY ADVISED

Additional Patients: Procedures and Ambulatory

- Average or approximate number of surgeries per day or week
- Average or approximate number of outpatient clinic visits per day or week
- Average or approximate number of outpatient imaging procedures per day or week

Emergency Plans:

- Emergency Operations Plan (EOP) Summary
- Current Facility Evacuation Plan
- Current Bed Surge Plan — Estimate total numbers of surge beds you could provide
- Current Staff Surge Plan — Estimate number of additional staff you could mobilize
- Diversion or Bypass Policy
- Facility Infrastructure (hours of backup generator power, plans for loss of water and electricity)

Materials to Be Provided for a TTX

- Cooperative Agreement Draft for Partnership

- Hospital Incident Command System (HICS) or Incident Command System (ICS) forms:
  (*For the purposes of the Heat Surge - Evacuation Scenario covered in this guide, the HICS forms were used*.)

  - HICS 201 - Incident Briefing
  - HICS 202 - Incident Objectives
  - HICS 205 - Incident Communications Log (internal & external)
  - HICS 213 - Incident Message Form
  - HICS 214 - Operational Log
  - HICS 251 - Facility System Status Report
  - HICS 254 - Disaster Victim/Patient Tracking Form
  - HICS 255 - Master Patient Evacuation Tracking Form
  - HICS 260 - Patient Evacuation Tracking Form
  - HICS 258 - Hospital Resource Directory
  - HICS 259 - Hospital Casualty/Fatality Report
  - Red Cross Patient Locator Forms

NOTE: While these forms are provided onsite, it is recommended that participants review the forms before the exercise to be better prepared for the scenario.

Situation Manual

A Situation Manual (SitMan) is the core documentation that provides the written background for a multimedia-facilitated, discussion-based exercise such as a tabletop exercise. The SitMan supports the scenario narrative and allows participants to read along while watching the multimedia events unfold. All participants (i.e., players, facilitators, evaluators, and observers) should receive SitMans at the beginning of the exercise. Consideration should be given to the accessibility of presentations and documents, such as making information available in alternative formats (i.e., large prints, compact disk [CD], braille), closed captioning or another form of text display, or the provision of sign language interpreters.

The SitMan's introduction provides an overview of the exercise—including scope, capabilities, tasks and objectives, structure, rules, and conduct—as well as an exercise agenda. The next section of the SitMan is the scenario itself, which is divided up into distinct modules. Modules provide the basic structure of the exercise and are chronologically sequenced. Each module represents a specific time segment of the overall scenario—pre-incident warning, notification, response, or recovery—selected based on exercise objectives and scenario requirements. For example, pandemic disease exercises typically contain an incubation module, whereas chemical or incendiary terrorism scenarios offer planners the opportunity to include a warning phase and initial response modules.

Each module is followed by discussion questions, usually divided up by organizational group (e.g., public safety, emergency management, public affairs). Responses to the modules' discussion questions are the focus of the exercise, and reviewing them provides the basis for evaluating exercise results. These discussion questions can be derived from tasks and capabilities contained within each Exercise Evaluation Guide (EEG).

The SitMan contains greater detail than the discussion-based exercise's multimedia presentation and generally includes the following information:
- Introduction
- Schedule of events
- Exercise purpose, scope, capabilities, tasks, and objectives
- Exercise structure (i.e., order of the modules)
- Instructions for exercise facilitators, players, and observers
- Exercise assumptions and artificialities
- Exercise rules
- Exercise scenario background (including scenario location information)
- Discussion questions and key issues
- Reference appendices with relevant supporting information, which may include but not be limited to:
  - entity- and threat-specific information;
  - Material Safety Data Sheet (MSDS) or agent fact sheet, when applicable;
  - relevant documents regarding plans, SOPs, etc.; and
  - a list of reference terms

The following are sample pages from the SitMan provided to participants in conjunction with the Heat Surge-Evacuation Scenario outlined in this guide.

Chicago Metropolitan Statistical Area

Situation Manual (SitMan) Heat Surge 2009 Tabletop Exercise

EXERCISE STRUCTURE

The TTX will be a facilitated tabletop exercise. Players will be on site as well as remotely connected from their home facilities using Adobe Connect software.

- Part I: Scenario Awareness – participants will have a common understanding of the scenario to star exercise play.

- Part II: Initial Response – discuss the participants implementation of NIMS compliant ICS.

- Part III: Scenario Complications – extended weather scenario and discuss evacuation options.

- Part IV: Response to Surge Request – determine real time status of bed availability in the City.

Exercise Modules

The Heat Wave – Evacuation 2009 TTX is divided into four modules corresponding to the exercise objectives:

- Communications and Emergency Operations Center Management (EOC Management);
- Medical Surge
- Evacuation
- Fatality Management
-

Module 1: Communications and E

Module 1 will take place during the first hou
covered:

- Activation of EOC at the City an

Module 2: Medical Surge

Module 2 will take place during all four
covered:

- Confirm that departments and ho
- Coordinate patient distribution w
- Staffing procedures
- Planning and establishment of b
the City
- Define incident management str
- Establish IOC with other entities

Exercise Structure

Chicago Metropolitan Statistical Area

Situation Manual (SitMan) Heat Surge 2009 Tabletop Exercise

Module 3: Evacuation

Module 3 will take place during the third hour of the TTX. The following key tasks will be covered:

- Stricken hospital facility evacuation
- Communication of determination to evacuate
- Coordination of transportation response
- Alert and Dispatch including communication equipment
- Timely, accurate and clear incident information passed to all partnership members
- Who directs evacuation at the hospital level
- Estimated number of evacuees
-

Module 4: Fatality Management

Module 4 will take place during the fourth hour of the TTX. The following key tasks will be covered:

- Request appropriate personnel
- Use of facilities to accommodate surge

Exercise Structure

Chicago Metropolitan Statistical Area

Situation Manual (SitMan) Heat Surge 2009 Tabletop Exercise

EXERCISE INSTRUCTIONS AND RULES

Exercise instructions and rules are presented in this section for playing organizations and for individual players.

General Guidelines

This is a tabletop drill but the scenario should be treated as realistic as possible. Playing organizations are asked to respond to questions posed during the exercise "as you think" your current hospital capabilities would respond. City agencies should be forthcoming in their ability to support response in a city wide manner. Communication must be as real as possible; players should express their desired communication needs at all times. Follow the instructions of the Lead Controller and controllers throughout exercise play.

Contact for Technical Questions and Problems

In case of questions or problems with respect to the TTX or remote Internet connection (adobe connect), please contact one of the controllers during exercise play.

Playing Organization Responsibilities

Heat Surge TTX playing organizations are expected to include city agencies, city hospitals and private sector partners. All playing organizations have identical responsibilities. These are to:

- If participating from their home facility, provide a conference room (preferably the Emergency Operations Center) equipped with a speakerphone, computer with a wired high-speed internet connection, computer speakers, and a computer projector

- Follow all rules and procedures identified in this document and as instructed by controllers.

Point of Contact Responsibilities

If using Adobe Connect and playing from home facility, a playing organization must identify a point of contact (POC) to coordinate their organization's participation in the exercise with the exercise controllers. Designation of a backup POC is strongly encouraged. In general, POCs are responsible for representing their organizations to the exercise controllers, and for assuring that their organization participates fully in the exercise as specified above. POC tasks include:

- Using the adobe connect website during the TTX.
- Entering the playing organization's name when logging into the adobe connect website.
- Notifying home facility players about injects.
- Providing assistance to your organization's players, and referring problems to exercise controllers or exercise technical support personnel, as appropriate.

Observer Responsibilities

Observers are guests of the Lead Controller. They are welcome to watch and listen to the exercise from their own home facilities. Observers will not play in the exercise and observers are "invisible" to players.

Exercise Instructions and Rules 11 Chicago Department of Public Health

Form 1 (top)

Chicago Metropolitan Statistical Area

Situation Manual (SitMan)   Heat Surge 2009 Tabletop Exercise

APPENDIX A: HEAT SURGE 2009 TTX FEEDBACK FORM

Exercise Date: April 21, 2009

Participant Name: _____   Title: _____

Agency or Organization: _____

Role: ☐ Player   ☐ Controller

PART I – EXERCISE DESIGN AND CONDUCT: ASSESSMENT

Please rate, on a scale of 1 to 5, your overall assessment of the exercise relative to the statements provided below, with 1 indicating strong disagreement with the statement and 5 indicating strong agreement.

Exercise Scenario Background

Form 2 (middle)

Chicago Metropolitan Statistical Area

Situation Manual (SitMan)   Heat Surge 2009 Tabletop Exercise

	Assessment Factor	Strongly Disagree				Strongly Agree
		1	2	3	4	5
1.	The exercise was well structured and organized.	☐	☐	☐	☐	☐
2.	The exercise scenario was plausible and realistic.	☐	☐	☐	☐	☐
3.	The exercise instructions in the Situation Manual provided to assist in preparing for and participating in the exercise were useful.	☐	☐	☐	☐	☐
4.	The scenario injects were appropriately challenging.	☐	☐	☐	☐	☐
5.	The scenario injects were well structured and organized.	☐	☐	☐	☐	☐
6.	The system for receiving scenario injects worked well for those participants playing from their home facilities via Adobe Connect.	☐	☐	☐	☐	☐
		1	2	3	4	5
7.	The exercise effectively addressed the Communication Capability.	☐	☐	☐	☐	☐
8.	The exercise effectively addressed the Medical Surge Capability.					
9.	The exercise effectively addressed the Evacuation Capability.					
10.	The exercise effectively addressed the Fatality Management Capability.					
11	The Lead Controller was effective.	☐	☐	☐	☐	☐
12.	This exercise allowed my agency/organization to practice and improve priority capabilities.	☐	☐	☐	☐	☐
13.	City agencies, hospitals and other responders can better coordinate a medical surge response to a similar type incident because of their participation in this exercise.					

Form 3 (bottom)

Chicago Metropolitan Statistical Area

Situation Manual (SitMan)   Heat Surge 2009 Tabletop Exercise

PART II – PARTICIPANT FEEDBACK

1. Based on the exercise overall, please list the top three Chicago partnership response capabilities that need improvement.

   a. _____
   b. _____
   c. _____

2. Are there any issues that you observed in the exercise overall that the controller(s) might not have been able to experience, observe, and record?

   _____

3. Please provide any recommendations on how future exercises could be improved or enhanced.

   _____

   Please send your feedback forms to Ed Lefevour at CDPH (Lefevour_Edward@cdph.org)

Thank you.

Exercise Scenario Background   18   Chicago Department of Public Health

Controller and Evaluator Handbook

The C/E Handbook specifically describes the roles and responsibilities of exercise controllers and evaluators and the procedures they must follow. Because the C/E Handbook contains information about the scenario and about exercise administration, it is distributed to only those individuals specifically designated as controllers or evaluators. The C/E Handbook supplements the ExPlan and contains more detailed information about the scenario. It points readers to the ExPlan for more general exercise information, such as participant lists, activity schedules, required briefings, and the roles and responsibilities of specific participants.

The C/E Handbook usually contains the following sections:
- Detailed scenario information
- Assignments, roles, and responsibilities of group or individual controllers and evaluators
- Exercise safety plan
- Controller communications plan (e.g., a phone list, a call-down tree, instructions for the use of radio channels)
- Evaluation instructions

For larger, more complex exercises, planners may develop a written Evaluation Plan (EvalPlan) in lieu of or in addition to a C/E Handbook. Like the C/E Handbook, an EvalPlan supplements the ExPlan by providing evaluation staff with guidance and instructions on evaluation or observation methodology to be used as well as essential materials required to execute their specific functions. The EvalPlan is a limited distribution document. Evaluators use it in conjunction with the ExPlan and the MSEL, and some controllers may use it as well. More information on the EvalPlan and the evaluation process can be found in HSEEP Volume III.

Likewise, Control Staff Instructions (COSIN) may be employed in lieu of a C/E Handbook for larger, more complex exercises that require more coordination among control staff. A COSIN contains guidance that controllers, simulators, and evaluators need concerning procedures and responsibilities for exercise control, simulation, and support. In addition to the functions of a C/E Handbook, a COSIN provides guidelines for control and simulation support and establishes a management structure for these activities.

The following pages are examples from the C/E Handbook produced in conjunction with the Heat Surge-Evacuation Scenario outlined in this guide.

Heat Surge TTX Exercise Schedule

Date	Activity
Tuesday, April 21, 2009 7:30 AM– 8:00 AM	• Registration @ MCHC • Adobe Connect Registration: sign-in online as a guest (please use your organization's name).
8:00 AM – 8:15 AM	• Welcome and Introduce Players • Briefly identify and list expectations • Explain Exercise's 4 Modules

8:25 AM – 9:20 AM	**Initiate Exercise**
	• Module 1
	  - Communications/Emergency
	   Operations Center Management
	  - Medical Surge
	  - Fatality Management

9:25 AM – 10:00 AM	• Module 1 Group Discussion & Report

10:00 AM - 10:20 AM	• Module 2
	  – Evacuation
	  – Fatality Management

10:20 – 10:50 AM	• Module 2 Group Discussion
10:50 AM – 11:15 AM	• Module 3 Evacuation
11:15 AM – 12:00 PM	**LUNCH**
12:00 PM – 12: 20 PM	• Module 3 **Continued** – Communications
12:20 PM – 12:45 PM	• Module 3 Group Discussions

12:45 PM – 1:20 PM	• Module 4
	  – Medical Surge
	  – Fatality Management

1:20 – 1:50 PM	• Module 4 Group Discussion
1:50 PM – 2:00 PM	• Hotwash (players, controllers and evaluators)
2:00 PM	**END EX**
2:00 – 2:30 PM	• Controller – Evaluator Debrief

Exercise Goals and Objectives

Exercise Goal

The goal of the Heat Surge 2009 TTX is to improve the capability of the City of Chicago, hospitals, non-government organizations and private sector entities to effectively respond to a catastrophic weather event that strains the operating capacity of public and private agencies in Chicago. Improvement of these capabilities will strengthen the city's ability to prepare for and respond to public health emergencies.

Exercise Objectives

The exercise will focus on the following design objectives selected by the Chicago Partnership for Healthcare System Planning and Response's exercise planning team:

1. The Chicago Partnership can communicate with one another effectively and share accurate information throughout the response period (2 – 4 days).

   a. Emergency Operations Center Management (EOCM)

      i. Activity 1: Activate JOC/EOC/MACC/IOF
         Task 1.1: Activate, alert, and request response from city and hospital EOC personnel

   b. Communications

      i. Activity 1: Alert and Dispatch
         Task 1.1: Implement response communications interoperability plan and protocols between city and hospitals

         Task 1.2: Communicate incident response information per city/hospital agency protocols

2. Chicago hospitals, with partner agency support, can manage medical surge requirements during the first 48 hours of a response to a catastrophic event in the City of Chicago.

   a. Medical Surge

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Heat Surge TTX Exercise Safety Plan

This functional exercise will follow all Chicago Department of Public Health and Argonne National Laboratory worker safety requirements. Specifically, every controller and evaluator has the obligation to stop exercise play if conditions threaten the well-being of anyone attending the exercise. Such incidents are to be reported immediately to the Lead Facilitator. At all times, exercise players, controllers, evaluators and observers must maintain a safe work environment.

The TTX will be held at the Metropolitan Chicago Healthcare Council at 222 South Riverside Plaza, which is a modern high-rise office building designed to provide a safe environment for its occupants. The building is equipped with fire sprinklers and has a fire alarm communication system. Any sprinkler flow or smoke detection signal is electronically reported to a ground floor alarm panel that is continuously monitored by building personnel. Emergency information can be communicated from the lobby to tenant floors through a loudspeaker system providing tone alarms and voice communication.

The building is equipped with three stairwells. Each stairwell is equipped with fail open door locks, fire sprinklers, strobe lights, fire hose connections, and a fireman's phone that is located on every fifth floor; calls go to the fire panel located in the lobby. Also, the electrical equipment closets are equipped with smoke detectors.

Both the Chicago Fire Departme[...]
annually. Building staff also regu[...]
equipment.

MCHC Procedures for Reporting[...]

CALL 911

Report fire location as 2[...]

Report the fire location b[...]
(example: 17th floor, no[...]
address to you before h[...]

Call the Office of the Build[...]

If a fire occurs in your offic[...]
fire or extinguish it, close[...]
others in your office or su[...]
use the elevator. Do not s[...]

Department response time can be lost. **Do not return to the office until you are told to do so**.

Upon hearing the building's fire alarms go to the nearest stairwell and prepare to evacuate, listen for instructions from the fire department or the Office of the Building.

DO NOT USE THE ELEVATORS.

Fire Extinguishers

Fire extinguishers are located on all floors at the Northeast (near Janitorial Closet) and Southeast (near Freight elevator) corridors. These fire extinguishers are ABC types and can be used on all types of fire.

Floor Evacuation

An audible alarm indicates the need to evacuate due to an emergency situation, fire, or otherwise. If the emergency communication system is activated (the strobe lights illuminate, a tone sounds, and a voice announcement is made in [...] evacuate the floor unless immediately direct[...]
soon as possible, the fire[...]
make an announcement[...]

In the event of a fire in a[...]
the fire floor, three floors[...]

Procedures to Follow

If your floor evacuation to[...]
floor to evacuate:
DO NOT USE THE ELEV[...]

Walk, don't run, to the ne[...]
down the stairwell. Fire fig[...]
otherwise instructed, your[...]

If you are exiting a stairw[...]
from the stairwell to any l[...]
and continue down. As a[...]
floors of where there is fir[...]
roof unless instructed to[...]
or fire fighter.

When you reach street level, move away from the building, out of the way of the fire fighters.

The stairwell doors are fire-rated and allow exit to the stairwell, under normal circumstances these doors are locked to prevent re-entry from the stairwell to the corridor. However, in the case of fire alarm these doors will failsafe to an unlocked position. It is important that these doors not be held or blocked open, as this allows smoke into the stairwell.

Before you open a closed door to another floor area or alternative escape route, feel the door with the back of your hand. If it is hot, leave the door closed and seek an alternate route. If the door feels normal, brace your body against the door and open it a crack. Be prepared to slam it shut if heat or smoke rushes in.

If you must use an escape route where there is smoke, stay as low as possible. Crawling lets you breathe the cleaner air near the floor as you move to an exit. If there is smoke in the corridor of your nearest exit, use your alternate route to the other stairwell.

Real Emergencies during the Heat Surge 2009 TTX

In case any real emergency occurs during the Heat Surge 2009 TTX, all affected participants are to respond to that incident as required by their organization's plans. Exercise play must not be allowed to hinder any such response. Any affected playing organizations are requested to notify the Lead Facilitator as soon as they receive notice.

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APPENDIX A EEG FORMS CONTINUED

Communications

Exercise Evaluation Guide

Capability Description:

Communications is the fundamental capability within disciplines and jurisdictions that practitioners need to perform the most routine and basic elements of their job functions. Agencies must be operable, meaning they possess sufficient wireless communications capabilities to meet their daily internal and emergency communication requirements before they focus on interoperability, which means being able to work with other agencies.

Communications interoperability is the ability of public safety agencies (e.g. police, fire, emergency medical services (EMS) and service agencies (e.g. public works, transportation, hospitals) to talk within and across agencies and jurisdictions when needed and authorized using various communications systems to exchange voice, data, and/or video with one another on demand or in real time. It is essential that public safety has the intra-agency operability it needs, and that it builds its systems toward interoperability.

Capability Outcome:

A continuous flow of critical information is maintained as needed among multi-jurisdictional and multi-disciplinary emergency responders, command posts, agencies, and governmental officials for the duration of the emergency response operation in compliance with National Incident Management System (NIMS). To accomplish this, the jurisdiction has a continuity of operations plan for public safety communications to include the consideration of critical components, networks, support systems, personnel, and an appropriate level of redundant communications systems in the event of an emergency.

Jurisdiction or Organization:	Name of Exercise:
Location:	Date:
Evaluator:	Evaluator Contact Info:

Note to Exercise Evaluators: Only review those activities listed below to which you have been assigned

Activity 1: Alert and Dispatch

Activity Description: In response to an incident alert, make...

...are activated.

Tasks Observed *(check those that were observed and prov...*

Note: Asterisk (*) denote Performance Measures and Perform...

HSEEP Exercise Evaluation Guide, Citizen Evacuation...

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Tasks/Observation Keys	Time of Observation/ Task Completion
1.1. Implement response communications interoperability plans and protocols between city and hospitals. – *Staff and management are informed of interoperable communications requirements* – *Interoperable communications equipment, channels and protocols are activated*	Time: Task Completed? Fully ☐ Partially ☐ Not ☐ N/A ☐
Observations:	
1.2. Communicate incident response information per city/hospital agency protocols. – *Timely, accurate and clear incident information passed to dispatched response teams* – *Incident information relayed to pertinent incident management facilities (e.g. Incident Command Post (ICP), Emergency Operations Center/Multi Agency Coordination Center (EOC/MACC), etc.)* – *Incident information logged and disseminated to communications staff, as appropriate*	Time: Task Completed? Fully ☐ Partially ☐ Not ☐ N/A ☐
Observations:	
*Provide dispatch information to initial responders in an accurate and timely manner in conformity with: National Fire Protection Association (NFPA)-1221; Association of Public Communications Officials (APCO)-25; and/or Communications Assistance for Law Enforcement Act (CALEA) standards	Yes ☐ No ☐
* Information is transmitted via secondary means when primary means are overloaded or fail	TARGET ACTUAL Continuous
Observations:	

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Exercise Evaluation Guide Analysis Sheets

The purpose of this section is to provide a narrative of what was observed by the evaluator/evaluation team for inclusion within the draft After Action Report/Improvement Plan. This section includes a chronological summary of what occurred during the exercise for the observed activities. This section also requests the evaluator provide key observations (strengths or areas for improvement) to provide feedback to the exercise participants to support sharing of lessons learned and best practices as well as identification of corrective actions to improve overall preparedness.

Observations Summary

Write a general chronological narrative of responder actions based on your observations during the exercise. Provide an overview of what you witnessed and, specifically, discuss how this particular Capability was carried out during the exercise, referencing specific Tasks where applicable. The narrative provided will be used in developing the exercise After-Action Report (AAR)/Improvement Plan (IP).

HSEEP Exercise Evaluation Guide, Citizen Evacuation and Shelter-In-Place

Master Scenario Events List

A Master Scenario Events List (MSEL, pronounced *mee-zul*) contains a chronological listing of the events that drive exercise play. The MSEL links simulation to action and reflects each inject or event that will prompt players to implement the policy or procedure being validated. MSEL entries that controllers must simulate are called 'injects.' Entries that represent expected player actions are called 'expected action events.' Oftentimes, injects and expected action events are referred to simply as events. Each MSEL entry contains the following:

- Designated scenario time
- Event synopsis
- Controller responsible for delivering the inject, with controller/evaluator special instructions (if applicable)
- Expected action (i.e., player response expected after a MSEL inject is delivered)
- Intended player (i.e., agency or individual player for whom the MSEL event is intended)
- Capability, task, or objective to be demonstrated (if applicable)
- Notes section (for controllers and evaluators to track actual events against those listed in the MSEL, with special instructions for individual controllers and evaluators)

Times listed in a MSEL should reflect the time an event should occur. These times should be as realistic as possible and should be based on input from subject matter experts (SMEs). If the activity occurs sooner than the MSEL writers anticipated, then controllers and evaluators should note the time it occurred, but play should not be interrupted.

Controllers delivering MSEL injects will either be co-located with players in the venue of play or reside in a Simulation Cell (SimCell). A SimCell is a location from which controllers deliver telephone calls, radio messages, facsimiles, and other types of messages— these messages represent actions, activities, and conversations of an individual, agency, or organization that is not participating in the exercise but would

likely be actively involved during a real incident. Prior to start of the exercise, the mechanisms for introducing injects into exercise play should be tested, especially when injects are input through various communications systems. This ensures that controllers are aware of the procedures for delivering MSEL injects and that any systems that will be used to deliver them are functioning properly as planned.

The three types of events that comprise a MSEL are as follows:
1. Contextual injects are introduced to a player by a controller to help build the exercise operating environment. For example, if the exercise is designed to test information-sharing capabilities, a MSEL inject can be developed to direct a controller to select an actor to portray a suspect. The inject could then instruct the controller to prompt another actor to approach a law enforcement officer and inform him/her that this person was behaving suspiciously.
2. Expected action events reserve a place in the MSEL timeline and notify controllers of when a response action would typically take place. For example, during a table top exercise (TTX) involving a chemical agent, establishing decontamination is an expected conversation.
3. Contingency injects are events that a controller verbally indicates to a player if they do not physically take place. This ensures that play moves forward, as needed, to adequately evaluate performance of activities. For example, if a simulated secondary device is placed at an incident scene during a terrorism response exercise but is not discovered, a controller may want to prompt an actor to approach a player to say that he/she witnessed suspicious activity close to the device location. This should prompt the responder to discover the device and result in subsequent execution of the desired notification procedures.

The following are sample pages from the MSEL produced in conjunction with the Heat Surge-Evacuation Scenario outlined in this guide.

Heat Surge-Evacuation TTX MSEL Examples

Table 1

Scenario Time Line	Event Description	Inject # & Name	Expected Action	EEG Capability - Task	Players
8:00 am Exercise Begins	Introduction and Welcome Remarks from Partnership Chair.				Health Dept., Fire Dept., Office of Emergency Mgmt., Medical Examiner, Long Term Care (LTC), Red Cross, Private Ambulance, Hospitals
8:15 am Scenario Begins	1. TTX ground rules, Instructions for Players, Controllers, Evaluations, Assumptions Artificialities, Safety		All Players, Controllers, Evaluators agree to rules, ask and answer questions	Capability Summary: Communication Evacuation Fatality Management Med Surge (Planning)	Health Dept., Fire Dept., Office of Emergency Mgmt., Medical Examiner, Long Term Care (LTC), Red Cross, Private Ambulance, Hospitals
June, 2009 8:25 am	2. Initiate TTX: Severe heat wave in June. Temperatures >100F, Heat Index >130; Expected to last more than 7 days at over 90F.				Health Dept., Fire Dept., Office of Emergency Mgmt., Medical Examiner, Long Term Care (LTC), Red Cross, Private Ambulance, Hospitals
8:30 am	3. Chicago has activated the Joint Operations Center (JOC). Chicago is providing bus rides free to cooling centers; They have activated an aggressive public information and safety campaign.	#1 HICS HICS	Discussion Questions: • How will Hosp, LTC, clinics find out JOC activated? • How will they be asked to collaborate and coordinate? Expected Actions: • City and hospitals coordinate notifications and initial response operations. • Appropriate staff are notified to report. JOC is staffed & operational.	EOCM: • Activity 1: Activate JOC • Task 1.1: Activate, alert, and request response from city and hospital EOC personnel.	Health Dept., Fire Dept., Office of Emergency Mgmt., Medical Examiner, Long Term Care (LTC), Red Cross, Private Ambulance, Hospitals
8:40 am	4. Hospitals running 20% over usual census for Adult and Pediatric Med/Surg and ICU Beds; Due to an influx of patients with heat stroke/exhaustion and renal failure.	#2 PIO	Discussion Questions: • Have you activated ICS yet; at what level. • What are priorities on your IAP list? • Who would you contact at this point? • Have you gone to staff surge plan? Expected Actions: • Activated ICS/HICS, according to NIMS • Identify location of IM activities	MedSurge: • Activity 1: Pre-Event Mitigation/Prep • Task 1.2 Define incident management structure and methodology.	Health Dept., Fire Dept., Office of Emergency Mgmt., Medical Examiner, Long Term Care (LTC), Red Cross, Private Ambulance, Hospitals

Table 2

Scenario Time Line	Event Description	Inject # & Name	Expected Action	EEG Capability - Task	Players
8:50 am	5. Nearly All Emergency Departments are near/at full capacity. There are high acuity ED patients who normally wait >20-30 min to be seen who are waiting 3-4 hours. Admitted patients have been informed they may not receive a bed assignment today. 6. Private ambulances are also overwhelmed by calls.	#3 Bed #8 HotOR #12 MRI	Discussion Questions: How to distribute Ambulance runs to city hospitals when some have had to go to surge bed space just to manage walk-ins? Expected Actions: • Maximize utilization of available beds. • Coordinate patient distribution with other healthcare facilities, EMS, and private patient transport partners.	MedSurge: • Activity 3: Bed Surge Capacity • Task 3.1 Maximize available beds (Coordinate Pt distribution)	Health Dept., Fire Dept., Office of Emergency Mgmt., Medical Examiner, Long Term Care (LTC), Red Cross, Private Ambulance, Hospitals
9:05 am	7. Hosp & City agencies experience staff illness and staff needing to care for heat-affected family members. They both have 10% call-in rates among the normally scheduled staff.	#9 Lpool #10 Outpt	Discussion Questions: How will hospitals, city agencies and others meet the challenges when staff now have heat-affected family members? Expected Actions: Recall clinical staff in support of surge capacity requirements. Implement organization's staff call-back procedures (including part-time). Activate procedures to receive process and management staff throughout the incident. Debrief staff on incident parameters and how organization is responding. Discuss the need to verify credentials and issue staff assignments.	MedSurge: • Activity 4 Med Surge Staffing Procedures • Task 4.1 Implement call-back. Activate protocols to receive, process, and manage staff ongoing	Health Dept., Fire Dept., Office of Emergency Mgmt., Medical Examiner, Long Term Care (LTC), Red Cross, Private Ambulance, Hospitals
9:20 am	8. Hospitals complain to ME that deceased heat-wave victim remains are not being transported as quickly as usual. Families are upset that funeral arrangements were delayed. The total number of excess heat-related		Discussion Questions: What is our current communications & coordination plan for fatality management? Expected Actions: Request appropriate personnel (psychologists, social services, etc)	FatMan: • Activity 1: Direct Fatality Management. • Task 1.2 Coordinate Next-of-Kin notification and collection of antemortem information	Health Dept., Fire Dept., Office of Emergency Mgmt., Medical Examiner, Long Term Care (LTC), Red Cross, Private Ambulance, Hospitals

Table 3

Scenario Time Line	Event Description	Inject # & Name	Expected Action	EEG Capability - Task	Players
10:00 am 6/29 1800	9. Worker on crane near switching station gets heat stroke, drops big load by accident onto a local power substation, causing catastrophic power losses in Chicago. Power lost at 3 Chicago Hospitals in 3 mile radius; They go to emergency generator power. Those affected hospitals are: Rush, Stroger and Jesse Brown VA.	#14 D/C	Discussion Questions: • For power-out-Hospitals; what is added to your current IAP? • What are your top priorities? • What can you do immediately to save power? • What information do you need immediately? • What information will you need ongoing? Expected Actions: • Use census or nursing station summaries to identify all patients currently in Hospital • ID patients with special needs • Estimate # of patients needing transport • Update information as situation changes (this will be needed during ongoing heat-wave surge)	Evac. • Activity 1: Direct Evac and/or in-place protection tactical operation • Task 1.3: Identify populations (Patients) and locations at risk (in hospital setting).	Health Dept., Fire Dept., Office of Emergency Mgmt., Medical Examiner, Long Term Care (LTC), Red Cross, Private Ambulance, Hospitals
10:05 am 6/29 1900	10. ComEd reports alternate station power not available for 3 days. The JOC requests a total count of fatalities, plus how many are still at hospital morgues, have been transferred to funeral homes, and already interred. Hospitals report that the morgues are all now 30% over capacity. The total number of excess heat-related casualties is now >500 over the usual for this season over the past 4 days.	#11 Plot	Discussion Questions: • Will you plan evacuation? • What is in your evacuation plan? • Please develop a new IAP. • What are your new top priorities? • Who must you contact right now? • Estimate how many outpatients, visitors and vendors may be on site currently? Expected Actions: • Hospitals decide to start evacuation. • The partnership should develop a procedure for diversion of new patients (EMS and Walk-ins) to these affected hospitals. • City agencies to update hazard information as situation changes. • FM: Request appropriate personnel (psychologists, social services, etc) • Contact appropriate agencies and partners for use of facilities. They should go to next Tier in plan.	Evac: Task 1.3 Ditto Also need to estimate outpatients & Visitors on-site. How to alert them? FatMan: Task 1.3 Collection of antemortem inforamtion	Health Dept., Fire Dept., Office of Emergency Mgmt., Medical Examiner, Long Term Care (LTC), Red Cross, Private Ambulance, Hospitals
10:20 am	Break-Out Table Discussion #2	Communication, Changes in Incident Mgt. Priorities, & Estimates of victim # & needs			
10:35 am	Controller Assist & Document Table Discussions; Report to LC				

HEALTH CARE TTX MSEL

First Table:

Scenario Time Line	Event Description	Inject # & Name	Expected Action	EEG Capability - Task	Players
10:50 am	11. Patient surge, rapid depletion of generator fuel prompts all affected hospitals to go to rapid evacuation. Hospitals are seeking additional city assistance By now evacuating hospitals should have total patients who require evacuation and their condition Ambulatory adults & peds Adults-ICU Adults Ventilated Pediatric-ICU Pediatric-Ventilated Women In Labor Direct Observation (Mental Health and Law Enforcement-Detainees) Rehab Patients Bariatric Patients Transplant patients Isolation Patients (respiratory, droplet, contact)	#13 Red/Grn #16 LPool-2	**Discussion Questions:** • How will time of day & traffic affect patient transport priorities? • Will you consider a rapid discharge staging area rather than transport patients waiting for a CT scan to another overwhelmed hospital? • Where will evacuating and receiving hospitals locate their evacuee pick-up and delivery sites? • How will all of these be communicated between Hosp & Agencies? • How will we coordinate with LTC and PPERS to transport and receive many of the evacuated patients? **Expected Actions:** • Continued updates from affected hospitals to JOC on evacuation patients, and evacuation plan. • Identify resources needed for evacuees. Transportation personnel and support mobilized with good support structure. • Continued updates from receiving hospitals on surge capacity by patient needs.	**Evac- Task Activity 1: Direct Evacuation Task 1.3** Identify populations and locations at risk (in hospital setting). Continue with report of final patient numbers and evacuation plan. **Evac Activity 1: Direct Evacuation- Task 1.6** Coordinate transportation response Direct Evacuation or SIP ID resources needed Players need to coordinate plans, communications & efforts. **Evac Activity 1: -Task 1.7** Coordinate location of shelter facilities and services for evacuees. Number of evacuees estimated. Transport sites identified based on traffic routes & patient needs.	Health Dept., Fire Dept., Office of Emergency Mgmt., Medical Examiner, Long Term Care (LTC), Red Cross, Private Ambulance, Hospitals
6/30 0600					
11:15 am - 12:00 pm	LUNCH	LUNCH	LUNCH	LUNCH	LUNCH
12:00 pm	12. Several receiving & one evacuating hospital temporarily lose phone & web access. Other hospitals are simply not heard from because they are too busy directing surge activities.		**Discussion Questions:** • How will the partnership plan to keep participants informed of important information during times of tenuous technology performance? • What are the procedures for those with fixed radios who evacuate their radio site? Expected A... • All staff... informe... • IOC eq... are act...	**Comm Activity 1:** **Alert and Dispatch: -Task 1.1** Implement communications interoperability plan & protocols between city and hospitals.	Health Dept., Fire Dept., Office of Emergency Mgmt., Medical Examiner, Long Term Care (LTC), Red Cross, Private Ambulance, Hospitals

Second Table:

Scenario Time Line	Event Description	Inject # & Name	Expected Action	EEG Capability - Task	Players
12:45 pm	14. Evacuees and new patients are now rapidly arriving at receiving hospitals. Hospitals are needing to open up non-traditional treatment areas for inpatients. Using census numbers & surge capacity of receiving hospitals; we should know who is going where.	#3 Unified	**Discussion Questions:** • What additional patient surge areas can be used by receiving hospitals? • What patient management procedures can be streamlined or deferred? • Should we implement procedures for confirming that information & Patient identifiers on transport-out match the information communicated to receiving hospitals and that it is the same on transport arrival? • How do family members stay informed about location of evacuated family members? **Expected Actions:** • Receiving hospitals activate plans to cancel outpt & elective procedures • Activate plans, procedures and policies to maximize bed surge capacity. • Consider non-traditional patients care spaces such as hallways, waiting areas, procedure rooms, etc. • Identify locations for initial patient reception & triage (PRT). • Disseminate information on PRT site to JOC. • Implement system to track all patients in the facility. • Institute method for distinguishing between routine hospital patients, new heat-wave arrivals and evacuees.	**MedSurge Activity 3: Bed Surge Capacity** **Task 3.2** Bed surge capacity Implement bed surge plans, proc. and policies. Activate plans to cancel outpt & elective procedures Activate plans, proc. And pol to maximize space. **MedSurge Activity 6: Receive, Evaluate and Treat Surge Casualties -Task 6.1** Establish initial reception & triage areas **MedSurge Activity 6: Receive, Evaluate and Treat Surge Casualties -Task 6.3** Institute patient tracking	Health Dept., Fire Dept., Office of Emergency Mgmt., Medical Examiner, Long Term Care (LTC), Red Cross, Private Ambulance, Hospitals
6/30 0730					
1:00 pm	15. Receiving hospitals are running out of supplies, equipment and food.		**Discussion Questions:** • How will the hospitals determine and communicate to the partnership what their new needs are?	**MedSurg- Activity 6: Receive, Evaluate and Treat Surge Casualties** **Task 6.4** Execute medical mutual aid	Health Dept., Fire Dept., Office of Emergency Mgmt., Medical Examiner, Long Term Care (LTC), Red Cross, Private Ambulance, Hospitals

Third Table:

Scenario Time Line	Event Description	Inject # & Name	Expected Action	EEG Capability - Task	Players
1:10 pm	16. Evacuating hospitals also have had a mortality surge due to the ongoing heat-wave. Some of the receiving hospitals do not want to accept deceased remains during a receiving hospital surge and their morgues are filled as well. The total number of excess heat-related casualties is now 1200 over the usual for this season over 5 days.	#7 FM	**Discussion Questions:** • How will the transport of the deceased be coordinated during a patient surge event? • How will Next-of-Kin receive information on transport? • How will the public message be crafted and delivered? • How will remains be protected & stored during such an event? **Expected Actions:** • FM identifies Morgue supervisor, PIO, Safety, & Liaison officers. • FM has plan for holding remains in appropriate environment to maintain preservation (appropriate power, water). • Ensure appropriate refrigeration is provided as required by ME guidelines • Secure storage site.	**FatMan- Activity 1: Direct Fatality Mgt.** **Task 1.5** Identify key morgue staff Supervisor, PIO, Safety, & Liaison officers. **FatMan Activity 4: Conduct Morgue Operations** **Task 4.4** Store Human Remains	Health Dept., Fire Dept., Office of Emergency Mgmt., Medical Examiner, Long Term Care (LTC), Red Cross, Private Ambulance, Hospitals
1:20 pm	Break-Out Table Discussion #4		What NEW Communications, Activities, & Planning Must Take Place as Patient Arrival Proceeds?		
1:35 pm			Controller Assist & Document Table Discussions; Report to LC		
1:50 pm	HOTWASH	HOTWASH	HOTWASH	HOTWASH	HOTWASH
2:00 pm	Controller/Evaluator Debrief	DEBRIEF	DEBRIEF	DEBRIEF	DEBRIEF

Numbered and Abbreviated List or Injects for MSEL Table

#1: HICS: What is the HICS/ICS response now?

#2: PIO: What is the hospital PIO doing now? How is the hospital PIO coordinating public information with the JOC.

#3: Bed: Is the City doing real-time awareness on bed availability?
HAv-BED: Does not account for alternate beds within hospital if not licensed staffed beds.
Bed Resource information disconnect: Bring up Resource typing issues: Surge Wards or treating inpatients in endoscopy suites, etc.

#5: Unified: How is Unified Command being implemented. Who is actually directing transfers

#6: Order: Who decides evacuation process? E.g. less complex patients first or medically complex patients first? Who decides—city or hospitals?
Further inject: if traffic is light and receiving hospital is OK vs. heavy traffic and receiving hospital is the most stressed.
So, who decides and what factors influence the decision when prioritizing patients for evacuation?

#7 Fatality Management injects: Lose dead/living patients during evacuation; News reports several cases.
What are the potential safety issues of storing dead bodies during a heat emergency?

#8 Hot OR: one hospital has engineer and safety officer make the following recommendation: due to very hot weather, the tenuousness of the power supply and the danger of lasers and flammable liquids, and gases in the OR, they should cancel all but the most critical of procedures.

Health Care TTX
Exercise Evaluation Guides

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 or discussed during an exercise, space to record observations, and questions to address after the exercise as a first step in the analysis process and development of the After Action Report and Improvement Plan (AAR/IP).

In order to assist hospitals/health care facilities in exercise evaluation, these EEGs have been created to reflect capabilities-based planning tools, such as the Target Capabilities List (TCL) and the Universal Task List (UTL). EEGs were developed for use by experienced exercise evaluators and by practitioners who are Subject Matter Experts (SMEs). Information in the EEGs is sequenced according to the typical flow of activities and tasks to be accomplished for each capability. The template is designed to allow evaluators to record the degree to which a prescribed task or performance measure was completed or met during the exercise. Evaluators are asked to objectively record the full, partial, or non-completion of each task. The EEG is a reference for exercise evaluators, giving a sense of when activities can be expected to occur and how those activities relate to capability completion.

Each EEG can be used by an individual evaluator or by groups assigned to observe specific activities. During the analysis phase, evaluators combine their observations with those of other evaluators. They reconstruct events and analyze outcomes and interactions across agencies, organizations, disciplines, and jurisdictions to achieve broad capability outcomes.

EEGs can also be a valuable tool during the exercise planning process since they link tasks to capabilities, making it easier to determine what should be exercised. Relevant EEGs should be selected early in the planning process because they aid design of the exercise objectives and scenario.

Common Target Capabilities

The Target Capabilities List (TCL) below identifies the capabilities needed to prepare for, prevent, respond to, and recover from a major health care incident. The TCL was designed to assist organizations in understanding what their preparedness roles and responsibilities are during an incident. Below is a table comparing the Homeland Security Target Capabilities List with The Joint Commission Emergency Management standards for hospitals. *Priority capabilities are italicized.*

Homeland Security Common Target Capabilities List	The Joint Commission Emergency Management Standards
Planning	Emergency Operations Plan Hazard Vulnerability Analysis
Interoperable Communications	Communications
Risk Management	Resources and Assets, Safety and Security
Community Preparedness and Participation	Staff Responsibilities, Utilities, Patient Clinical and Support Activities

For more information about The Joint Commission Emergency Management Standards for Hospitals, visit their website at www.jointcommission.org.

In addition to the Common Target Capabilities List, the Federal Emergency Management Agency (FEMA) has further identified capabilities under four topic areas:
1. Prevent
2. Protect
3. Respond
4. Recover

While some of these are specific to jurisdictional response (city, town, state), they have applicability to health care organizations and serve as a common language for understanding the total picture of community preparedness and response. Using the capabilities contained in the EEGs will benefit health care organizations in meeting the need for community-wide planning and response.

The following is a list of Health Care Target Capabilities developed in conjunction with the Heat Surge-Evacuation scenario outlined in this guide:

PREVENT

- Information Gathering
- Intelligence Analysis and Production
- Intelligence/Information Sharing and Dissemination
- Law Enforcement Investigation and Operations
- CBRNE Detection

PROTECT

- Critical Infrastructure Protection
- Food and Agriculture Safety and Defense
- Public Health Laboratory Testing
- Epidemiological Surveillance and Investigation

RESPOND

- Onsite Incident Management
- Emergency Operations Center Management
- Critical Resource Logistics and Distribution
- Volunteer Management and Donations
- Responder Safety and Health
- Public Safety and Security Response
- Animal Health Emergency Support
- Environmental Health and Vector Control
- Explosive Device Response Operations
- Firefighting Operations/Support
- WMD/Hazardous Materials Response and Decontamination
- Citizen Protection: Evacuation and/or Shelter-in-Place Protection
- Isolation and Quarantine
- Urban Search & Rescue
- Emergency Public Information and Warning
- Triage and Pre-hospital Treatment
- Medical Surge
- Medical Supplies Management and Distribution
- Mass Prophylaxis
- Mass Care—Sheltering, Feeding, and Related Services
- Fatality Management
- At-Risk Populations
- Pediatrics

RECOVER

- Structural Damage and Mitigation Assessment
- Restoration of Lifelines
- Economic & Community Recovery

To download the complete Homeland Security TCL reference document and planning guide (in PDF format), go to:

http://www.fema.gov/pdf/government/training/tcl.pdf

HSEEP provides an extensive list of EEGs that could be used during your organization's Table Top Exercise. The EEGs in this guide are examples your health care facility can choose based on the organization's needs. All EEGs should be tailored for your facility and patient population.

The following are sample pages from each of the EEGs developed in conjunction with the Heat Surge-Evacuation scenario outlined in this guide.

Please see the CD included at the back of this guide for a complete listing of all HSEEP EEGs.

At-Risk Populations EEG Examples

This EEG has been custom created to represent at-risk/special populations in your health care facility.

Draft 1

At-Risk Populations (Hospitals)

Exercise Evaluation Guide

Capability Description:

Emergency and disaster planning fully incorporates at-risk populations into all aspects of mitigation, preparedness, response, and recovery. According to ASPR, "at-risk populations" includes "children, senior citizens, and pregnant women…people who have disabilities; live in institutionalized settings; are from diverse cultures; have limited English proficiency or are non-English speaking; are transportation disadvantaged; have chronic medical disorders; and/or have pharmacological dependency. In simple terms, at-risk populations are those who have, in addition to their medical needs, other needs that may interfere with their ability to access or receive medical care." Emergency plans are culturally and linguistically competent, and designed to reach the multitude of needs of patients, families, and staff who may be involved in a disaster.

Capability Outcome:

Members of at-risk populations have equal access to emergency and disaster plans as people who are not considered at-risk.

Jurisdiction or Organization:	Name of Exercise:
Location:	Date:
Evaluator:	Evaluator Contact Info:

Note to Exercise Evaluators: Only review those activities listed below to which you have been assigned

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Activity 1: Planning: Mitigation and Preparedness | Delete Activity

Activity Description: Expand emergency preparedness planning team includes members of at-risk populations. Team develops plans to meet needs of patient population.

Tasks Observed *(check those that were observed and provide the time of observation)*

Note: Asterisks (*) denote Performance Measures and Performance Indicators

Tasks/Observation Keys

1.1 Analyze patient population and surrounding community.

- Conduct a demographic analysis of patient population and linguistic groups, types of disabilities, family composition
- Note the social, economic, spiritual, and physical strengths
- Include common health problems.
- Identify differences between providers and the population.

HSEEP Exercise Evaluation Guide, At-Risk Populations (Hospital...

Draft 1

Tasks Observed *(check those that were observed and provide the time of observation)*

Note: Asterisks (*) denote Performance Measure and Performance Indicators associated with a task. Please record the observed indicator for each measure

Tasks/Observation Keys | **Time of Observation/ Task Completion**

1.6. Train staff on disability etiquette and cultural competency skills.

- Staff should know to:
  - Use a trained interpreter if someone speaks a different language than their own.
  - Look at the person to whom they are speaking (not the interpreter).
  - If an interpreter is not available, use visual cues, gross gestures, and facial expressions to communicate.
  - Ask people if they need assistance or have a disability they would like to disclose.
  - Offer an arm for a person to hold if he is blind or may have trouble balancing. Do not grab the person.
  - Keep people with their service animals. They are not pets.
  - Treat people as the experts of their own bodies and cultures. Discuss with individuals what does and does not work for them. (For example, staff should not attempt to "help" a person transfer out of his wheelchair without asking; this may in fact be more dangerous than allowing the person to transfer on his own.)
  - Remember that people with disabilities (non-cognitive) have the same intelligence level as people without disabilities, and should be given the same respect and choices. People with cognitive disabilities may need more guidance in choices, but should be given respect and appropriate choice.
  - Be flexible and accommodating. Remember not to make assumptions about people and their behavior. For example, a person with autism may not understand social norms but her behavior should not be interpreted as disrespectful, defiant, or evidence of drug abuse. A person with dementia may be confused, but communication is often possible if noise is reduced, staff speak in calm voices, eye contact is maintained, and yes/no questions are used. For ALL individuals, staff will likely have the most success when they remain calm and patient, and use mediators as necessary to foster...

Time:

Task Completed?

Fully ☐ Partially ☐ Not ☐ N/A ☐

...te Activity

...populations are fully integrated into

5

Draft 1

Exercise Evaluation Guide Analysis Sheets

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Observations Summary

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Evaluator Observations

Record your key observations using the structure provided below. Please try to provide a minimum of three observations for each section. There is no maximum (three templates are provided for each section; reproduce these as necessary for additional observations). Use these sections to discuss strengths and any areas requiring improvement. Please use as much detail as possible, including references to specific Activities and/or Tasks. Document your observations with reference to plans, procedures, exercise logs, and other resources. Describe and analyze what you observed and, if applicable, make specific recommendations. Please be thorough, clear, and comprehensive, as these sections will feed directly into the drafting of the After-Action Report (AAR). Complete electronically if possible, or on separate pages if necessary.

Strengths

1. Observation Title:

Related Activity:

Record for Lesson Learned? (Check the box that applies) Yes ☐ No ☐

1) Analysis: (Include a **discussion** of what happened. When? Where? How? Who was involved? Also describe the **root cause** of the observation, including contributing factors and what led to the strength. Finally, if applicable, describe the positive **consequences** of the actions observed.)

2) References: (Include references to plans, policies, and procedures relevant to the observation)

3) Recommendation: (Even though you have identified this issue as strength, please identify any recommendations you may have for enhancing performance further, or for how this strength may be institutionalized or shared with others.)

HSEEP Exercise Evaluation Guide, At-Risk Populations (Hospitals) | *10*

Pediatric EEG Examples

This EEG has been custom created to represent the pediatric population in your health care facility.

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Pediatric Medical Surge

Exercise Evaluation Guide

Capability Description:

Pediatric Medical Surge is the capability to rapidly expand the capacity of the existing healthcare system (long-term care facilities, community health agencies, acute care facilities, alternate care facilities and public health departments) in order to provide triage and subsequent medical care to children. This includes providing definitive care to individuals at the appropriate clinical level of care, within sufficient time to achieve recovery and minimize medical complications. The capability applies to an event resulting in a number or type of patients that overwhelm the day-to-day acute-care medical capacity. Pediatric Medical Surge is defined as the rapid expansion of the capacity of the existing healthcare system in response to an event that results in and influx of children and an increased need for personnel (clinical and non-clinical), support functions (laboratories and radiological), physical space (beds, alternate care facilities) and logistical support (clinical and non-clinical equipment and supplies).

Capability Outcome:

Children who are injured or ill from an event are rapidly and appropriately cared for in the hospital or alternative healthcare setting. Continuity of care is maintained for non-incident related illness or injury.

Jurisdiction or Organization:	Name of Exercise:
Location:	Date:
Evaluator:	Evaluator Contact Info:

Note to Exercise Evaluators: Only review those activities listed below to which you have been assigned

Activity 1: Pediatric Pre-Event Mitigation and Preparedness   **Delete Activity**

Activity Description:

Tasks Observed *(check those that were observed and provide the time*

Note: Asterisks (*) denote Performance Measures and Performance Indicators

Tasks/Observation Keys
1.1 Conduct Pediatric Hazard Vulnerability Analysis (HVA)
– *Identify and list, by type, all hazards that could affect the likelihood of each hazard's occurrence ("threat")*
– *Assess both the community and response system's suscep... impact health and medical needs*

HSEEP Exercise Evaluation Guide, Pediatric Medical Surge

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Tasks Observed *(check those that were observed and provide the time of observation)*

Note: Asterisks (*) denote Performance Measures and Performance Indicators associated with a task. Please record the observed indicator for each measure

Tasks/Observation Keys	**Time of Observation/ Task Completion**
4.3. Augment non-clinical staffing	Time:
– *Initiate call-back procedures for non-clinical staff (e.g., custodians, security, cooks, etc.)*	Task Completed?
– *Activate MOUs for non-clinical staff (if applicable)*	Fully ☐ Partially ☐ Not ☐ N/A ☐
– *Activate processes to receive, process, and manage non-clinical staff throughout the incident*	
* Immediate deployment of additional health care personnel	Target **TBD** — Actual

Activity 5: Pediatric Decontamination   **Delete Activity**

Activity Description:

Tasks Observed *(check those that were observed and provide the time of observation)*

Note: Asterisks (*) denote Performance Measures and Performance Indicators associated with a task. Please record the observed indicator for each measure

Tasks/Observation Keys	**Time of Observation/ Task Completion**
5.1. Provide mass decontamination capabilities to children if necessary	Time:
	Not ☐ N/A ☐

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Exercise Evaluation Guide Analysis Sheets

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Strengths

1. Observation Title:
Related Activity:

Record for Lesson Learned? (Check the box that applies) Yes ☐ No ☐

1) Analysis: (Include a **discussion** of what happened. When? Where? How? Who was involved? Also describe the **root cause** of the observation, including contributing factors and what led to the strength. Finally, if applicable, describe the positive **consequences** of the actions observed.)

2) References: (Include references to plans, policies, and procedures relevant to the observation)

3) Recommendation: (Even though you have identified this issue as strength, please identify any recommendations you may have for enhancing performance further, or for how this strength may be institutionalized or shared with others.)

2. Observation Title:

HSEEP Exercise Evaluation Guide, Pediatric Medical Surge

Communications

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Exercise Evaluation Guide

Capability Description:

Communications is the fundamental capability within disciplines and jurisdictions that practitioners need to perform the most routine and basic elements of their job functions. Agencies must be operable, meaning they possess sufficient wireless communications capabilities to meet their daily internal and emergency communication requirements before they focus on interoperability, which means being able to work with other agencies.

Communications interoperability is the ability of public safety agencies (e.g. police, fire, emergency medical services (EMS)) and service agencies (e.g. public works, transportation, hospitals) to talk within and across agencies and jurisdictions when needed and authorized using various communications systems to exchange voice, data, and/or video with one another on demand or in real time. It is essential that public safety has the intra-agency operability it needs, and that it builds its systems toward interoperability.

Capability Outcome:

A continuous flow of critical information is maintained as needed among multi-jurisdictional and multi-disciplinary emergency responders, command posts, agencies, and governmental officials for the duration of the emergency response operation in compliance with National Incident Management System (NIMS). To accomplish this, the jurisdiction has a continuity of operations plan for public safety communications to include the consideration of critical components, networks, support systems, personnel, and an appropriate level of redundant communications systems in the event of an emergency.

Jurisdiction or Organization:	Name of Exercise:
Location:	Date:
Evaluator:	Evaluator Contact Info:

Note to Exercise Evaluators: Only review those activities listed below to which you have been assigned

Activity 1: Alert and Dispatch   **Delete Activity**

Activity Description: In response to an incident alert, make notification and provide communications management until the Incident Command (IC), Emergency Operations Center (EOC), and Emergency Management Agency (EMA) are activated.

Tasks Observed *(check those that were observed and provide the time ...)*

Note: Asterisks (*) denote Performance Measures and Performance Indicators ...

Tasks/Observation Keys

1.1.   Implement response communications interoperability plans an...
   –   Staff and management are informed of interoperable com...
   –   Interoperable communications equipment, channels and ...

HSEEP Exercise Evaluation Guide, Communications

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Tasks Observed *(check those that were observed and provide the time of observation)*

Note: Asterisks (*) denote Performance Measures and Performance Indicators associated with a task. Please record the observed indicator for each measure.

Tasks/Observation Keys	Time of Observation/ Task Completion
*Alternate communications and/or dispatch centers are staffed in the event of a catastrophic loss of the primary site	Yes ☐ No ☐
*Equipment and personnel capabilities within communications and/or dispatch centers are available to process incoming calls with increased call volume, and/or loss of any one communication or dispatch centers	Yes ☐ No ☐

1.6.   Implement procedures to protect information facility and communication network systems.
  – *Facility is physically secure*
  – *Communications equipment is sheltered from weather and physical damage*
  – *Communications equipment is monitored and protected from malicious attacks, to include cyber attacks*
  – *An equipment accountability system is established*
	Time:
	Task Completed?
	Fully ☐ Partially ☐ Not ☐ N/A ☐

1.7.	Time: Task Completed? Fully ☐ Partially ☐ Not ☐ N/A ☐

Activity 2: Provide Emergency Operations Center Communications Support   **Delete Activity**

Activity Description: In response to notification of an incident, provide and receive interoperable voice, data, and video communications

Tasks Observed *(check those that were observed and provide comments)*

	pletion
	☐ Not ☐ N/A ☐

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Exercise Evaluation Guide Analysis Sheets

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HSEEP Exercise Evaluation Guide, Communications   6

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Emergency Operations Center Management

Exercise Evaluation Guide

Capability Description:

Emergency Operations Center (EOC) management is the capability to provide multi-agency coordination (MAC) for incident management by activating and operating an EOC for a pre-planned or no-notice event. EOC management includes: EOC activation, notification, staffing, and deactivation; management, direction, control, and coordination of response and recovery activities; coordination of efforts among neighboring governments at each level and among local, regional, State, and Federal EOCs; coordination of public information and warning; and maintenance of the information and communication necessary for coordinating response and recovery activities. Similar entities may include the National (or Regional) Response Coordination Center (NRCC or RRCC), Joint Field Offices (JFO), National Operating Center (NOC), Joint Operations Center (JOC), Multi-Agency Coordination Center (MACC), Initial Operating Facility (IOF), etc.

Capability Outcome:

The event is effectively managed through multi-agency coordination for a pre-planned or no-notice event.

Jurisdiction or Organization:	Name of Exercise:
Location:	Date:
Evaluator:	Evaluator Contact Info:

Note to Exercise Evaluators: Only review those activities listed below to which you have been assigned

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Activity 1: Activate EOC/MACC/IOF [Delete Activity]

Activity Description: In response to activation, perform incident notifications, recall of essential personnel, and stand-up of EOC/MACC/IOF systems to provide a fully staffed and operational EOC/MACC/IOF

Tasks Observed *(check those that were observed and provide the time of observation)*

Note: Asterisks (*) denote Performance Measures and Performance Indicators

Tasks/Observation Keys

1.1. Activate, alert, and request response from EOC/MACC/IOF p
- Rosters are accessible and up-to-date
- Appropriate staff are notified to report, as necessary, per

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Tasks Observed *(check those that were observed and provide the time of observation)*

Note: Asterisks (*) denote Performance Measures and Performance Indicators associated with a task. Please record the observed indicator for each measure.

Tasks/Observation Keys	Time of Observation/ Task Completion
4.1. Identify and elevate needs/issues up the chain of command as needed, while tracking status. - *Personnel and equipment challenges* - *Legal and regulatory* - *Policy* - *Interoperability* - *Political, social, and economic sensitivities*	Time: Task Completed? Fully ☐ Partially ☐ Not ☐ N/A ☐
* **Establish process to prioritize and track identified needs/issues until they are resolved**	Yes ☐ No ☐
* **Issues are elevated up the chain of command in a timely manner**	Yes ☐ No ☐
4.2.	Time: Task Completed? Fully ☐ Partially ☐ Not ☐ N/A ☐

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1. Observation Title:

Related Activity:

Record for Lesson Learned? (Check the box that applies) Yes ☐ **No** ☐

1) Analysis: (Include a **discussion** of what happened. When? Where? How? Who was involved? Also describe the **root cause** of the observation, including contributing factors and what led to the strength. Finally, if applicable, describe the negative **consequences** of the actions observed.)

2) References: (Include references to plans, policies, and procedures relevant to the observation)

3) Recommendation: (Write a recommendation to address the root cause. Relate your recommendations to needed changes in plans, procedures, equipment, training, mutual aid support, management and leadership support.)

2. Observation Title:

Related Activity:

Record for Lesson Learned? (Check the box that applies) Yes ☐ **No** ☐

1) Analysis:

2) References:

3) Recommendation:

3

Epidemiological Surveillance and Investigation EEG Examples

Epidemiological Surveillance and Investigation

Exercise Evaluation Guide:

Capability Description:
The Epidemiological Surveillance and Investigation capability is the capacity to rapidly conduct epidemiological investigations. It includes deliberate and naturally occurring exposure and disease detection, rapid implementation of active surveillance, maintenance of ongoing surveillance activities, epidemiological investigation, analysis, communicating with the public and providers about case definitions, disease risk, mitigation, and recommendations for the implementation of control measures.

Capability Outcome:
Potential exposure and disease is identified rapidly (exposure, mode of transmission, agent, as well as interrupt transmission in order to contain the spread of the event and reduce number of cases). Confirmed cases are reported immediately to all relevant public health, food regulatory, environmental regulatory and law enforcement agencies. Suspected cases are investigated promptly; reported to relevant public health authorities, and accurately confirmed to ensure appropriate preventive or curative countermeasures are implemented. An outbreak is defined and characterized; new suspect cases are identified and characterized based on case definitions on an ongoing basis; relevant clinical specimens are obtained and transported for confirmatory laboratory testing; the source of exposure is tracked; methods of transmission are identified; and, effective mitigation measures are communicated to the public, providers, and relevant agencies are recommended as appropriate.

Jurisdiction or Organization:	Name of Exercise:
Location:	Date:
Evaluator:	Evaluator Contact Info:

Note to Exercise Evaluators: Only review those activities listed below to which you have been assigned.

Activity 1: Direct Epidemiological Surveillance and Investigation Operations

Activity Description: Coordinate, maintain, enhance, analyze, and provide efficient surveillance and information systems to facilitate early detection and mitigation of disease.

Tasks Observed (check those that were observed and provide comments)
Note: Asterisks (*) denote Performance Measures and Performance Indicators associated with a task. Please record the observed indicator for each measure

	Task /Observation Keys
1.1 (Pro.B1a 3.3.2)	Identify applicable laws, policies, and impl... and notification — Applicable local, State, and Federal la... — Due process and HIPAA requirements...

HSEEP Exercise Evaluation Guide: Epidemiological Surveilland...

Ability to receive, review, and analyze data warranting public health action	Yes [ ] No [ ]

Activity 3: Conduct Epidemiological Investigation

Activity Description: Investigate disease and its determinants in a population; characterize and define a case; identify the source of the public health event; and, define the population at risk.

Tasks Observed (check those that were observed and provide comments)
Note: Asterisks (*) denote Performance Measures and Performance Indicators associated with a task. Please record the observed indicator for each measure

	Task /Observation Keys	Time of Observation/ Task Completion
3.1 (Pro.B1a 5.3)	Confirm the outbreak using lab data and disease tracking data — Lab results reviewed and correlated with disease tracking data — Presumptive and confirmation lab test results received	Time: Task Completed? Fully [ ] Partially [ ] Not [ ] N/A [ ]
	Time from initial notification to public health epidemiologists to initiate initial investigation	**TARGET** Within 3 hours	**ACTUAL**
3.2 (Pro.B1a 5.2.1)	Define case characteristics — Interviews conducted and medical records reviewed — Specificity and sensitivity for condition of interest established — Standard set of criteria based on case definition established action levels	Time: Task Completed? Fully [ ] Partially [ ] Not [ ] N/A [ ]
	Time from laboratory confirmation of index case(s)/agent to creation of case definitions	**TARGET** Within 12 hours	**ACTUAL**
		Not [ ] N/A [ ]
		Not [ ] N/A [ ]

Epidemiological Surveillance and Investigation

Exercise Evaluation Guide Analysis Sheets

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Observations Summary

Write a general chronological narrative of responder actions based on your observations during the exercise. Provide an overview of what you witnessed and, specifically, discuss how this particular Capability was carried out during the exercise, referencing specific Tasks where applicable. The narrative provided will be used in developing the exercise After-Action Report (AAR)/Improvement Plan (IP).

[Insert text electronically or on separate pages]

Evaluator Observations: Record your key observations using the structure provided below. Please try to provide a minimum of three observations for each section. There is no maximum (three templates are provided for each section; reproduce these as necessary for additional observations). Use these sections to discuss strengths and any areas requiring improvement. Please provide as much detail as possible, including references to specific Activities and/or Tasks. Document your observations with reference to plans, procedures, exercise logs, and other resources. Describe and analyze what you observed and, if applicable, make specific recommendations. Please be thorough, clear, and comprehensive, as these sections will feed directly into the drafting of the After-Action Report (AAR). Complete electronically if possible, or on separate pages if necessary.

Strengths

1. Observation Title:

Related Activity:

Record for Lesson Learned? (Check the box that applies) Yes ___ No ___

1) Analysis: (Include a **discussion** of what happened. When? Where? How? Who was involved? Also describe the **root cause** of the observation, including contributing factors and what led to the strength. Finally, if applicable, describe the positive **consequences** of the actions observed.)

HSEEP Exercise Evaluation Guide: Epidemiological Surveillance and Investigation   7

Evacuation EEG Examples

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Citizen Evacuation and Shelter-In-Place

Exercise Evaluation Guide

Capability Description:

Citizen evacuation and shelter-in-place is the capability to prepare for, ensure communication of, and immediately execute the safe and effective sheltering-in-place of an at-risk population (and companion animals), and/or the organized and managed evacuation of the at-risk population (and companion animals) to areas of safe refuge in response to a potentially or actually dangerous environment. In addition, this capability involves the safe reentry of the population where feasible.

Capability Outcome:

Affected and at-risk populations (and companion animals) are safely sheltered-in-place and/or evacuated to safe refuge areas, in order to obtain access to medical care, physical assistance, shelter, and other essential services, and effectively and safely reentered into the affected area, if appropriate.

Jurisdiction or Organization:	Name of Exercise:
Location:	Date:
Evaluator:	Evaluator Contact Info:

Note to Exercise Evaluators: Only review those activities listed below to which you have been assigned

Activity 1: Direct Evacuation and/or In-Place Protection Tactical Operation　　　**Delete Activity**

Activity Description: In response to a hazardous condition for a locality, direct, manage, and coordinate evacuation and/or in-place sheltering procedures for both the general population and those requiring evacuation assistance throughout incident.

Tasks Observed *(check those that were observed and provide the time of observation)*

Note: Asterisks (*) denote Performance Measures and Performance Indicators associated with a task. Please record the observed indicator for each measure

Tasks/Observation Keys

1.1. Make the decision to evacuate or shelter in place. **Res.B.3 4**
  - *Danger to the public rapidly identified*
  - *Appropriate course of action is determined with process and unified command*
  - *Coordinate with IC/UC*

  * Time to select appropriate protective strategy to meet the populations.

HSEEP Exercise Evaluation Guide, Citizen Evacuation and Shel

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Tasks Observed *(check those that were observed and provide the time of observation)*

Note: Asterisks (*) denote Performance Measures and Performance Indicators associated with a task. Please record the observed indicator for each measure

Tasks/Observation Keys	Time of Observation/ Task Completion			
	Fully ☐	Partially ☐	Not ☐	N/A ☐
* Frequency of notification to the public of evacuation procedures, routes, locations, or sources of evacuation information throughout the incident	**TARGET** Continuous for first 24 hours, every 30 minutes for next 48 hours		**ACTUAL**	
3.2. Assist in the evacuation of special needs population. **Res.B.3 4.3.2** — *Transportation secured for prison inmates* — *Evacuation assistance provided for the sick/disabled/handicapped* — *Persons without access to private transportation identified*	Time: Task Completed? Fully ☐ Partially ☐ Not ☐ N/A ☐			
3.3. Activate approved traffic control plan. **Res.B.3 4.4** — *Implement contra-flow procedures* — *Mass transportation personnel briefed on evacuation plan*	Time: Task Completed? Fully ☐ Partially ☐ Not ☐ N/A ☐			
* Time in which the traffic and transportation plan is implemented to enable evacuation within the incident timeframe	**TARGET** Within 1-3 hours		**ACTUAL**	
3.4. Coordinate traffic control. **Res.B.1 6.1.3.3** — *Provide situational updates to IC/UC*	Time: Task Completed?			
			Not ☐	N/A ☐
			Not ☐	N/A ☐

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2. Observation Title:

Related Activity:

Record for Lesson Learned? (Check the box that applies) Yes ☐ No ☐

1) Analysis:

2) References:

3) Recommendation:

3. Observation Title:

Related Activity:

Record for Lesson Learned? (Check the box that applies) Yes ☐ No ☐

1) Analysis:

2) References:

3) Recommendation:

HSEEP Exercise Evaluation Guide, Firefighting Operations and Support　　　7

Fatality Management EEG Examples

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Fatality Management

Exercise Evaluation Guide

Capability Description:

Fatality Management is the capability to effectively perform scene documentation; the complete collection and recovery of the dead, victim's personal effects, and items of evidence; decontamination of remains and personal effects (if required); transportation, storage, documentation, and recovery of forensic and physical evidence; determination of the nature and extent of injury; identification of the fatalities using scientific means; certification of the cause and manner of death; processing and returning of human remains and personal effects of the victims to the legally authorized person(s) (if possible); and interaction with and provision of legal, customary, compassionate, and culturally competent required services to the families of deceased within the context of the family assistance center. All activities should be sufficiently documented for admissibility in criminal and/or civil courts. Fatality management activities also need to be incorporated in the surveillance and intelligence sharing networks, to identify sentinel cases of bioterrorism and other public health threats. Fatality management operations are conducted through a unified command structure.

Capability Outcome:

Complete documentation and recovery of human remains, personal effects, and items of evidence is done (except in cases where the health risk posed to personnel outweigh the benefits of recovery of remains and personal effects). Remains receive surface decontamination (if indicated) and, unless catastrophic circumstances dictate otherwise, are examined and identified, and released to the next of kin's funeral home with a complete certified death certificate. Reports of missing persons and ante mortem data are efficiently collected. Victims' family members receive updated information prior to the media release. All hazardous material regulations are reviewed and any restriction on the transportation and disposition of remains are clear by those with the authority and responsibility to establish the standards. All personal effects are made safe to return to legally authorized person(s) unless contraindicated by catastrophic circumstances. Law Enforcement agencies are given all the information needed to investigate and prosecute the case successfully. Families are provided incident specific support services.

Jurisdiction or Organization:	Name of Exercise:
Location:	Date:
Evaluator:	Evaluator Contact Info:

Note to Exercise Evaluators: Only review those activities listed below to which you have been assigned

Activity 1: Direct Fatality Management   **Delete Activity**

Activity Description: Direct all internal Fatality Management Operat...

Tasks Observed *(check those that were observed and provide the time...*

Note: Asterisks (*) denote Performance Measure and Performance Indicator...

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Tasks Observed *(check those that were observed and provide comments)*

Note: Asterisks (*) denote Performance Measures and Performance Indicators associated with a task. Please record the observed indicator for each measure

Tasks/*Observation Keys*	Time of Observation/ Task Completion
	Task Completed? Fully ☐ Partially ☐ Not ☐ N/A ☐

Activity 4: Conduct Morgue Operations   **Delete Activity**

Activity Description: Store remains temporarily and conduct multi-specialty forensic analyses of human remains to determine the cause and manner of death

Tasks Observed *(check those that were observed and provide comments)*

Note: Asterisks (*) denote Performance Measures and Performance Indicators associated with a task. Please record the observed indicator for each measure

Tasks/*Observation Keys*	Time of Observation/ Task Completion

4.1. Implement morgue operations.
   – *Store Remains in appropriate manner, as indicated by Federal, State and local guidelines*
   – *Ensure adequate number of ME/C personnel to support morgue of that size per Federal, State or local guidelines*
   – *Ensure adequate resources available for specific incident*
	Time:
	Task Completed?
	Fully ☐ Partially ☐ Not ☐ N/A ☐

4.2. Receive remains at morgue.
   Track remains
   Shelter remains from public view
	Time:
	Task Completed?
	    Not ☐ N/A ☐

Actual

Not ☐ N/A ☐

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Observations Summary

Write a general chronological narrative of responder actions based on your observations during the exercise. Provide an overview of what you witnessed and, specifically, discuss how this particular Capability was carried out during the exercise, referencing specific Tasks where applicable. The narrative provided will be used in developing the exercise After-Action Report (AAR).

Evaluator Observations

Record your key observations using the structure provided below. Please try to provide a minimum of three observations for each section. There is no maximum (three templates are provided for each section; reproduce these as necessary for additional observations). Use these sections to discuss strengths and any areas requiring improvement. Please provide as much detail as possible, including references to specific Activities and/or Tasks. Document your observations with reference to plans, procedures, exercise logs, and other resources. Describe and analyze what you observed and, if applicable, make specific recommendations. Please be thorough, clear, and comprehensive, as these sections will feed directly into the drafting of the After-Action Report (AAR). Complete electronically if possible, or on separate pages if necessary.

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Isolation and Quarantine

Exercise Evaluation Guide:

Capability Description:
Isolation and Quarantine is the capability to protect the health of the population through the use of isolation and/or quarantine measures in order to contain the spread of disease. Isolation of ill individuals may occur in homes, hospitals, designated health care facilities, or alternate facilities. Quarantine refers to the separation and restriction of movement of persons who, while not yet ill, have been exposed to an infectious agent and may become infectious. Successful implementation will require that sufficient legal, logistical, and informational support exists to maintain these measures. Most experts feel that isolation and quarantine will not stop the outbreak and that if used, the focus will be on cases that might introduce the disease into the state or other geographic area.

Capability Outcome:
Individuals who are ill, exposed, or likely to be exposed are separated; their movement is restricted; basic necessities of life are available to them; and their health is monitored in order to limit the spread of a newly introduced contagious disease (e.g. pandemic influenza). Legal authority for these measures is clearly defined and communicated to the public. Logistical support is provided to maintain measures until danger of contagion has elapsed.

Jurisdiction or Organization:	Name of Exercise:
Location:	Date:
Evaluator:	Evaluator Contact Info:

Note to Exercise Evaluators: Only review those activities listed below to which you have been assigned.

Activity 1: Direct Isolation and Quarantine Tactical Operations

Activity Description: In response to a need for isolation and quarantine orders, direct, manage, and coordinate isolation and quarantine operations.

Tasks Observed (check those that were observed and provide comments)
Note: Asterisks (*) denote Performance Measures and Performance Indicators associated with a task. Please record the observed indicator for each measure

	Task /Observation Keys	Time of Observation/ Task Completion
1.1 (Res.B3b 3.1.1)	Identify decision-makers to oversee isolatio... – Identified individual(s) possess approp... – Authority is provided to them in order t...	
1.2 (Res.B3b 3.1.3)	Develop disease-specific isolation and quar... – Quarantine sites identified – Centers for Disease Control (CDC) co... – Extent of spread determined – Parameters for containment determine...	

HSEEP Exercise Evaluation Guide: Isolation and Quarantine

4.3 (Res.B3b 6.5)	Provide infection control education materials to hospitals and community members under voluntary isolation and quarantine. – Standard precautions addressing basic indoor/outdoor hygiene/sanitation provided – Contact precautions addressing transmission methods (e.g., airborne, personal contact, environmental contact) are provided	Time: Task Completed? Fully [ ] Partially [ ] Not [ ] N/A [ ]

Frequency of updates to tracking system from voluntarily isolated or quarantined individuals while under voluntary isolation and quarantine	TARGET Daily	ACTUAL

4.4 (Res.B3b 6.3.1)	Monitor health status of voluntarily isolated and quarantined individuals and caregivers in the community and hospitals. – Monitoring procedures implemented – Information collected and documented – Information reported to public health officials	Time: Task Completed? Fully [ ] Partially [ ] Not [ ] N/A [ ]

Percentage of caregivers for isolated patients who become infected while under voluntary isolation and quarantine	TARGET 0%	ACTUAL

4.5 (Res.B3b 6.4)	Arrange for transportation to designated healthcare facilities of critically ill individuals under voluntary isolation and quarantine. – Coordination with designated facilities and transporting agency – Patient documentation and tracking procedures are coordinated and maintained	Time: Task Completed? Fully [ ] Partially [ ] Not [ ] N/A [ ]

Activity 5: Implement Mandatory Isolation and Quarantine

Activity Description: Ensure compliance with orders for separation and restriction of movement of potentially exposed asymptomatic individuals and isolation of symptomatic individuals within an identified geographic area.

Tasks Observed (check those that were observed and provide comments)
Note: Asterisks (*) denote Performance Measures and Performance Indicators associated with a task. Please record the observed indicator for each measure

---

2) References: (Include references to plans, policies, and procedures relevant to the observation)

3) Recommendation: (Even though you have identified this issue as a strength, please identify any recommendations you may have for enhancing performance further, or for how this strength may be institutionalized or shared with others.)

2. Observation Title:

Related Activity:

Record for Lesson Learned? (Check the box that applies) Yes ___ No ___

1) Analysis:

2) References:

3) Recommendation:

3. Observation Title:

Related Activity:

Record for Lesson Learned? (Check the box that applies) Yes ___ No ___

1) Analysis:

2) References:

HSEEP Exercise Evaluation Guide: Isolation and Quarantine   10

Medical Surge EEG Examples

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Medical Surge

Exercise Evaluation Guide

Capability Description:

Medical Surge is the capability to rapidly expand the capacity of the existing healthcare system (long-term care facilities, community health agencies, acute care facilities, alternate care facilities and public health departments) in order to provide triage and subsequent medical care. This includes providing definitive care to individuals at the appropriate clinical level of care, within sufficient time to achieve recovery and minimize medical complications. The capability applies to an event resulting in a number or type of patients that overwhelm the day-to-day acute-care medical capacity. Medical Surge is defined as the rapid expansion of the capacity of the existing healthcare system in response to an event that results in increased need of personnel (clinical and non-clinical), support functions (laboratories and radiological), physical space (beds, alternate care facilities) and logistical support (clinical and non-clinical equipment and supplies).

Capability Outcome:

Injured or ill from the event are rapidly and appropriately cared for. Continuity of care is maintained for non-incident related illness or injury.

Jurisdiction or Organization:	Name of Exercise:
Location:	Date:
Evaluator:	Evaluator Contact Info:

Note to Exercise Evaluators: Only review those activities listed below to which you have been assigned

Activity 3: Bed surge capacity	**Delete Activity**

Activity Description: Increase as many staffed and resourced hospital beds as clinically appropriate.

Tasks Observed *(check those that were observed and provide the time of observation)*

Note: Asterisks (*) denote Performance Measures and Performance Indicators associated with a task. Please record the observed indicator for each measure

Tasks/Observation Keys

3.1. Maximize utilization of available beds
  - Coordinate patient distribution with other health care fac...

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Tasks/Observation Keys	**Time of Observation/ Task Completion**

4.1. Recall clinical personnel in support of surge capacity requirements
  – *Implement health care organization's staff call-back procedures (including "part-time" staff)*
  – *Activate procedures to receive, process, and manage staff throughout the incident*
  – *Debrief clinical staff on incident parameters and how the organization is responding*
  – *Verify credentials and issue clinical staff assignments*
	Time:
	Task Completed?
	Fully ☐ Partially ☐ Not ☐ N/A ☐

4.2. Augment clinical staffing
  – *Activate roster and initiate call-back procedures for qualified and licensed volunteer clinicians*
  – *Institute procedures to receive, register, process (including credential verification), and manage volunteer clinicians throughout the incident*
  – *Implement strategies to integrate Federal clinical personnel (e.g., National Disaster Medical System and U.S. Public Health System personnel)*
  – *Provide just-in-time training to clinical staff*
	Time:
	Task Completed?
	Fully ☐ Partially ☐ Not ☐ N/A ☐

4.3. Augment non-clinical staffing
  – *Initiate call-back procedures for non-clinical staff (e.g., custodians, security, cooks, etc.)*
  – *Activate MOUs for non-clinical staff (if applicable)*
  – *Activate processes to receive, process, and manage non-clinical staff throughout the incident*
	Time:
	Task Completed?
	Fully ☐ Partially ☐ Not ☐ N/A ☐

* Immediate deployment of additional health care personnel	Target Actual TBD

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2. Observation Title:

Related Activity:

Record for Lesson Learned? (Check the box that applies) Yes ☐ No ☐

1) Analysis:

2) References:

3) Recommendation:

3. Observation Title:

Related Activity:

Record for Lesson Learned? (Check the box that applies) Yes ☐ No ☐

1) Analysis:

2) References:

3) Recommendation:

3

HazMat Response and Decontamination EEG Examples

WMD/HazMat Response and Decontamination

Exercise Evaluation Guide:

Capability Description:
Weapons of Mass Destruction (WMD)/Hazardous Materials Response and Decontamination is the capability to assess and manage the consequences of a hazardous materials release, either accidental or as part of a terrorist attack. It includes testing and identifying all likely hazardous substances onsite; ensuring that responders have protective clothing and equipment; conducting rescue operations to remove affected victims from the hazardous environment; conducting geographical survey searches of suspected sources or contamination spreads and establishing isolation perimeters; mitigating the effects of hazardous materials, decontaminating on-site victims, responders, and equipment; coordinating off-site decontamination with relevant agencies, and notifying environmental, health, and law enforcement agencies having jurisdiction for the incident to begin implementation of their standard evidence collection and investigation procedures.

Capability Outcome:
Hazardous materials release is rapidly identified and mitigated; victims exposed to the hazard are rescued, decontaminated, and treated; the impact of the release is limited; and responders and at-risk populations are effectively protected.

Jurisdiction or Organization:	Name of Exercise:
Location:	Date:
Evaluator:	Evaluator Contact Info:

Note to Exercise Evaluators: Only review those activities listed below to which you have been assigned.

Activity 1: Site Management and Control

Activity Description: In response to activation, mobilize and arrive at the incident scene and initiate response operations to manage and secure the physical layout of the incident.

Tasks Observed (check those that were observed and provide comments)
Note: Asterisks (*) denote Performance Measures and Performance Indicators associated with a task. Please record the observed indicator for each measure

	Task /Observation Keys	Time of Observation/ Task Completion
1.1 (Res.B2b 4.3.1)	Conduct initial approach and positioning of – *Avoid committing or positioning respo* *Consider escape routes if conditions* *Establish staging area(s), as appropri*	
	Time for WMD/HM response and decont requested by IC	

HSEEP Exercise Evaluation Guide: WMD/HazMat Response a

Activity 3: Hazard Assessment and Risk Evaluation

Activity Description: Assess the hazards present, evaluate the level of risk to both responders and the public, and develop an Incident Action Plan (IAP) to address the response problem.

Tasks Observed (check those that were observed and provide comments)
Note: Asterisks (*) denote Performance Measures and Performance Indicators associated with a task. Please record the observed indicator for each measure

	Task /Observation Keys	Time of Observation/ Task Completion
3.1 (Res.B2b 5.5.1)	Collect, prioritize and manage hazard data and information from all sources. – *Technical reference manuals, information sources, specialists and/or WMD/HM databases* *Monitoring, detection, and sampling operations*	Time: Task Completed? Fully [ ] Partially [ ] Not [ ] N/A [ ]
3.2 (Res.B2b 5.5.1.1)	Incident monitoring and sampling strategy is based upon a realistic assessment of operational conditions. – *Indoor or open air incident, known or unknown material(s), potential for multiple hazards* *"Rule of Three" detection technologies for classifying or identifying hazards* *Established action levels*	Time: Task Completed? Fully [ ] Partially [ ] Not [ ] N/A [ ]
3.3 (Res.B2b 5.5.1.2)	Conduct sampling operations. – *Sampling plan established outlining type of sampling operation, sampling team members, sample points, cross-contamination concerns, etc.* *Sampling operations are conducted to following appropriate guidance and protocols (e.g., agency, federal)* *Chain-of-custody requirements maintained*	Time: Task Completed? Fully [ ] Partially [ ] Not [ ] N/A [ ]
	Time to implement monitoring, detection, and/or sampling operations	**TARGET**	**ACTUAL**
		Less than 1 hour of arrival on-scene	

7.8 (Res.B2b 9.2.4)	Coordinate with environmental authorities to ensure the appropriate decon area clean-up and disposal of waste materials generated by decon operations. – *In accordance with applicable Federal, State or local Environmental Protection Agency (EPA) regulations*	Time: Task Completed? Fully [ ] Partially [ ] Not [ ] N/A [ ]
	Safe and effective transition to clean-up and recovery operations	Yes [ ] No [ ]

Activity 8: Terminate the Incident

Activity Description: Termination of emergency response activities and the initiation of post-emergency response operations (PERO), including transfer of command, restoration of supplies and equipment and post-incident administrative activities.

Tasks Observed (check those that were observed and provide comments)
Note: Asterisks (*) denote Performance Measures and Performance Indicators associated with a task. Please record the observed indicator for each measure

	Task /Observation Keys	Time of Observation/ Task Completion
8.1 (Res.B2b 10.1.1)	Transfer command for emergency response phase to authority having jurisdiction (AHJ) for post-emergency clean-up and recovery operations. – *Account for all personnel and equipment before securing on-scene emergency operations* *Demobilize on-scene operations*	Time: Task Completed? Fully [ ] Partially [ ] Not [ ] N/A [ ]
8.2 (Res.B2b 10.1.2)	Work through IC/UC to ensure that incident-specific evidence collection and investigation protocols are clearly understood and communicated to all responders. – *Tracking and collection of any items identified as potential evidence* *Point-of-contact for post-incident issues*	Time: Task Completed? Fully [ ] Partially [ ] Not [ ] N/A [ ]
8.3 (Res.B2b 10.4)	Conduct an incident debriefing for on-scene personnel. – *Ensure documentation of any health exposures* *Critical Incident Stress debriefing, as appropriate* *Equipment and apparatus exposure review* *Point-of-contact for post-incident issues* *Identify problems requiring immediate action*	Time: Task Completed? Fully [ ] Partially [ ] Not [ ] N/A [ ]
8.4 (Res.B2b 10.1)	Inventory WMD/HM equipment cache and restore to service. – *Conduct post-incident inventory of WMD/HM supplies and equipment* *Acquire required supplies and equipment* *Operational capability restored*	Time: Task Completed? Fully [ ] Partially [ ] Not [ ] N/A [ ]

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Health Care TTX After-Action Reports

While the EEGs are important observation tools and contribute to the improvement planning process by collecting initial observations and recommendations for improvement—they are only a reference point from which to produce the main product of the evaluation and improvement planning process: the After-Action Report/Improvement Plan (AAR/IP). An AAR captures observations of an exercise and makes recommendations for post-exercise improvements; and an IP identifies specific corrective actions, assigns these actions to responsible parties, and establishes target dates for action completion. Because the AAR and the IP are developed through different processes and perform distinct functions, they are referred to separately. However, in practice, the AAR and the IP should be printed and distributed jointly as a single AAR/IP following an exercise.

An AAR/IP is used to provide feedback to participating entities on their performance during the exercise. The AAR/IP summarizes exercise events and analyzes performance of the tasks identified as important during the planning process. It also evaluates achievement of the selected exercise objectives and demonstration of the overall capabilities being validated. The IP portion of the AAR/IP includes corrective actions for improvement, along with timelines for their implementation and assignment to responsible parties.

To prepare the AAR/IP, exercise evaluators analyze data collected from the Hot Wash, Debriefing, Participant Feedback Forms, EEGs, and other sources (e.g., plans, procedures) and compare actual results with the intended outcome. The level of detail in an AAR/IP is based on the exercise type and scope. AAR/IP conclusions are discussed and validated at an After-Action Conference that occurs within several weeks after the exercise is conducted.

The AAR should follow the following format:
- Report Cover
- Administrative Handling Instructions
- Contents
- Executive Summary
- Section 1: Exercise Overview
  (includes identifying information, such as the exercise name, date, duration)
- Section 2: Exercise Design Summary
  (includes the overarching exercise purpose; objectives, capabilities, activities, and tasks identified for validation; a summary of designed initiating event(s) / key scenario events; and exercise design issues)
- Section 3: Analysis of Capabilities
- Section 4: Conclusion
- Appendix A: Improvement Plan
- Appendix B: Lessons Learned *(optional)*
- Appendix C: Participant Feedback Summary *(optional)*
- Appendix D: Exercise Events Summary Table *(optional)*
- Appendix E: Performance Ratings *(optional)*
- Appendix F: Acronyms

AAR/IPs are required for all exercises regardless of type. However, due to the nature of certain discussion-based exercises (including seminars and workshops), the AAR/IP may include an abbreviated Analysis of Capabilities section and several additional sections, including an overview of speaker presentations and a summary of discussion points, results, and recommendations.

Following are several sample pages from the AAR/IP developed in conjunction with the Heat Surge-Evacuation scenario outlined in this guide. A full draft of the AAR/IP document is included on the CD at the back of this guide.

Homeland Security Exercise and Evaluation Program
Draft After Action Report/Improvement Plan   Heat Surge 2009 Tabletop Exercise

EXECUTIVE SUMMARY

In 1995 the City of Chicago was gripped by an unprecedented heat wave causing medical and morgue surge throughout the City. Subsequent seasonal heat waves have demonstrated extreme temperatures and required that the City of Chicago implement heat wave response plans each summer. The City's main power distribution provider, Commonwealth Edison, experienced significant equipment failures during previous outages resulting in power failure for multiple days affecting large segments of Chicago neighborhoods. Hospitals are routinely equipped with back-up power generation facilities. These facilities vary in ability to distribute power to an entire hospital campus ranging from all systems tied into emergency power to older facilities where only vital patient care systems are linked to the emergency power distribution to allow for an orderly evacuation during an extended power outage.

This tabletop exercise (TTX) will offer members of the Chicago Partnership for Healthcare System Planning and Response (Partnership) to train on and evaluate their ability to effectively handle a citywide emerging health crisis compounded by a failure in hospital infrastructure which requires some facilities to begin evacuation. During the TTX participants will:
- Test partnership collaborative agreements to provide mutual benefit and response.
- Use previously tested communication methods to transmit public information messages.
- Provide real time bed availability.
- Test medical surge response.
- Test morgue surge response.

The purposes of this report are to analyze exercise results, identify strengths to be maintained and built upon, identify potential areas for corrective actions.

Major Strengths

The major strengths identified during this e
- City hospitals will help one and patients that are forced to reloca the city.
- City agencies will coordinate p for hospitals requiring patient e
- City agencies and hospitals wil the city's Joint Operations Cent and Management.

Primary Areas for Improvemen

Throughout the exercise, several opportuni areas for improvement, including recomme

AAR/IP

Homeland Security Exercise and Evaluation Program
Draft After Action Report/Improvement Plan   Heat Surge 2009 Tabletop Exercise

- Hospitals and city agencies have different evacuation plans and triggers; city agencies, Commonwealth Edison and Chicago hospitals need to better coordinate, integrate and exercise hospital evacuation plans.
- The Chicago Fire Department and city hospitals need to revise their hospital evacuation strategies and tactics; reverse triage plans should be shared, documented and officially adopted between the city and local hospitals.
- Hospitals, city officials and IDPH need to determine how local or state declared disasters affect Emergency Medical Treatment Act and Active Labor Act (EMTALA) regulations related to emergency hospital evacuations; State of Illinois officials should detail how hospitals or city officials can obtain an EMTALA waiver during declared emergencies.

SECTION 1: EXERCISE OVERVIEW

Exercise Details

Exercise Name

Chicago Heat Surge 2009 Tabletop Exercise (Heat Surge 2009 TTX)

Type of Exercise

Tabletop exercise

Exercise Start Date

April 21, 2009

Exercise End Date

April 21, 2009

Duration

1 day

Location

Metropolitan Chicago Healthcare Cou

Sponsor

The Chicago Partnership for Healthca
Committee (OaC)

Program

Fiscal Year 2009 ASPR Hospital Prep

Mission

Preparedness

Capabilities

EOC Management
Communications
Medical Surge

AAR/IP

Homeland Security Exercise and Evaluation Program
Draft After Action Report/Improvement Plan   Heat Surge 2009 Tabletop Exercise

SECTION 2: EXERCISE DESIGN SUMMARY

Purpose and Design

The purpose of the Heat Surge 2009 TTX was to improve the capability of the City of Chicago, hospitals, non-government organizations and private sector entities to effectively respond to a catastrophic weather event that strains the operating capacity of public and private agencies in Chicago. Improvement of these capabilities will strengthen the city's ability to prepare for and respond to public health emergencies.

Specifically, the purpose of this exercise is to test:

- The collaborative agreement of the Partnership (MOU) required by the Office of Assistant Secretary for Preparedness and Response grant.

- Medical surge throughout the City of Chicago with all members of the Partnership.

- Evacuation of multiple hospitals in the City of Chicago.

- Morgue surge throughout the City of Chicago with all members of the Partnership.

EXERCISE DESIGN

This exercise was driven by a hypothetical scenario that was reviewed and approved by the Heat Surge 2009 TTX planning team. The exercise emphasizes inter-organizational coordination. The scenario included five modules patterned after the EEG capabilities selected for this TTX: emergency operations center management; communications; medical surge; evacuation and fatality management.

The exercise was led by two lead facilitators who directed exercise play. The exercise scenario was presented by the lead facilitators in a PowerPoint presentation; additionally, the facilitators used the PowerPoint slides to announce injects into exercise play. When appropriate, the facilitators also added spontaneous injects into the exercise play discussions.

The design was modeled after a traditional tabletop, discussion-based exercise. However, to accommodate the off-site (remote) playing organizations, the exercise design also involved the use of an adobe connect website, conference call-in number and speakerphones so on-site and remote players could communicate together during exercise play.

For those players participating remotely, scenario descriptions and injects were presented simultaneously via the adobe connect website sponsored by Argonne National Laboratory. All players, on-site and remote, were responsible for responding to injects in accordance with their response plans. If any inject raised a question, players were able to obtain clarification from a controller in the exercise room or through a controller assigned to the adobe connect website.

AAR/IP   10   Chicago Department of Public Health

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The flexible design of this exercise allowed on-site participation at MCHC and remotely from home offices for city agencies, local hospitals, non-government organizations and private industry.

Objectives, Capabilities, and Activities

The exercise focused on the following design objectives selected by the Chicago Partnership for Healthcare System Planning and Response's exercise planning team:

1. The Chicago Partnership can communicate with one another effectively and share accurate information throughout the response period (2 – 4 days).
   a. **Capability 1: Emergency Operations Center Management (EOCM)**
      i. *Activity 1*: Activate JOC/EOC/MACC/IOF
         Task 1.1: Activate, alert, and request response from city and hospital EOC personnel.
   b. **Capability 2: Communications**
      i. *Activity 1*: Alert and Dispatch
         Task 1.1: Implement response communications interoperability plan and protocols between city and hospitals.
         Task 1.2: Communicate incident response information per city/hospital agency protocols.

2. Chicago hospitals, with partner agency support, can manage medical surge requirements during the first 48 hours of a response to a catastrophic event in the City of Chicago.
   a. **Capability 3: Medical Sur...**
      i. *Activity 1*: Pre-Even...
         Task 1.2: De...
         Task 1.3 Est...
      ii. *Activity 3*: Bed surge...
         Task 3.1: Ma...
         Task 3.2: Im...
         protocols.
      iii. *Activity 4*: Medical ...
         Task 4.1: Re...
         requirements...
      iv. *Activity 6*: Receive,...
         Task 6.1: Es...
         Task 6.3: Ins...
         Task 6.4: Ex...

3. Chicago hospitals can successfully ...
   City and non-government agency s...
   a. **Capability 4: Evacuation**
      i. *Activity 1*: Direct Ev...
         Operation

AAR/IP

Homeland Security Exercise and Evaluation Program
Draft After Action Report/Improvement Plan   Heat Surge 2009 Tabletop Exercise

into other power stations for at least three days. As a result hospitals have switched to back up generator power, but this power is not adequate to maintain overall hospital and cooling operations for an extended period of time.

Hospital surge and loss of power has forced all affected hospitals to initiate immediate evacuation operations requiring the transportation of patients to supporting facilities. These simultaneous evacuations have put a tremendous strain on transportation of patients, critical medical resources and surge capacity at alternate hospital facilitates. Many of the affected hospitals have also lost primary sources of communication and have activated CDPH-Hospital interoperable two-way operations to facilitate command and control during evacuation operations.

SECTION 3: ANALYSIS OF CAPABILITIES

This section of the report reviews the performance of the exercise capabilities, activities, and tasks. Observations are organized by capability and associated activities. The capabilities linked to the Heat Surge 2009 TTX objectives are listed below, followed by corresponding activities. Each activity is followed by related observations, which include references, analysis, and recommendations.

CAPABILITY 1: EMERGENCY OPERATI...

Capability Summary: Emergency Operation...
provide multi-agency coordination for incide...
for a preplanned or no-notice event. EOC ma...
staffing, and deactivation; management, direc...
recovery activities; coordination of efforts a...
among local, regional, state, and federal EOC...
and maintenance of the information and com...
recovery activities.

ACTIVITY 1: ACTIVATE JOC/EOC/...

**Observation 1.1: Activate, alert, and reque...
personnel – Strength #1.**

References: None.

Analysis: At the onset of a severe heat wave ...
(CDPH) Health would disseminate the Office ...
(OEMC) protective action recommendations ...
hospitals. The city would also launch an agg...
residents to stay cool, drink plenty of fluids a...
too hot and unsafe for daily activities. City ag...
cooling centers.

Recommendation: None.

AAR/IP

Homeland Security Exercise and Evaluation Program
Draft After Action Report/Improvement Plan   Heat Surge 2009 Tabletop Exercise

Observation 1.3: Establish bed tracking system – Area for Improvement

References: None.

Analysis: While hospitals indicated they would transmit bed tracking information to public health officials on IDPH's HAvBED system, it was not clear who in the HICS is responsible for gathering and disseminating bed tracking data and where and when this information is being transmitted back to IDPH, CPDH, OEMC, IEMA, POD Hospitals and Resource Hospitals. During the TTX, Hospitals did not effectively describe how they would communicate bed tracking information to other local health departments or response partners through normal channels.

Recommendation: IDPH, CDPH and hospitals should review current HAvBED protocols and determine what HICS position is responsible for collecting and disseminating HAvBED data for all operational periods. State, city and hospitals officials should formally define HAvBED reporting protocols (when reporting bed census and to whom) and conduct HAvBED training quarterly.

Activity 3: Bed Surge Capacity

Observable Tasks:
   Task 3.1 Maximize utilization of available beds
   Task 3.2 Implement bed surge capacity plans, procedures, and protocols

Observation 3.1: Maximize utilization of available beds – Strength #1.

References: None.

Analysis: When all of the city's Emergency Departments were near/at full capacity, all the participating hospitals' indicated they would cancel elective surgeries, discharge non-critical, ambulatory patients, use clinical areas for dehydrated patients and begin to identify alternative care space within their facilities. For example, Illinois Masonic would coordinate with other local/suburban hospitals to identify available beds; Advocate Hospital stated it would set-up an alternative triage site, and several hospitals stated that they would provide assistance to staff with children in pre-school/school on-site so they could work without worrying about their school-aged children.

Recommendation: None.

Observation 3.1: Maximize utilization of available beds – Strength #2.

References: None.

Analysis: Once Rush Medical Center announced it had to transfer all of its 556 patients because of a power failure in the Medical District, Mt. Sinai and Mercy hospitals quickly agreed to accept many of Rush's patients. The Jesse Brown V.A. Hospital offered to take patients from Stroger, if necessary, and reported that it could transfer pediatric patients to its North Chicago facility if they are veteran dependents. Stroger would transport patients by obtaining permission to use the hospital-owned fleet of non-ambulance vehicles for non-critical patients. This would be

AAR/IP   20   Chicago Department of Public Health

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Glossary of Terms

After-Action Report/Improvement Plan (AAR/IP)

The AAR/IP has two components: an AAR, which captures observations of an exercise and makes recommendations for post-exercise improvements, and an IP, which identifies specific corrective actions, assigns them to responsible parties, and establishes targets for their completion. The lead evaluator and the exercise planning team draft the AAR and submit it to conference participants prior to the After-Action Conference. The draft AAR is completed first and distributed to conference participants for review no more than 30 days after exercise conduct. 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. Even though the AAR and IP are developed through different processes and perform distinct functions, the final AAR and IP should always be printed and distributed jointly as a single AAR/IP following an exercise.

Best Practices

Best practices are peer-validated techniques, procedures, and solutions that prove successful and are solidly grounded in actual experience in operations, training, and exercises. AAR/IPs should identify lessons learned and highlight best practices. Many of these can be found on http://www.llis.gov/, the Department of Homeland Security's (DHS's) lessons learned/best practices portal.

Capability

A capability may be delivered with any combination of properly planned, organized, equipped, trained, and exercised personnel who achieve the intended outcome. Descriptions of these combinations can be found in the Target Capabilities List (TCL) for each capability. This combination of resources provides the means to accomplish one or more tasks under specific conditions and meet specific performance standards.

Concept and Objectives (C&O) Meeting

The C&O Meeting is the formal beginning of the exercise planning process. It is held to obtain consensus on the already-identified type, scope, capabilities, objectives, and purpose of the exercise. For less complex exercises and for jurisdictions or organizations with limited resources, the C&O Meeting can be conducted in conjunction with the Initial Planning Conference (IPC). However, when exercise scope dictates, the C&O Meeting is held first. Representatives from the sponsoring agency or organization, the lead exercise planner, and senior officials typically attend the C&O Meeting to identify an overall exercise goal, develop rough drafts of exercise capabilities and objectives, and identify Exercise Planning Team members.

Contextual Inject

A controller introduces a contextual inject to a player to help build the exercise operating environment. For example, if the exercise is designed to test information-sharing capabilities, a Master Scenario Events List (MSEL) inject can be developed to direct a controller to select an actor to portray a suspect. The inject could then instruct the controller to prompt another actor to approach a law enforcement officer and inform him or her that this person was behaving suspiciously.

Contingency Inject

A controller verbally introduces a contingency inject to a player if players are not performing the actions needed to sustain exercise play. This ensures that play moves forward as needed to adequately test performance of activities. For example, if a simulated secondary device is placed at an incident scene during a terrorism response exercise but is not discovered, a controller may want to prompt an actor to approach a player to say that he or she witnessed suspicious activity close to the device's location. This should prompt the discovery of the device by the responder and result in subsequent execution of the desired notification procedures.

Controllers

In an operations-based exercise, controllers plan and manage exercise play, set up and operate the exercise incident site, and possibly take the roles of individuals and agencies not actually participating in the exercise (i.e., in the Simulation Cell [SimCell]). Controllers direct the pace of exercise play and routinely include members from the exercise planning team, provide key data to players, and may prompt or initiate certain player actions and injects to the players as described in the Master Scenario Event List (MSEL) to ensure exercise continuity. The individual controllers issue exercise materials to players as required, monitor the exercise timeline, and monitor the safety of all exercise participants. Controllers are the only participants who should provide information or direction to players. All controllers should be accountable to one senior controller. (Note: If conducting an exercise requires more controllers or evaluators than are available, a controller may serve as an evaluator; however, this typically is discouraged.)

Corrective Actions

Corrective actions are the concrete, actionable steps outlined in Improvement Plans (IPs) that are intended to resolve preparedness gaps and shortcomings experienced in exercises or real-world events.

Corrective Action Program (CAP)

The CAP System is a web-based application that enables users to prioritize, track, and analyze improvement plans developed from exercises and real-world events. Features of the CAP System include Improvement Plan creation and maintenance, corrective action assignment and tracking, and reporting and analysis. The CAP System functionality is based on the process described in HSEEP Volume III: Exercise Evaluation and Improvement Planning. The CAP System supports the process by which exercise and real-world events can inform and improve exercise programs and other preparedness components.

Design and Development

Building on the exercise foundation, the design and development process should consist of identifying capabilities, tasks, and objectives, designing the scenario, creating documentation, coordinating logistics, planning exercise conduct, and selecting an evaluation and improvement methodology.

Glossary of Terms (cont'd)

Discussion-based Exercise
Discussion-based exercises are normally used as a starting point in the building-block approach to the cycle, mix, and range of exercises. Discussion-based exercises include seminars, workshops, Table Top Exercises (TTXs), and games. These types of exercises typically highlight existing plans, policies, mutual aid agreements (MAAs), and procedures, and are exceptional tools to familiarize agencies and personnel with current or expected jurisdictional capabilities. Discussion-based exercises typically focus on strategic, policy-oriented issues, whereas operations-based exercises tend to focus more on tactical, response-related issues. Facilitators and/or presenters usually lead the discussion and keep participants on track to meet exercise objectives.

Drill
A drill, a type of operations-based exercise, is a coordinated, supervised activity usually employed to test a single specific operation or function in a single agency. Drills are commonly used to provide training on new equipment, develop or test new policies or procedures, or practice and maintain current skills.

Evaluation
One of the five phases of the exercise process, evaluation, is the cornerstone of exercises; it documents strengths and opportunities for improvement in a jurisdiction's preparedness and is the first step in the improvement process. Under the Homeland Security Exercise and Evaluation Program (HSEEP), evaluations are conducted through player observation and the use of Exercise Evaluation Guides (EEGs), which outline exercise performance measures expected from participants.

Evaluation Team
The evaluation team consists of evaluators trained to observe and record participant actions. These individuals should be familiar with the exercising jurisdiction's plans, policies, procedures, and agreements.

Evaluator
Evaluators, selected from participating agencies, are chosen based on their expertise in the functional areas they will observe. Evaluators use EEGs to measure and assess performance, capture unresolved issues, and analyze exercise results. Evaluators assess and document participants' performance against established emergency plans and exercise evaluation criteria, in accordance with HSEEP standards. Evaluators have a passive role in the exercise and only note the actions and decisions of players without interfering with exercise flow.

Event
An event is an expected action that is expected to take place during an exercise and is located in the MSEL.

Exercise
An exercise is an instrument to train for, assess, practice, and improve performance in prevention, protection, response, and recovery capabilities in a risk-free environment. Exercises can be used for: testing and validating policies, plans, procedures, training, equipment, and interagency agreements; clarifying and training personnel in roles and responsibilities; improving interagency coordination and communications; identifying gaps in resources; improving individual performance; and identifying opportunities for improvement. (Note: an exercise is also an excellent way to demonstrate community resolve to prepare for disastrous events).

Exercise and Evaluation Guide (EEG)
The EEG Builder allows users to create customized EEGs both inside the Toolkit and through the website by selecting which Activities from a given Capability will be evaluated during an exercise. Users will also be able to create customized Tasks and Measures to further focus the evaluation process.

Exercise Program Manager
The exercise program manager develops a self-sustaining HSEEP through program budget management oversight, exercise conduct, and improvement tracking monitoring and reporting.

Facilitator
The facilitator in a discussion-based exercise is responsible for keeping participant discussions on track with the exercise design objectives and making sure all issues and objectives are explored as thoroughly as possible within time constraints.

Final Planning Conference
The FPC is the final forum for the exercise planning team to review the process and procedures for exercise conduct, final drafts of all exercise materials, and all logistical requirements. There should be no major changes made to either the design or the scope of the exercise, nor to any supporting documentation, at the FPC. The FPC ensures all logistical requirements have been arranged, all outstanding issues have been identified and resolved, and all exercise products are ready for printing.

Ground Truth
Ground truth is a component of prevention exercise documentation comprised of the detailed elements of the scenario that must remain consistent during exercise development and be conducted to ensure that realism is maintained and objectives are met in the unscripted move-countermove exercise environment.

Homeland Security Exercise and Evaluation Program (HSEEP)
HSEEP is a capabilities- and performance-based exercise program that provides standardized policy, doctrine, and terminology for the design, development, conduct, and evaluation of homeland security exercises. HSEEP also provides tools and resources to facilitate the management of self-sustaining homeland security exercise programs.

Homeland Security Presidential Directive-5 (HSPD-5)
HSPD-5, an Executive Branch–issued policy, required DHS to coordinate with other federal departments and agencies as well as state, local, and tribal governments to establish the National Response Plan (NRP) and the National Incident Management System (NIMS).

Glossary of Terms (cont'd)

Homeland Security Presidential Directive-8 (HSPD-8)
HSPD-8, an Executive Branch–issued policy, was drafted to strengthen the preparedness of the United States to prevent and respond to threatened or actual domestic terrorist attacks, major disasters, and other emergencies by requiring a national domestic all-hazards preparedness goal; establishing mechanisms for improved delivery of federal preparedness assistance to state and local governments; and outlining actions to improve the capabilities of federal, state, and local entities.

Hot Wash
A hot wash is a facilitated discussion held immediately following an exercise among exercise players from each functional area. It is designed to capture feedback about any issues, concerns, or proposed improvements players may have about the exercise. The hot wash is an opportunity for players to voice their opinions on the exercise and their own performance. This facilitated meeting allows players to participate in a self-assessment of the exercise play and provides a general assessment of how the jurisdiction performed in the exercise. At this time, evaluators can also seek clarification on certain actions and what prompted players to take them. Evaluators should take notes during the hot wash and include these observations in their analysis. The hot wash should last no more than 30 minutes.

Initial Planning Conference
The IPC is typically the first step in the planning process and lays the foundation for the exercise (unless a C&O Meeting is held). Its purpose is to gather input from the exercise planning team on the scope; design requirements and conditions (such as assumptions and artificialities); objectives; level of participation; and scenario variables (e.g., location, threat/hazard selection), and MSEL. During the IPC, the exercise planning team decides on exercise location, schedule, duration, and other details required to develop exercise documentation. Planning team members should be assigned responsibility for the tasks outlined in the conference.

Inject
Injects are MSEL entries that controllers must simulate—including directives, instructions, and decisions. Exercise controllers provide injects to exercise players to drive exercise play toward the achievement of objectives. Injects can be written, oral, televised, and/or transmitted via any means (e.g., fax, phone, e-mail, voice, radio, or sign). Injects can be contextual or contingency.

Lead Evaluator
The lead evaluator should participate fully as a member of the exercise planning team and should be a senior-level individual familiar with: prevention, protection, response, and/or recovery issues associated with the exercise; plans, policies, and procedures of the exercising jurisdiction/organization; Incident Command and decision-making processes of the exercising jurisdiction/organization; and interagency and/or interjurisdictional coordination issues relevant to the exercise. The lead evaluator must have the management skills needed to oversee a team of controllers and evaluators over an extended process as well as the knowledge and analytical skills to undertake a thorough and accurate analysis of all capabilities being tested during an exercise.

Lessons Learned
Lessons learned are knowledge and experience (both positive and negative) derived from observations and historical study of actual operations, training, and exercises. Exercise AAR/IPs should identify lessons learned and highlight best practices, and should be submitted to DHS for inclusion in the lessons learned/best practices Web portal, http://www.llis.gov/, which serves as a national network for generating, validating, and disseminating lessons learned and best practices.

Master Scenario Events List
The MSEL is a chronological timeline of expected actions and scripted events to be injected into exercise play by controllers to generate or prompt player activity. It ensures necessary events happen so that all objectives are met.

Mid-term Planning Conference
The MPC, an operations-based exercise planning conference, is used to discuss exercise organization and staffing concepts; scenario and timeline development; and scheduling, logistics, and administrative requirements. It is also a session to review draft documentation (e.g., scenario, ExPlan, C/E Handbook, MSEL). *(Note: A MSEL Conference can be held in conjunction with or separate from the MPC to review the scenario timeline for the exercise.)*

Mission
There are four Homeland Security missions: (1) prevent, (2) protect against, (3) respond to, and (4) recover from acts of terrorism, natural disasters, and other emergencies. Within the missions are the capabilities to be achieved and the tasks required to achieve them.

Multiyear Training and Exercise Plan
The Multiyear Training and Exercise Plan (TEP) is the foundational document guiding a successful exercise program. The multiyear plan provides a mechanism for long-term coordination of training and exercise activities toward a jurisdiction's preparedness goals. This plan describes the program's training and exercise priorities and associated capabilities and aids in employing the building-block approach for training and exercise activities. Within the Multiyear TEP, the multiyear schedule graphically illustrates training and exercise activities that support the identified priorities. The schedule is color-coded by priority and presents a multiyear outlook for task and priority achievement. As training and exercises are completed, the document can be annually updated, modified, and revised to reflect changes to the priorities and new capabilities that need to be assessed. The Multiyear TEP and schedule is produced through the work completed at the Training and Exercise Plan Workshop (T&EPW). The T&EPW focuses on discussion of capabilities-based planning, overview of the National Priorities, review of the state or jurisdiction priorities, and analysis of previous training and exercises. After this information is synthesized, participants develop the plan and schedule for their state or jurisdiction.

Glossary of Terms (cont'd)

National Exercise Schedule

The National Exercise Schedule (NEXS) System is the nation's online comprehensive tool that facilitates scheduling, deconfliction, and synchronization of all national-level, federal, state, and local exercises. HSEEP User Guide: Login and Create an Exercise. HSEEP User Guide: NEXS.

National Incident Management System (NIMS)

The NIMS standard was designed to enhance the ability of the United States to manage domestic incidents by establishing a single, comprehensive system for incident management. It is a system mandated by HSPD-5 that provides a consistent, nationwide approach for federal, state, local, and tribal governments, the private sector, and non-governmental organizations to work effectively and efficiently together to prepare for, respond to, and recover from domestic incidents, regardless of cause, size, or complexity.

National Planning Scenarios

The 15 National Planning Scenarios require a wide range of prevention, protection, response, and recovery tasks to effectively manage the incidents described. They represent a range of potential incidents and were used to develop the Universal Task List (UTL) and the TCL.

Objectives

Exercise objectives must be established for every exercise. Well-defined objectives provide a framework for scenario development, guide individual organizations' objective development, and inform exercise evaluation criteria. Jurisdictions should frame exercise objectives with the aim of attaining capabilities established as priorities at the federal, state, and local level, as captured in the jurisdiction's Multiyear TEP and schedule. Objectives should reflect specific capabilities that the exercising jurisdiction establishes as priorities and the tasks associated with those capabilities. Objectives should be simple, measurable, achievable, realistic, and task-oriented (SMART). Planners should limit the number of exercise objectives to enable timely execution and to facilitate design of a realistic scenario.

Observers

Observers are not exercise participants; rather, they observe selected segments of the exercise as it unfolds while remaining separated from player activities. Observers view the exercise from a designated observation area and are asked to remain within the observation area during the exercise. A dedicated group of exercise controllers should be assigned to manage these groups. In a discussion-based exercise, observers may support the development of player responses to the situation during the discussion by delivering messages or citing references.

Participants

Participants include all players, controllers, evaluators, and staff involved in conducting an exercise.

Planning Conferences

Planning conferences are forums held by the exercise planning team to design and develop the exercise. The scope, type, and complexity of an exercise should determine the number of conferences necessary to successfully conduct an exercise. These milestones of the exercise planning process are typically comprised of the Initial Planning Conference (IPC), the Midterm Planning Conference (MPC), and the Final Planning Conferences (FPC). Potential additional exercise planning conferences include the C&O Meeting, the MSEL Conference, and the Red Team Planning Conference. Discussion-based exercises usually convene IPCs and FPCs, whereas operations-based exercises may call for an IPC, MPC, FPC, and a MSEL Conference.

Preparedness

The Preparedness process is the range of deliberate, critical tasks and activities necessary to build, sustain, and improve the operational capability to prevent, protect against, respond to, and recover from domestic incidents. Preparedness is continuous and involves efforts at all levels of government and between government and private sector and non-governmental organizations to identify threats, determine vulnerabilities, and identify required resources. It is also the existence of plans, procedures, policies, training, and equipment necessary at the federal, state, and local level to maximize the ability to prevent, respond to, and recover from major incidents. The term "readiness" is used interchangeably with preparedness.

Prevention

The Prevention process encompasses activities that serve to detect and disrupt terrorist threats or actions against the United States and its interests. They are actions taken to avoid an incident or to intervene to stop an incident from occurring and involve actions taken to prevent the loss of lives and property. Prevention involves applying intelligence and other information to a range of activities that may include such countermeasures as deterrence operations; heightened inspections; improved surveillance and security operations; investigations to determine the full nature and source of the threat; public health and agricultural surveillance and testing processes; immunizations, isolation, or quarantine; and, as appropriate, specific law enforcement operations aimed at deterring, preempting, interdicting, or disrupting illegal activity and apprehending potential perpetrators and bringing them to justice. Prevention also includes activities undertaken by the first responder community during the early stages of an incident to reduce the likelihood or consequences of threatened or actual terrorist attacks.

Project Management

Effective exercise project management ensures identification, development, and management of critical and supportive activities; frequent communication about project status; and use of management plans and timelines (e.g., project management timeline, scheduling software, Gantt charts).

Glossary of Terms (cont'd)

Protection
The Protection process includes actions to reduce the vulnerability of critical infrastructure or key resources in order to deter, mitigate, or neutralize terrorist attacks, major disasters, and other emergencies. Protection focuses on deterrence, mitigation, and response-oriented activities to prevent an attack from occurring, whereas prevention centers on the recognition of threats via information sharing and intelligence analysis.

Purpose
The purpose is a broad statement of the reason the exercise is being conducted. The purpose should explain what elements are to be assessed, evaluated, or measured.

Recommendation(s)
Recommendations, based on root-cause analysis, are listed in all AAR/IPs. Recommendations are the identification of areas for improvement as noted during an exercise.

Recovery
The Recovery process is the development, coordination, and execution of service- and site-restoration plans for impacted communities and the reconstitution of government operations and services through individual, private-sector, non-governmental, and public assistance programs that identify needs and define resources; provide housing and promote restoration; address long-term care and treatment of affected persons; implement additional measures for community restoration; incorporate mitigation measures and techniques, as feasible; evaluate the incident to identify lessons learned; and develop initiatives to mitigate the effects of future incidents.

Registration Area
The Registration Area is where participants sign in and receive exercise identification, such as badges or hats.

Response
The Response process focuses on activities that address the short-term, direct effects of an incident. Response includes immediate actions to save lives, protect property, and meet basic human needs. Response also includes the execution of EOPs and of incident mitigation activities designed to limit loss of life, personal injury, property damage, and other unfavorable outcomes. As indicated by the situation, response activities include: applying intelligence and other information to lessen the effects or consequences of an incident; increasing security operations; continuing investigations into the nature and source of the threat; conducting ongoing public health and agricultural surveillance and testing processes; performing immunizations, isolation, or quarantine; and conducting specific law enforcement operations aimed at preempting, interdicting, or disrupting illegal activity and apprehending actual perpetrators and bringing them to justice.

Safety Controller
The Safety Controller is responsible for monitoring exercise safety during setup, conduct, and clean-up of the exercise. All exercise controllers assist the safety controller by reporting any safety concerns. The Safety Controller should not be confused with the safety officer, who is identified by the incident commander during exercise play.

Scenario
A scenario provides the backdrop and storyline that drive an exercise. The first step in designing a scenario is determining the type of threat/hazard (e.g., chemical, explosive, cyber, natural disaster) to be used in an exercise. The hazards selected for an exercise should realistically stress the capabilities a jurisdiction is attempting to improve through its exercise programs. A hazard should also be a realistic representation of potential threats faced by the exercising jurisdiction. For discussion-based exercises, a scenario provides the backdrop that drives participant discussion. For operations-based exercises, the scenario should provide background information on the incident catalyst of the exercise. For prevention exercises, the scenario should include the Ground Truth.

Scope
Scope is an indicator of the level of government or private sector participation in exercise play, regardless of participant size. Scope levels include: local, multi-local, regional (within a state), state, multi-state, federal, national, international, and private sector.

Simple, Measurable, Achievable, Realistic, Task-oriented (SMART)
SMART is a set of guidelines for developing viable exercise goals and objectives.

Situation Manual (SitMan)
The SitMan is a handbook provided to all participants in discussion-based exercises, particularly TTXs. The SitMan provides background information on the exercise scope, schedule, and objectives. It also presents the scenario narrative that will drive participant discussions during the exercise. (*Note: The SitMan should mirror the exercise briefing, support the scenario narrative, and allow participants to read along while watching events unfold*).

Subject Matter Expert (SME)
SMEs add functional knowledge and expertise in a specific area or in performing a specialized job, task, or skill to the exercise planning team. They help to make the scenario realistic and plausible and ensure jurisdictions have the appropriate capabilities to respond.

Support Staff
Exercise support staff includes individuals who are assigned administrative and logistical support tasks during the exercise (e.g., registration, catering).

Glossary of Terms (cont'd)

Table Top Exercise (TTX)

TTXs are intended to stimulate discussion of various issues regarding a hypothetical situation. They can be used to assess plans, policies, and procedures or to assess types of systems needed to guide the prevention of, response to, or recovery from a defined incident. During a TTX, senior staff, elected or appointed officials, or other key personnel meet in an informal setting to discuss simulated situations. TTXs are typically aimed at facilitating understanding of concepts, identifying strengths and shortfalls, and/or achieving a change in attitude. Participants are encouraged to discuss issues in depth and develop decisions through slow-paced problem solving rather than the rapid, spontaneous decision making that occurs under actual or simulated emergency conditions. TTXs can be breakout (i.e., groups split into functional areas) or plenary (i.e., one large group).

Target Capabilities List (TCL)

The TCL is a list of capabilities that provides guidance on the specific capabilities that federal, state, tribal, and local entities are expected to develop and maintain to prevent, protect against, respond to, and recover from incidents of national significance, including terrorism or natural disasters, in order to maintain the level of preparedness set forth in the National Preparedness Goal.

Tasks

Tasks are specific, discrete actions that individuals or groups must complete or discuss during an exercise to successfully carry out an activity. Successful execution of performance measures and tasks, either sequentially or in parallel, is the foundation for activities, which are, in turn, the foundation of capabilities.

Training and Exercise Plan Workshop

A T&EPW is usually conducted in order to create a Multiyear Training and Exercise Plan. During the workshop, participants review priority preparedness capabilities and coordinate exercise and training activities that can improve those capabilities. As a result of the workshop, the Multiyear TEP outlines multiyear timelines and milestones for execution of specific training and exercise activities.

Trusted Agent

Trusted agents are the individuals on the exercise planning team who are trusted not to reveal the scenario details to players prior to the exercise being conducted.

Universal Task List (UTL)

The UTL is a comprehensive menu of tasks derived from all tasks that may be performed in major incidents as illustrated by the National Planning Scenarios. Entities at all levels of government should use the UTL as a reference to help them develop proficiency through training and exercises to perform their assigned missions and tasks during major incidents.

Workshop

The workshop, a type of discussion-based exercise, represents the second tier of exercises in the building-block approach. Although similar to seminars, workshops differ in two important aspects: increased participant interaction and a focus on achieving or building a product (e.g., plans, policies). A workshop is typically used to test new ideas, processes, or procedures; train groups in coordinated activities; and obtain consensus. Workshops often use breakout sessions to explore parts of an issue with smaller groups.

Acknowledgments

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Pediatric Medical Surge

Exercise Evaluation Guide

Capability Description:

Pediatric Medical Surge is the capability to rapidly expand the capacity of the existing healthcare system (long-term care facilities, community health agencies, acute care facilities, alternate care facilities and public health departments) in order to provide triage and subsequent medical care to children. This includes providing definitive care to individuals at the appropriate clinical level of care, within sufficient time to achieve recovery and minimize medical complications. The capability applies to an event resulting in a number or type of patients that overwhelm the day-to-day acute-care medical capacity. Pediatric Medical Surge is defined as the rapid expansion of the capacity of the existing healthcare system in response to an event that results in and influx of children and an increased need for personnel (clinical and non-clinical), support functions (laboratories and radiological), physical space (beds, alternate care facilities) and logistical support (clinical and non-clinical equipment and supplies).

Capability Outcome:

Children who are injured or ill from an event are rapidly and appropriately cared for in the hospital or alternative healthcare setting. Continuity of care is maintained for non-incident related illness or injury.

Jurisdiction or Organization:	Name of Exercise:
Location:	Date:
Evaluator:	Evaluator Contact Info:

Note to Exercise Evaluators: Only review those activities listed below to which you have been assigned

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Activity 1: Pediatric Pre-Event Mitigation and Preparedness | **Delete Activity**

Activity Description:

Tasks Observed *(check those that were observed and provide the time of observation)*

Note: Asterisks (*) denote Performance Measures and Performance Indicators associated with a task. Please record the observed indicator for each measure

Tasks/*Observation Keys*	**Time of Observation/ Task Completion**

1.1   Conduct Pediatric Hazard Vulnerability Analysis (HVA)
 	
   – *Identify and list, by type, all hazards that could affect the location or asset of interest, and the relative likelihood of each hazard's occurrence ("threat")*
   – *Assess both the community and response system's susceptibility to a large influx of children, including post-impact health and medical needs*
	Time:
	 Task Completed?
	
	 Fully ☐ Partially ☐ Not ☐ N/A ☐

Tasks Observed *(check those that were observed and provide the time of observation)*

Note: Asterisks (*) denote Performance Measures and Performance Indicators associated with a task. Please record the observed indicator for each measure

Tasks/*Observation Keys*	Time of Observation/ Task Completion

– *Conduct an assessment of medical surge facilities that are able to care for children, local and regional pediatric hospital capacity, development of community/regional based surge capacity models, realistic supply and equipment expectations plans and the inclusion of an alternate care facility or site able to care for children.*
    – *Prioritize possible mitigation and preparedness activities based on cost-benefit analysis*
    – *Identify issues that create catastrophic system failure or the inability to care for children in an incident*	

1.2.   Define hospital incident management structure and methodology
 	
    – *Define the hospital's internal incident management structure and methodology according to National Incident Management System (NIMS) doctrine*
    – *Assure that the" Medical/Technical Specialist-Pediatrics" within the Hospital Incident Command System (HICS) has been reviewed and personalized for the specific hospital capabilities in caring for neonates and children.*
    – *Identify logistical, IT, equipment, communications requirements needed to support incident management*
    – *Establish interoperable communications systems with other response entities (e.g., other hospitals, EMS, public health, first responders)*
	Time:
	Task Completed?
	
	Fully ☐ Partially ☐ Not ☐ N/A ☐

1.3.   Establish a bed tracking system to include pediatric, neonatal and pediatric intensive care unit capabilities
 	
    – *Develop a system for tracking available beds and other information within a facility by bed type (e.g., Pediatric ICU, Neo-natal ICU, Pediatric Medical/Surgical, Neo-natal/Newborns, and Pediatric Behavioral Health)*
    – *Establish mechanisms to aggregate and disseminate bed tracking information to local and State EOC's, other healthcare partners and response entities (fire, public safety, etc)*
	Time:
	Task Completed?
	
	Fully ☐ Partially ☐ Not ☐ N/A ☐

Tasks Observed *(check those that were observed and provide the time of observation)*

Note: Asterisks (*) denote Performance Measures and Performance Indicators associated with a task. Please record the observed indicator for each measure

Tasks/*Observation Keys*	Time of Observation/ Task Completion
1.4. Develop protocols for increasing internal pediatric surge capacity – *Establish criteria and processes for canceling outpatient and elective procedures (if necessary)* – *Establish criteria and clearly defined processes to evaluate and discharge lower acuity patients to home, other health care facilities or alternate care sites that are able to care for children* – *Establish and maintain updated listings of local and regional pediatric specialty facilities if transfers or evacuations are needed* – *Utilize best practices in pediatric identification and tracking to include marking patients, photographing families, possibly posting photographs on the hospital intranet* – *Work within establish localized Patient Tracking systems if available regionally (e.g. Red Cross Patient Tracking)* – *Establish a mechanism to track patients who are discharged, transferred or moved to a surge bed or alternate care site location*	Time: Task Completed? Fully ☐ Partially ☐ Not ☐ N/A ☐
1.5. Determine pediatric medical surge assistance requirements – *Identify potential gaps in qualified pediatric personnel, pediatric supplies, and equipment such as ventilators or IV pumps* – *Identify local, State, Tribal, Federal, and private sector partners who can work to ensure adequate pediatric staffing, supplies, equipment, and pediatric safe bed spaces or locations for care* – *Determine State, Tribal, and local pediatric, behavioral health, public health, substance abuse, and private sector officials to establish mutual aid agreements in support of pediatric surge requirements*	Time: Task Completed? Fully ☐ Partially ☐ Not ☐ N/A ☐
1.6. Develop plans for providing external surge capacity outside the hospital setting – *Identify off-site or alternate care facilities to provide pediatric surge capacity* – *Determine the number of pediatric patients and level of care (e.g., triage, basic care and stabilization, trauma) that can be accommodated at each site* – *Develop pediatric qualified staffing, appropriate pediatric food and nutrition, and supplies and re-supply plans*	Time: Task Completed? Fully ☐ Partially ☐ Not ☐ N/A ☐

Activity 2: Incident Management　　　　　　　　　　　　　　**Delete Activity**

Activity Description: In response to notification of a mass casualty incident, activate the healthcare organization's Emergency Operations Plan

Tasks Observed *(check those that were observed and provide the time of observation)*

Note: Asterisks (*) denote Performance Measures and Performance Indicators associated with a task. Please record the observed indicator for each measure

Tasks/*Observation Keys*	Time of Observation/ Task Completion

2.1. Activate the health care organization's Emergency Operation's Plan (EOP) — *Implement notification procedures for incident management personnel and key administrative staff* — *Assign roles and responsibilities to the incident management team and general staff* — *Manage incident response in accordance with Incident Command System (ICS) organizational structures, doctrine, and procedures, as defined in NIMS* — *Establish a safety plan for facility patients and staff* — *Implement a common communications plan*	Time: Task Completed? Fully ☐ Partially ☐ Not ☐ N/A ☐

* Time to activate the organization's EOP	Target Within 30 minutes of notification	Actual

2.2. Conduct incident action planning to include planning for surge of children — *Establish and document incident goals and objectives* — *Establish and document the strategy and general tactics to meet incident objectives* — *Develop and document support plans (e.g., Safety plan, Contingency plan, Pediatric Safe Area, Area to care for healthy children not affected by the incident)* — *Coordinate with other response entities, if appropriate, to define an operational period for response* — *Evaluate and revise objectives for each operational period*	Time: Task Completed? Fully ☐ Partially ☐ Not ☐ N/A ☐
2.3. Disseminate key components of incident action plan — *Incident management team debriefs administrative staff on incident action plan, operational period objectives, and/or important changes in incident parameters* — *Disseminate key components of the incident action plan with external response entities during each operational period*	Time: Task Completed? Fully ☐ Partially ☐ Not ☐ N/A ☐
2.4. Provide emergency operations support to incident management — *Establish connectivity and coordinate requests for emergency operations support with multi-agency coordination centers (e.g., local Emergency Operations Center (EOC), state EOC, etc.)* — *Recommend that a Pediatric Expert Clinician is included in the EOC when large numbers of children are affected by an incident*	Time: Task Completed? Fully ☐ Partially ☐ Not ☐ N/A ☐

Activity 3: Pediatric Bed surge capacity

Delete Activity

Activity Description: Increase as many staffed and resourced pediatric hospital beds as clinically appropriate.

Tasks Observed *(check those that were observed and provide the time of observation)*

Note: Asterisks (*) denote Performance Measures and Performance Indicators associated with a task. Please record the observed indicator for each measure

Tasks/*Observation Keys*	Time of Observation/ Task Completion	
3.1. Maximize utilization of available beds – *Coordinate pediatric patient distribution with other local and regional hospitals who have the capabilities to care for high risk and critically and acutely ill hospitalized children* – *Assure that private patient transport partners have appropriate pediatric supplies and equipment if transport or evacuation is necessary*	Time: Task Completed? Fully ☐ Partially ☐ Not ☐ N/A ☐	
* Time to implement medical surge plans	**Target** **TBD**	**Actual**
3.2. Forward transport or discharge less acutely ill pediatric patients – *Institute protocols to discharge stable inpatients to home or other health care facilities* – *Implement transport procedures to pre-identified facilities based on level of care required* – *Activate MOUs with local or regional pediatric partners for transport and care of patients who are not stable enough to discharge home or to an ACS* – *Utilize pre-identified pediatric care providers (physicians, nurses, respiratory therapists) when transportation is necessary* – *Send care providers from one hospital to another site of care if evacuation is necessary or imminent and utilize ESAR-VHP for credentialing* – *Utilize a reverse triage methodology to determine the acuity of pediatric patients who may need transfer or evacuation*	Time: Task Completed? Fully ☐ Partially ☐ Not ☐ N/A ☐	
* Identify and discharge stable pediatric inpatients to alternate care sites	**Target** **TBD**	**Actual**

Tasks Observed *(check those that were observed and provide the time of observation)*

Note: Asterisks (*) denote Performance Measures and Performance Indicators associated with a task. Please record the observed indicator for each measure

Tasks/*Observation Keys*   **Time of Observation/ Task Completion**

3.4. Provide pediatric medical surge capacity in alternate care facilities – *Activate MOUs or agreements to open alternate care facilities* – *Activate appropriate pediatric clinical staffing and supply and equipment plans* – *Activate appropriate non clinical staffing (security, administration) to manage ACS* – *Define the type of care to be provided in alternate care facilities and coordinate with external response entities (as part of pre-event planning)*	Time: Task Completed? Fully ☐ Partially ☐ Not ☐ N/A ☐

Activity 4: Pediatric Surge Staffing Procedure   [**Delete Activity**]

Activity Description: Maximize pediatric staffing levels through recall of off-duty personnel, part-time staff, and retired clinical and non-clinical associates.

Tasks Observed *(check those that were observed and provide the time of observation)*

Note: Asterisks (*) denote Performance Measures and Performance Indicators associated with a task. Please record the observed indicator for each measure

Tasks/*Observation Keys*   **Time of Observation/ Task Completion**

4.1. Recall pediatric clinical personnel in support of surge capacity requirements – *Predetermine clinical personnel with pediatric experience and competencies prior to surge needs* – *Implement hospital's staff call-back procedures (including "part-time" and contingency staff)* – *Activate onsite procedures to receive, process, and manage staff throughout the incident* – *Debrief clinical staff on incident parameters and how the organization is responding* – *Verify credentials and issue appropriate pediatric clinical staff assignments* – *Develop a plan to utilize pediatric clinical providers from other hospitals in case of need*	Time: Task Completed? Fully ☐ Partially ☐ Not ☐ N/A ☐
4.2. Augment pediatric clinical staffing – *Activate roster and initiate call-back procedures for qualified and licensed pediatric volunteer clinicians* – *Institute procedures to receive, register, process (including credential verification), and manage volunteer clinicians throughout the incident* – *Implement strategies to integrate Federal pediatric clinical personnel (e.g., National Disaster Medical System and U.S. Public Health System personnel)* – *Provide just-in-time training to clinical staff if necessary for pediatric specific care issues*	Time: Task Completed? Fully ☐ Partially ☐ Not ☐ N/A ☐

Tasks Observed *(check those that were observed and provide the time of observation)*

Note: Asterisks (*) denote Performance Measures and Performance Indicators associated with a task. Please record the observed indicator for each measure

Tasks/*Observation Keys*	**Time of Observation/ Task Completion**	
4.3. Augment non-clinical staffing – *Initiate call-back procedures for non-clinical staff (e.g., custodians, security, cooks, etc.)* – *Activate MOUs for non-clinical staff (if applicable)* – *Activate processes to receive, process, and manage non-clinical staff throughout the incident*	Time: Task Completed? Fully ☐ Partially ☐ Not ☐ N/A ☐	
* Immediate deployment of additional health care personnel	**Target** **TBD**	**Actual**

Activity 5: Pediatric Decontamination   [Delete Activity]

Activity Description:

Tasks Observed *(check those that were observed and provide the time of observation)*

Note: Asterisks (*) denote Performance Measures and Performance Indicators associated with a task. Please record the observed indicator for each measure

Tasks/*Observation Keys*	**Time of Observation/ Task Completion**
5.1. Provide mass decontamination capabilities to children if necessary – *Implement standards for appropriate personal protective equipment (PPE)for staff involved in decontamination process* – *Activate protocol to address decontamination of the' At-Risk' population of children* – *Assure that alternate ways of caring for children during the decontamination process are addressed in the plan to include the avoidance of hypothermia, assuring safety and appropriate handling during the decontamination process* – *Assure that warm blankets and clothing are readily available after the decontamination process to mitigate physiologic and psychological distress* – *Consider the psychosocial needs of children following the decontamination process by including care partners such as Child Life, Social Work or Counselors for post decontamination counseling and support* – *Coordinate decontamination activities with other health care facilities and external response partners*	Time: Task Completed? Fully ☐ Partially ☐ Not ☐ N/A ☐

Tasks Observed *(check those that were observed and provide the time of observation)*

Note: Asterisks (*) denote Performance Measures and Performance Indicators associated with a task. Please record the observed indicator for each measure

Tasks/*Observation Keys*	Time of Observation/ Task Completion	
* Adequate portable or fixed decontamination systems	**Target** **TBD**	**Actual**

Activity 6: Receive, Evaluate, and Treat Pediatric Surge Casualties   Delete Activity

Activity Description: Receive pediatric mass casualties and provide appropriate evaluation and medical treatment

Tasks Observed *(check those that were observed and provide the time of observation)*

Note: Asterisks (*) denote Performance Measures and Performance Indicators associated with a task. Please record the observed indicator for each measure

Tasks/*Observation Keys*	Time of Observation/ Task Completion	

6.1.   Establish initial reception and triage site
 	
   — *Identify safe location(s) for initial pediatric patient reception and triage*
   — *Quickly disseminate information on patient reception/triage site to external response entities (e.g., EMS) and to the public through a coordinated public information message since many patients will self-refer*
   — *Activate MOUs with other health care organizations or community assets (e.g., schools, conference centers) for initial patient triage for those less acutely ill if possible*
	Time:
	
	Task Completed?
	
	Fully ☐ Partially ☐ Not ☐ N/A ☐	

6.2.   Provide pediatric medical equipment and supplies in support of immediate medical response operations and for restocking supplies/equipment
 	
   — *Identify additional pediatric equipment and supplies needed to meet surge capacity requirements*
   — *Implement restocking procedures for pre-hospital care providers*
   — *Request local or state caches of pediatric supplies and medications*
   — *Coordinate requests for mutual aid support with local, regional, and State response agencies*
   — *Request the strategic national stockpile (SNS) through ICS if local caches are depleted or planning indicates a need*
	Time:
	
	Task Completed?
	
	Fully ☐ Partially ☐ Not ☐ N/A ☐	

* Adequate pediatric supplies, pharmaceuticals, and equipment available to support facility surge capacity	**Target** **TBD**	**Actual**

Tasks Observed *(check those that were observed and provide the time of observation)*

Note: Asterisks (*) denote Performance Measures and Performance Indicators associated with a task. Please record the observed indicator for each measure

Tasks/*Observation Keys*	Time of Observation/ Task Completion	
6.3. Institute pediatric patient tracking – *Implement systems to track all patients in the facility with capability to distinguish between incident-related and non-incident patients* – *Utilize hospital "Lock Down" Procedures to avoid extra persons in the hospital during an incident*	Time: Task Completed? Fully ☐ Partially ☐ Not ☐ N/A ☐	
* **Percentage of patients tracked**	**Target** **100%**	**Actual**
6.4. Activate procedures for altered nursing and medical care standards – *Implement pre-defined altered pediatric nursing and medical care standards if available* – *Disseminate information on the use of altered standards of care through established information management mechanisms within the organization and to external response entities*	Time: Task Completed? Fully ☐ Partially ☐ Not ☐ N/A ☐	

Activity 7: Provide Pediatric Surge Capacity for Behavioral Health Issues   [Delete Activity]

Activity Description: Have personnel available to provide behavioral health services to pediatric patients, their families, responders and staff.

Tasks Observed *(check those that were observed and provide the time of observation)*

Note: Asterisks (*) denote Performance Measures and Performance Indicators associated with a task. Please record the observed indicator for each measure

Tasks/*Observation Keys*	Time of Observation/ Task Completion
7.1. Institute strategy to address pediatric behavioral health issues – *Implement strategy to meet behavioral health needs of staff (including incident management team) as well as pediatric patients and their family members*	Time: Task Completed? Fully ☐ Partially ☐ Not ☐ N/A ☐
7.2. Provide pediatric behavioral health support within the hospital setting	

Tasks Observed *(check those that were observed and provide the time of observation)*

Note: Asterisks (*) denote Performance Measures and Performance Indicators associated with a task. Please record the observed indicator for each measure

Tasks/*Observation Keys*   **Time of Observation/ Task Completion**

– *Identify personnel required to assist with counseling and behavioral health support* – *Implement the hospital's behavioral plan for emergency response* – *Coordinate with community leaders (e.g., religious community) if necessary*	Time: Task Completed? Fully ☐ Partially ☐ Not ☐ N/A ☐

* Percentage of patients offered Behavioral Healthcare	**Target** **TBD**	**Actual**

7.3. Provide family support services – *Identify Federal, State, local and support agencies to assist with family support services* – *Identify available resources* – *Coordinate with families to ensure they know where/how to receive support*	Time: Task Completed? Fully ☐ Partially ☐ Not ☐ N/A ☐

Activity 8: Demobilize   **Delete Activity**

Activity Description: Prepare to return facility and staff to normal operations.

Tasks Observed *(check those that were observed and provide the time of observation)*

Note: Asterisks (*) denote Performance Measures and Performance Indicators associated with a task. Please record the observed indicator for each measure

Tasks/*Observation Keys*   **Time of Observation/ Task Completion**

8.1. Coordinate decision to demobilize with overall incident management – *Notify health care personnel and external response entities that pediatric medical surge is demobilized* – *Conduct demobilization activities under incident command structure*	Time: Task Completed? Fully ☐ Partially ☐ Not ☐ N/A ☐

Tasks Observed *(check those that were observed and provide the time of observation)*

Note: Asterisks (*) denote Performance Measures and Performance Indicators associated with a task. Please record the observed indicator for each measure

Tasks/*Observation Keys*	Time of Observation/ Task Completion

8.2.   Provide a staff debriefing
 	
   –   *Transition to normal operations and normal staff scheduling*
   –   *Determine Critical Incident Stress Management (CISM) needs*
   –   *Institute plan for staff counseling, stress debriefing, or other follow-up activities to address response workers mental or behavioral health needs both acute and long term*
	Time:
	
	Task Completed?
	
	Fully ☐ Partially ☐ Not ☐ N/A ☐

8.3.   Reconstitute pediatric medical supply, equipment inventory
 	
   –   *Complete inventories of medical supplies, pharmaceuticals, and equipment*
   –   *Account for all costs incurred by the health care organization as a result of the incident response*
   –   *Apply for financial remuneration of those costs*
   –   *Request replacement or servicing of equipment, supplies and pharmaceuticals used during the response*
	Time:
	
	Task Completed?
	
	Fully ☐ Partially ☐ Not ☐ N/A ☐

Modified from the EEG "Medical Surge" by Elisabeth K Weber, RN, MA, CEN July 10, 2009

Exercise Evaluation Guide Analysis Sheets

The purpose of this section is to provide a narrative of what was observed by the evaluator/evaluation team for inclusion within the draft After Action Report/Improvement Plan. This section includes a chronological summary of what occurred during the exercise for the observed activities. This section also requests the evaluator provide key observations (strengths or areas for improvement) to provide feedback to the exercise participants to support sharing of lessons learned and best practices as well as identification of corrective actions to improve overall preparedness.

Observations Summary

Write a general chronological narrative of responder actions based on your observations during the exercise. Provide an overview of what you witnessed and, specifically, discuss how this particular Capability was carried out during the exercise, referencing specific Tasks where applicable. The narrative provided will be used in developing the exercise After-Action Report (AAR)/Improvement Plan (IP).

Evaluator Observations

Record your key observations using the structure provided below. Please try to provide a minimum of three observations for each section. There is no maximum (three templates are provided for each section; reproduce these as necessary for additional observations). Use these sections to discuss strengths and any areas requiring improvement. Please provide as much detail as possible, including references to specific Activities and/or Tasks. Document your observations with reference to plans, procedures, exercise logs, and other resources. Describe and analyze what you observed and, if applicable, make specific recommendations. Please be thorough, clear, and comprehensive, as these sections will feed directly into the drafting of the After-Action Report (AAR). Complete electronically if possible, or on separate pages if necessary.

Strengths

1. Observation Title:

Related Activity:

Record for Lesson Learned? (Check the box that applies) Yes ☐ **No** ☐

1) Analysis: (Include a **discussion** of what happened. When? Where? How? Who was involved? Also describe the **root cause** of the observation, including contributing factors and what led to the strength. Finally, if applicable, describe the positive **consequences** of the actions observed.)

2) References: (Include references to plans, policies, and procedures relevant to the observation)

3) Recommendation: (Even though you have identified this issue as strength, please identify any recommendations you may have for enhancing performance further, or for how this strength may be institutionalized or shared with others.)

2. Observation Title:

Related Activity:

Record for Lesson Learned? (Check the box that applies) Yes ☐ No ☐

1) Analysis:

2) References:

3) Recommendation:

3. Observation Title:

Related Activity:

Record for Lesson Learned? (Check the box that applies) Yes ☐ No ☐

1) Analysis:

2) References:

3) Recommendation:

Areas for Improvement

1. Observation Title:

Related Activity:

Record for Lesson Learned? (Check the box that applies) Yes ☐ No ☐

1) Analysis: (Include a **discussion** of what happened. When? Where? How? Who was involved? Also describe the **root cause** of the observation, including contributing factors and what led to the strength. Finally, if applicable, describe the negative **consequences** of the actions observed.)

2) References: (Include references to plans, policies, and procedures relevant to the observation)

3) Recommendation: (Write a recommendation to address the root cause. Relate your recommendations to needed changes in plans, procedures, equipment, training, mutual aid support, management and leadership support.)

2. Observation Title:

Related Activity:

Record for Lesson Learned? (Check the box that applies) Yes ☐ No ☐

1) Analysis:

2) References:

3) Recommendation:

3. Observation Title:

Related Activity:

Record for Lesson Learned? (Check the box that applies) Yes ☐ No ☐

1) Analysis:

2) References:

3) Recommendation:

NICU/Nursery Evacuation Tabletop Exercise Toolkit

February 2013

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Acknowledgements

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The development, initial printing and distribution of this booklet was supported through federal funding from the Assistant Secretary for Preparedness and Response (ASPR).

Introduction

Background for the Project

In an effort to provide guidance to Illinois hospitals on planning for the evacuation of the tiniest and most fragile patient population, Illinois Emergency Medical Services for Children (EMSC) convened an ad-hoc committee in 2008 to assist in the development of a set of evacuation guidelines specific to Neonatal Intensive Care Units (NICU). This multidisciplinary committee of physicians and nurses representing perinatal, emergency preparedness, and public health professionals, educators, and transport specialists came together to develop the Neonatal Intensive Care Unit (NICU) Evacuation Guidelines, which were released in 2009. These guidelines outline key NICU and nursery evacuation components specific to personnel, training, staff roles and responsibilities, transportation, family notification, equipment and supplies, as well as the operational structure related to communication and hospitals prepared to receive NICU and other nursery level patients from an evacuating hospital.

After statewide distribution of these guidelines, EMSC facilitated several NICU/Nursery Tabletop Exercises within our state to further assist hospitals with the implementation and incorporation of these guidelines into their individual hospital Emergency Operations Plans (EOPs).

- In 2009, an initial NICU Evacuation Tabletop Exercise was held in Winfield, Illinois and involved NICU hospitals from Chicago and its western suburbs. The scenario was a severe weather event with resulting power outages that forced an evacuation of a NICU.
- The second NICU Evacuation Tabletop Exercise occurred in 2010 in Springfield, Illinois. This exercise involved NICU and other perinatal level hospitals and agencies from southern Illinois as well as St Louis, Missouri. St Louis is a tremendous asset to the southern sectors of Illinois, which have limited perinatal and pediatric resources. Including St. Louis as a partner is essential in the state's disaster planning and training. The scenario for this exercise was earthquake-related, with a NICU forced to evacuate due to damage sustained to the hospital.
- In 2011, the third evacuation tabletop was conducted in Rockford, Illinois. Northwest Illinois is similar to southern Illinois with respect to limited NICU resources. Two NICUs from Madison, Wisconsin participated in this exercise since these hospitals are resources to the north and northwest sectors of Illinois. The scenario for this exercise was extensive damage to a NICU hospital struck by a tornado, causing the need for an immediate evacuation. An additional component incorporated into this exercise was utilization of non-NICU perinatal level hospitals to hold and manage evacuated patients temporarily while awaiting transport to NICUs outside of the area of the disaster.

All three of these exercises demonstrated unique considerations associated with resource allocation and coordination for mobilizing medically fragile and technologically dependent infants during disasters.

The various resources/tools developed for each of these exercises led to the development of this toolkit, which offers guidance on planning, conducting and evaluating tabletop exercises centered on the NICU/Nursery population.

Reasons to Conduct a Tabletop Exercise

Overview

Evacuation of a NICU or nursery is a high risk activity and requires a carefully planned approach due to the fragile medical condition of these infants, the various medical technology/devices they depend upon for survival and the overall surge capacity/transfer pattern in managing an increase in NICU patients. Historically, perinatal professionals have not been included in disaster planning or exercises, which has led to the needs of the maternal child health (MCH) populations being overlooked.

The overall purpose of tabletop exercises is to gather information that would help to improve the emergency plan and response to an event (1). Tabletops can train staff, identify weaknesses in a plan and response, and provide opportunities to educate staff and improve the emergency operations plan (2).

Advantages (3)

Tabletop exercise offer many advantages. They require less time commitment, cost and resources as compared to other types of exercises. Tabletops are effective methods for reviewing plans, procedures and policies in a low stress and controlled environment. Another advantage of performing a tabletop exercise is its ability to acquaint key personnel with emergency plans, procedures and responsibilities as well as with each other. This can be especially true when an exercise brings together groups such as the emergency preparedness and perinatal professionals who do not typically work together on a day-to-day basis.

Disadvantages (3)

There are also disadvantages to tabletop exercises when compared to other types of exercises. Because tabletops are discussion based exercises, there is a lack of realism. This limits the ability to truly test plans, procedures, staff and emergency response capabilities. There is also an inability to realistically demonstrate system overload during a tabletop exercise.

NICU/Nursery Population and Emergency Preparedness

During a disaster, pregnant women and newborns will be negatively impacted by their environment and social changes within their community, including disruption of their housing, routine medical care, food and water supplies as well as an increased exposure to violence and toxins(2). A review of the literature indicates that pregnant women are at higher risk for complications (such as preterm labor) during a disaster. (2). There is an increased morbidity and mortality as well as long term health consequences for pregnant women and infants affected by disasters (4). During the 2005 hurricane season, which included such devastating storms as Hurricane Katrina and Rita, pregnant women and newborns were among the most vulnerable populations(2). in addition, the stress associated with the disaster is also increased if mothers are separated from their newborns, infants and children (5).

Involvement of perinatal professionals in disaster management is crucial to minimize these risks to women and newborns. However, traditionally the needs of the maternal child health populations have not been addressed, nor are they well understood within

existing disaster plans (5). Pregnant women and neonates have not been well integrated in national preparedness efforts, which has resulted in gaps in guidance for the MCH population (4). These gaps have been identified at the federal, state and local levels. MCH professionals typically are not included on emergency preparedness committees or consulted during the development and updating of hospital emergency operations plans. During the EMSC NICU/Nursery Evacuation Tabletop Exercises, there was an obvious lack of knowledge by emergency preparedness professionals regarding the needs of the maternal child population while the perinatal professionals had little knowledge regarding the emergency response planning within their hospitals. MCH professionals need to be included in emergency planning since they can anticipate issues within this specialized population and identify solutions that have not been previously considered. Disaster training should include education for both groups and include core principles of disaster management and the emergency treatment of high risk populations such as pregnant women and newborns. The inclusion of MCH professionals in planning and training can strengthen interdepartmental relationships, build a stronger multidisciplinary team, and ultimately aid in decreasing the negative health consequences that disasters can have on pregnant women and neonates.

Other Special Patient Populations

Although the primary focus of this Toolkit is the NICU/Nursery population, many of the concepts are applicable to other high risk, resource dependent patient populations as well. For example, pediatric patients, especially children and youth with special health care needs (CYSHCN) have unique characteristics which make them more vulnerable during disasters (5). Many CYSHCN are dependent on technology and their needs should be considered and integrated into planning and training. Other high risk patient areas include: burn, trauma, mental health, and immunocompromised patients. These patient populations and the experts that care for them should be included in disaster planning and training as well.

HSEEP Overview

The Homeland Security Exercise and Evaluation Program (HSEEP) has become the standard in disaster preparedness training exercises. It represents a capability based exercise program that includes a range of exercise activities of varying degrees of complexity and interaction. HSEEP provides a standardized methodology and consistent terminology for designing, developing, conducting, and evaluating all exercises (6). The program provides tools and resources to assist with the building of self-sustained training and exercise programs, and it allows different groups to be able to practice and exercise together seamlessly (7). Within HSEEP, the types of exercises range from discussion based [seminars, workshops and tabletops (TTX)] to operations based exercises [drills, functional exercises (FE) and full scale exercises (FSE)] (7).

This Toolkit is based on the HSEEP process and provides information on how to apply HSEEP concepts and strategies to perform a tabletop exercise involving the Neonatal Intensive Care Unit/Nursery. Many of the planning steps reviewed in this document overlap with steps for operations based exercises. Examples and resources are included at the end of the Toolkit.

 Note that it is highly recommended that those involved in planning exercises should complete an HSEEP course.

The Basics of Tabletop Exercises

Tabletops are primarily discussion based exercises that typically focus on training and familiarization of roles, procedures and responsibilities (5). One of the roles of a tabletop exercise is to problem solve as a group in a stress free and open environment based on a pre-established scenario (3). It allows for a discussion based test of processes and policies in a pre-disaster state without jeopardizing patient safety.

Simple versus enhanced

There are varying levels of complexity for tabletops. The complexity is determined by the objectives for the exercise and is decided upon during the planning stages.

A simple or basic tabletop incorporates a handful of players that respond to a scenario as it unfolds. It can include single or multiple disciplines, may or may not include key decision makers and usually focuses on learning rather than evaluating a system, plan or procedure (8). Simple or basic tabletops should be designed as a stress free setting that encourages open discussion. An example of a simple tabletop for NICU/Nursery evacuation is during a staff meeting as a way to teach and review with NICU staff their role during a specific disaster or hospital wide emergency.

Advanced or enhanced tabletop exercises are conducted to test and evaluate capabilities and identify gaps and inconsistencies in a policy, plan, procedure or system as a whole (8). Multiple functions are tested. Key decision makers are involved and it is typically multidisciplinary. Advanced or enhanced tabletop exercises can be more time pressured, realistic simulations and will involve multiple units or even multiple agencies but still should promote open discussion. An example of an advanced or enhanced tabletop exercise is the EMSC facilitated NICU/Nursery Evacuation Tabletop Exercises outlined earlier in this document since these involved key decision makers from multiple hospitals and agencies.

Length

The length of the tabletop exercise will depend on the complexity of the exercise. A simple or basic tabletop can be completed in less than an hour. Performing a tabletop exercise during a NICU/Nursery staff meeting would involve provision of a scenario to the staff followed by small group work to discuss the course of action. Or, each small group can be assigned a different type of emergency or disaster situation to discuss. The groups then reconvene for an open discussion based on each group's response to the scenario or assigned task.
An advanced or enhanced tabletop that involves multiple units, agencies or organizations can be designed as a half, full or multi-day event. The NICU/Nursery Evacuation Tabletop Exercises facilitated by EMSC were full day events. The length of the exercise will be based on many factors, including the objectives of the exercises, resources, cost and time availability and should be determined during the planning stages.

One unit, intra-facility, or multi-agency

During exercise planning, determine whether the exercise will include only the NICU/Nursery unit, or will it need to involve other units, the entire hospital or

external agencies and other facilities.   Use the exercise objectives as a guide for determining the scope and length of the exercise as well as whether the exercise will be a simple or advanced NICU/Nursery evacuation tabletop

Use of breakout sessions

Breakout sessions during tabletop exercises can be very beneficial by dividing a large group of participants into smaller groups in order to focus on a particular strategy, activity or component of a plan (1). Ideally, a facilitator and evaluator should be assigned to each group. Breakout groups are generally more productive if kept to less than 20 people (1).

Some advantages of utilizing breakout sessions during a tabletop include (9):
- Highly interactive and allow for multiple perspectives to be included
- Prompt real time decision making and problem solving
- Allow for discussion on specific details
- More likely to elicit honest comments
- Injects can be used
- Creates accountability by participants

The disadvantages of utilizing breakout sessions during a tabletop include: the need for increased logistical organization during the exercise and the need to secure facilitators and evaluators. In addition, breakout sessions may not be practical during simple or basic tabletops with a small number of participants since it is recommended that breakout groups have a minimum of 5 people in each group (9).

Planning Steps

Needs Assessment

Performing a preparedness needs assessment is the first step in identifying what training is required and the type of exercise needed (9). This needs assessment can help identify the goals and objectives for the NICU/Nursery evacuation tabletop as well as some of the details that will be needed later (i.e. scenario, gaps to address, injects). The other crucial piece of information from a needs assessment is identifying the level of administrative commitment. Since the planning and performing of exercises (regardless of type and size), requires time, staff, and financial resources to prepare and implement, it is vital that hospital/agency administration is committed and agrees to all the necessary financial and staffing support (1). Identifying and addressing difficulties that may exist at this level early in the planning process can help prevent delays and issues later on.

Timeline for Planning

Planning for a tabletop can take weeks to months depending on the resources available to the planners. The timeline for planning is dependent on the number of planning committee members helping to develop the exercise, the type (simple versus advanced) of the exercise, the length of the tabletop, and the number of external agencies involved.

Planning Committee

Commitment to the exercise

The planning committee needs to be dedicated, knowledgeable, and well organized in order to put together a successful tabletop exercise. When forming a planning committee, it is important to identify individuals who are committed to the exercise and are available to help with the planning process. Administrative involvement is critical to the success of the exercise. Their support will help ensure that needed resources will be available, and also encourages and sets expectations for key personnel and staff to participate (1).

Purpose

The purpose of the planning committee is to design, develop, conduct, and evaluate the exercise (6). A successful planning committee is based on several factors: the use of Incident Command System (ICS); use of project management principles; clearly defined roles, responsibilities and requirements; adherence to a standardized design/development process; and the assurance of administrative support(6).

Members

The size of the committee is typically six to eight people. This is a guideline and is influenced by the type of tabletop exercise (simple versus enhanced) and who is involved (unit specific, intra-hospital or multi-agency).

Key representation on the planning committee is crucial and should minimally include the perinatal community as well as the emergency preparedness arena to ensure a well-rounded NICU/Nursery evacuation tabletop exercise that is realistic and addresses the specific needs of both groups. Examples of committee members include: emergency preparedness coordinators, NICU/Nursery personnel (i.e. nurse educators, maternal child directors, neonatologists, and transport team members), safety officers, legal/risk management personnel, emergency department personnel (physicians and nurses), and any additional subject matter experts. It is important to consider expertise, commitment and previous experience/training when identifying members of the planning committee. For example, ensure that some members on the committee have completed HSEEP training in order to ensure HSEEP concepts are included from the outset of planning.

It is important to clarify with committee members (ideally prior to the first planning meeting) that as committee members, it is highly recommended they should not participate in the exercise as players. Since they will have assisted in the development of the scenario and injects, there is the potential for bias if they participate as players. This may impact on their decision to participate on the planning committee.

Roles within the committee

According to HSEEP guidelines, the planning committee should include several components, similar to the Incident Command System (ICS). The three main roles within the committee are the Exercise Planning Leader, Logistics and Administration (9).

Exercise Planning Leader responsibilities include:

- Planning, coordinating and overseeing of all exercise functions
- Monitoring the development of the exercise progress
- Defining the roles and responsibilities of the other members of the planning committee
- Assigning and ensuring tasks are completed
- Ensuring the exercise meets the defined objectives
- Distributing the After Action Report (AAP) following the exercise (6,9).

Logistics role responsibilities include (may involve multiple committee members)
- Coordinating and scheduling the date, time, location, and space of the exercise
- Organizing any equipment, handouts and other necessary items for the exercise
- Setting up the equipment, space, and room for the exercise
- Returning the room and equipment to its original condition after the exercise is complete (9).

Committee members assigned to the Administrative roles need to prepare all documentation and support material that will be needed during the exercise (9). Examples of this includes sign in sheets, name badges, and exercise specific documents (see Document Development section). On the day of the exercise, those assigned to the Administrative role may also assist with room set-up, registering/signing in participants, and gathering evaluation forms (9).

The number of members within the committee will determine any role overlap as well as the number of tasks assigned to each member.

Meeting schedule

Deciding on the number of meetings and the meeting schedule early during the committee formation process may help identify the time commitment for potential committee members. HSEEP lists six potential planning conferences when developing exercises: Concept and Objectives Meeting, Initial Planning Meeting, Midterm Planning Meeting, Master Scenario Events List (MSEL) Conference, Final Planning Meeting and After Action Conference (6). The number of conferences needed will vary depending on the type and scope of the exercise (7). When planning a discussion based exercise such as a tabletop, all six planning conferences may not be needed. For example, the components of the Concept and Objectives Meeting may be combined within the Initial Planning Meeting; and the MSEL Conference may be integrated into the Midterm Planning Conference.

Responsibilities of the committee

The committee as a whole is responsible for designing, developing, conducting and evaluating all aspects of the tabletop exercise. This may seem daunting, especially if one has never been part of planning a disaster exercise. However, many resources exist to assist and guide all aspects of exercises. This section will present a summary of the main responsibilities of the committee but is not necessarily an all-inclusive list.

An initial responsibility of the planning committee is to determine specifically what will be tested during the tabletop and to define the scope of the exercise (3). This information will be obtained from the needs assessment that was completed initially as well as from any previous exercises or drills that have been conducted. A purpose

statement can then be generated followed by the development of the exercise objectives.

The objectives should be based on the capabilities to be tested and the associated critical tasks; and will be used to write the scenario (7). After the development of the scope of the exercise and the objectives, the type of tabletop can be determined as well as scheduling the date, time and location of the exercise. Next the committee would begin the development of all documents to be used during the exercise including the Situation Manual (SitMan), Master Scenario Event List (MSEL), any player handouts, the Exercise Evaluation Guide (EEG) and the presentation. More information on these documents will be reviewed in the next section.

The committee will also be responsible for providing training to key participants, such as the exercise facilitator and evaluators. Prior to the exercise, the exercise facilitator should be made aware of the committee expectations, become familiar with the scenario, objectives and expected actions from the participants, know when to move on to the next sequence of events in the scenario and be aware of the best way to facilitate the interactions between the participants (1). The tabletop evaluators should also be provided with education prior to the exercise related to exercise expectations, handouts and their role/responsibilities during the exercise as well as during the feedback session (Hot Wash) (1).

Another important responsibility of the committee is to identify the exercise participants and invite them to the exercise. For simple or basic tabletops, this may only include internal hospital staff such as hospital administration, neonatologists and other physicians, NICU and Nursery staff nurses, transport team members, nurse managers, and emergency preparedness personnel. For advanced or enhanced tabletops that involve external agencies and other health care facilities, participants may include local health department staff, home health agencies that assist in follow up care after newborns are discharged from the hospital, emergency management agencies, EMS agencies, other NICU or other perinatal level hospitals, other transport agencies and perinatal administrators.

A consideration during the invitation process is whether to involve local media. The local media can be helpful in conveying to the community that the hospital is working on preparedness activities. Representatives from the local media could be allowed to participate in the opening session that outlines the scenario, however privacy concerns may require their restriction from participating in the rest of the tabletop exercise.

Final responsibilities of the committee include assisting with the evaluation of the exercise and ensuring completion of the improvement plan. These two components will be discussed further.

Document Development

During the course of developing a NICU/Nursery Tabletop exercise, certain documents will need to be produced both before and after the exercise.

Meeting documents

There are two documents that need to be developed for each planning committee meeting as they develop the tabletop exercise. This includes the meeting agenda and meeting minutes.

An agenda should be developed and distributed to the planning committee before each meeting to identify the meeting tasks and discussion. This helps keep the committee on track and meet accomplishments based on the time line established during the initial planning process. After each meeting is completed, a record of the meeting in the form of meeting minutes should be compiled and distributed to the committee members as well.

Exercise documents

Situation Manual (SitMan)

The Situation Manual, or SitMan, is a handbook used primarily for discussion based exercises such as a tabletop. It's role is to provide the background information related to the scope and the objectives of the exercise, and the schedule of the tabletop (7). In addition, the SitMan provides a narrative for the scenario which should be based on the objectives of the exercise and personalized to match the capabilities that need to be tested. The scenario should be realistic and incorporate actual issues that may be encountered in a real situation. For example a scenario requiring evacuation of a NICU due to hurricane damage is more suited for a coastal area than the Midwest. Another consideration when developing the scenario and SitMan is to reflect how a response would actually occur, including the use of the National Incident Management System (NIMS), the Incident Command System (ICS) and the Hospital Incident Command System (HICS).

Typically included in the SitMan are key questions for participants to address during the tabletop. These questions will help drive the discussion during the exercise. The scenario can be broken down into modules/sections and only the parts of the scenario that are under discussion are shared with the participants. This ensures an element of surprise. After a scenario presentation, discussion should occur between the participants. Depending on the number of participants, this can be done with either the entire group or in breakout groups. Participants should review a set of questions for each section that seek to answer "Are we prepared to respond?" and work on meeting the objectives (1). The facilitator should help ensure the discussion centers around the questions and within the scope of the exercise. It may not be necessary to compile a long list of discussion questions within the SitMan. The exercise can be successful with a few carefully written problem statements and questions (3). In addition, it is possible that not all questions will be addressed during the exercise. It is more beneficial for the participants to take the time needed to address issues as thoroughly as possible rather than rush through each question. (3). See Appendix B1 for excerpts from SitMan documents used in previous NICU/Nursery Evacuation Tabletop exercises.

Master Scenario Exercise List (MSEL)

The Master Scenario Exercise List, or MSEL, is a timeline of the events and the expected outcomes for the exercise. MSELs are typically used for operation based exercises but can also be beneficial for discussion based exercises as well.

The MSEL is used by the facilitators/moderators to guide the pace of the exercise and help prompt players' (exercise participants) responses and activities. (7). Included in the MSEL are injects that are used during the exercise, so it should never be shared with players before or during the exercise. Injects are prewritten pieces of information that are inserted into the exercise to prompt discussion or simulate an unexpected situation that occurs during the scenario (9). Injects can be general or unit/institutional/agency specific and are verbally incorporated into the tabletop presentation or can be hand written and delivered to certain breakout groups. Examples of injects during a NICU/Nursery evacuation tabletop include:

- A women (28 weeks gestation) arrives at the Emergency Department of a hospital that has just been evacuated, is in active labor and delivery is imminent
- After placing two neonates in the same bassinette for evacuation, their ID bands are noted to have fallen off
- Sudden medical air and oxygen failure at a facility
- Family members continue to arrive at the evacuating hospital looking for their infant or other family members
- A NICU patient is assessed as too unstable for evacuation.

The use of injects is helpful in testing and discussing difficult components of a NICU/Nursery evacuation such as ethical issues and other dilemmas, alternate standards of care and communication. Similar to the pre-established discussion questions in the SitMan, not every inject and component of the MSEL may be used. It may be preferred to take time to discuss and resolve any issues or conflicts as appropriate rather than trying to include all the injects. Excerpts from MSELs and injects used in previous NICU/Nursery Evacuation Tabletop exercises are listed in Appendix B2.

Exercise Evaluation Guide (EEG)

The Exercise Evaluation Guide or EEG is a tool for the exercise evaluators to collect and interpret observations from the players during the exercise (7). There are many variations to the layout and content of the EEG. It is important to ensure that the EEG is easy to use, has enough space to record observations, mirrors the capabilities and objectives being tested during the exercise and has the expected tasks the players should accomplish. The information gathered in the EEG will help in the development of the After Action Report, which will be discussed in the Evaluating the Exercise section of this document. See Appendix B3 for excerpts from EEGs used in previous NICU/Nursery Evacuation Tabletop exercises.

Participant evaluations

Developing an evaluation form for the exercise participants is also beneficial. Since the NICU/Nursery Tabletop is likely one of a series of exercises involving the unit or the facility, the information gathered from the participants can help improve future exercises (logistically as well as content related) and ensure the learning objectives were met. For example, if the players comment that there were too many injects and they did not have enough time to focus on a specific issue, allow more time during future exercises to improve the overall learning experience.

Participant handouts
Handouts for the players are another set of documents the planning committee will need to consider developing and providing during the NICU/Nursery tabletop exercise. The handouts should include the exercise agenda as well as any quick reference materials the players may need such as policies, procedures or logistical considerations. As mentioned earlier, a knowledge deficit typically exists between the perinatal and emergency preparedness arenas. Including background information in the handout materials provides information that they can refer to and learn from during the exercise. For example, in the 2011 EMSC NICU/Nursery Evacuation Tabletop exercise, handouts were provided to the players that provided an overview of the Illinois and Wisconsin perinatal systems as well as the Illinois and Wisconsin Emergency Medical Services (EMS) Systems.

Conducting the Exercise

Location
The location for the exercise is important. The space needs to be large enough to accommodate all the participants and any equipment needs. For a unit specific exercise (simple or basic tabletop), the location could be on the unit in the NICU/Nursery break room. For large exercises that involve multiple agencies and hospitals, a conference room or center may be more appropriate.

Equipment Needs
The equipment needed is again dependent on the size of the tabletop. A unit specific (basic or simple tabletop) may have less equipment needs then an advanced or enhanced tabletop. AV equipment for the slide presentation, microphones for large groups, food and beverage consideration for full-day events, and materials such as Emergency Operation Plans, maps, HICS forms, paper, and pens are all items that need be considered and secured before the day of the exercise. There are online electronic programs as well as consultants that can be contracted to develop and coordinate the tabletop exercise through computer based programs. If this option is used, identify computer and other equipment requirement needs well before the day of the exercise.

Presentation
The presentation that is utilized during the tabletop helps set the stage for the exercise (3). Basic information that should be included in the presentation includes:
- review of the ground rules for the exercise
- discussion of the scope of the tabletop
- review of safety and security procedures
- welcoming, briefing and narrative information (3,9).

The discussion questions and injects can also be included in the presentation. The formality of the presentation is, like many components of a NICU/Nursery tabletop, dependent on the size of the tabletop and the needs of the group. A presentation can be an informal combination of written and oral information for a simple or basic tabletop. A formal slide presentation is typically utilized, especially during the larger advanced or enhanced tabletop exercises. Using pictures, video clips, sound effects and

other media options regardless of the method of presentation may help set the tone of the exercise and add to the realism of the scenario.

Participants

In general, the specific participants in the NICU/Nursery tabletop exercise should be determined during the early planning process by the planning committee. The list of participants may include internal staff as well as external agencies depending on the size and scope of the exercise. The goals, objectives and task capabilities that are to be tested during the exercise will also help guide the invitation list so determining the general skill set and background of the participants is important. There are many roles that participants can play during a tabletop. These will be reviewed next.

Moderators/Facilitators

The term moderators and facilitators are typically used interchangeably. The moderator/facilitator provides the overall management, control and direction during the exercise (9). They are essentially the Emcee of the day, presenting the narrative, explaining the process and encouraging the participants to interact and discuss the issues presented. They are also responsible for limiting side conversations and determining the appropriate use of the injects. When identifying the person to facilitate the tabletop, look for someone with good communication skills, strong facilitation skills, and familiarity with the facility or agency emergency operations plans. Having a co-facilitator or moderator that is familiar with the perinatal system and has NICU/Nursery experience may be beneficial as well.

Evaluators

The evaluators will play a key role during the exercise to capture the information needed to determine if the goals, objectives and capability tasks were achieved. Through the use of the EEGs, evaluators become the "record keepers" and will observe the players' performance and the degree to which they perform the expected tasks and meet the objectives (1,9). The evaluators can have varying degrees of interaction with the players, and should receive specific instruction prior to the exercise as to the degree of interaction. Some exercises restrict interaction with the participants to only observation of their behavior and responses, while other exercises allow limited interaction to help stimulate conversation if the participants need assistance. However, the evaluator must never tell the participants how they should respond. If multiple facilities and agencies are participating in the NICU/Nursery tabletop, evaluators should not evaluate their own facility or agency to avoid any bias and unintentional assisting with completing tasks.

Observers

Observers play a passive role in the exercise and attend in order to watch the exercise (9). They have no interaction with the players, nor do they contribute anything during the exercise itself. They can, however, contribute their observations during the Hot Wash as well as in the evaluation of the exercise.

Players

The participants performing tasks and responding to injects during the exercise are considered the players. They have an active role in the scenario, and initiate actions based on the information provided in the scenario and injects (9). All players should be encouraged to contribute to the exercise. In simple or basic tabletops, the players can be from any level within the institution. For enhanced or advanced tabletop exercises, the players are typically those in decision making positions within the institution or agency.

Recorders/Scribes

Having pre-assigned recorders or scribes at the tabletop can be extremely helpful to gather information that is exchanged during the exercise. During enhanced or advanced tabletops, break out groups/sessions may be utilized. This can create difficulty recording discussions and identifying best practices that are shared. By assigning a recorder or scribe to each breakout group/session, the evaluation process and the resulting After Action Report can be more complete. During the exercise, the recorder or scribe should have minimal interaction with the players.

Other Considerations

Arranging the workspace

It is desirable to arrange the participants in such a way that promotes discussion. Circular tables or U-shaped table arrangements allow participants to face each other which promotes open discussion. Ensuring that all participants are able to see the presentation and facilitator is also important to consider. If breakout sessions are planned, prearranging accommodations for these smaller groups by having chairs and tables set up will help conserve time.

Controlling and sustaining momentum and ensuring involvement of all players

During any exercise, especially one that lasts for many hours or multiple days, sustaining the momentum of the participants and the exercise can be challenging. There are several ways that organizers of an exercise can help to maintain the interest level and the momentum of the exercise. Some of these include (3):

- Use multiple modules or stages within the exercise
- Vary the exercise pace
- Maintain a good balance to ensure adequate time is given for issue discussion/problem resolution
- Watch for signs of frustration
- Keep it simple

Ensuring that all participants are engaged and contributing to the exercise is important and can help sustain momentum as well. Suggestions on ways to accomplish this include (3):

- Organize the messages or injects so everyone must address a question or problem

- Provide extra encouragement to those who appear hesitant to participate
- Work to draw out the solution from players who are struggling with a problem instead of prompting them with a solution
- Model behaviors that favor good communication (i.e. maintain eye contact, acknowledge comments in a positive manner, assure a nonjudgmental attitude)

Hot Wash

The Hot Wash is essentially a review of the performance within the exercise and occurs immediately at the end of the exercise (1,9). It provides an opportunity to review key decisions that were made, identify strengths, weaknesses and any gaps discovered during the exercise, and determine issues and concerns with policies and procedures that were utilized during the exercise (9). The Hot Wash also provides an opportunity to identify whether the goals and objectives of the exercise were met. Facilitators, evaluators, players, and observers can all provide feedback during the Hot Wash. The recorder/scribe plays a vital role during the Hot Wash since they need to capture all feedback so it can be incorporated into the After Action Report as well as identify which individuals, units, departments, or agencies commit to undertaking action plans to resolve the gaps. Examples of questions that can be asked to illicit information from the participants during the Hot Wash include (6):
- What actions/steps were taken/discussed in response to the scenario?
- What actions/steps should have been taken/discussed in response to the scenario according to existing policies/plans?
- What caused this difference?
- What was the effect of that difference?
- What should be learned from this?
- What improvements need to be implemented?

Evaluating the Exercise

Purpose

The evaluation of the NICU/Nursery evacuation tabletop is a compilation of the essential components of the exercise (9). It identifies the strengths, weaknesses, opportunities for improvement, the steps taken in response to the scenario and the best practices that were identified during the tabletop. It also assesses the impact that the exercise and the response had on the players. For example, as mentioned previously, many perinatal professionals have never been included or involved in disaster planning and may never have even imagined an event occurring that would force them to evacuate their NICU or nursery. Being involved in a tabletop where they need to react to a scenario of this type can be an eye opening experience for both NICU/Nursery staff as well as emergency management personnel. The information obtained while evaluating the tabletop can be used to develop future training specific to the needs of the NICU/Nursery and its high risk patient population. Lastly, the evaluation process helps to identify gaps in policies and procedures and presents an opportunity for a unit, hospital or agency to make necessary revisions.

Evaluation Process

The first step in the evaluation process is ensuring that the evaluators utilize and document on the EEG during the exercise. Immediately following the end of the exercise is the Hot Wash which was previously discussed, and provides evaluation feedback. Another evaluative component is obtaining an Exercise Survey or Participant Evaluation from all participants immediately following the exercise. Ideally, much of the feedback from the participants is shared during the Hot Wash but administering an Exercise Survey/Participant Evaluation provides another opportunity to gather additional feedback.

After gathering evaluation information, the next step is to analyze the EEGs, Exercise Survey/Participant Evaluation and the Hot Wash. The three steps in analyzing the information are (6):
1. identify issues
2. determine the root cause
3. develop recommendations for improvement.

To determine the root cause of an identified issue, evaluators of the overall exercise need to look at why each expected action occurred or did not occur. This will help drive the development of recommendations and lessons learned.

The final steps in the evaluation process are the development of the After Action Report, conducting an After Action Conference, and finally, formulating and implementing the Improvement Plan. These will be discussed next in more detail.

After Action Report

The After Action Report (AAR) is the record of what occurred during the exercise and is used to implement changes (6). The AAR includes the exercise scenario, any activities and observations, identified strengths and areas for improvement (9). The AAR also analyzes the capabilities that were determined during the planning stages and if the corresponding tasks were completed during the exercise. Information gathered from the EEGs and Hot Wash should be utilized to develop the AAR. An After Action Report should be developed after every exercise (, and finalized within 45 days of the tabletop completion. See Appendix B4 for excerpts of AARs from EMSC's NICU/Nursery Evacuation Tabletop Exercises.

After Action Conference

The After Action Conference, which normally occurs within five weeks of the exercise, allows key personnel that attended the tabletop as well as the planning committee to review and provide feedback on the draft AAR (7). It is during the After Action Conference that a draft of the Improvement Plan (IP) is developed (6). Any corrective actions and recommendations that are developed can then be assigned to those who will be responsible for implementing these actions as well as establish the due dates for completion (7).

Improvement Plan

The Improvement Plan (IP) is a matrix that identifies key recommendations and corrective actions, the timeline for completion and the responsible person for completion of the task (6). The plan should be developed within 45 days of the exercise and is created at

the same time as the After Action Report (6). The recommendations and corrective actions should be linked to the capabilities identified during the planning process and should be a mix of short and long term goals. Some of the recommendations may focus on an individual unit or policy while others may require multiple agencies or hospitals to collaborate in order to achieve the goal. It is important to assign the person or agency that will be responsible for completing the action items. Also include a reasonable timeline for the completion of the improvement(s). See Appendix B5 for an excerpt from an EMSC NICU/Nursery Evacuation Tabletop Exercise.

Next Steps

In order for the NICU/Nursery Evacuation tabletop to be successful, follow–up is needed to ensure the lessons learned, recommendations, and corrective actions are implemented. Creating a concrete timeline with next steps can help ensure a forward moving momentum for improved preparedness (1). The Exercise Planning Leader or assigned lead will be responsible for tracking the actions taken to meet the IP. Follow up exercises and tabletops should be scheduled and conducted to test the effectiveness of the actions and recommendations taken to address the areas of improvement identified in the AAR/IP. Another option is for NICU/Nurseries to advance to more operational based exercises such as a functional or a full scale exercise. This would involve the actual movement of simulated patients, equipment and resources and further test evacuation capabilities in an even more realistic manner.

Conclusion

Over the course of the three years that EMSC facilitated NICU/Nursery Evacuation Tabletops within the State of Illinois, there were many lessons learned related to the needs of neonates during disasters, the perinatal and emergency preparedness arenas and the professionals that work in these areas, and performing tabletop exercises that involve both of these groups.
Tabletop exercises involving NICU and Nursery patients address the unique nuances associated with resource coordination in mobilizing technologically dependent infants. Since many potential ethical implications and ramifications are associated with the evacuation, triage and prioritizing of NICU patients, tabletop exercises can serve a key role in bringing these issues to the forefront for discussion.

The evacuation of a NICU is rare. However, a successful evacuation requires comprehensive planning in order to maximize patient safety in a changing environment (10). Illinois EMSC strongly recommends that NICU/nursery and emergency management personnel work collaboratively to test and enhance their evacuation plans, through exercises. It is hoped that this document is an assistive resource in these efforts.

Appendix A: References

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Appendix B: Sample Documents for NICU/Nursery Evacuation Tabletops

The following section has excerpts from documents used in EMSC's NICU/Nursery Evacuation Tabletop Exercises. Sections that are included provide a general overview of each document and the key components that could be included.

B1: Situation Manual (SitMan)
B2: Master Scenario Exercise List (MSEL)
B3: Exercise Evaluation Guide (EEG)
B4: After Action Report (AAR)
B5: Improvement Plan(IP)

B1: NICU/Nursery Evacuation Tabletop Situation Manual (SitMan)

INTRODUCTION

Background

Of the many potential disasters faced today, an earthquake in Illinois may pose a threat to the stability of the physical structure and utilities of residential and business sectors including healthcare facilities. When standards of patient care cannot be met or the safety of the facility infrastructure is compromised, hospital administrators need to assess the hospital's capabilities and strategize a process for the continuum of care. This may include a partial or total evacuation of hospital units. Generally, the evacuation of any critical care patient is a high risk operation. However, evacuating the tiniest and most fragile patients in the Neonatal Intensive Care Unit (NICU) entails unique care nuances necessitating a well-planned evacuation and transfer of care execution.

Purpose

The purpose of this exercise is to provide participants an opportunity to utilize the IL EMSC 2009 NICU Evacuation Guidelines, and evaluate current hospital evacuation plans and capabilities for a response to an earthquake that causes the evacuation of NICU patients. The exercise will focus on surge capacity, accessing staff, patient tracking, communications, and evacuation.

Scope

This exercise emphasizes the coordinated efforts of hospital emergency planners, NICU and nursery administrators and first responders to successfully mobilize NICU and nursery patients to other facilities in response to a power outage from a storm system passing through the southern Illinois and St. Louis area.

Target Capabilities

- Communications
- Medical Surge
- Medical Supplies Management and Distribution
  ** Note: These target capabilities were selected from the HSEEP list for purposes of this exercise. Hospitals may opt to design their exercises by also selecting additional criteria from accrediting bodies such as Joint Commission**

Exercise Objectives

Exercise design objectives are focused on improving understanding of a response concept, identifying opportunities or problems, and/or achieving a

change in attitude. The exercise will focus on the following design objectives selected by the exercise planning team:

1. *Surge Capacity.* Determine strengths and weaknesses in current plan governing the integration of various response resources for managing patient flow beyond daily NICU and nursery census. Determine if Level II and Level II+ nurseries have done any planning to provide higher levels of service for a temporary period of time. Identify critical issues and potential solutions.

2. *Accessing Staff.* Review existing protocols or plans (i.e., call tree or emergency notification systems) for contacting additional staff needed for NICU and nursery evacuation intricacies and/or surge capacity needs.

3. *Patient Tracking.* Assess the adequacy and practicality of interfacility transport agreements and plans to interface with receiving hospitals and external agencies such as American Red Cross (ARC). Discuss how transfer of care (hand-off procedures) information will be coordinated between evacuating and receiving hospitals and shared with NICU / nursery patient's family. Determine how infants will be identified – ID band/sticker. Determine equipment and medication needed (i.e., thermoregulatory, respiratory, nutritional needs etc.).

4. *Communication.* Discuss options to provide timely and accurate information to the patient's family and assist in minimizing chaos. Review plans to preclude dissemination of conflicting data. Assess facility's ability to provide real time bed availability information on Hospital Health Alert Network (HHAN). Assess communication flow between affected facility and IL Regional Hospital Coordinating Center (RHCC)/POD System, and RHCC/POD to RHCC/POD communication. Assess facility's communication contingency plans and be able to utilize alternate methods of communication when main communications lines are damaged.

5. *Evacuation.* Assess the facility's evacuation plan. Consider use of NICU evacuation guidelines in pre-planning phase of NICU / nursery evacuation plan.

Exercise Structure

This will be a multimedia, facilitated tabletop exercise. Players will participate in the following three distinct modules:

- Module 1: Incident Notification
- Module 2: Initial Response
- Module 3: Ongoing Operations

Each module begins with a multimedia update that summarizes the key events occurring within that time period. Following the updates, participants review the situation and engage in functional group discussions of appropriate response issues. The functional groups are as follows:

- Hospitals
- Emergency Management
- Public Health
- Transport
- Partners

Following these functional group discussions, participants then enter into a facilitated caucus discussion in which a spokesperson from each group presents a synopsis of the group's actions based on the scenario.

<div align="center">

MODULE 1: INCIDENT NOTIFICATION

</div>

April 26, 2010 0200 hours
A magnitude 5.9 earthquake strikes Missouri with epicenter approximately 45 miles south of St. Louis. The earthquake damaged virtually all buildings around the epicenter and caused moderate damages in the city of St. Louis itself and surrounding areas.

April 26, 2010 0215 hours
The New Madrid Fault Line is the prolific source of this intraplate earthquake in southern portions of Missouri and Illinois leading to cumulative effects.

April 26, 2010 0230 hours
A seismic aftershock propagated to St. Louis resulting in a magnitude 3.4 temblor. Observers in St. Louis called it "severe" and claimed that it had duration of 10-12 minutes.
This event caused localized flooding due to ruptures of water mains along with damages to surface roads and disruptions to utilities including water and electricity.

Key Issues

- Damage caused by earthquake
- Power outages and telephones lines are damaged. No estimates on time for restoring power and phone usage.
- Generator power is in use.
- Family members are flooding hospitals with phone calls regarding the safety of their infants in the NICU and nurseries.
- Traffic concerns due to road closures from flooding and falling debris from the earthquake
- Unpredictable aftershocks
- Ground destruction delaying arrival/departure for first responders.

B2: NICU/Nursery Evacuation Tabletop Master Scenario Event List (MSEL)

Preface

The purpose of publishing the Master Scenario Events List (MSEL) Package is to provide central exercise control team members a complete edition of the MSEL. Lead exercise controllers, evaluators and observers may use this document to track exercise play.

Exercises are the culmination of training toward a higher level of preparedness. This document was produced with the help, advice, and assistance of planning team members from selected hospitals in IL EMS Regions.
The information in this document is current as of the date of publication and is subject to change as dictated by the Exercise Planning Team.

Important!

This Handout contains information about the events of the exercise and should be safeguarded from disclosure before and during the exercise. Only designated controllers, observers and evaluators should have access to this handout.

Table of Contents

Part 1: Exercise Objectives
Part 2: Master Scenario Events List (Summary)
Part 3: Master Scenario Events List (Expanded)

Part 1: Exercise Objectives

- Overarching Objectives

- Participating Hospitals' Objectives
  - Evacuating Hospitals
  - Receiving Hospitals
  - RHCC/POD Hospitals

- Community Partners Objectives
  - Transport
  - IDPH
  - IEMA
  - ARC

Part 2: Master Scenario Events List (Summary)

NICU Evacuation TTX
April 26, 2011
MASTER SCENARIO EVENTS LIST (Summary)

Event #	Optional	Event Time	Event Description	Responsible Controller	Recipient Player(s)	Expected Outcome of Player Action
		0930	STARTEX		All	FYI
MODULE ONE: INCIDENT NOTIFICATION						
01		1000	The National Weather Service has issued severe thunderstorms and tornado warnings covering much of Northwest Illinois. Reports of the funnel cloud sightings come in from the Rockford area Local radio and news broadcasts are reporting severe thunderstorms with 50-70 MPH winds.		All	Hospitals to begin process of activating their severe weather alerts.
02			Flash floods and road debris are causing some ground transportation issues. Staff at a local hospital report to their emergency management coordinator that they spot golf ball sized hail as they look out their windows Patients are concerned with the hail pounding on the windows and the high winds.		All	Begin actions to alert hospital administration/ management

Part 3: Master Scenario Events List (Expanded)

NOTE: *On the following pages are several examples of detailed MSEL injects, often times referred to as implementer message forms. These are examples of injects drawn from the exercise for which the preceding MSEL Summary was written. In an actual MSEL Package, every line within the MSEL Summary would have a corresponding detailed MSEL inject. These would be distributed to those controllers that have responsibility for delivering the respective injects.*

Event #	10	Event Time:		*(Expected)*	*(Actual)*
Via:	Oral	**Objective(s):**	Evacuation		*
Who Delivers?		Facilitator	**Recipient Player(s):**	All	

Event Description:

An immediate evacuation of the NICU and Nursery at the local hospital has been initiated.

Inject #1:

Three of the in-patient mothers who have infants in the NICU are resisting the evacuation process. They are concerned about leaving without their infants. Each are attempting to enter the NICU to check on their infants.

In the general nursery wing, mothers whose newborns who are rooming in with them are standing around at the nurse's station requesting updates on the status of the hospital and the evacuation process. Several mothers are upset about not being able to call their families.

One mother is seen near the unit stairwell with her infant.

Family members who have been unable to contact the hospital for updates on their infants and/or mothers due to the phone lines not functioning have begun to arrive at the local hospital.

Expected Action(s):	**Notes**
☐ Staff are familiar with evacuation routes and plans ☐ Security measures during an evacuation process will be implemented including : 　o controlling access to a locked unit during a power outage 　o identification verification process of all mothers/family members and newborns 　o safety measures for arriving family members ☐ Alternative methods of communication will be activated to: 　o contact family members to provide updates on infants and mother to avoid chaos and increased number of people arriving at the hospital ☐ Coordinate with family to pick up infants and mothers who will receive expedited discharge	
Expected Outcome:	**Notes**
☐ Emergency preparedness training for all NICU staff members to include evacuation routes and equipment use. ☐ Emergency preparedness plans will include communication with family, alternate security measures for locked units during power outages, and alternate identification processes during an evacuation.	

B3: NICU/Nursery Evacuation Tabletop Exercise Evaluation Guide (EEG)

Evacuation
Exercise Evaluation Guide

Capability description:

Capability Description:
EVACUATION IS THE CAPABILITY OF THE HOSPITAL TO EFFECTIVELY MOVE PATIENTS TO ANOTHER AREA OF THE HOSPITAL OR TO AN ALTERNATE LOCATION (I.E. ALTERNATE CARE SITE, OTHER HOSPITALS).

Hospital/Agency:	**Name of Exercise:** NICU/Nursery Evacuation TTX
Location: Illinois	**Date:**
Evaluator:	**Evaluator Contact Info:**

Note to Exercise Evaluators: Only review those activities listed below to which you have been assigned. Please note in the above space who you evaluated.

Note to Exercise Observers: Please note at each entry who the review is for (i.e. specific hospital/agency or the exercise as a whole)

Corresponding Activities and Tasks

Activity # 1: Pre-mitigation and Preparedness	
Task	**Assessment**
1. The hospital's NICU/Nursery evacuation needs have been formally assessed and documented within the overall hospital emergency operations plan (EOP) to include specialty equipment and transport needs (i.e. air, ground ambulances) – Refer to the NICU Evacuation Guidelines for specifics. *(May be a part of the hospital's total evacuation plan)*	Time: Task Completed? ☐ Full ☐ Part ☐ Not ☐ N/A
2. The hospital's NICU/Nursery evacuation response procedures (i.e. physical patient movement policies, plans and procedures to include horizontal and vertical, power versus no-power evacuation (elevators), stairwell priorities, equipment needs, standard operating procedures for preparing and moving isolettes) have been documented prior to the event in f the overall hospital emergency operations plan (EOP).	Time: Task Completed? ☐ Full ☐ Part ☐ Not ☐ N/A
Activity # 2: Event Response	
Tasks	
1. The designated hospital incident command staff members were able to establish a functional incident action plan using the documented plan (s) and availability assessment to include projected time needed to evacuate.	Time: Task Completed? ☐ Full ☐ Part ☐ Not ☐ N/A
2. The designated individual (s) / team (s) assigned with executing evacuation performed in accordance with the established procedures.	Time: Task Completed? ☐ Full ☐ Part ☐ Not ☐ N/A
3. The hospital's physical patient movement policies, plans and procedures to include horizontal and vertical, power versus no-power evacuation (elevators), stairwell priorities, equipment needs, were implemented according to the procedures indicated in the overall hospital emergency operations plan (EOP).	Time: Task Completed? ☐ Full ☐ Part ☐ Not ☐ N/A

Subjective – The individual / group assigned with this task responded well.
   a. The individual / team was poised and composed.
   b. The individual / team knew where to find the necessary information.
   c. The individual / team performed the task at the appropriate time without delay.
	Time:
	Task Completed?
	☐ Full ☐ Part ☐ Not ☐ N/A

B4: NICU/Nursery Evacuation Tabletop After Action Report (AAR)

EXECUTIVE SUMMARY

The 2011 NICU/Nursery Evacuation Tabletop Exercise was conducted to provide hospitals within the Illinois Perinatal System a facilitated discussion to evaluate current hospital evacuation plans and capabilities in response to a situation that causes the evacuation of patients from Level III Neonatal Intensive Units (NICU) as well as other level nurseries. The Illinois EMSC 2009 NICU Evacuation Guidelines provide hospitals with an opportunity to utilize this document in the pre-planning phase of their evacuation plans. The target capabilities that were going to be tested were Communication, Medical Surge, and Medical Supplies Management and Distribution.

The NICU/Nursery Evacuation TTX Planning Committee was composed of both Perinatal and Emergency Medicine Professionals from several hospitals as well as staff from Illinois Emergency Medical Services for Children and Illinois Department of Public Health. The exercise planning team designed a tabletop exercise involving a tornado related scenario which caused significant damage to a hospital requiring an immediate evacuation of their Level III NICU and nursery. The scenario was crafted with the intent to prompt the evacuating hospital to utilize local hospitals with Level II and II-E perinatal level designation to act as an Alternate Treatment Site during the immediate evacuation and then be transferred from there to a Level III NICU.

Based on the exercise planning team's deliberations, the following objectives were developed for the NICU/Nursery Evacuation Tabletop Exercise:

> **Objective 1: Surge Capacity** - Determine strengths and weaknesses in current plan governing the integration of various response resources for managing patient flow beyond daily NICU and nursery census. Determine if Level II and Level II-E nurseries have done any planning to provide a higher level of service for a temporary period of time. Identify critical issues and potential solutions.
>
> **Objective 2: Accessing Staff** - Review existing protocols or plans (i.e., call tree or emergency notification systems) for contacting additional staff needed for NICU and nursery evacuation intricacies and/or surge capacity needs. Identify credentialing issues and solutions if staff is needed to assist with care in an out of state hospital.
>
> **Objective 3: Patient Tracking -** Assess the adequacy and practicality of interfacility transport agreements and plans to interface with receiving hospitals and external agencies. Discuss how transfer of care (hand-off procedures) information will be coordinated between evacuating and receiving hospitals and shared with NICU / nursery patient's family. Determine how infants will be identified – ID band/sticker. Determine equipment and medication needed (i.e., thermoregulatory, respiratory, nutritional needs etc.).

Objective 4: Communication - Discuss options to provide timely and accurate information to the patient's family and assist in minimizing chaos. Review plans to preclude dissemination of conflicting data. Assess Illinois facilities' ability to provide real time bed availability information on Hospital Health Alert Network (HHAN). Assess border state hospitals' ability to provide real time bed availability information. Assess communication flow between affected facility and IL Regional Hospital Coordinating Center (RHCC)/POD System, RHCC/POD to RHCC/POD communication, and out of state facilities. Assess facility's communication contingency plans and be able to utilize alternate methods of communication when main communications lines are damaged.

Objective 5: Evacuation - Assess the facility's plan for immediate evacuation. Consider use of NICU evacuation guidelines in pre-planning phase of NICU/nursery evacuation plan.

The purpose of this report is to analyze exercise results, identify strengths to be maintained and built upon, identify potential areas for further improvement, and support development of corrective actions.

Major Strengths

Evacuation of patients from an NICU/Nursery is an uncommon and high risk activity. It requires a carefully planned approach due to the medically fragile condition of these infants, the various medical technology/devices they depend upon for survival, and the overall surge capacity/transfer pattern in managing an increase in NICU/Nursery patients. The major strengths identified during this exercise are outlined below.

Primary Areas for Improvement

Throughout the exercise, several opportunities for improvement were identified by hospitals, RHCC/POD hospitals and community partners with respect to their ability to respond to the incident. The primary areas for improvement are broken down into Communication, Accessing Resources, Training, and Future Exercises. Recommendations are outlined with each identified area for improvement.

SECTION 2: EXERCISE DESIGN SUMMARY

Exercise Purpose and Design

The NICU/Nursery Evacuation Tabletop Exercise was prepared to provide participants an opportunity to utilize the Illinois EMSC 2009 NICU Evacuation Guidelines. In addition, it was intended to assist emergency management and NICU/Nursery staff in evaluating their current hospital evacuation plans and capabilities for responding to a severe weather/tornado related incident that causes the need for an immediate evacuation of NICU/Nursery patients. Participants learned the importance of the unique intricacies involved in mobilizing NICU/Nursery patients, some of the issues and regulatory concerns that should be addressed during an evacuation, and the issues and regulatory

concerns surrounding the utilization of other perinatal level facilities to care for NICU patients temporarily as an Alternate Treatment Site. This exercise was designed in conjunction with the Illinois Department of Public Health and border state public health departments.

Exercise Objectives, Capabilities, and Activities

Capabilities-based planning allows for exercise planning teams to develop exercise objectives and observe exercise outcomes through a framework of specific action items that were derived from the Target Capabilities List (TCL). The capabilities listed below form the foundation for the organization of all objectives and observations in this exercise. Additionally, each capability is linked to several corresponding activities and tasks to provide additional detail.

Based upon the identified exercise objectives below, the exercise planning team has decided to demonstrate the following target capabilities, activities and tasks during this exercise:

Objective 1: Surge Capacity

Determine strengths and weaknesses in current plan governing the integration of various response resources for managing patient flow beyond daily NICU and nursery census. Determine if Level II and Level II-E nurseries have done any planning to provide a higher level of service for a temporary period of time. Identify critical issues and potential solutions.

Target Capability: Medical Surge
Activity 1: Pre-event Mitigation and Preparedness:
- Hospitals will have in place and documented within their Emergency Operation Plans the procedures to accommodate a surge of NICU/Nursery patients (i.e. patient movement, expedited discharge).
- Designated hospital incident command and NICU/Nursery staff members will be aware and have received training on these procedures.

Activity 2: Event Response
- Designated NICU/Nursery staff will implement the surge capacity procedures including utilization of non-traditional patient care spaces; expediting well newborn discharges; transferring less critical NICU/Nursery patients to outlining hospitals outside of event area; and process for meeting increased staff requirements.
- Designated hospital incident command will identify the steps needed to provide NICU patient care/services temporarily at a non-NICU facility serving as an Alternate Treatment Site.

SECTION 3: ANALYSIS OF CAPABILITIES

This section of the report reviews the performance of the exercised capabilities, activities, and tasks. In this section, observations are organized by capability and

associated activities. The capabilities linked to the exercise objectives of NICU/Nursery Evacuation Tabletop Exercise are listed below, followed by corresponding activities. Each activity is followed by related observations, which include references, analysis, and recommendations.

Capability 2: Medical Surge

Capability Summary:
Medical surge is the capability to rapidly expand the capacity of the existing patient census in order to provide triage and subsequent medical care for victims of a disaster/crisis. This includes providing care to patients at the appropriate clinical level of care within sufficient time to achieve recovery and minimize medical complications. Further, this capability refers to an event resulting in a number or type of patients that overwhelm the day to day acute care medical capacity leading in increased need of personnel, support functions, physical space and logistical support (clinical and non-clinical equipment and supplies).

Activity 1: Pre-event Mitigation and Preparedness
- Observation (Strength): Most of the participating hospitals had a surge plan in place that incorporated some aspects of the NICU/Nursery.

- Observation (Area for Improvement): Less than half of the participating hospitals had identified and included within their EOP steps for credentialing external staff prior to the exercise. Incorporating credentialing steps can assist with accessing increased staffing resources during times of surge or other events. Due to the specialized nature of the NICU, all NICU professionals are encouraged to register with IL Helps in Illinois.

Activity 2: Event Response
- Observation (Strength): The exercise provided the opportunity for hospitals to discuss what steps needed to be taken and staffing/equipment/services that would be needed in order to provide NICU patient care temporarily at a non-NICU facility serving as an Alternate Treatment Site.
- Observation (Area for Improvement): HICS forms were made available at each table during the exercise. However, a minimal number of hospitals have provided HICS training to their NICU/Nursery staff. Hospitals are encouraged to provide HICS education and training to all staff and utilized this system during events.

B5: NICU/Nursery Evacuation Tabletop Improvement Plan

IMPROVEMENT PLAN (IP)

This IP has been developed specifically for both the Emergency Preparedness and Perinatal communities in Illinois and Wisconsin as a result of the NICU/Nursery Evacuation Tabletop Exercise conducted on April 26, 2011. These recommendations draw on the After Action Report, the After Action Conference and the exercise hot wash.

Capability	Activity	Observation	Recommendation	Capability Element	Agency POC	Start date	Completion Date
Communication	Pre-event Mitigation and Preparedness	Gaps in routine training on alternate communication procedures and devices	Incorporate communication procedures and devices into exercises and training at the hospital for NICU/Nursery staff as well as those who will part of incident command.	Training			
Medical Surge	Demobilization	Minimal discussion occurred regarding CISM for staff after disasters	Hospitals should incorporate the need to provide staff with CISM after a disaster into their EOP especially since many difficult ethical dilemmas can arise during disasters and the NICU/Nursery patient population	Planning			
Medical Supplies Management and Distribution	Pre-event Mitigation and Planning	There was a lack of documentation with hospital's EOPs about specific equipment and evacuation consideration for the NICU/ Nursery population	Evacuation equipment, procedures and other considerations involving NICU/Nursery should be developed and incorporated into the EOP and practiced during training and exercises.	Planning Training			
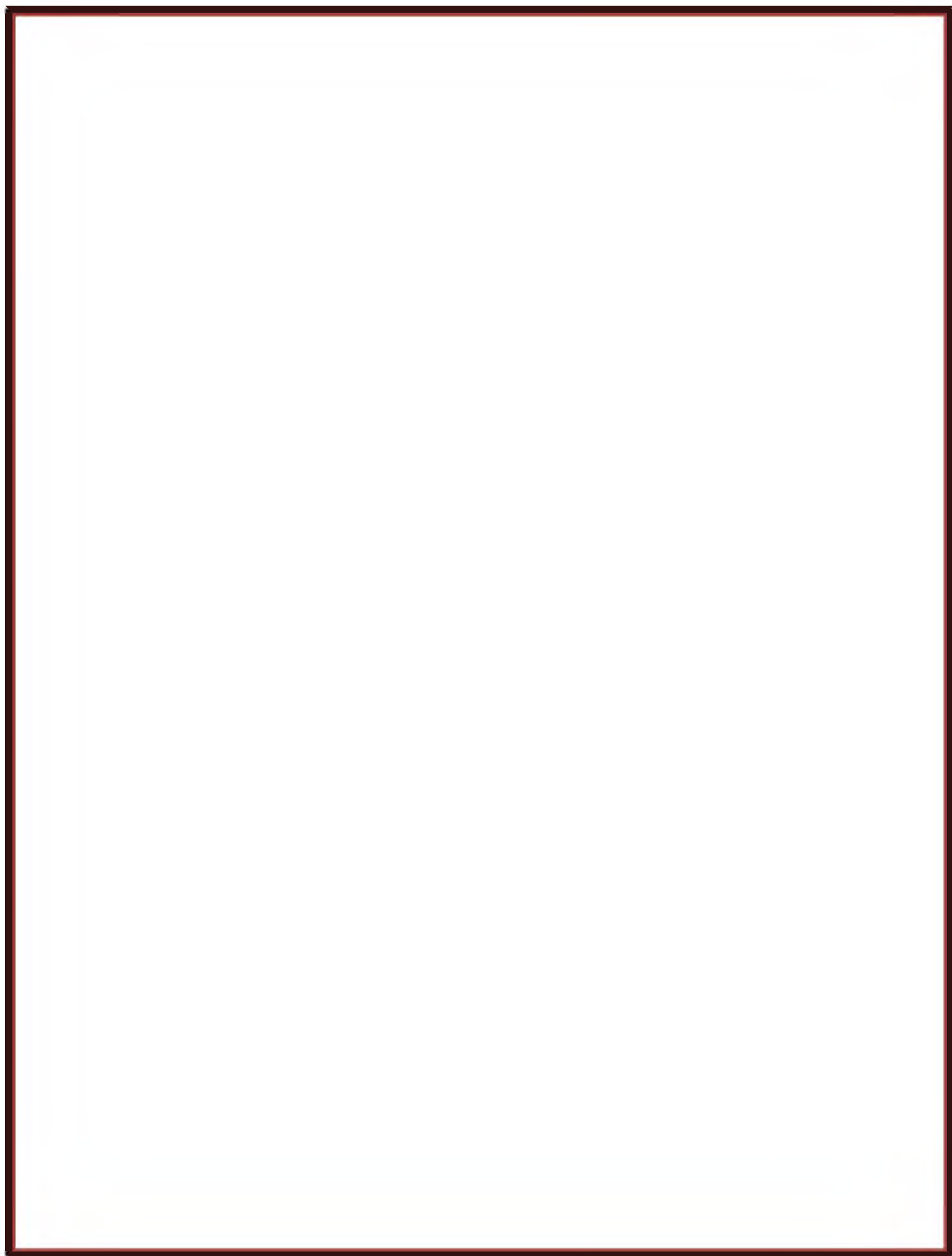
2018

Pediatric Preparedness Resource Catalog

This catalog contains a pictorial listing of the pediatric preparedness resources that have been developed and disseminated by Illinois EMSC through funding from the Assistant Secretary for Preparedness and Response (ASPR).

Further information is available on the Illinois EMSC website at: www.luriechildrens.org/emsc (click on the Disaster Preparedness page).

Illinois Emergency Medical Services for Children

IDPH
ILLINOIS DEPARTMENT OF PUBLIC HEALTH

EMSC
Illinois Emergency Medical Services for Children
www.luriechildrens.org/emsc

Pediatric Disaster Preparedness Guidelines

These guidelines were developed as a resource in addressing the needs of children during disaster planning. The four phases of disaster (prevention/mitigation, preparedness, response and recovery) are utilized as a framework throughout this booklet to outline the specific needs of children during a disaster event, as well as strategies and a checklist for addressing those needs.

Addressing the Needs of Children in Disaster Preparedness Exercises

This resource is for all agencies/organizations as they plan and conduct disaster drills and exercises. Inclusion of infants and children in disaster drills and exercises is an essential component in preparedness efforts and can assist in preparing agencies/organizations to meet the needs of children during an actual disaster or mass casualty incident. This second edition has expanded the target audience to all response agencies, which prompted the retitling of this edition from Disaster Preparedness Exercises Addressing the Pediatric Population (2006), to reflect the broader scope of the document.
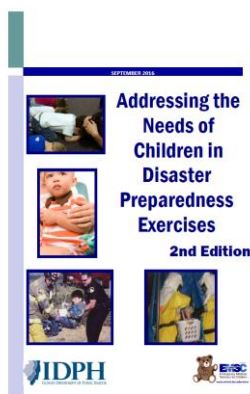
Pediatric Disaster Triage: Utilizing the JumpSTART© Method

JumpSTART© is an objective MCI triage system that parallels the START system and addresses the developmental and physiological differences of children. Provider and instructor courses are available that review pediatric MCI triage concepts, JumpSTART© and START triage methods, and includes a skills component where students apply both triage methods. The instructor course provides attendees with the tools they need to conduct their own provider courses.
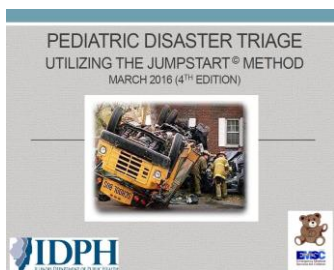
Pediatric Disaster Triage Algorithm

Pediatric Disaster Triage Scenarios: Utilizing the JumpSTART© Method
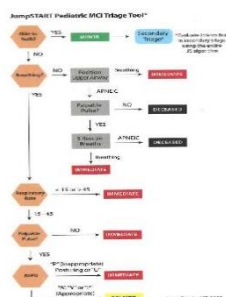
This document is offered as a resource to organizations as they conduct exercises/drills that involve mass casualty incident (MCI) triage and the use of START and JumpSTART© Triage methods. A review of START and JumpSTART© Triage is included along with six scenarios, three of which have sample victim lists.

Neonatal Intensive Care Unit (NICU) Evacuation Guidelines
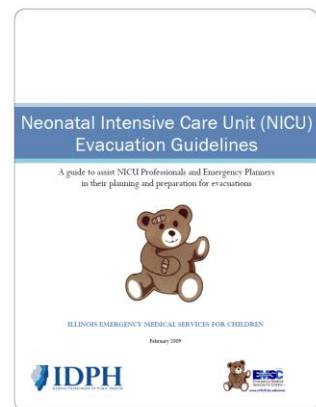
Evacuation of an NICU is a high risk activity and requires a carefully planned approach due to the fragile medical condition of these infants, the various medical technology/devices they depend upon for survival, and the overall surge capacity/transfer pattern in managing an increase in NICU patients. This set of guidelines has been developed to assist in ensuring a statewide consistent approach to the evacuation process.

NICU/Nursery Evacuation Tabletop Exercise Toolkit
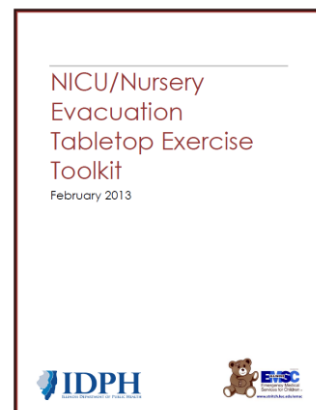
This toolkit utilizes information from the Illinois EMSC NICU Evacuation Guidelines as well as several NICU/Nursery Evacuation Tabletop exercises conducted by Illinois EMSC. These exercises focused on resource allocation and other key coordination components as medically fragile and technologically dependent infants needed to be mobilized and evacuated during various disaster scenarios. The toolkit provides hospitals with guidance on planning, conducting and evaluating tabletop exercises that address the NICU/Nursery population, and includes excerpts from key exercise documents such as the Situation Manual (SitMan), Master Scenario Exercise List (MSEL), Exercise Evaluation Guide (EEG) and After Action Report (AAR). Note that the concepts outlined in this toolkit are applicable in exercises that address other pediatric patient populations.

Characteristics of Biologic, Nuclear, Incendiary and Chemical Agents

This handy one-page reference sheet utilizes 3 resources to provide information on the incubation period, duration of illness, signs/symptoms and other characteristics of biologic, nuclear, incendiary and chemical agents.

Use of Strategic National Stockpile (SNS) Ventilators in the Pediatric Patient. Instructional Guidelines with Training Scenarios
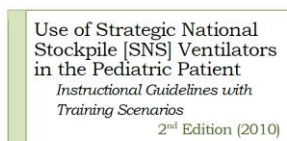
A surge of pediatric patients in a pandemic may result in many children who require respiratory support in hospitals and alternate care sites that are not used to routinely caring for children on ventilators. These guidelines were developed to provide guidance to clinicians (physicians, nurses and respiratory care providers) with a baseline knowledge of pulmonary physiology and the concepts of ventilation, who may find themselves working with ventilators that are not used on a daily basis. The intent of this document is to provide clinicians with a pediatric resource for Just-in-Time training and set up of the SNS Ventilators. This document includes information on the LP-10 Volume Ventilator, the LTV 1200 Ventilator, and the UNI-VENT® Eagle ™Ventilation System.

Hospital Pediatric Preparedness Toolkit
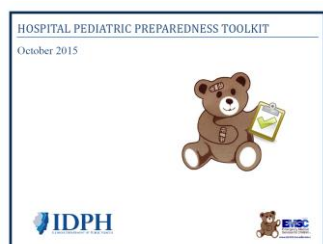
All hospitals need to assure that they are prepared to handle the unique needs of children in a disaster event. As hospitals develop and test their emergency operations plans and other disaster related plans/policies, there are key pediatric components that should be included. The Hospital Pediatric Preparedness Checklist included in this toolkit was designed to help hospitals identify their current level of pediatric preparedness and recognize additional opportunities for improvement. The Checklist is also used during EMSC Pediatric Facility Recognition Site Surveys to evaluate the inclusion of pediatric preparedness components within hospitals' disaster plans/policies. To assist all hospitals with addressing opportunities for improvement identified after completing this checklist and/or undergoing a Pediatric Facility Recognition Site Survey, a template improvement plan is also included in this document.

Tamiflu Instructional Brochure
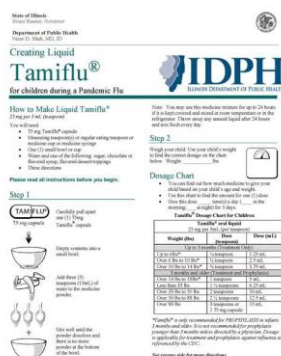
This brochure would be used for mass prophylaxis/treatment during a pandemic flu incident if insufficient quantities of Tamiflu suspension are available. The instructional material provides parents/caregivers with step-by-step instructions on how to create liquid suspension using an adult strength Tamiflu capsule and how to properly dose children based on their weight.

Amoxicillin Instructional Brochure

This brochure would be used for mass prophylaxis/treatment during a mass antibiotic prophylaxis/treatment incident if insufficient quantities of Amoxicillin suspension are available. The instructional material provides parents/caregivers with step-by-step instructions on how to create liquid suspension by crushing/dissolving adult strength tablets and how to properly dose children based on their weight.
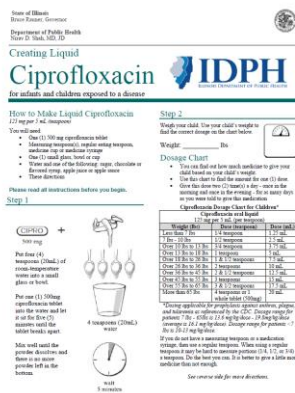
Ciprofloxacin Instructional Brochure

This brochure would be used for mass prophylaxis/treatment during a mass antibiotic prophylaxis/treatment incident if insufficient quantities of Ciprofloxacin suspension are available. The instructional material provides parents/caregivers with step-by-step instructions on how to create liquid suspension by crushing/dissolving adult strength tablets and how to properly dose children based on their weight.
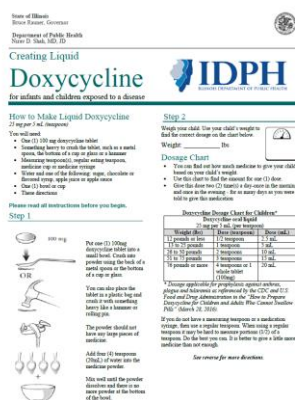
Doxycycline Instructional Brochure

This brochure would be used for mass prophylaxis/treatment during a mass antibiotic prophylaxis/treatment incident if insufficient quantities of Doxycycline suspension are available. The instructional material provides parents/caregivers with step-by-step instructions on how to create liquid suspension by crushing/dissolving adult strength tablets and how to properly dose children based on their weight.

Regional Pediatric Resource Guides

Resource guides have been developed for each of the eleven Illinois EMS Regions containing hospital information related to PCCC/EDAP/SEDP designation, PICU, perinatal level, trauma center and transport team resources/contact info. In addition, burn center, poison center, local health department and the self-assigned Pediatric System Decompression Category for each hospital to be used during large scale disasters is also accessible on these guides. Annual updates will be made to these guides as necessary.
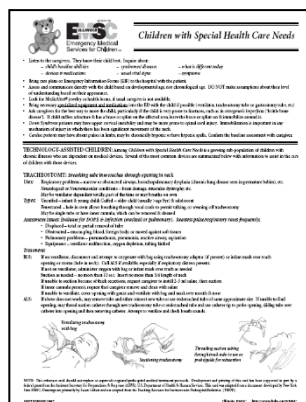
Children With Special Health Care Needs (CSHCN) Reference Guide

In a disaster event, typical interfacility transfer patterns to pediatric tertiary care centers may be disrupted. Children with chronic conditions may need to be cared for at community hospitals. This one-page resource provides healthcare providers with quick reference information on troubleshooting assistive devices that may be seen in children with chronic conditions, ie tracheostomy, PICC line, CSF shunt, gastrostomy, colostomy, ureterostomy.

Children and Facemasks

Maintaining facemasks on children during an influenza event can be a challenge. This resource provides healthcare professionals and parents/caregivers with key information related to why children need to wear facemasks, who is at higher risk for infection, strategies on keeping facemasks on children, assessing children while they are wearing facemasks, and what to do when supplies of pediatric facemasks are limited.
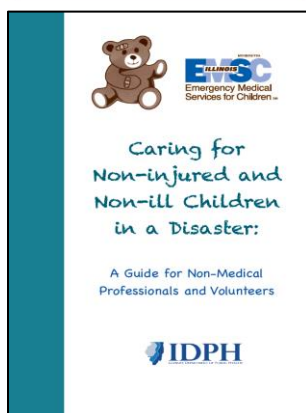
Caring for Non-injured and Non-ill Children in a Disaster: A Guide for Non-Medical Professionals and Volunteers

Since children comprise nearly a quarter of the U.S. population, they will likely be impacted by any natural or man-made disaster that occurs. Non-medical professionals and community volunteers may find themselves in the position to care for, watch over or consider the needs of non-injured and non-ill children during and after a disaster. Because these individuals may not normally care for children on a day-to-day basis, they may not be aware of the specific needs of children. This guide was designed as a resource for these individuals and includes a basic understanding of how children react to disasters and responders; the specific needs (physical and emotional) of children of all ages; tips for caring for and talking to children; information on children with chronic medical or behavioral conditions; and caring for unaccompanied children.
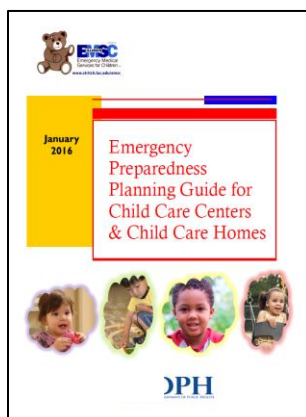
Emergency Preparedness Planning Guide for Child Care Centers & Child Care Homes

Many children under the age of five spend their daytime hours away from their parents. Most of these children are in a child care center/child care home. Emergencies occurring during hours of operation require pre planning. Therefore, it is imperative to have a comprehensive written disaster plan, commonly referred to as the Emergency Operations Plan (EOP) with policies and procedures to be followed when a disaster occurs. These guidelines were developed for child care centers/child care homes in the State of Illinois to help with their development of a plan for emergency situations.

EMSC Pediatric Reference Pocket Card

This handy size pocket card provides a quick reference to the Pediatric Glasgow Coma Scale (PGCS), APGAR Score, Pediatric Trauma Score (PTS), normal pediatric vital sign ranges as well as guidelines for equipment, defibrillation, cardioversion and medication dosing based on age and weight.

Pediatric & Neonatal Disaster/Surge Pocket Guide

This guide is a resource to assist health care providers with addressing the medical needs of children during a disaster. Care considerations incorporated into this guide included: normal values, triage and assessment tools, treatments and medications, equipment, decontamination, mental health, security, and reunification.
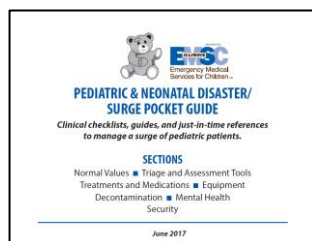
Patient Identification Tracking Form:

This form, which is a tool within the state Medical Disaster Plan (see Pediatric & Neonatal Surge or Burn Surge Annex), can be utilized to track pediatric patients during a medical surge event. Information to enter on this form includes: description of the child, who accompanied the child, unaccompanied children, medical history and treatment, and disposition/discharge. There is also a section on the form to attach a photo of the child.

Pediatric and Neonatal Care Guidelines

During a large-scale incident, normal interfacility transfer patterns may be disrupted. Health care facilities that typically transfer their acutely ill/injured pediatric patients or children with special health care needs to pediatric tertiary care centers/specialty care centers may need to care for these patients for longer periods of time until they are able to safely transfer these patients to a higher level of care. The Pediatric and Neonatal Care Guidelines are an adjunct to the Illinois ESF-8 Plan: Pediatric and Neonatal Surge Annex and provide care guidelines for common pediatric medical conditions.
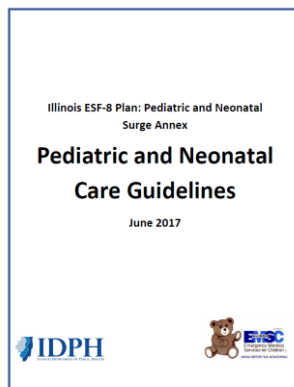
PRQC DISASTER BUNDLE - DISASTER DOMAIN 1

Pediatric Disaster Coordination

3. Emergency Operations Plan Templates

<Insert Name of Facility>
Hospital
Emergency Operations Plan

<Insert Date Template is Completed/Revised>
Supersedes Previous Version
This plan covers license year <insert year>
<License Number>

Facility Profile

Facility Name: _____

Address: _____

_____

County: _____

Phone: _____ **Fax:** _____

Emergency Phone:

Email Address: _____

Owner/Corporation: _____

Address: _____

_____

Phone: _____ **Secondary Phone:** _____

Emergency Phone: _____

Facility Administrator: _____

Address: _____

_____

Phone: _____ **Secondary Phone:** _____

Emergency Phone: _____

Emergency Operations Plan Coordinator: _____

Address: _____

_____

Phone: _____ **Secondary Phone:** _____

Emergency Phone: _____

Licensed Facility Bed Capacity: _____

Average Daily Census: _____

Specialty Services or Units: _____

Patients in Care

Provide the **average** number of individuals within the facility's care who have the following disabilities and/or dependencies:

Disability or Other Challenges	
Alzheimer's, dementia or cognitive impairment: _____	Confined to bed: _____
Blind or low vision: _____	Require 24-hour constant care: _____
Deaf or hearing impaired: _____	Chronic condition (please specify): _____
Speech impaired: _____	Other (please specify): _____
Limited mobility or difficulty walking: _____	
Primary language other than English _____	

Dependency	
Dialysis: _____ Insulin: _____	Walker/cane/scooter/wheelchair: _____
Ventilator: _____ Oxygen: _____	Other (please specify): _____
Service animal: _____	
Bariatric Bed _____	
Other machine dependent: _____	

Table 1
Primary and Affiliate/Sister Facilities (See Attachment E)

Primary Facility			
Facility Name	**Address (Street, City, State, Zip)**	**County**	**Contact Number**
Affiliate/Sister Facilities (Include specific information in Attachment E.)			
Facility Name	**Address (Street, City, State, Zip)**	**County**	**Contact Number**

Signature Page

<Insert Facility Name>

_____   _____
Name, Title   Date

_____   _____
Name, Title   Date

Mississippi State Department of Health, Office of Emergency Planning and Response

District Level

_____   _____
Emergency Planner   Date

_____   _____
Emergency Response Coordinator   Date

_____   _____
Emergency Preparedness Nurse   Date

Record of Changes

This is a continuing record of all changes to the EOP.

Change Number	Date of Change	Description of Change	Initials

Record of Distribution

This plan has been provided to the following personnel and/or agencies.

Recipient Name	Department/Agency	Date Distributed	Initials

Table of Contents

List of Tables

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1. INTRODUCTION

A. Purpose

The *Minimum Standards of Operation for Mississippi Hospitals, Subchapter 43, Rule 41.43 s*tates:

The licensed entity shall develop and maintain a written preparedness plan utilizing the "All Hazards" approach to emergency and disaster planning. The plan must include procedures to be followed in the event of any act of terrorism or man-made or natural disaster. The Emergency Operations Plan (EOP) will be reviewed by the Mississippi State Department of Health (MSDH) Office of Emergency Planning and Response (OEPR), or their designees, for conformance with the "All Hazards Emergency Preparedness and Response Plan." Particular attention shall be given to critical areas of concern which may arise during any "all hazards" emergency whether required to evacuate or to sustain in place. Additional plan criteria or a specified EOP format may be required as deemed necessary by OEPR. The six (6) critical areas of consideration are:

- Communications - Facility status reports shall be submitted in a format and a frequency as required by the OEPR.
- Resources and assets
- Safety and security
- Staffing
- Utilities
- Clinical Activities

EOPs must be exercised and reviewed annually or as directed by OEPR. Written evidence of current approval or review of provider EOPs, by OEPR, shall accompany all applications for facility license renewals.

Regulatory and Center for Medicare and Medicaid Services require the following supporting plan documents:

- Alternate care sites (on and off campus)
- Transportation contracts with designated patient transporters
- Communications plan
- Continuity of operations
- Evacuation maps and floor plans
- Mutual aid agreements
- Organizational charts
- Policies and procedures
- Fire safety plan
- Hazard Vulnerability Analysis
- Training and exercise plans

- Incident specific appendices

B. Scope

The Emergency Operations Plan (EOP) is designed to guide planning and response to a variety of hazards that could threaten the environment of the hospital or the safety of patients, staff and visitors, or adversely impact the ability of the hospital to provide healthcare services to the community. The plan is also designed to meet state and local planning requirements.

Authority for activating the plan will rest with the **<Insert position title>**. Activation of the plan will be conducted in conjunction with agency command staff as well as local emergency management and public health personnel.

C. Planning Assumptions

The following assumptions delineate what is assumed to be true when the EOP was developed. The assumptions statement shows the limits of the EOP, thereby limiting liability.

- Identify top five hazards
- Identified hazards will occur.
- Healthcare personnel are familiar with the EOP.
- Healthcare personnel will execute their assigned responsibilities.
- Executing the EOP will save lives and reduce damage.

2. ADMINISTRATION

A. Executive Summary

The **<Insert name of facility>** Emergency Operations Plan (EOP) is an all-hazards plan that outlines policies and procedures for preparing for, responding to, and recovering from possible hazards faced by the organization. Coordination of planning and response with other healthcare organizations, public health, and local emergency management are emphasized in the plan. The plan also addresses proper plan maintenance, communications, resource and asset management, patient care, continuity of operations, management of staff, evacuation, and contingency planning for utilities failure.

The plan will undergo an annual review process to ensure any plan deficiencies are identified and addressed. An improvement plan will be instituted and maintained in the plan to ensure lessons learned and action items identified from exercises and real events are properly addressed and documented.

All response activities will follow the National Incident Management System (NIMS) guidelines. In addition, the agency will follow the Incident Command System organizational structure in response to emergency events and in exercises. In the event of a communitywide emergency, the agency's incident command structure will be integrated into and be consistent with the community command structure. Staff is encouraged to receive training in the ICS system and in assigned roles and responsibilities to ensure they are prepared to meet the needs of patients in an emergency.

B. Plan Review and Maintenance

Plan Review

The EOP will be reviewed and updated annually incorporating: the latest NIMS elements, data collected during actual and exercise plan activations, changes in the hazard vulnerability assessment, changes in emergency equipment, changes in external agency participation, etc.

Plan review should also consider changes in contact information, new communications with the local Emergency Management Agency, review of evacuation routes and alternate care sites, and staff and departmental assignments. The review will be conducted by **<Insert position title or group>**. Plan updates will be the responsibility of **<Insert position title>**.

Exercises

The <Insert name of facility> must test its plan and operational readiness at least annually. The hospital must participate in a community mock disaster drill at least annually. Also the hospital must conduct a paper-based, tabletop exercise at least annually (42 CFR 482.15) and CAH (42 CFR 485.625). This is accomplished through exercises in which many planned disaster functions are performed as realistically as possible under simulated disaster conditions.

An After-Action Report/Improvement Plan will be completed within 60 days. This improvement plan will be incorporated into the plan as soon as it is feasible. The **<Insert position title>** will be responsible for coordinating the exercises, AARs, and improvement planning.

All exercises will incorporate elements of the National Incident Management System, Hospital Incident Command System, and are Homeland Security Exercise and Evaluation Program compatible. Information on the Homeland Security Exercise and Evaluation Program can be found at https://www.preptoolkit.org/web/hseep-resources.

Future exercises should be planned and conducted according to improvement action items identified during previous exercises.

Table 2
Exercises Conducted

Type of Exercise	Hazard Exercised	Date of Exercise	AAR Completed

C. Authorities and References

<Insert title and date of local city and/or county Emergency Operations Plan >

<Insert titles of other organizational plans or policies that have a connection to the Emergency Operations Plan>

Mississippi Emergency Management Agency (MEMA)
　　http://www.msema.org/

Minimum Standards of Operations for Hospitals
Mississippi State Department of Health
Title 15, Part III, Subpart 01, Chapter 41
MSDH Minimum Standards of Operations for Hospitals PDF

Regulations of Hospitals, Hospital Records
Mississippi Code Annotated
41-9-1 through 41-9-35

National Incident Management System (NIMS)
Federal Emergency Management Agency (FEMA)
http://www.fema.gov/emergency/nims/

Incident Command System (ICS)
FEMA
https://www.fema.gov/incident-command-system-resources

The Joint Commission
www.jointcommission.org

Det Norske Veritas
www.dnv.com

Strategic National Stockpile
Centers for Disease Control and Prevention
http://www.bt.cdc.gov/stockpile/index.asp

Mississippi Responder Management System
Mississippi State Department of Health
www.signupms.org

State Medical Asset and Resource Tracking Tool
EMS Emergency Performance Improvement Center
http://www.emspic.org

Centers for Medicare & Medicaid Services (CMS)
http://www.cms.gov

Disaster Resiliency and NFPA Codes and Standards
Refer to the National Fire Protection Association (NFPA) Standards in NFPA 101
Life Safety Code, and NFPA 1600, Disaster/Emergency Management and Business
Continuity Programs

Mississippi Emergency Access Program (MEAP)
http://www.dps.state.ms.us/divisions/office-of-emergency-operations/mississippi-statewide-credentialing-access-program/

CDC Emergency Water Supply Planning Guide Table 6-4.1
http://www.cdc.gov/healthywater/pdf/emergency/emergency-water-supply-planning-guide.pdf

3. SITUATION

Risk Assessment

A hazard vulnerability analysis (HVA) conducted by **<Insert name of entity>** provides details on local hazards including type, effects, impacts, risk, capabilities, and other related data.

Facility and MSDH County Medical HVAs are located in Attachment 1 and 2 of the Continuity of Operations Annex and are provided by the District Planner.

<Insert the top five hazards from facility HVA>

    1.
    2.
    3.
    4.
    5.

4. CONCEPT OF OPERATIONS

A. Incident Management

Incident management activities are divided into four phases: mitigation, preparedness, response, and recovery. These four phases are described below:

- **Mitigation:** Mitigation activities are those that eliminate or reduce the possibility of a disaster occurring. For healthcare operations, this may include installing generators for backup power, installing hurricane shutters and raising electrical panels to protect them from possible flood damage. **<Insert Facility's strategies for mitigation>**

- **Preparedness:** Preparedness activities develop the response capabilities that are needed in the event an emergency occurs. These activities may include developing emergency operations plans and procedures, conducting training for personnel in those procedures, and conducting exercises with staff to ensure they are capable of implementing response procedures when necessary. **<Insert Facility's strategies for preparedness>**

- **Response:** Response includes those actions that are taken when a disruption or emergency occurs. It encompasses the activities that address the short-term, direct effects of an incident. Response activities in the healthcare setting can include activating emergency plans and triaging and treating patients who have been affected by an incident. **<Insert Facility's strategies for response>**

- **Recovery:** Recovery focuses on restoring operations to a normal or improved state of affairs. It occurs after the stabilization and recovery of essential functions. Examples of recovery activities include: the restoration of non-vital functions, replacement of damaged equipment, facility repairs, organized return of patients into the facility, and reconstitution of patient records and other vital information systems. Another key consideration in the recovery and response phases of an incident is the tracking of staff hours, expenses, and damages incurred as a result of the emergency. Detailed records will need to be maintained throughout an emergency to document expenses and damages for possible reimbursement or to properly file insurance claims. **<Insert Facility's strategies for recovery>**

B. Plan Activation

The Emergency Operations Plan will be activated in response to internal or external threats to the facility. Internal threats could include fire, bomb threat, loss of power or other utility, or other incidents that threaten the well-being of patients, staff, and/or the facility itself. External threats include events that may not affect the facility directly but have the potential to overwhelm hospital resources or put the hospital on alert.

Persons Responsible for Plan Activation

Once a threat has been confirmed, the employee obtaining the information must notify their supervisor immediately. If the employee cannot contact their supervisor, they must immediately contact the **<Insert position title>** directly.

The supervisor should in turn contact the **<Insert position title>**.The **<Insert position title>** will assess the situation and initiate the plan if necessary.

The following individuals have the authority to activate the Emergency Operations Plan:

Table 3
Individuals Responsible for Emergency Operations Plan Activation

Name	Contact Number
Primary:	
Backup 1:	
Backup 2:	

Alerting Staff (On and Off Duty)

To notify staff that the Emergency Operations Plan has been activated, those within the facility will be contacted first through the **<Insert internal communication system (e.g., overhead paging system, radio)>**.

Staff away from the facility at the time of activation will be contacted by **<Insert external communication system (e.g., phone tree, radio, media)>**. The individuals responsible for contacting staff include the **<Insert position title (e.g., dispatcher, supervisors)>**.

Alerting Response Partners

The facility works closely with several external partners **(See Annex A: Communications)**. The **<Insert position title>** will be the individual responsible for contacting these external agencies to notify them that the Emergency Operations Plan has been activated.

5. ROLES AND RESPONSIBILITIES

During an event, specific roles and responsibilities will be assigned to individual positions/titles as well as facility departments.

A. Essential Services

The table below identifies the departmental roles and responsibilities during plan activation.

Table 4
Roles and Responsibilities

Essential Services	Roles and Responsibilities	Point of Contact	Secondary Point of Contact
Administration			
Dietary			
Housekeeping			
Maintenance			
Nursing			
Pharmacy			
Safety & Security			
(Add additional essential services if needed)			

B. Positions

Identifying and assigning personnel in the Hospital Incident Command System (HICS) depends a great deal on the size and complexity of the incident. The HICS is designed to be flexible enough so that the number of staff needed to respond to an incident can be easily expanded or contracted. HICS Form 203 is used to document and assign staff to HICS specific positions. See sample HICS forms in Attachment D.

6. COMMAND AND COORDINATION

A. Command Structure

Command will be organized according to the Hospital Incident Command System (HICS). The chart on the next page illustrates the structure of response activities under the HICS. The chart shows the chain of command and the span of control under each level of management. It also illustrates the flexibility of HICS to expand or contract response activities based on the type and size of the event.

Organizational Chart

```
                        ┌─────────────────────┐
                        │  Incident Commander  │
                        └──────────┬──────────┘
          ┌────────────────────────┼────────────────────────┐
┌─────────────────────┐                        ┌─────────────────────┐
│ Public Information   │                        │   Safety Officer     │
│      Officer         │                        │                      │
└─────────────────────┘                        └─────────────────────┘

┌─────────────────────┐                        ┌─────────────────────┐   Biological/Infectious Disease
│   Liaison Officer    │                        │ Medical/Technical    │   Chemical
│                      │                        │    Specialist        │   Radiological
└─────────────────────┘                        └─────────────────────┘   Clinic Administration
                                                                          Hospital Administration
                                                                          Legal Affairs
                                                                          Risk Management
                                                                          Medical Staff
                                                                          Pediatric
```

Operations Section Chief	Planning Section Chief	Logistics Sections Chief	Finance/Administration Section Chief

Operations Section Chief

- **Staging Manager**
  Personnel
  Vehicle
  Equipment/Supply
  Medication
- **Medical Care Branch Director**
  Inpatient
  Outpatient
  Casualty Care
  Clinical Support Services
  Patient Registration
- **Infrastructure Branch Director**
  Power/Lighting
  Water/Sewer
  HVAC
  Building/Grounds Damage
  Medical Gases
  Medical Devices
  Environmental Services
  Food Services
- **HazMat Branch Director**
  Detection and Monitoring
  Spill Response
  Victim Decontamination
  Facility/Equipment Interface
- **Security Branch Director**
  Access Control
  Crowd Control
  Traffic Control
  Search
  Law Enforcement Interface
- **Business Continuity Branch Director**
  Information Technology
  Service Continuity
  Records Preservation
  Business Function Relocation

Planning Section Chief

- **Resource Unit Leader**
  Personnel Tracking
  Material Tracking
- **Situation Unit Leader**
  Patient Tracking
  Bed Tracking
- **Documentation Unit Leader**
- **Demobilization Unit Leader**

Logistics Sections Chief

- **Service Branch Director**
  Communications Unit
  IT/IS Unit
  Staff Food & Water Unit
- **Support Branch Director**
  Employee Health & Well-being Unit
  Family Care Unit
  Supply Unit
  Facilities Unit
  Transportation Unit
  Labor Pool & Credentialing Unit

Finance/Administration Section Chief

- **Time Unit Leader**
- **Procurement Unit Leader**
- **Compensation/Claims Unit Leader**
- **Cost Unit Leader**

Orders of Succession

Orders of succession ensure leadership is maintained throughout the facility during an event when key personnel are unavailable. Succession will follow facility policies for the key facility personnel and leadership.

Table 5
Key Personnel and Orders of Succession

Command and Control	Primary	Successor 1	Successor 2
Shift 1			
Hospital Representative			
Incident Commander			
Public Information Officer			
Safety Officer			
Liaison			
Operations Section Chief			
Planning Section Chief			
Logistics Section Chief			
Finance/Administration Section Chief			
Shift 2			
Hospital Representative			
Incident Commander			
Public Information Officer			
Safety Officer			
Liaison			
Operations Section Chief			
Planning Section Chief			
Logistics Section Chief			
Finance/Administration Section Chief			

Delegation of Authority

Delegations of authority specify who is authorized to make decisions or act on behalf of facility leadership and personnel if they are away or unavailable during an emergency. Delegation of authority planning involves the following:

- Identifying which authorities can and should be delegated
- Describing the circumstances under which the delegation would be exercised and including when it would become effective and terminate
- Identifying limitations of the delegation
- Documenting to whom authority should be delegated
- Ensuring designees are trained to perform the emergency duties

Table 6
Delegation of Authority

Authority	Type of Authority	Position Holding Authority	Triggering Conditions
Close facility	Emergency Authority	Senior Leadership	When conditions make coming to or remaining in the facility unsafe
Represent facility when engaging Govt. Officials	Administrative Authority	Senior Leadership	When the pre-identified is not available
Activate facility memorandum of understanding/mutual aid agreements	Administrative Authority	Senior Leadership	When the pre-identified leadership is not available
Add additional authorities as needed			

B. Local Emergency Operations Center Coordination

This organization will coordinate fully with the **<Insert name of local Emergency Management Agency>**, follow the prescribed Incident Command System, and integrate fully with community agencies in activation for a disaster event or during exercises. In addition, the hospital will provide the following information: hospital occupancies, hospital needs, and a list of essential services the hospital can provide. The facility will participate in any district/county coalition/local emergency planning committee.

C. Public Health Coordination

The **<Insert position title>** will coordinate planning and response activities with public health. Activities may include:

- Following disease reporting requirements at [MSDH List of Reportable Diseases and Conditions PDF.](#)

- In the event the Emergency Operation Plan is activated by the facility, the MSDH Emergency Response Coordinator shall be notified along with the local Emergency Management Agency. Reference District Public Health Emergency Preparedness Map in Annex A: Communications.

- Providing regular updates to the Statewide Medical Asset and Resource Tracking Tool as required (See Annex E).

- Participating in and providing support for the Mississippi Responder Management System (See Annex F).

- Participating in public health planning initiatives.

- Receiving guidance and health alerts through the Health Alert Network.

- Participating in any after-action planning as requested from public health officials.

<Describe/outline below how the facility will coordinate planning and response activities with public health>

7. RESOURCES AND ASSETS

A. Acquiring and Replenishing Medications and Supplies

The amounts and locations of current pharmaceuticals and medical and non-medical supplies are evaluated to determine how many hours the facility can sustain itself before needing re-supply. This gives the facility a par value on supplies and aids in the projection of sustainability before terminating services or evacuating if needed supplies are unable to reach the facility.

Supplying the hospital in an emergency will be initially satisfied by pulling from local resources. As replenishment becomes necessary, resources will be requested from vendors. A list containing the names and contact information of the vendors that deliver and/or manufacture supplies and provide critical services can be found in Annex A: Communications Plan.

If the hospital is unable to acquire sufficient resources through outside vendors and pre-positioned arrangements to meet the healthcare needs of the community, the **<Insert position title>** will communicate this need to the **<Insert name of local emergency management agency>** to help locate resources and replenishments. If sufficient supplies cannot be acquired, the local emergency management agency will also provide assistance coordinating the transfer of patients to other facilities upon request.

B. Sharing Resources with Other Healthcare Organizations

Include procedure for sharing or borrowing supplies within the hospital network, if applicable.

> If the healthcare organizations sharing the resources are within **<Insert name of jurisdiction>**, a Resource Accounting Record form (HICS Form 257) should be used to document the borrowed or loaned products. See sample HICS forms in Attachment D. The equipment should then be returned after use. Any consumable supplies that are used should be billed via invoice and paid by the organization using the supplies. Any unused consumables should be returned.

Include other procedures, if applicable.

> If the items shared or borrowed come from outside **<Insert name of jurisdiction>**, the request should be coordinated through the **<Insert name of emergency management agency>.** The facility should document the final location of the supplies and the quantity and type of items transported. The need must be demonstrated to exceed that of the local jurisdiction prior to disbursement of supplies or equipment.

Include other procedures, if applicable.

C. Monitoring Quantities of Resources and Assets

The **<Insert position title>** is responsible for monitoring quantities of assets and resources during an emergency. A Resource Accounting Record form (HICS Form 257) should be used when resources and assets are tracked during an emergency. See sample HICS forms in Attachment D.

Available services and resources can also be tracked daily using the State Medical Asset Resource Tracking Tool (SMARTT) System. For additional information on the SMARTT System, see Annex E.

List other inventory tracking systems, if applicable.

D. Resource Sustainability

Establishing the sustainability of resources is crucial to determining if services can be rendered during a disaster for three total days, based on the facility's assessment of their hazard vulnerabilities. Resource inventory is currently maintained to provide for approximately **<Insert number of hours/days>**. If this cannot be sustained through current inventory, agreements are in place with suppliers and vendors for the remaining days. If supplies cannot be obtained, policies and procedures are in place in the event the facility may need to evacuate or temporarily close.

Agreements can be found in Attachment B: Mutual Aid Agreements/Memorandum of Understanding Table 16.

8. MANAGEMENT OF STAFF

A. Assignment of Staff

In a disaster, personnel may not necessarily be assigned to their regular duties or their normal supervisor. They may be asked to perform various jobs that are vital to the operation but may not be their normal day to day duties. The designated reporting location for staff and volunteers will be **<Insert reporting location>**. The **<Insert position title>** will delegate assignments based on communication with the Hospital Command Center. Staff will be assigned as needed and provided information outlining their job responsibilities and who they report to.

<Insert Facility Policy/Reference>

B. Managing Staff Support Needs

In some circumstances, it may be necessary to provide housing and/or transportation for staff that might not otherwise be able to perform their critical functions for the hospital. These staff support functions will be coordinated through the **<Insert position title>**.

Housing for staff and staff family will be located at:

<Insert housing options and include addresses for staff and staff family>

Identified resources for transportation of staff and staff family include:

<Insert transportation resources and include addresses for staff and staff family>

Disasters can create considerable stress for those providing medical care. The **<Insert position title>** will coordinate the provision of mental health support including incident stress debriefings for staff with:

<Insert name of department(s) and/or organizations (e.g., social workers, chaplains, community mental health service organizations)>

<Insert contact information for each department/organization listed>

C. Volunteer Needs

<Insert or reference facility's policy for credentialing, assigning to tasks, Just in Time Training, feeding, and housing volunteers>

Volunteer contact list can be found in Annex A: Communications, Attachment 1, Table 3.

9. PATIENT MANAGEMENT IN AN EMERGENCY

A. Patient Scheduling, Triage/Assessment, Treatment, Transfer, and Discharge

In the event of an emergency affecting the facility, the **<Insert position title and/or department(s)>** will assess staffing and hospital capacity. Additional staff may be called upon to assist in managing the anticipated number of cases. The medical staff will immediately evaluate all current hospital inpatients and decide who can be safety discharged or moved out of intensive care units. The **<Insert position title and/or department(s)>** will facilitate patient discharges, notify the **<Insert position title and/or department(s)>** of all available beds, and update the State Medical Asset Resource Tracking Tool as needed for patient tracking. The **<Insert location>** will serve as the holding area for discharged patients awaiting transportation from family or friends. Hospital admissions and scheduling for elective procedures may be curtailed until the emergency situation has subsided.

All personnel will report to their assigned area. The **<Insert position title and/or department(s)>** will take stretchers, wheelchairs and blankets to the Triage area. As the victims arrive, assigned nurses will assist physicians in evaluating patients and direct them to the appropriate treatment area with treatment orders. Victims requiring immediate life-saving procedures will be taken directly to the **<Insert location (e.g., emergency room)>**. The **<Insert position title and/or department(s)>** will tag the victims as they arrive in the treatment area. See Appendix P: Surge Capacity.

B. Vulnerable Populations

Vulnerable populations are patients who are pediatric, geriatric, disabled, or have serious chronic conditions or addictions. As these patients are identified in the triage process, they will be linked with needed hospital services. For those services the hospital cannot provide, social service personnel will assist the patient by linking them with healthcare or social service agencies that can provide the assistance the patient requires.

C. Management of Behavioral Health Patients

The management of patients receiving behavioral health services will be coordinated with the **<Insert position title and/or department(s)>** and security as necessary. Patient medications and medical records should accompany the patient in a bag around the patient's neck in the event they are being transferred or evacuated to another facility. Coordination should be made with the receiving facility so it can adequately accommodate the patient.

D. Behavioral Health Services to Patients

Prior to an emergency, the **<Insert position title and/or department(s)>** will establish links with local community mental health centers and community service organizations to identify community resources that can respond to the mental health needs of patients in an emergency. Current contact information will be maintained for these organizations so patients, their families, and others can be referred to those resources if needed. The **<Insert position title and/or department(s)>** will also ensure that appropriate hospital personnel have been trained in psychological first aid or other psychosocial interventions to ensure the hospital can provide support to patients needing such care.

During and after an emergency, the **<Insert position title and/or department(s)>** will coordinate hospital and community mental health resources to provide support for patients, family members and staff.

E. Patient Tracking

<Insert Facility's Tracking Policy, if no policy in place describe below>

The Emergency Department and other departments receiving patients will have a patient tracker assigned to track the patients entering and leaving the patient care areas. In the Emergency Department, the **<Insert position title and/or department(s)>** will perform this task in conjunction with the triage areas and charge nurse or designee. The **<Insert position title and/or department(s)>** staff will use the HICS 254 - Disaster Victim Patient Tracking Form (See sample HICS forms provided by District Planner located in Attachment D), using the triage tracking number to log in patients at the point of triage. The location of these patients in the continuum of care will be logged in using this form until disposition status is determined.

In the event that the computer system is down, the registration staff will coordinate the use of the Disaster Victim Patient Tracking Form with the **<Insert hospital patient tracking system>**.

Ensure that all patient identification wristbands (or equivalent identification) must be intact on all patients.

If patients are evacuated, the HICS 260 - Patient Evacuation Tracking Form will be used**.** When more than two patients are being evacuated, the HICS 255 - Master Patient Evacuation Tracking Form (See sample HICS forms in Attachment D) should be used to gain a master copy of all those that were evacuated. Form should include, but is not limited to: resident name, date of birth, Medicare/Medicaid number, evacuation site location, date of evacuation, arrival time at evacuation site, date of return to facility (if known), and comments/notes.

Each patient unit, in conjunction with the **<Insert position title (e.g., Patient Tracking Manager)>**, shall designate a team member responsible for this task. The information for each patient must be completed when the receiving hospital is contacted and a report given regarding the patient's status. The **<Insert position title (e.g., Patient Tracking Manager)>** or designee shall assist the evacuating unit as necessary to assure that appropriate tracking information is completed for each nursing unit.

In addition, **<Insert name of facility>** will utilize third-party information such as **<Insert other patient tracking system that may be used (e.g., MPaTS, American Red Cross database or fax tracking information)>** as appropriate to assist families in locating patients.

10. UTILITIES AND SUPPLIES

A. Power

In the event of an outage, the emergency generator will provide power to the facility. The **\<Insert position title and/or department(s)\>** will call the power company to report the outage and get an estimated time that the power will be restored. The **\<Insert position title and/or department(s)\>** will notify all departments of the power failure and the status of repair. In the event a power failure happens after normal business hours, the **\<Insert position title (e.g., Dispatcher) and/or department(s)\>** will immediately notify the **\<Insert position title and/or department(s)\>** to report the outage.

Table 7
Generator Details

Generator Details	Generator 1	Generator 2	Generator 3
Generator make/model			
Watt rating			
Type of fuel required			
Tank capacity			
Number of hours of power can be generated using full fuel supply			
What triggers refueling of tanks for generators?			
Essential services supported by the generator			
Minimum kW needed for essential services			
Date of last full load test performed			
Type of external hook up needed for generator			
Person Responsible for:	**Primary**	**Backup 1**	**Backup 2**
Obtaining fuel			
Fuels generator			
Oversees maintenance contract			
Company/Agency Name	**Type Fuel Provided**	**Contact Name**	**Phone**
Primary:			
Backup 1:			
Backup 2:			

Generator Failures

In the event of a generator failure, the problem is immediately assessed by the **\<Insert position title and/or department(s)\>**, who will make needed repairs or contact the **\<Insert name and contact information of generator maintenance company\>**.

If the hospital's power distribution system fails and cannot be repaired in a reasonable time-period, the **\<Insert name of local Emergency Management Agency\>** and **\<Insert name of District MSDH ERC\>** should be notified. The Emergency Response Coordinator or Emergency Management Agency will assess if resources are available to provide assistance or if evacuation is necessary.

B. Water

Water for Drinking, Cooking, and Sanitation

If there is an interruption in water service, the problem will be immediately assessed by **\<Insert position title and/or department(s)\>,** who will make needed repairs or contact **\<Insert name and contact information for water supplier\>** to report the outage and get an estimated time that water service will be restored. The **\<Insert position title and/or department(s)\>** will notify all departments of the water service interruption and anticipated time of restoration. If a water service interruption happens after normal business hours, the **\<Insert position title (e.g., Dispatcher\>** will immediately notify the **\<Insert position title and/or department(s)\>** to report the situation. The **\<Insert position title\>** will determine if water use restrictions should be implemented (e.g., bathing, cooking, etc.), or if patient relocations, discharges, or transfers are necessary.

Water Usage

Estimate water usage under normal operating conditions to determine water needs during a water restriction situation. **\<Insert estimated 3 day water usage for facility\>. Reference Table 6-4.1 from CDC Emergency Water Supply Planning Guide.**

Amount On Hand

Identify quantities of potable and non-potable water on-site and identify vendors for acquiring additional potable and non-potable water.

Table 8
Quantities of Potable and Non-Potable Water

Type	Quantity
Potable Water	
Bottled Water (units)	
Storage Tank (gallons)	
Water Well (gallons)	
Other	
Non-Potable Water	
Fire Department	
Other	

Acquiring Additional Water

Potable water can be supplied through:

- **List supplier name/contact information**

Non-potable water can be supplied through:

- **List supplier name/contact information**

Water Rationing

If an emergency situation is anticipated that could affect water supplies, certain measures can be initiated to ensure the hospital has enough potable and non-potable water to supply the facility until water service is restored. The facility can stockpile bottled water for drinking and cooking. If the event allows, containers capable of holding water can be filled prior to the event including pots, buckets, and bath tubs.

If an event occurs that limits water supplies to the facility, water rationing measures may be initiated to conserve water until water supplies have been restored. Patient sanitary needs will be addressed by the use of bedside toilets or bedpans. Waste from bedside toilets or bedpans will be red-bagged and disposed of as hazardous waste. Another method is the use of cat litter in red bags. If using this method, the red bags and cat litter will be placed in toilets. When deemed necessary by Infection Control or when water service is restored, the red bags will be removed from the toilets and disposed of as biohazard waste.

Water used for bathing and cleaning may have to be restricted. Hand washing will require soap and water, if in sufficient quantity. If water is unavailable, the use of hand sanitizers will be encouraged. Fruit juices and broth, which should normally be discarded in preparing meals, could be set aside for use in preparing meals that may call for adding water. **<Insert Facility Policy>**

Water Decontamination

EPA Guideline Document for decontamination of drinking water:

- Use bottled water that has not been exposed to contamination if available.

- If bottled water in not available, water may be boiled to make it safe. Boiling water will kill most types of disease-causing organisms that may be present. If the water is cloudy, filter it through clean cloths or allow it to settle, and draw off the clear water for boiling. Boil the water for one minute, let it cool, and store it in clean containers with covers.

- If unable to boil water, water may be disinfected using household bleach. Bleach will kill some, but not all, types of disease-causing organisms that may be in the water. If the water is cloudy, filter it through clean cloths or allow it to settle, and draw off the clear water for disinfection. Add 1/8 teaspoon (or 8 drops) of regular, unscented, liquid household bleach for each gallon of water, stir it well and let it stand for 30 minutes before you use it. Store disinfected water in clean containers with covers.

  o Non-chlorine bleach should not be utilized to disinfect water.

  o Typically, household chlorine bleaches will be 5.25% available chlorine. Follow the procedure written on the label. When the necessary procedure is not given, find the percentage of available chlorine on the label and use the information in the following table as a guide. (1/8 teaspoon and 8 drops is about the same quantity.)

Table 9
Water Disinfection

Available Chlorine	Drops per Quart/Gallon of Clear Water	Drops per Liter of Clear Water
1%	10 per Quart - 40 per Gallon	10 per Liter
4-6%	2 per Quart - 8 per Gallon (1/8 teaspoon)	2 per Liter
7-10%	1 per Quart - 4 per Gallon	1 per Liter

C. Medical Gas/Vacuum Systems

In the event of a loss of the vacuum system, the **<Insert position title and/or department(s) and facility administration>** must be notified immediately. They will determine if repairs can be made in an expeditious manner or whether portable suction equipment beyond reserve units in the hospital must be procured. In any event, nursing personnel in affected areas must ensure that patients with artificial airways and those in need of tracheal suction receive priority attention until the patient is relocated to an unaffected area or the primary vacuum system is restored.

In the event of a loss of medical gases, the **<Insert position title and/or department(s) and facility administration>** must be notified immediately. The responsible individual will determine if repairs can be made in an expeditious manner or if emergency medical gas supplies must be procured.

The hospital maintains **<Identify the amount of medical gas available and the location>**. Additional cylinders can be procured through **<Insert name and contact information of supplier>**.

11. OTHER CRITICAL UTILITIES

Maintenance Activities

The following table lists other utilities critical to the comfort and care of residents and daily operations that should be addressed for maintenance.

Table 10
Maintenance Activities

System	Primary Personnel	24/7 Contact Information	Outside of Facility	24/7 Contact Information
Generators/Electric				
Heating, ventilation, and air conditioning				
Water/Sewer Systems				
Medical Gases/Vacuum Systems				
Information Technology				
List others that apply				

12. EVACUATION

A. Decision Making: Evacuate or Shelter-in-Place

The decision whether to evacuate the facility or shelter-in-place will rest with the **<Insert position title(s)>**, who will be responsible for deciding which action to take and when evacuation or shelter-in-place activities should commence. The decision will be made in consultation with facility staff and external stakeholders such as emergency management, fire department, or public health personnel. Both internal and external factors will be considered in deciding whether to evacuate or shelter-in-place.

Internal factors could include the physical structure of the facility, patient acuity, staffing, accessibility to critical supplies, availability of transportation assets for evacuation (not including ambulances), and accessibility of possible evacuation destinations. External factors to be considered in making the decision to evacuate or shelter-in-place include the nature and timing of the event, the location or projected path of the threat such as in the case of a flooding incident, ice storm or hurricane, and the vulnerability of the facility to the threat.

The chart below identifies hazards **(Include the top five hazards from the internal county medical hazard vulnerability analysis (HVA) provided by the district planner or the facility's own HVA)** that could necessitate the need for the evacuation or shelter-in-place of patients and staff, who is responsible for making the decision, who is to be consulted, the timeline of activities, and factors that should be considered in deciding whether to evacuate or shelter-in-place.

Complete the chart below based on the top five hazards from the internal county medical or facility HVA and additional threats faced by the facility that could necessitate either evacuation or shelter-in-place response activities.

Table 11
Evacuation or Shelter-in-Place Decision Making Chart

Hazard	Decision Authority	Alternate	Consulting Parties	Timeline	Triggers for Evacuation
Fire*	Administrator	Director of Nursing	Facilities Manager, City Fire Chief	Immediately	Location and intensity of fire
Hurricane*	Administrator	Director of Nursing	Emergency Management	48 hours prior to arrival of tropical force winds	Category, track. and speed of storm

*Examples

B. Transportation Resources

The <Insert name of facility> will identify appropriate resources to transport the patient population, staff, supplies and necessary equipment in the event evacuation of the facility is necessary. The hospital will seek to identify primary and back-up transportation providers with suitable vehicles and personnel to ensure adequate resources are available in an emergency.

Ensure that the vendors or volunteers who will help transport patients and those who receive them at shelters and other facilities are trained on the needs of the chronic, cognitively impaired, and frail population and are knowledgeable on the methods to help minimize transfer trauma.

The following transportation facilities (not including county 911 EMS Services) have agreed to provide transportation to the **<Insert name of facility>** in the event evacuation of all or part of the facility is necessary. If these facilities are not able to provide transportation resources, the **<Insert position title>** will request resources through the **<Insert name of local Emergency Management Agency>**.

Table 12
Transportation Resources

Name of Agency/Company	Types of Transportation Equipment Available	Contact Name	Contact Number	Alternate Contact Information

C. Patient Records and Maintenance

In the event of an evacuation, patient records should be moved with the patient to the receiving facility.

Describe the procedure for ensuring patient records are transported with the patient and identify who is responsible.

The **<Insert position title>** is responsible for maintaining and transferring patient records during an event. Facility patient records may be stored digitally on a computer's hard drive, on CDs, and/or maintained in hard copy files. Computers will be unplugged, moved to a higher location in the building, or moved offsite. Digital records will be saved

to a removable storage medium (e.g., CD, DVD, USB flash drive, thumb drive) and carried offsite. Assessing the backup of the electronic data retrieval system will be a function of the annual review of the emergency preparedness system.

Hard copies of records will be stored in such a way that the critical records can be gathered and transported. The **<Insert name of facility>** has implemented/ is considering scanning critical data/documents. Critical data includes:

- Patient information (e.g., face sheets, clinical data, physician orders, care plans)

    o Name
    o Social Security Number
    o Photograph
    o Medicaid or other health insurance number
    o Date of Birth
    o Diagnosis
    o Current drug/prescriptions and dietary regimens
    o Name and contact of next of kin/responsible person/Power of Attorney

- Family information (e.g., contact information)

- Reference Hospital Health Insurance Portability and Accountability Act Policy

D. Patient Provisions/Personal Effects

In an evacuation, provisions for patient care will also be moved with the patient to ensure adequate medical care is maintained throughout the evacuation and care at the receiving facility. This will include necessary medications, medical equipment, supplies, staff, and psychological first aid to care for patients. Procedures are in place to ensure patient's personal effects are also transferred with the patient.

Describe procedures for ensuring provisions for patient care, including food, one gallon/person of water, and medications, and transport of personal effects are addressed in an evacuation and identify the staff and/or responsible departments.

E. Evacuation Locations

If the facility is damaged to the extent that patient care cannot be rendered, or it is determined that evacuation is warranted due to fire, an approaching hurricane, or other hazard, patients may be transported to a receiving facility for temporary care. The terms "close", "within area", and "outside of area" represent the concept that healthcare facility patients need to move as short a distance as possible. The farther frail patients must travel, the less safe the evacuation becomes for them. Therefore, the distance traveled must be balanced with the possible harm extended travel may cause.

Close Proximity

Close proximity locations are within a short distance (within 10 miles) from the facility and will be utilized when unplanned or immediate evacuations are necessary.

Table 13
Close Proximity Evacuation Locations

Location	Facility Name	Address	Phone Number	Alternate Contact
Primary				
Backup 1				
Backup 2				

Within Area

Within area locations are those within a reasonable distance (within 10 - 50 miles) from the facility and will be utilized for unplanned or planned evacuations relative to the type of hazard or threat to the facility.

Table 14
Within Area Evacuation Locations

Location	Facility Name	Address	Phone Number	Alternate Contact
Primary				
Backup 1				
Backup 2				

Out of Area

Out of area locations are a significant distance (over fifty miles) from the facility and will be utilized for planned evacuations.

Table 15
Out of Area Evacuation Locations

Location	Facility Name	Address	Phone Number	Alternate Contact
Primary				
Backup 1				
Backup 2				

F. Evacuation Routes

Floor plans with evacuation routes and maps to evacuation locations are located in Attachment C: Alternate Care Sites Evacuation Routes and Facility Floor Plans.

G. Evacuation Priorities

<Insert description of order of patient evacuation>

H. Securing Equipment

The **<Insert position title>** will be responsible for ensuring hospital equipment is secure or is safely moved in the event of an evacuation of the facility. The facility should be mindful that some medical and diagnostic equipment must be re-calibrated after being moved or disconnected from a power source. Mutual aid agreements with other healthcare facilities should be sought and maintained for the sharing of equipment and/or resources in an emergency.

Include mutual aid agreements located in Attachment B.

I. Securing Vital Records

The **<Insert position title>** will be responsible for ensuring vital departmental records are secure or are safely moved in the event of an evacuation of the facility. The **<Insert position title>** will be responsible for coordinating with the **<Insert name of departments (e.g., medical records, information technology, accounting, human resources)>** to ensure proper procedures are followed in moving and/or securing these records.

13. RECOVERY

A. Initiation and Recovery

The decision to enter into the recovery stage of an event is made by the **<Insert position title>**. In this stage, the **<Insert name of facility>** will undertake recovery procedures to return the hospital to normal operations.

B. Protocol

In order to efficiently recover from an event, protocols must be followed. Listed below are protocols important to recovery operations.

Recovery protocols:

- Prioritize health care service, delivery, and recovery objectives by organizational essential functions.

- Maintain, modify, and demobilize healthcare workforce according to the needs of the facility.

- Work with local emergency management, service providers, and contractors to ensure priority restoration and reconstruction of critical building systems.

- Maintain and replenish pre-incident levels of medical and non-medical supplies.

- Work with local, regional, and state emergency medical system providers, patient transportation providers, and non-medical transportation providers to restore pre-incident transportation capability and capacity.

- Work with local emergency management, service providers, and contractors to restore information technology and communication systems.

- Prepare after-action reports, corrective action reports, and improvement plans.

C. Restoration of Services

The **<Insert position title>** will coordinate the restoration of services after an emergency situation affecting the hospital.

List responsibilities in restoring services (e.g., restoration of utilities, repair or replacement of critical systems, and overseeing of facility repairs).

D. Utility Restoration

Describe procedures for restoration of critical systems not already identified in the plan or identify where these procedures can be located.

E. Staff/Patient Re-Entry

The **<Insert position title>** will work with the Bureau of Health Facilities Licensure and Certification to give approval for the return of staff and patients to the facility. The coordination of the return of staff and patients to the facility will be the responsibility of the **<Insert position title>**.

List preparations and procedures for returning residents after an emergency (e.g., transport of patients back to the facility and related activities).

F. Staff Debriefing

A debriefing will be conducted within **<Insert number of hours>** of the incident to collect lessons learned from the incident or exercise. These lessons learned will be used to revise and update the plan. The **<Insert position title>** will be responsible for coordinating the debriefing.

G. After-Action Report/Improvement Plan

After any real incident or exercise where the emergency operations plan is activated, an after-action report and an improvement plan will be developed. The purpose of the after-action report is to document the overall performance of the organization during the exercise or real event. It will contain a summary of the scenario or events, staff actions, strengths, issues, opportunities for improvement, and best practices.

The purpose of the after-action report/improvement plan is to ensure issues and opportunities for improvement are adequately addressed to improve response capabilities to future events. The improvement plan will include a list of issues to be addressed, tasks that will be performed to address them, individuals responsible for completing the tasks, and a timeline for completion.

The **<Insert position title>** will be responsible for coordinating the development of the after-action report and improvement plan and will ensure identified improvements are completed within the targeted timeframes.

14. GLOSSARY

Activation - When all or a portion of the plan has been put into motion.

After-Action Report (AAR) - A report that includes observations of an exercise or real event and that makes recommendations for improvements. The purpose of the after-action report is to document the overall performance of the organization during the exercise or real event. It will contain a summary of the scenario or events, staff actions, strengths, issues, opportunities for improvement, and best practices.

Communications Redundancy - A communications system wherein alternative modes of communication are present in case a component fails.

Continuity of Operations (COOP) Plan (Business Continuity) - Planning designed to facilitate the continuance of mission essential functions and the protection of vital information in the event that the organization is faced with a situation that could disrupt operations.

Corrective Action Plan (CAP) - The concrete, actionable steps outlined in the Improvement Plan (IP) that are intended to resolve preparedness gaps and shortcomings experienced in exercises or real-world events.

Decontamination - The process of making safe by eliminating poisonous or otherwise harmful substances, such as noxious chemicals or radioactive material.

Delegations of Authority - Specifies who is authorized to make decisions or act on behalf of facility leadership and personnel if they are away or unavailable during an emergency.

Devolution Site - Alternate site designated for Continuity of Operations if original site is compromised.

Emergency Operations Center (EOC) - A specially equipped facility from which emergency leaders exercise direction and control, and coordinate necessary resources in an emergency situation.

Hazard Vulnerability Analysis (HVA) - Identifies possible hazards, including their probability, severity, frequency, magnitude, and locations/areas affected.

Health Alert Network (HAN) - A nationwide program to establish the communications, information, distance-learning, and organizational infrastructure used to defend against health threats, including the possibility of bioterrorism.

Health Insurance Portability and Accountability Act of 1996 (HIPAA) - U.S. government legislation that ensures a person's right to buy health insurance after losing a job, establishes standards for electronic medical records, and protects the privacy of a patient's health information.

Homeland Security Exercise and Evaluation Program (HSEEP) - Developed by the Department of Homeland Security (DHS) as a threat and performance-based exercise program that provides doctrine and policy for planning, conducting, and evaluating exercises. HSEEP was developed to enhance and assess terrorism prevention, response, and recovery capabilities at the federal, state, and local levels. HSEEP training courses are free and available online.

Human-Caused Events - An event that is a result of human intent, negligence, or error, or involving a failure of a man-made system. Includes terrorism, criminal events, biological events, hazardous material and chemical spills, extended power outages, fires, or any event for which a human is responsible.

Improvement Plan (IP) - Identifies specific corrective actions, assigns to responsible parties, and establishes targets for completion.

Incident Command System (ICS) - A standardized, on-scene, all-hazards incident management approach that allows for the integration of facilities, equipment, personnel, procedures, and communications operating within a common organizational structure; enables a coordinated response among various jurisdictions and functional agencies, both public and private; and establishes common processes for planning and managing resources.

Isolation - The separation of an ill patient from others to prevent the spread of an infection or to protect the patient from irritating or infectious environmental factors.

Key Personnel - Personnel designated by their department, organization, or agency as critical to the resumption of mission-essential functions and services.

Long Term Care Facility - A facility that provides rehabilitative, restorative, and/or ongoing skilled nursing care to patients and residents in need of assistance with activities of daily living. Long term care facilities include nursing homes, rehabilitation facilities, inpatient behavioral health facilities, and long-term chronic care hospitals.

Mission Essential Functions (Essential Functions) - Activities, processes, or functions that could not be interrupted or unavailable for several days without significantly jeopardizing the operation of the department, organization, or agency.

Mississippi Responder Management System (MRMS) - A secure registration system and database for health professional volunteers willing to respond to public health emergencies.

Mitigation - The stage of emergency management where activities are conducted that eliminate or reduce the possibility of a disaster occurring. For healthcare operations, this might include the installation of generators for backup power, the installation of hurricane shutters, or the raising of electrical panels to protect from possible flood damage.

Mutual Aid Agreements (MAA) - Arrangements made between governments or organizations, either public or private, for reciprocal aid and assistance during emergency situations where the resources of a single jurisdiction or organization are insufficient or inappropriate for the tasks that must be performed to control the situation. These are also referred to as inter-local agreements or Memorandum of Understanding (MOU).

National Incident Management System (NIMS) - A systematic, proactive approach to guide departments and agencies at all levels of government, nongovernmental organizations, and the private sector to work seamlessly to prevent, protect against, respond to, recover from, and mitigate the effects of incidents, regardless of cause, size, location, or complexity, in order to reduce the loss of life and property and harm to the environment.

Natural Disasters - The effect of a natural hazard that affects the environment and leads to financial, environmental, and/or human losses. Includes severe weather events such as hurricanes, tropical storms, thunderstorms, snow and ice storms, mudslides, floods, and wildfire events.

Orders of Succession - Ensures leadership is maintained throughout the facility during an event when key personnel are unavailable.

Personal Protective Equipment (PPE) - Specialized clothing or equipment worn by an employee for protection against infectious materials.

Preparedness - The stage of emergency management where activities are conducted to develop the response capabilities needed in the event an emergency occurs. These activities may include developing emergency operations plans and procedures, conducting training for personnel in those procedures, and conducting exercises with staff to ensure they are capable of implementing response procedures when necessary.

Public Health - The science and practice of protecting and improving the health of a community, as by preventive medicine, health education, control of communicable diseases, application of sanitary measures, and monitoring of environmental hazards.

Public Information - Information that is disseminated to the public via the news media before, during, and/or after an emergency or disaster.

Recovery - The stage of emergency management that focuses on restoring operations to a normal or improved state of affairs. This stage occurs after the stabilization and recovery of essential functions. Examples of recovery activities might include the restoration of non-vital functions, replacement of damaged equipment, and facility repairs.

Response - The stage of emergency management that includes those actions that are taken when a disruption or emergency occurs. It encompasses the activities that address the short-term, direct effects of an incident. Response activities in the healthcare setting can include activating emergency plans, triaging, and treating patients that have been affected by an incident.

Standard Operating Guidelines (SOG) - A set of approved methods for accomplishing a task or set of tasks. SOGs are typically prepared at the department or agency level. They may also be referred to as Standard Operating Procedures (SOPs).

State Medical Asset and Resource Tracking Tool (SMARTT) - A web-based tool capable of monitoring hospitals, Emergency Medical Services (EMS) systems, and health center resources on a regular basis. SMARTT also serves as a sophisticated communications tool that allows information to be disseminated throughout a state's healthcare system. SMARTT is a multi-state system in use in the states of Mississippi, North Carolina, South Carolina, and West Virginia.

Strategic National Stockpile (SNS) - A federal resource to provide medicine and medical supplies to protect the public in the event of a public health emergency as a result of an act of terrorism or a large scale natural or human-caused disaster that is so severe local and state resources are inadequate or become overwhelmed.

Vital Records, Files and Databases - Records, files, documents, or databases, which if damaged or destroyed, would cause considerable inconvenience and/or require replacement or re-creation at considerable expense. For legal, regulatory, or operational reasons, these records cannot be irretrievably lost or damaged without materially impairing the organization's ability to conduct business.

Vulnerable Populations - Vulnerable populations are patients who are pediatric, geriatric, disabled, or have serious chronic conditions or addictions.

15. ACRONYMS

AAR	After-Action Report
AHRQ	Agency for Healthcare Research and Quality
CAP	Corrective Action Plan
CD	Compact Disc
CDC	Centers for Disease Control and Prevention
CMS	Centers for Medicare and Medicaid Services
COOP	Continuity of Operations Plan
DHS	Department of Homeland Security
DPHEP	District Public Health Emergency Preparedness
EMC	Emergency Management Coordinator
EMS	Emergency Medical Services
EOC	Emergency Operations Center
EOP	Emergency Operations Plan
EP	Emergency Planner
EPA	Environmental Protection Agency
EPN	Emergency Preparedness Nurse
ERC	Emergency Response Coordinator
ESAR-VHP	Emergency System for Advance Registration of Volunteer Health Professionals
ESF	Emergency Support Function
FBI	Federal Bureau of Investigation
FDA	Food and Drug Administration
FEMA	Federal Emergency Management Agency
HAN	Health Alert Network
HC	Healthcare
HCF	Healthcare Facility
HICS	Hospital Incident Command System
HIPAA	Health Insurance Portability and Accountability Act
HPP/WMD	Hospital Preparedness Program/Weapons of Mass Destruction
HSEEP	Homeland Security Exercise and Evaluation Program
HVA	Hazard and Vulnerability Analysis
HVAC	Heating, Ventilation and Air Conditioning
IC	Incident Command
ICS	Incident Command System
IP	Improvement Plan
IS	Independent Study
JAS	Job Action Sheets
JIC	Joint Information Center
JIS	Joint Information System
MAA	Mutual Aid Agreement
MEAP	Mississippi Emergency Access Program
MEMA	Mississippi Emergency Management Agency
MERCs	Mortuary Enhanced Remains Cooling System

MOU	Memorandum of Understanding
MPaTS	Mississippi Patient Tracking System
MRMS	Mississippi Responder Management System
MSDH	Mississippi State Department of Health
MUL	Mortuary Unit Leader
NFPA	National Fire Protection Association
NIMS	National Incident Management System
NOAA	National Oceanic and Atmospheric Administration
NWS	National Weather Service
OEPR	Office of Emergency Planning and Response
PIO	Public Information Officer
POC	Point of Contact
POD	Point of Distribution
PPE	Personal Protective Equipment
SMARTT	State Medical Asset Resource Tracking Tool
SNS	Strategic National Stockpile
SOG	Standard Operating Guidelines
SOP	Standard Operating Procedures

16. ATTACHMENTS

Attachment A: Training Plan

Attachment B: Mutual Aid Agreements/Memorandum of Understanding in Place

Attachment C: Alternate Care Site Evacuation Routes and Facility Floor Plans

Attachment D: Sample Hospital Incident Command System Forms

Attachment E: Affiliated Facilities Specific Information

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A. Training Plan

<Insert Facility Staff Training Requirements and Tracking> and include the following:

It is recommended all employees receive specific training during new employee orientation and at least annually on:

- Emergency Preparedness Policies and Procedures
- IS-100.HC, IS-200.HC, IS-700 and IS-800:
    - Personnel who will have a direct role in response to an incident will be trained in ICS-100 (Incident Command System, An Introduction) and ICS-200 (Incident Command System)
- IS-300 and IS-400:
    - Personnel who will assume Incident Command positions and/or supervisory roles will be trained in IS-300 Intermediate ICS for Expanding Incidents and IS-400 Advanced ICS
- HPP/WMD Centers of Excellence that have a MSDH Decontamination Trailer will train annually and will provide documentation of exercising/training. The MSDH DPHEP Team shall be notified of these trainings/exercises.
- Chempack Training
- Psychological First Aid Training for identified staff
- Public Information Officer (PIO) Training

The hospital should be able to provide documentation of completion of all trainings.

National Incident Management System (NIMS)
Federal Emergency Management Agency (FEMA)
http://www.training.fema.gov/is/

National Incident Management System (NIMS)
Federal Emergency Management Agency (FEMA)
Implementation for Healthcare Organizations Guidance
http://www.phe.gov/Preparedness/planning/hpp/reports/Documents/nims-implementation-guide-jan2015.pdf

B. Mutual Aid Agreements/Memorandum of Understanding

List existing Mutual Aid Agreements (MAA) and/or Memorandum of Understanding (MOU). MAAs/MOUs are stored **<Insert Location>.**

Table 16
Mutual Aid Agreements/Memorandum Of Understanding

Facilities/Agencies in Agreement	Nature of Agreement	Expiration Date (if applicable)	Date Verified/POC
Sysco*	Emergency Food Supply	None	
XYZ Hospital*	Shelter		
Transportation service*	Transport		
Additional MOUs			

*Examples

C. Alternate Care Site Evacuation Routes and Facility Floor Plans

<Insert evacuation routes, floor plans, maps, and written directions to evacuation sites>

D. Sample Hospital Incident Command System Forms

Hospital Incident Command System (HICS) forms are provided by the District Planner.

HICS 203 – Organization Assignment List

HICS 207 – Hospital Incident Management Team Chart

HICS 254 – Disaster Victim / Patient Tracking

HICS 255 – Master Patient Evacuation Tracking

HICS 257 – Resource Accounting Record

HICS 260 – Patient Evacuation Tracking Form

E: Affiliated Facilities Specific Information

This attachment should include the following location specific information:

- Table 2: Exercises Conducted
- Table 3: Individuals Responsible for Emergency Operations Plan Activation
- Table 4: Roles and Responsibilities
- Table 6: Delegations of Authority
- List of Top Five Hazards from Facility Hazard Vulnerability Analysis
- Facility Floor Plan
- Table 17: External Contacts
- Attachment 2: Table 1: Employee Emergency Call Back Roster
- Attachment 2: Table 6: Critical Infrastructure Contact Information
- Facility Hazard Vulnerability Analysis
- MSDH County Medical Hazard Vulnerability Analysis

17. ANNEXES

Annex A: Communications

Annex B: Safety and Security

Annex C: Strategic National Stockpile

Annex D: Continuity of Operations

Annex E: State Medical Asset and Resource Tracking Tool

Annex F: Mississippi Responder Management System and Volunteer Information

Annex G: Mass Fatality

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Annex A: Communications

<Reference/Insert Communications Policy>

Internal Communication

To ensure personnel are adequately informed throughout the course of emergency response activities, the facility will provide updates and general information to staff through regularly scheduled briefings, facility internal website, e-mail, etc. This flow of information regarding the incident will continue throughout the emergency until the all-clear signal is given.

Communication with External Response Partners

The **<Insert name of Facility's Liaison>** will provide updates to external organizations within **<Indicate time interval>**. To communicate with external agencies, the hospital will use **<Insert external communication system (e.g., phone tree, radio, media)>**.

Table 17
External Contacts

Agency	Purpose for Contact	Contact Name/Title	Phone	Alternate Contact Info
Fire				
EMS				
EMA				
Police Department				
Sheriff				
Coroner				
Other such as EP, ERC				
Other Healthcare facilities with MOU's				
EPI (hotline number)				
Surrounding Hospitals				
Sister Facilities				
Ombudsman				

Attachment 1: Mississippi State Department of Health District Public Health Emergency Preparedness Map

<Insert current Mississippi State Department of Health District Public Health Emergency Preparedness Map provided by District Planner>

Public Information

The **<Insert position title (e.g., Public Information Officer)>** will have the responsibility for coordinating media and public information. All media inquiries should be directed to the **<Insert position title (e.g., Public Information Officer)>**. No other staff member should interact directly with the media unless they have approval from the **<Insert position title (e.g., Public Information Officer)>**. It is recommended that staff who may serve in this capacity have Public Information Officer training.

Coordination of Public Information with Response Partners

If several agencies are involved in response, the **<Insert position title (e.g., Public Information Officer)>** will coordinate with them to form a Joint Information Center (JIC). The information that will go out to the community will come from the JIC as a single, consistent, and unified message from all of the affected agencies.

Communication with Patients and Families

Policies and protocols have been established for communication activities prior to and during an emergency. The **<Insert position title>** will communicate updates every **<Insert time interval>** in the **<Insert location>**.

Planning Activities

Facility's plan should include the following communication planning activities the facility is or will be conducting: safety information upon admission of the patient, collaboration with other healthcare facilities and/or community service organizations for patient tracking, and psychological first aid, etc. To ensure communication with patients and their families is consistent and timely during an emergency, this facility has established and will continue to develop family contact lists for patients and working relationships with local, state, and federal partners to ensure patients' safety, physical, and psychological needs are met during a disaster. Facility should ensure that families are aware of and knowledgeable about the facility plan, including: how and when they will be notified about evacuation plans, how they can be helpful in an emergency (e.g., coming to the facility to assist), and how/where they can plan to meet their loved ones. Out-of-town family members should be given a number they can call for information. Residents who are able to participate in their own evacuation should be informed and aware of their roles and responsibilities in the event of a disaster.

Response Activities

<Insert Facility's plan for establishing a family support center>

This facility has pre-designated points for families to meet during an emergency where they will be given updates during the event on the patients and how the incident is being

---

mitigated. At the time of the incident, families will be directed to this location upon arrival at the facility. These locations are subject to change due to the unknown nature of the incident.

Communication with Vendors of Essential Supplies, Services and Equipment

The **<Insert name of facility>** has developed a list of vendors, contractors, and consultants that can provide specific services before, during, and after an emergency event. The **<Insert position title>** is responsible for maintaining the list. This list will be updated periodically but no less than annually. The list includes the name of the vendor and the supplies, services, or equipment provided to the hospital, a phone number, and alternate contact information.

Communication with Other Healthcare Organizations

The <Insert **Facility Liaison>** will be responsible for providing key information to other healthcare organizations. Key information to be shared with other healthcare organizations in the community during a disaster includes:

- Command structures, including names and contact information for the command center

- Essential elements of the hospital's command center

- Resources and assets that can be shared

- Process for the dissemination of the names of patients and the deceased for tracking purposes

Communication with the Long-Term Care Ombudsman Program

Prior to any disaster, discuss the facility's emergency plan with a representative of the Long Term Care Ombudsman Program serving the area where the facility is located and provide a copy of the plan to the Long Term Care Ombudsman Program. When responding to an emergency, notify the local Long Term Care Ombudsman Program of how, when, and where residents will be sheltered, so the program can assign representatives to visit and provide assistance to residents and their families.

Communication about Patients to Third Parties

<Reference Hospital HIPAA Plan/Policy>

Backup Communications Redundancy and Equipment

List backup communications equipment and systems to be used in the event of telephone failure (must include communication plan e.g., radios, runners).

Table 18
Communication Methods

Internal/External	Primary	Alternate	Testing
Internal*	PBX*	Runner*	
Internal*	Phone*	Vocera*	
External*	Telephone*	Satellite Radio, Ham Radio*	

*Examples

Use of Plain Text by Staff in Emergencies

To launch an effective response to an emergency event, it is critical that communications between responding agencies and personnel are clear and understandable. To ensure communication is understood in an emergency, staff will use plain text and avoid the use of acronyms, radio ten codes, and other terminology that may lead to confusion in the midst of emergency response activities.

Table 19
Internal Hospital Emergency Intercom Codes

Code	Emergency/Threat

Attachment 2: Emergency Call Lists

Table 1: Employee Emergency Call Back Roster

Table 2: Patient Physicians Emergency Call Back Roster

Table 3: Volunteers Emergency Call Back Roster

Table 4: Contractors Emergency Call Back Roster

Table 5: Vendor Contact Information

Table 6: Critical Infrastructure Contact Information

Attachment 2: Table 1
Employee Emergency Call Back Roster
<Insert Date> (Indicate Location)

Name	Department	Phone	E-mail Address	Emergency Staffing Role

Attachment 2: Table 2
Patient Physicians Emergency Call Back Roster
<Insert Date> (Indicate Location)

Name	Department	Phone	Alternate Phone	E-mail Address

Attachment 2: Table 3
Volunteers Emergency Call Back Roster
<Insert Date> (Indicate Location)

Name	Department	Phone	E-mail Address	Emergency Staffing Role

Attachment 2: Table 4
Contractors Emergency Call Back Roster
<Insert Date> (Indicate Location)

Company Name	Contact Name	Phone	Alternate Phone	E-mail Address

Attachment 2: Table 5
Vendor Contact Information
<Insert Date> (Indicate Location)

Vendor	Contact	Phone	Supply/Resource	MEAP: Yes or No

Attachment 2: Table 6
Critical Infrastructure Contact Information
<Insert Date> (Indicate Location)

Supply/Resource	Vendor	Contact	Phone	E-mail Address
Electricity				
Employee Assistance Program				
Gas				
Internet				
Mental Health				
Telephone				
Transportation				
VOIP Vendor				
Water				

Annex B: Safety and Security

Internal Security Measures

<Insert Lockdown Plan/Policy including Mutual Aid Agreements/Memoranda of Understanding with external agencies>

- Entrances and Exits (North, East, etc.)
- Reception

Table 20
Internal Security Assignments

Area to Secure	Assigned Staff	Department	Contact Information

Controlling Access

The **<Insert position title>** will be tasked with maintaining external security along with restricted movement of persons in and out of the hospital parking lot and entryways. Security will be coordinated with security officers and/or staff members from **<Insert name of department(s) or available staff from the labor pool>**.

Only families of disaster victims, families picking up discharged patients, physicians and individuals assisting in the treatment of victims will be allowed to enter hospital property. Employees will park in their regular parking spaces and must present hospital ID at designated entrances. Physicians will enter through **<Insert location of designated entry area(s)>** and will be given identifying badges. All others seeking entrance to the hospital shall be directed to **<Insert location of designated entry area(s)>** for directions or other information. Staff from **<Insert name of applicable departments and/or labor pool>** may be used to escort families to appropriate areas as needed.

Controlling Movement within the Facility

Movement of people will be restricted based on consultation with the Hospital Command Center and the exact nature of the emergency. Those individuals with hospital ID badges and temporary identification (volunteers, etc.) will be allowed access throughout the hospital to perform their duties. Any visitors, patients, and family members will be restricted to their units unless treatment is required. If this is the case,

a hospital staff member will escort the patient to their destination. The Incident Commander, in conjunction with the Operations Section Chief and Security Branch Manager, can alter the flow of non-staff traffic as deemed necessary throughout the event.

Controlling Vehicle Traffic

The **<Insert position title>** will assign staff members to control traffic at all unsecured entrances. No one without specific hospital business is to be permitted beyond that point unless requested by someone with such authority. All visitors, families, etc., will be directed to the appropriate area.

The **<Insert position title>** will ensure that a security officer or staff person controls the following areas: **<Insert external areas, entrances and exits that will require security personnel>**. The **<Insert position title>** will monitor traffic patterns and close off any areas deemed necessary in consultation with the Security Branch Director and the Hospital Command Center.

Coordination with Local Law Enforcement Agencies

In the event of an internal or external incident the **<Insert name of local law enforcement agency>** can be called to assist. They will assist with security of the perimeter and manage traffic flow in the event of patient relocation. Any request for additional resources must be coordinated through the **<Insert name of local Emergency Management Agency>**.

Annex C: Strategic National Stockpile

Purpose

The Strategic National Stockpile (SNS) is a federal resource used to provide medicine and medical supplies to protect the public in the event of a public health emergency as a result of an act of terrorism or a large-scale natural or human-caused disaster that is so severe that local and state resources are inadequate or become overwhelmed. If such an event should affect this community, **<Insert name of facility>** may need to utilize SNS resources to treat patients and/or to provide prophylaxis to both patients and facility staff. The purpose of this annex is to outline procedures for coordinating with public health to obtain medications and needed medical supplies from the SNS during a public health emergency.

Definition of Strategic National Stockpile

The SNS consists of antibiotics, chemical antidotes, anti-toxins, life-support medications, IV administration, airway maintenance supplies, and medical/surgical items. Medications and medical supplies are intended to support treatment of ill patients and mass prophylaxis for those exposed but not yet symptomatic. Once local, state, and federal authorities agree that local and state resources have or will soon become overwhelmed, SNS supplies can be delivered to the state. Once the SNS supplies arrive in Mississippi, the Mississippi State Department of Health (MSDH) is responsible for managing the supplies and distributing them to affected communities and facilities across the state. Local governments will play a vital role in providing support to state SNS operations such as the use of facilities, resources, staff, and volunteers to help with the distribution of medications and/or medical supplies to target populations. Healthcare facilities play a major role by treating those who are ill and providing medications to medical staff and their families to prevent them from becoming ill.

Coordination of Planning with Public Health

Planning for the SNS must be coordinated with MSDH.

Planning for mass prophylaxis of hospital staff:

The first step in coordinating this planning is to register with the state by completing the Strategic National Stockpile (SNS) and Pandemic Influenza Programs Provider Enrollment MSDH Form No. 255E. This form will be submitted to the MSDH District Emergency Preparedness Nurse **<Insert the date of submission>.** If not, this form can be obtained on the MSDH website at www.healthyMS.com or from any district health office.

The MSDH coordinates with registered facilities in planning for receiving the SNS. The MSDH will also provide training, including how the treatment algorithms and standing

orders contained in the MSDH SNS Plan (plan is located on the MSDH website at www.healthyMS.com) are to be used by healthcare personnel in the distribution of medications from the SNS. The **<Insert position title>** will work with MSDH to coordinate planning and training of staff for possible SNS activation. The MSDH point of contact for **<Insert name of facility>** SNS planning is the MSDH District Emergency Preparedness Nurse, **<Insert contact phone number>**.

MSDH also requires a coordinating physician be identified from the facility to oversee the dispensing of medications and/or administration of vaccine(s). The physician is not required to be on-site, but staff will be required to work under his or her direction. The Coordinating Physician for **<Insert name of facility>** is **<Insert name of coordinating physician>**.

Planning for receiving assets for treatment of ill patients:

MSDH does not require completion of the Provider Enrollment Form for healthcare facilities to receive SNS assets for the treatment of ill persons.

- MSDH will need case count, epidemiologic, intelligence and inventory information from treatment centers to support strategic decisions.
- MSDH will need contact information for people at the treatment center responsible for providing periodic case counts.

Acquiring the Strategic National Stockpile

If the situation necessitates the need for the SNS, the **<Insert position title>** of the healthcare facility will coordinate with MSDH for the receipt of SNS supplies. To some extent, circumstances will drive the response and dictate how supplies will be received. A representative from the **<Insert name of facility>** might be asked to pick up SNS supplies from a health department point-of-dispensing (POD) site or another drop site in the county/city. If so, the **<Insert name of facility>** will need to provide MSDH with the name of the healthcare representative designated to pick up the medications and/or medical supplies prior to pick up. Upon arrival at the designated location, the representative will be asked to present two forms of identification; one form of identification issued by the **<Insert name of facility>** and one form of photo identification issued by the state (e.g., driver license). The representative will sign for all medications and/or medical supplies received. If there is a discrepancy between the order and what was received, the **<Insert position title>** of the healthcare facility must notify the MSDH Public Health Command/Coordination Center by phone at (601) 576-8085, as instructed in the packet of information received with the shipment.

Two methods for acquiring/receiving SNS assets include:

1) Direct shipment to facility:

   ▪ With over 5,000 regimens of medication
   ▪ Plan for receiving SNS assets to include:
       o Day and night point of contact (in triplicate) who has authority to order and receive materials and sign for controlled substances
       o Identification for receipt of SNS delivery (e.g., building A, rear loading dock, south entrance, etc.)
       o Adequate material handling equipment required to off-load and stage large pallets; if a loading dock is not available, the facility should ensure plans include how to off-load by hand

2) Healthcare representative pick-up from a predetermined health department POD or other drop site in the county/city.

Distribution of Strategic National Stockpile Medications

Distribution of medications and/or administration of vaccinations from the Strategic National Stockpile (SNS) must follow the same algorithms for prophylaxis and standing orders contained in the MSDH SNS Plan or provided by MSDH with the vaccine. These algorithms will be provided to the **<Insert name of facility>** with the SNS supplies received and through MSDH guidance issued to healthcare facilities and medical providers. The **<Insert position title>** providing coordination at the healthcare facility will oversee the distribution of SNS medications to patients. The **<Insert position title>** of the healthcare facility will coordinate the distribution of the SNS medications to staff and their families.

Health information forms provided by MSDH (either hard copy or electronic copy) must be completed to receive medications and/or vaccines from the SNS. These forms must be returned to MSDH within 48 hours for patient tracking. The **<Insert position title>** of the healthcare facility will coordinate the collection of these documents and ensure they are received by MSDH within the proper timeframe.

The **<Insert name of facility>** may not charge patients, staff, and/or their families for medications, vaccines, or any supplies received from the SNS.

A copy of the standing orders, algorithms, and health information forms can be found in the MSDH SNS Plan. The Standing orders and algorithms can be found in Section IV: Clinical Policies and Procedures and the health information forms can be found in Section V: Forms.

Utilization of medications for the treatment of ill persons, although accompanied by medical guidance from MSDH and interim guidance from federal partners, is ultimately up to the attending physician. There are no treatment algorithms. Information about treatment regimen(s) should be captured as part of the healthcare facility's standard Medical Administration Record (MAR), which is standard medical practice, not a stipulation of distribution of the Strategic National Stockpile (SNS).

Healthcare facilities:

- Must have a plan to store SNS assets under appropriate medical and pharmaceutical laws and regulations
- Must have an inventory plan
- Must not charge for SNS assets
- Must have a dispensing plan

A copy of the standing orders, algorithms and health information forms can be found in the [MSDH SNS Plan](#). The standing orders and algorithms can be found in Section IV: Clinical Policies and Procedures, and the health information forms can be found in Section V: Forms.

Requesting the Strategic National Stockpile

The SNS is a federal resource. As with all federal resources, it cannot be requested unless response to the incident is anticipated to exceed local and state resources. If **<Insert name of facility>** encounters a situation where patient demand is anticipated to exceed available resources, the **<Insert position title>** of the healthcare facility should communicate this to **<Insert name of local Emergency Management Agency>**. If local and regional resources are not sufficient to supply the increased demand, the request will be forwarded to the state Emergency Operations Center (EOC) at the Mississippi Emergency Management Agency, which will assess the situation. If indicated by the event, MSDH will request the SNS assets from the Centers for Disease Control and Prevention.

The healthcare facility will need a plan to request resupply of SNS assets. This plan should include:

- Communications plan that staff assigned to request resupply, contact information for the county emergency management office and local and state public health offices, and any additional numbers that would be provided during an incident,

- Provision to MSDH of up-to-date information on case count, epidemiologic intelligence, and inventory information from treatment centers to support strategic decisions,

- Provision to MSDH of number of staff and/or staff family members for whom there has been insufficient distribution of prophylactic regimens, and

- Detailed information for product description and quantities related to specific requests.

Security

Heightened security measures may be needed as a result of the events leading up to activation of SNS plans. Circumstances may lead some individuals to take unlawful measures to try to secure SNS assets for themselves and/or others. Adequate security measures must be in place to ensure SNS assets received by **<Insert name of facility>** are secure and to reduce any unnecessary risk to staff transporting or dispensing the medications. **<Insert name of facility>** will take appropriate measures to coordinate security at the facility.

Include a specific security plan identifying who will provide security. Please note, county and city police may not be able to provide security officers in the case of a community wide event, so an alternate plan is necessary.

Public Information

During SNS activation, MSDH will activate its risk communication plan. Guidance will be communicated to the general public including the nature of the public health threat, where state operated point-of-dispensing (POD) sites will be located and who should go there. In addition, information will be provided regarding symptoms of infection and/or contamination and who should seek medical attention. Any public information messages released to the media from the **<Insert name of facility>** should be consistent with the message issued by the state to avoid confusion and panic in the general public. The **<Insert name of facility>** should coordinate any information released to the public with the local Emergency Management Agency, Emergency Operations Center, and Joint Information Center.

Demobilization

As SNS operations conclude, MSDH will provide specific instructions to healthcare facilities regarding what to do with unused supplies. The **<Insert position title>** of the healthcare facility will coordinate with MSDH in the final disposition of these supplies.

Within a week of demobilization of SNS operations, the **<Insert name of facility>** staff will conduct a debriefing to discuss lessons learned from the incident. The lessons learned identified in the debriefing will be used to update and improve the facility's SNS Annex. The **<Insert position title>** of the healthcare facility will update and revise plans accordingly and cooperate with MSDH in any after-action planning discussions or meetings.

References

Mississippi State Department of Health, Plan for Receiving, Distributing, and Dispensing the Strategic National Stockpile Assets:

www.msdh.state.ms.us/msdhsite/indes.cfm/44,1136,122,154,pdf/SNSPlan2008%2Epdf
*This link may change when the new plan is uploaded.

Centers for Disease Control and Prevention, Strategic National Stockpile website:

www.bt.cdc.gov/stockpile/

SNS Planning Checklist for Hospitals

SNS Planning Checklist for Hospitals
Primary Point of Contact (POC) (24/7) Name and contact information:
Secondary POC (24/7) Name and contact information:
Ship to Address (Do not ship to P.O. Boxes):
Describe the facility's plan to receive shipments after normal work hours (after 8 a.m. to 5 p.m.):
Describe the facility's plan to receive/unload materials if shipped directly to the facility:
Describe the facility's plan if materials must be picked up and transported from a staged location in the county/city:
Describe the facility's plan to store SNS materials at appropriate temperature/storage requirements:

SNS Planning Checklist for Hospitals
If shipments are requested, facilities could be responsible for costs of returning shipments to MSDH. A documentation of understanding that persons cannot be charged or billed for supplies received from SNS (state or federal) must be completed at the time of receiving SNS materials.*
Describe the facility's security plan:
Describe/insert facility's dispensing plan.

The SNS is a voluntary program-please note that at any time, a facility may elect to participate.

Ensure **<Insert name of responsible individual>** documents dispensing activity in the Administration Section in Table 2.

Attachment 1: Closed Point of Distribution Form

<Insert Closed Point of Distribution Form provided by District Planner>

Annex D: Continuity of Operations

Purpose

Whether due to natural forces such as a hurricane, a technological event such as an electrical fire, or an event caused by humans such as an act of terrorism, a disaster can have a serious impact on the organization's ability to provide the healthcare functions that patients and the community depend on. Therefore, it is vitally important to have plans in place to be able to continue to perform mission-essential functions and protect vital information in the event that the organization is faced with a situation that could disrupt operations. Continuity of Operations (COOP) planning addresses three possible types of disruption to an organization:

- Denial of access to a facility (e.g., damage to a building)
- Denial of service due to a reduced workforce (e.g., pandemic influenza)
- Denial of service due to equipment or systems failure (e.g., information technology systems failure)

COOP planning seeks to minimize the potential impact of these events on employees, operations, and facilities.

Phases of Continuity of Operations Planning

There are three phases to the COOP process:

- Normal Operations (mitigation and preparedness)
- COOP Execution (emergency operations period)
- Reconstitution (return to normal operations)

Normal Operations

Normal operations are those periods without a declared state of emergency or the period directly following the conclusion of an event. Mitigation and planning activities can be conducted during normal operations to protect systems and prepare for an emergency affecting information systems.

Mitigation activities are those that eliminate or reduce the possibility of a disaster occurring. For IT systems, this would include measures to protect equipment and critical information such as backup power, firewalls, virus protection, password protection of files, and data redundancy.

Preparedness activities develop the response capabilities that are needed in the event that an emergency occurs. These activities may include developing response procedures for the backup and restoration of data, training personnel in those procedures, conducting system(s) tests, executing regular backups of data, developing

manual interim process to ensure continuous service of essential functions, and conducting exercises with staff to ensure they are capable of implementing response procedures when necessary.

COOP Execution

The COOP execution phase includes the actions that are taken when an emergency occurs. This includes activating emergency procedures and staff to protect or restore information systems and data for essential functions of the **<Insert name of facility>**.

Reconstitution

Recovery focuses on restoring the essential functions to a normal or improved state of affairs. It occurs after the stabilization and recovery of essential functions. Examples of recovery activities might include the restoration of non-vital functions, replacement of damaged equipment and facility repairs.

Continuity Elements

During an emergency, continuing operation of essential functions is imperative. In order to more efficiently continue operation of essential functions, the following continuity elements have been listed:

- Orders of Succession: Located in **Command and Coordination Section**.
- Delegations of Authority: Located in **Command and Coordination Section**.
- Risk Assessments and Hazard Vulnerability Analysis: Located in **Attachment 1 and 2 of this Annex.**

Continuity Facilities

The **<Insert name of facility>** has identified continuity facilities to conduct business and/or provide clinical care to maintain essential functions when the original property, host facility, or contracted arrangement where the facility conducts operations is unavailable for the duration of the continuity event. The table below lists the pre-arranged alternate sites, devolution sites, and telework options.

Table 21
Continuity Facilities

Continuity Facility	Type of Facility	Location of Facility	Accommodations
ABC Hospital*	Alternate/Devolution Site	1234 Medical Center Drive, Niceville, MS	Identified meeting rooms with telephones, internet access, ham radio access, satellite radio access, 2 desktop computers, laptop connectivity
County EOC*	Alternate/Devolution Site	7000 Disaster Way, My Town, Gotham City	Possible meeting room with telephones, internet access, shared ham radio capability, shared satellite phone capability, no desktop computers, laptop connectivity
Home Telework*	Alternate/Devolution Site	Home of Record Facility Leadership	Telephones, internet access, no ham radio, no satellite phone, desktop computers, laptop connectivity

*Examples

Table 22
Alternative Care/Surge Site Locations

Facility Name	Admin Facility	Emergency Care	Acute Care beds available	Low Acuity	Skilled Nursing Care
HCC Headquarters*	St. Joseph's Training Room	N/A	N/A	N/A	N/A
Hospital A*	Contracted Hot site	Deployable Shelter	Sister Facility	Reopen Closed Wards	Affiliated LTC
Hospital B*	No Admin Location	Mobile Trailer	No Acute Care Capability	College Gymnasium	No Long Term Capability
Nursing Home*	Affiliated System	Affiliated System	Affiliated System	Affiliated System	Affiliated System
Dialysis Center*	No Admin Location	Closest ER	Closest Hospital	Closest Hospital	Closest LTC

*Examples

Continuity Communications

The **<Insert name of facility>** maintains a robust and effective communications system to provide connectivity to internal response players, key leadership, and state and federal response and recovery partners. The facility has established communication requirements that address the following factors:

- Facilities possess, operate and maintain, or have dedicated access to communication capabilities at their primary facilities, off-sites and pre-identified alternate care/devolution sites

- Facility leadership and members possess mobile, in-transit communications capabilities to ensure continuation of incident specific communications between leadership and partner emergency response points of contact

- Facilities have signed agreements with other pre-identified alternate care sites to ensure adequate access to communication resources

- Facilities possess interoperable redundant communications that are maintained and operational as soon as possible following a continuity activation, and are readily available for a period of sustained usage for up to 30 days following the event

Table 23
Interoperable Communications Capabilities

Healthcare Facility	Primary Contact	Secondary Contact	700/800 MHZ	Satellite Phone	Ham Radio
Hospital A*	Bob Smith 1-800-000-777 Email:	Jane Johnson 1-555-222-0005	Yes MSWIN Channel 6	8816-763-27031	Joe Thatcher General Class

*Example

Essential Records Management

The **<Insert name of facility >** keeps all essential hardcopy records in a mobile container that can be relocated to alternate sites. In addition, electronic records, plans, and contact lists are maintained by the organization's leadership and can be accessed online and retrieved on system hard drives when applicable and appropriate. Access to

and use of these records and systems enables the performance of essential functions and reconstitution to normal operations.

Delegation of Authority

The **<Insert name of facility >** devolution option requires the transition of roles and responsibilities for performance of facility essential functions through pre-authorized delegations of authority and responsibility. The authorities are delegated from facility leadership to other representatives in order to sustain essential functions for an extended period. The devolution option will be triggered when one or more facility leaders are unable to perform the required duties of the position. The responsibilities of the position will be immediately transferred to designated personnel in the delegation of authority matrix. Personnel delegated to conduct facility activities will do so until termination of devolution option.

Mission Essential Functions

The **<Insert name of facility>** has established the following list as sample essential functions during a continuity of operations activation. The sample essential functions identified are:

- Emergency Services
- Surgical Services
- Laboratory Services
- Health Information Technology
- Patient Care Unit
- Central Supply
- Human Resources
- Obstetrics
- Pharmacy Services
- Public Relations
- Food Services
- Security
- Laundry
- Health Information Management
- Infusion Chemotherapy

Roles and Responsibilities for Information Technology Continuity of Operations

The positions responsible for overseeing Information Technology Continuity of Operations are:

Primary	
Name	
Contact	
Alternate Contact	
Roles and Responsibilities	
Backup 1	
Name	
Contact	
Alternate Contact	
Roles and Responsibilities	
Limitations	
Backup 2	
Name	
Contact	
Alternate Contact	
Roles and Responsibilities	
Limitations	
Backup 3	
Name	
Contact	
Alternate Contact	
Roles and Responsibilities	
Limitations	

Plans and Procedures for Information Technology Continuity of Operations

Describe the organization's plan/procedures for backing up vital data:

Describe how personnel are trained on the plans/procedures for backing up vital data:

Does the organization have an emergency service plan? If so, explain:

Describe how the organization plans to minimize service interruptions as a result of necessary scheduled downtime:

Describe the contingency plans that are in place for managing unscheduled operational interruptions:

Describe how end-users are trained in executing downtime plans/procedures:
Describe how data will be retrieved (whether stored on external hardware, the operating system, or as backed up data) in the event of an operational interruption:
Describe the process by which data will be entered into the system as soon as it is restored following an outage or disruption:

Critical Information Technology, Systems, Equipment, and Databases

The chart below identifies critical information technology (IT) systems, equipment and databases that are used by the organization and describes what function the system serves, where it is located, who manages the IT needs of the system, equipment or database, and what those responsibilities are.

IT Functions	Name of Critical System/Equipment/Database	Location	Managed By	Responsibilities
Communications Systems				
Food/Dining Services				
Heating, Ventilation, and Air Conditioning				
Inventory Management				
Other				
Patient Management				
Security Systems				

Attachment 1: Facility Hazard Vulnerability Analysis

<Insert facility hazard vulnerability analysis provided by District Planner>

Attachment 2: MSDH County Medical Hazard Vulnerability Analysis

<Insert MSDH County Medical Hazard Vulnerability Analysis provided by District Planner>

Annex E: State Medical Asset and Resource Tracking Tool System

Purpose

In a disaster, it is vital that healthcare facilities, local and state emergency management agencies, and public health have a clear understanding of the medical resources that are readily available in the affected and surrounding communities. Such information can make a tremendous impact on how quickly victims of a disaster receive needed medical services. The purpose of this annex is to introduce the State Medical Asset Resource Tracking Tool (SMARTT) System and outline procedures for its use by the **<Insert name of facility>** to meet state requirements in reporting bed and transportation availability, service capabilities, and disaster resources.

Background

The SMARTT System is a web-based tool capable of monitoring hospitals, emergency medical services (EMS) systems, long term care facilities, and dialysis centers on a regular basis. The SMARTT System also serves as a sophisticated communications tool that allows information to be disseminated throughout a state's healthcare system. The SMARTT System is a multi-state system in use in the states of Mississippi, North Carolina, South Carolina, and West Virginia.

Reporting Requirements

As required by state licensure statute, hospitals are required to input information into the SMARTT System daily. Required information includes bed availability, specialty service capabilities and disaster resources. Specialty service capabilities that the system tracks include burn centers, cardiology centers, obstetrics and gynecology (OB/GYN) centers, emergency departments and transport capabilities. Resource capabilities that the system tracks include isolation, decontamination, available personal protective equipment (PPE), surge capacity, and pharmacologic caches that the organization maintains. During a disaster or an exercise, the MSDH may require more frequent and specific reporting.

Monthly compliance reports are sent to the Bureau of Health Facilities Licensure and Certification, which cites the facility for non-compliance and requests a plan of improvement.

Roles and Responsibilities

The **<Insert position title(s)>** will be responsible for the daily entry of required information into the SMARTT System and will be the main contact for the state for the SMARTT System issues. If more frequent reporting is required by the state, such as in a disaster situation or during system testing, the **<Insert position title(s)>** will be responsible for ensuring updates are entered into the system as required.

The **<Insert position title(s)>** will be responsible for ensuring primary personnel and adequate numbers of backup personnel are trained in the use of the system and for updating requirement information in the SMARTT System. All healthcare organizations must have a minimum of three personnel trained in the use of the SMARTT System. Names of staff currently trained and familiar in the use of the SMARTT System include:

Table 24
Roles and Responsibilities

	Name	Position	Department	Contact Information
Shift 1				
Primary				
Backup 1				
Backup 2				
Shift 2				
Primary				
Backup 1				
Backup 2				

Training

Training on the SMARTT System is available online at www.emspic.org. Newly hired staff with responsibilities for entering data into the SMARTT System will be trained on the use of the system within **<Insert number of days>** of hire. All staff will receive semi-annual re-orientation training on the system. The MSDH will train on site if requested.

References and Authorities

General information and training on the use of the SMARTT System: www.emspic.org

Annex F: Mississippi Responder Management System and Volunteer Information

Purpose

The purpose of this annex is to familiarize healthcare staff and administrators with the Mississippi Responder Management System (MRMS) and encourage participation and support of the program. This is not a credentialing program for volunteers.

Background

After the attacks on the World Trade Center and Pentagon building on September 11, 2001, complications arose from the many well-intentioned medical volunteers who traveled to New York and Washington D.C. to provide assistance. Because a system was not in place to quickly credential medical volunteers, many of these individuals were either sent away or assigned menial tasks that did not require a medical license to perform. In response, Congress authorized funding for states to develop Emergency Systems for the Advance Registration of Volunteer Health Professionals.

In Mississippi, MRMS is the online registration system for medical, health, and non-medical responders for the state. It is a secure database of pre-credentialed healthcare professionals and pre-registered non-medical volunteers who are trained to provide a coordinated response to emergencies in support of established public health and emergency response systems. The volunteer registry improves the efficiency of volunteer deployment and utilization by verifying the credentials of volunteer healthcare professionals in advance. Pre-registration and pre-verification of potential volunteers enhances the state's ability to quickly and efficiently dispatch qualified health professionals to assist in emergency response activities.

MRMS Operations

Health professionals and others interested in participating in the program should visit the Mississippi State Department of Health Responder Management System website at https://signupms.org.

On the website, volunteers can register for the program, list contact information, professional licensure information, and indicate where and how they would like to volunteer in the event of a disaster. Licensure information is verified through the appropriate state licensing boards. The information volunteers supply to the website is confidential and will only be made available to government emergency planners if a disaster is declared. In addition, signing up for the program does not in any way obligate members to respond during a particular crisis.

In the event of a disaster or mass casualty event, potential volunteers will be provided with information regarding volunteer opportunities and given the option to accept or decline. Volunteers are expected to maintain current contact information on the

Mississippi Responder Management System. The Mississippi Responder Management System is supported by federal funding from the National Healthcare Preparedness Program.

Benefits to the Volunteer

First and foremost, individuals who volunteer under the Mississippi Responder Management System (MRMS) will have the opportunity to use their experience and training in providing critical services to fellow Mississippians in a disaster situation. Training for members is provided across the state on topics such as Disaster Mental Health, State Medical Needs Shelter Operations, Strategic National Stockpile Operations, Cardiopulmonary Resuscitation, Personal Preparedness, the National Incident Management System and more. Continuing Education Units are available at no cost to many licensed professionals for much of the training offered under the program.

Requesting Volunteers

- If the facility experiences staffing shortages and/or patient surge conditions due to a disaster situation, a representative of the healthcare facility should first submit the request for staffing assistance to the local Emergency Management Agency.

- The request should be specific, indicating the number of staff needed, specific expertise needed, and the estimated number of days the assistance will be required.

- From the local Emergency Management Agency, the request will be channeled to the Mississippi Emergency Management Agency where public health officials will use the MRMS system to generate a list of qualified and credentialed volunteers.

- Those individuals listed will be contacted by the state through the MRMS and provided with the opportunity to volunteer for deployment. The individuals will be provided with information regarding the event (including where to report) and will be given the opportunity to accept or decline service as a volunteer.

- The requesting healthcare facility will be provided with an update from the state regarding the status of the request, including the number of volunteers responding and estimated date and time of arrival.
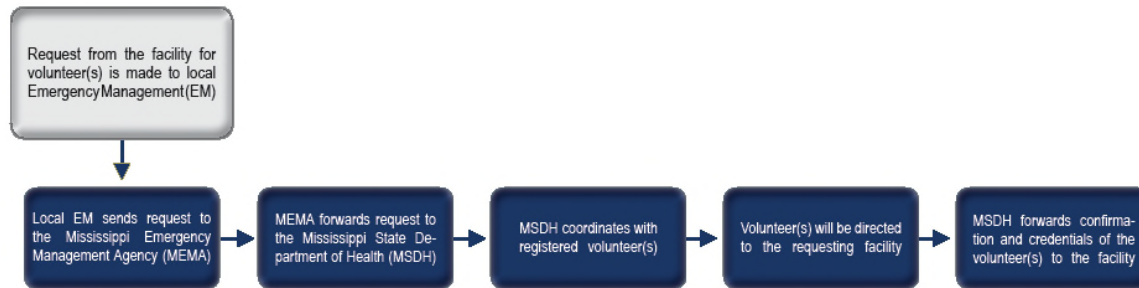
Liability Protections for Volunteers

Volunteer immunity is available for good faith acts associated with volunteer services. However, there is no immunity for acts or omissions that are intentional, willful, wanton, reckless, or grossly negligent (Miss. Code Ann. § 95-9-1).

An unpaid volunteer acting on behalf of MSDH is afforded coverage under the Tort Claims Act. Op.Atty.Gen. No. 2002-0144, Conerly, March 29, 2002.

State/political subdivision employees/agents receive some liability protections during a declared emergency (Miss. Code Ann. § 35-15-21).

References

The Mississippi State Department of Health Responder Management System website:

https://signupms.org

"Emergency Systems for Advance Registration of Volunteer Health Professionals (ESAR-VHP) – Legal and Regulatory Issues", The Center for Law and the Public's Health at Georgetown and Johns Hopkins Universities, 2008

"Hurricane Katrina Response – Legal Protections for VHPs in Alabama, Louisiana and Mississippi", The Center for Law and the Public's Health at Georgetown and Johns Hopkins Universities, 2008

Annex G: Mass Fatality

During an event, a surge in human mortality may occur. This surge may be caused by a natural disaster, disease outbreak or a manmade event. A mass fatality event is defined as an event where there are more fatalities than can be managed by the normal system.

In this type of event, the Incident Commander (IC) should name a Mortuary Unit Leader (MUL). The MUL will be responsible for:

- The collection and protection of deceased patients.
- Coordinate with the Medical Care Branch Director and Staging Manager to establish a morgue area and Family Assistance Center, as needed.
- Ensure all transporting devices are removed from under deceased patients and returned to the transportation area.
- Maintain master list of deceased patients.
- Ensure all deceased patients in morgue areas are covered, tagged, and identified where possible.
- Keep the Public Information Officer and IC informed of the number of deceased.
- Arrange for frequent rest and recovery periods for staff away from the morgue.
- Observe and assist staff members who exhibit signs of stress, fatigue, and inappropriate behavior and provide psychological support.
- Coordinate contact of next of kin.

The facility's morgue is located in **<Insert location>**. The MUL must maintain the facility's current morgue capacity **<Insert capacity number>**. If this capacity is expected to be exceeded, the MUL shall contact the local coroner/medical examiner to assist in obtaining storage space of the additional decedents. This may include the use of local funeral homes, refrigerated trailers, or activation of the state mortuary response team's Mortuary Emergency Response Cooling System units.

Security

Decedents and their personal effects must be secured and safeguarded at all times until the arrival of the county coroner/medical examiner, a mortuary-authorized representative or law enforcement (if evidentiary). Security of decedents and their property will be coordinated by the **<Insert position title>**.

18. Incident Specific Appendices

Appendix A: Active Shooter

Appendix B: Biological Event

Appendix C: Bomb Threat

Appendix D: Chemical Event

Appendix E: Cyber Attack

Appendix F: Earthquake

Appendix G: Explosive Event

Appendix H: Extended Power Outages

Appendix I: Fire

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Appendix L: Hurricanes

Appendix M: Nuclear/Radioactive Event

Appendix N: Pandemic Influenza/Infection Control/Isolation

Appendix O: Severe Weather/Extreme Temperatures/Winter Storms

Appendix P: Surge Capacity

Appendix Q: Wildfire

Appendix A: Active Shooter

An active shooter is an individual actively engaged in killing or attempting to kill people in a confined and/or populated area; in most cases, active shooters use firearms(s) and there is no pattern or method to their selection of victims. Active shooter situations are unpredictable and evolve quickly. Typically, the immediate deployment of law enforcement is required to stop the shooting and mitigate harm to victims. Because active shooter situations are often over within ten to fifteen minutes, before law enforcement arrives on the scene, individuals must be prepared both mentally and physically to deal with an active shooter situation. This annex is designed to minimize the negative impacts and to provide an appropriate response in the event of an incident involving a person with a weapon within the facility.

Include the organizational plan for an active shooter event.

Planning considerations:

- Contact response partners
- Intercom codes
- Facility Lockdown Policy
- Facility "Go Box" (map of facility, keys, etc.)

Links:

http://www.dhs.gov/publication/active-shooter-how-to-respond

http://training.fema.gov/is/courseoverview.aspx?code=IS-907

Appendix B: Biological Event

A biological event is the deliberate release of viruses, bacteria, or other germs (agents) used to cause illness or death in people, animals, or plants. These agents are typically found in nature, but it is possible that they could be changed to increase their ability to cause disease, make them resistant to current medicines, or to increase their ability to be spread into the environment. Biological agents can be spread through the air, through water, or in food.

Terrorists may use biological agents because they can be extremely difficult to detect and do not cause illness for several hours to several days. Some bioterrorism agents, such as the smallpox virus, can be spread from person to person and some, such as anthrax, cannot.

Include the organizational plan for a biological event.

Planning efforts need to be made for these specific biological attacks: Aerosol Anthrax, Plague, Food Contamination, and Foreign Animal Disease.

Planning considerations:

- Contact response partners
- Shut down heating, ventilation, and air conditioning
- Personal Protection Equipment Plan/training
- Infection Control Plan
- Isolation/Quarantine Plan
- Food Safety Plan
- Treatment Plan
- Decontamination procedures
- Negative pressure room
- Closed Point Of Distribution Enrollment form
- Reference Strategic National Stockpile Annex

Links:

http://www.fema.gov/pdf/emergency/nrf/nrf_BiologicalIncidentAnnex.pdf

http://www.ready.gov/sites/default/files/documents/files/biological.pdf

http://www.dhs.gov/topic/biological-security

http://www.cdc.gov/mmwr/preview/mmwrhtml/rr4904a1.htm

MSDH SNS Plan

Appendix C: Bomb Threat

A bomb threat can be delivered as either a written or verbal notification of intent to detonate an explosive or incendiary device with the intent of causing harm to individuals or of causing damage to or the destruction of physical property. Such a device may or may not exist. While a good number of bomb threats are pranks, bomb threats made in connection with other crimes such as extortion, hijacking, and robbery are quite serious.

Include the organizational plan for a bomb threat.

Planning considerations:

- Contact response partners
- Intercom codes
- Bomb Threat Call Checklist
- Facility Lockdown Policy
- Evacuation Decision Maker(s) with contact information
- Evacuation with meeting locations identified
- Search procedures for each department
- Train staff on awareness of suspicious packages

Link:

https://emilms.fema.gov/is906/assets/ocso-bomb_threat_samepage-brochure.pdf

Annex D: Chemical Event

A chemical event is the intentional use of toxic chemicals to inflict mass casualties and mayhem on an unsuspecting civilian population.

Chemical terrorism often refers to the use of military chemical weapons that have been illicitly obtained or manufactured *de novo*. However, a chemical event could also be an accidental release such as the unintentional explosion of an industrial chemical factory, a tanker car, or a transport truck in proximity to a civilian residential community, school, or worksite.

Include the organizational plan for a chemical event.

Planning efforts need to be made for these specific chemical attacks: Blister Agent, Toxic Industrial Chemicals, Nerve Agent, and Chlorine Tank Explosion.

Planning considerations:

- Contact response partners
- Intercom codes
- Shut down heating, ventilation, and air conditioning
- Decontamination procedures

Links:

http://www.mhanet.org/Images/aWebDocuments/PDFs/Emergency%20Prep/CHEM PACK%20Training%202015.2_M1s.pdf

http://www.cdc.gov/mmwr/preview/mmwrhtml/rr4904a1.htm

Annex E: Cyber Attack

Cyber security involves protecting an infrastructure by preventing, detecting, and responding to cyber incidents. Unlike physical threats that prompt immediate action, such as stop, drop, and roll in the event of a fire, cyber threats are often difficult to identify and comprehend. Among these dangers are viruses erasing entire systems, intruders breaking into systems and altering files, intruders using your computer or device to attack others, or intruders stealing confidential information. The spectrum of cyber risks is limitless. Threats, some more serious and sophisticated than others, can have wide-ranging effects on the individual, community, organizational, and national level.

Include the organizational plan for a cyber attack.

Planning considerations:

- Policies and procedures for employee use of your organization's information technologies

- Procedures for securing all computer equipment and servers with specific individual access permissions

- Procedures to report lost items for employees

- Procedures to prevent unauthorized data transfer via USB drives (flash drives or thumb drives) and other portable devices

- Policies and procedures to disable inactive accounts, including those of transferred or terminated employees, after a set time period

- Procedures on how to address potential cyber security vulnerabilities with medical devices

Links:

http://www.ready.gov/cyber-attack

http://www.fema.gov/pdf/government/grant/hsgp/fy09_hsgp_cyber.pdf

http://www.ready.gov/document/common-sense-guide-cyber-security-small-businesses

http://www.phe.gov/Preparedness/planning/cip/Documents/cybersecurity-checklist.pdf

Appendix F: Earthquake

Earthquakes are among the most unpredictable and devastating of natural disasters. An earthquake can be defined as a sudden movement of the earth as the result of the abrupt release of pressure. This release of pressure can result at fault lines where two tectonic plates collide or separate; it can occur as the ground lifts or sinks due to underlying pressures, or pressure can be released in thrust faults or folded rock. An earthquake is also referred to as a "shaking hazard."

Include the organizational plan for an earthquake.

Planning considerations:

- Contact response partners
- Evacuation with meeting locations identified
- Procedures for utility shut down
- Medical surge (if applicable)
- Mass fatality and casualty

Links:

http://www.fema.gov/pdf/plan/prevent/rms/396/fema396_a.pdf

http://www.ready.gov/earthquakes

Appendix G: Explosive Event

An unintentional explosion can result from a gas leak in the presence of an ignition source. These leaks/explosions can occur in building lines, infrastructure pipelines, or transportation. The principal explosive gases are natural gas, methane, propane, and butane, because they are widely used for heating purposes. However, many other gases, like hydrogen and acetylene, are combustible and have caused explosions in the past. Gas explosions can be prevented with the use of intrinsic safety procedures to prevent ignition.

Improvised Explosive Devices, commonly referred to as IEDs, have become common tools of domestic and international terrorists. According to the Agency for Healthcare Research and Quality (AHRQ), due to the public accessibility of explosive materials and bomb-making knowledge, a domestic terrorist attack would probably take the form of a conventional explosive munitions attack. An explosive device may consist of explosives alone or may be combined with biological, chemical, or radiological materials. The AHRQ states that a "lack of knowledge about primary blast injuries and failure to recognize a blast's effect on certain organs can result in additional morbidity and mortality."

Include the organizational plan for an explosive event.

Planning efforts need to be made for these specific explosive attacks: Gas Leak/Explosion, and IEDs.

Planning considerations:

- Contact response partners
- Intercom codes
- Mass fatality and casualty
- Medical surge
- Blast injuries
- Secondary devices
- Shut down heating, ventilation, air conditioning, power, oxygen, and gas to affected area(s)
- Close doors and windows
- Evacuation with meeting locations identified
- Fire extinguishers (types, location, and training)
- Smoke detector locations
- Sprinkler systems
- Disaster Resiliency and National Fire Protection Association (NFPA) Codes and Standards
    - Refer to the NFPA Standards in NFPA 101 Life Safety Code, and NFPA 1600, Disaster/Emergency Management and Business Continuity Programs

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Links:

http://www.dhs.gov/topic/explosives

http://www.ready.gov/explosions

http://m.fema.gov/explosions

https://www.osha.gov/SLTC/etools/hospital/hazards/fire/fire.html

http://www.nfpa.org/safety-information/for-consumers/escape-planning/basic-fire-escape-planning

Appendix H: Extended Power Outages

Extended loss of electrical services can be fatal for a frail and compromised population in a healthcare facility. While the occasional interruption of the electrical utility grid is part of life, steps need to be taken to protect vulnerable patients during times of any loss of power. Utility service can be interrupted by natural disasters, industrial accidents at power generation facilities, or damage to power transmission systems.

Include the organizational plan for extended power outages.

Planning considerations:

- Contact response partners
- Section 10: Utilities and Supplies: A: Power
- External Contacts (Power Company, electrical contractors, etc.)
- Evaluation of patients for hypothermia/hyperthermia

Links:

http://www.phe.gov/Preparedness/planning/cip/Documents/healthcare-energy.pdf

http://www.acphd.org/media/269431/electical%20power%20outage_loss%20response%20plan.ww.pdf

http://www.ready.gov/power-outage

Appendix I: Fire

Fire is a rapid oxidation process that releases energy in varying intensities in the form of heat and often light, and generally creates and releases toxic vapors. Fire does not have to be in immediate proximity to be fatal. The reduced oxygen and production of smoke and fumes can replace breathable air, creating an anaerobic environment that leads to asphyxiation. Not all fires create visible smoke. Inside a building where airflow is restricted, the risk of dying from oxygen starvation is greatly increased.

Include the organizational plan for fire.

Planning considerations:

- Contact response partners
- Intercom codes
- Shut down heating, ventilation, air conditioning, power, oxygen, and gas to affected area(s)
- Close doors and windows
- Evacuation with meeting locations identified
- Fire extinguishers (types, location and training)
- Smoke detector locations
- Sprinkler systems
- Disaster Resiliency and National Fire Protection Association (NFPA) Codes and Standards
  - Refer to the NFPA Standards in NFPA 101 Life Safety Code, and NFPA 1600, Disaster/Emergency Management and Business Continuity Programs

Links:

https://www.osha.gov/SLTC/etools/hospital/hazards/fire/fire.html

http://www.nfpa.org/safety-information/for-consumers/escape-planning/basic-fire-escape-planning

Appendix J: Floods

Floods are one of the most common hazards in the United States. A flood is the inundation of a normally dry area caused by an increased water level in an established watercourse. Flood effects can be local, impacting a neighborhood or community, or very large, affecting entire basins and multiple states. Flooding can also occur along coastal areas as a result of abnormally high tides, storms, and high winds.

Include the organizational plan for floods.

Planning considerations:

- Contact response partners
- Intercom codes
- Internal and external flooding
- Shut down power to affected area(s)
- Evacuation with meeting locations identified
- Monitor weather radio and media outlets

Links:

http://www.ready.gov/floods

https://www.osha.gov/dts/weather/flood/index.html

Appendix K: Hazardous Materials and Decontamination

Hazardous Materials incidents occur when a hazardous substance has been dispersed into the environment in a manner that has the potential to harm people. These emergencies can result from the release of toxic substances in any quantity, the release of large quantities of a substance that is not problematic when used in smaller and controlled amounts, or from the results of combining two otherwise non-hazardous substances. Release can be in vapor, aerosol, liquid, or solid form.

Include the organizational plan for hazardous materials and decontamination.

Planning considerations:

- Contact response partners
- Intercom codes
- Identify sources of hazardous materials/waste
- Decontamination Plan
- Runoff of contaminated water during decontamination
- Identify necessary emergency actions to save lives and protect the staff and the environment
- Evacuation with meeting locations identified
- Identify exposure procedures
- Infection Control Plan

Links:

http://www.ready.gov/hazardous-materials-incidents

https://www.osha.gov/SLTC/hazardouswaste/training/decon.html

Appendix L: Hurricanes

A tropical cyclone, also called a hurricane depending on its location and strength, is a storm system characterized by winds reaching a constant speed of at least 74 miles per hour and possibly exceeding 200 miles per hour. On average, a hurricane's spiral clouds cover an area several hundred miles in diameter. The spirals are heavy cloud bands from which torrential rains fall. Tornado activity may also be generated from these spiral cloud bands. Hurricanes are unique in that the vortex or eye of the storm is deceptively calm and almost free of clouds with very light winds and warm temperatures. Outside the eye, a hurricane's counter-clockwise winds bring destruction and death to coastlands and islands in its erratic path. High winds and heavy rains from hurricanes impact inland regions many miles from the coast.

Include the organizational plan for tropical cyclones.

Planning considerations:

- Contact response partners
- Storm surge zones
- Hurricane evacuation routes
- Evaluation of patients for discharge/transfer
- Evacuation Plan
- Transfer agreements and transportation
- Staffing needs
- Section 7 Resources and Assets
- Section 10 Utilities and Supplies
- Shelter in Place Plan (if applicable)
- Monitor weather radio and media outlets
- Influx of patients
- Reference Severe Weather Plan

Links:

http://www.ready.gov/hurricanes

http://emergency.cdc.gov/disasters/hurricanes/index.asp

http://www.nws.noaa.gov/om/hurricane/index.shtml

Appendix M: Nuclear/Radioactive Event

While nuclear power facilities have multiple mechanical, technological, and procedural redundancies to minimize technological failure and human error, it is prudent to have a plan for dealing with the possibility of a catastrophic failure at a nuclear facility or threat of an act of terrorism. Likewise, radiological events occur without warning and will require rapid responses to decontaminate and treat those who may have been exposed.

Include the organizational plan for nuclear and radiological events.

Planning efforts need to be made for these specific nuclear and radiological events: Radiological Dispersal Device, Nuclear Detonation, and Nuclear Accident.

Planning considerations:

- Contact response partners
- Intercom codes
- Proximity to nuclear facility (plume projections)
- Evacuation with meeting locations identified
- Identify exposure procedures
- Decontamination Plan
- Identify necessary emergency actions to save lives and protect the staff
- Nuclear medicine

Links:

http://www.ready.gov/nuclear-power-plants

http://www.ready.gov/nuclear-blast

http://www.ready.gov/radiological-dispersion-device-rdd

http://www.remm.nlm.gov/

Appendix N: Pandemic Influenza/Infection Control/Isolation

A pandemic is a global disease outbreak. An influenza pandemic occurs when a new influenza virus emerges for which people have little or no immunity and for which there is no vaccine. The disease spreads easily from person to person, causes serious illness, and can sweep across the country and around the world in a very short time. It is expected that such an event could overwhelm local healthcare systems as an increased number of sick individuals seek healthcare services. In addition, the number of healthcare workers available to respond to these increased demands will be reduced by illness rates similar to pandemic influenza attack rates affecting the rest of the population.

Include the organizational plan for pandemic influenza/infection control/isolation.

Planning considerations:

- Contact response partners
- Infection Control Plan
- Isolation Plan
- Immunization Policy
- Preventative measures (e.g., personal protective equipment, hand sanitizer)
- Staff absenteeism due to illness

Links:

http://www.flu.gov/

http://www.ready.gov/pandemic

http://www.cdc.gov/flu/pandemic-resources/index.htm

http://msdh.ms.gov/msdhsite/_static/44,0,122,278.html

MSDH SNS Plan

MSDH List of Reportable Diseases and Conditions PDF

Appendix O: Severe Weather/Extreme Temperatures/Winter Storms

Severe Weather

Severe weather is any atmospheric phenomenon that can cause property damage or physical harm.

Extreme Temperatures

The loss of the heating, ventilation, and air conditioning (HVAC) system in a healthcare facility is a serious technological failure, under certain conditions. During times of extreme weather, such as a frigid cold winter or unusually hot summer, the failure of these systems can create harmful and fatal conditions for patients.

Winter Storms

Snow and accompanying ice can immobilize a region and paralyze a city. Ice can bring down trees and break utility poles, disrupting communications and utility service. It can also immobilize ground and air transportation. The healthcare facility may find itself completely on its own for several days.

Include the organizational plan for severe weather/extreme temperatures/winter storms.

Planning considerations:

- Contact response partners
- Intercom codes
- Section 10: Utilities and Supplies
- Loss of HVAC
- Identify necessary emergency actions to save lives and protect the staff
- Evaluation of patients for hypothermia/hyperthermia
- Monitor weather radio and media outlets
- Severe Weather
    - Hail
    - Intense cloud to ground lightning
    - Torrential rain
    - Strong winds (micro-bursts, straight line winds)
    - Tornadoes
    - Extreme cold and heat
    - Ice and snow

Links:

http://www.ready.gov/severe-weather

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http://www.ready.gov/tornadoes

http://www.ready.gov/heat

http://www.ready.gov/winter-weather

Appendix P: Surge Capacity

Surge capacity is a measurable representation of a healthcare system's ability to manage a sudden or rapidly progressive influx of patients within the currently available resources at a given point in time. Healthcare systems must develop and maintain surge capacity throughout the system in anticipation of the need to care for patients presenting from infectious disease outbreaks, public health emergencies, and mass casualty incidents.

Include the organizational plan for surge capacity including alternate on-site triage and treatment locations.

Planning considerations:

- Contact response partners
- Intercom codes
- Alternate triage options during a mass casualty event
- Variations of casualty events
- Staffing needs
- Equipment and supplies
- Evaluation of patients for discharge/transfer

Links:

http://archive.ahrq.gov/news/ulp/btbriefs/btbrief3.htm

http://www.phe.gov/Preparedness/planning/mscc/handbook/Documents/mscc080626.pdf

Appendix Q: Wildfire

Each year, thousands of acres of land and dozens of structures are destroyed by fires that can start at any time of the year. Wildfires have a variety of causes including arson, lightning, debris burning, and carelessly discarded cigarette butts. Adding to the fire hazard is the growing number of people living in new communities built in areas that were once open land.

Include the organizational plan for wildfire.

Planning considerations:

- Contact response partners
- Intercom codes
- Shut down heating, ventilation, and air conditioning
- Close doors and windows
- Smoke (inhalation, visibility)
- Evacuation with meeting locations identified

Links:

http://www.ready.gov/wildfires

https://www.osha.gov/dts/wildfires/index.html

http://www.readyforwildfire.org/wildfire_action_plan

(FACILITY NAME)

EMERGENCY OPERATIONS PLAN

Version 1.2   **October 10, 2008**

PREFACE

This plan is intended as a model and is not tailored to any specific medical facility. This plan should be reviewed in its entirety and changed to fit the organizational structure and capabilities of each facility. Annexes contained in this model may be adopted in part, edited, deleted, or supplemented at the discretion of the facility. The Job Action Sheets do not reconcile with the actions listed under Departmental Responsibilities. This was done intentionally to provide samples to consider incorporating into the plan. Using this basic format, a facility will be National Incident Management System (NIMS) compliant and will satisfy the statutory requirements for written emergency plans.

This document will be reviewed (*annually*) and revised to reflect improvements identifies in exercises, real life events, and changing guidance.

Reviewed by (initials) _____ Date _____

TABLE OF CONTENTS

PART III

ANNEXES ....

PART I
HOSPITAL INCIDENT COMMAND SYSTEM (HICS)

PURPOSE: This Emergency Operations Plan (EOP) is based on the Hospital Incident Command System (HICS). It is necessary to understand HICS organization, terminology, and concepts to implement this plan. Part I of the EOP offers an overall explanation of HICS and its use, and Part II identifies which staff positions will assume responsibility of the HICS functions during an incident.

Organizational charts are included to define the chain of command, and Job Action Sheets in Annex G describe each position's individual and departmental responsibilities. Many positions in the day-to-day management structure of the facility closely match those of the HICS and will easily transition into the HICS organizational structure. However, many duties will not easily transition, and training should be conducted to ensure all personnel know the roles within the HICS concept. It is highly recommended that formal HICS training be provided to all employees.

HICS is intended to be used by all hospitals, regardless of size or patient care capacities, and to assist with emergency planning and response efforts for all hazards. By embracing the concepts and incident command design outlined in HICS, a hospital is position to be consistent with the National Incident Management System (NIMS) and to participate in a system that promotes greater national standardization in terminology, response concepts, and procedures.

INCIDENT MANAGEMENT TEAM CHARTS: *(Facility Name)* will utilize Chain of Command and Unity of Command to manage emergency operations in response to events affecting the facility and/or surrounding community. (As defined by the NIMS: *Chain of Command* refers to the orderly line of authority within the ranks of the incident management organization. *Unity of Command* means that every individual has a designated supervisor to whom he or she reports at the scene of the incident.)

The HICS organization charts depict the *(Facility Name's)* command functions and represent how authority and responsibility will be distributed within the Incident Management Team.
- Figure 1 illustrates the essential positions needed for a disaster response and recovery.
- Figure 2 is a blank organizational chart of the essential positions for the hospital to complete.
- Figure 3 is the complete HICS organizational chart, if all recommended HICS positions are activated.

HICS is flexible. Only positions or functions that are needed should be activated. HICS allows for positions to be added or deactivated at any time during the lifecycle of the incident. This will promote efficiency and cost effectiveness. The organizational charts may be fully activated for a large, extended disaster. However, full activation may take hours or even days. The majority of incidents will require the activation of far fewer positions.

If a position is not activated, the position above it on the organizational chart will assume responsibility of that function. For example, if the Incident Commander (IC) does not activate a Liaison Officer, the IC will take responsibility of the Liaison Officer's functions. Or, if the Operations Section Chief does not appoint a Staging Manager, the Operations Section Chief will take responsibility of the Staging Manager's functions.

HICS limits the span of control of each manager in the attempt to distribute the work. The recommended span of control is one supervisor to three to seven reporting elements (1:3-7). It is hoped that this will lessen liability and promote the recovery of financial expenditures.

Figure 1: HICS Essential Positions
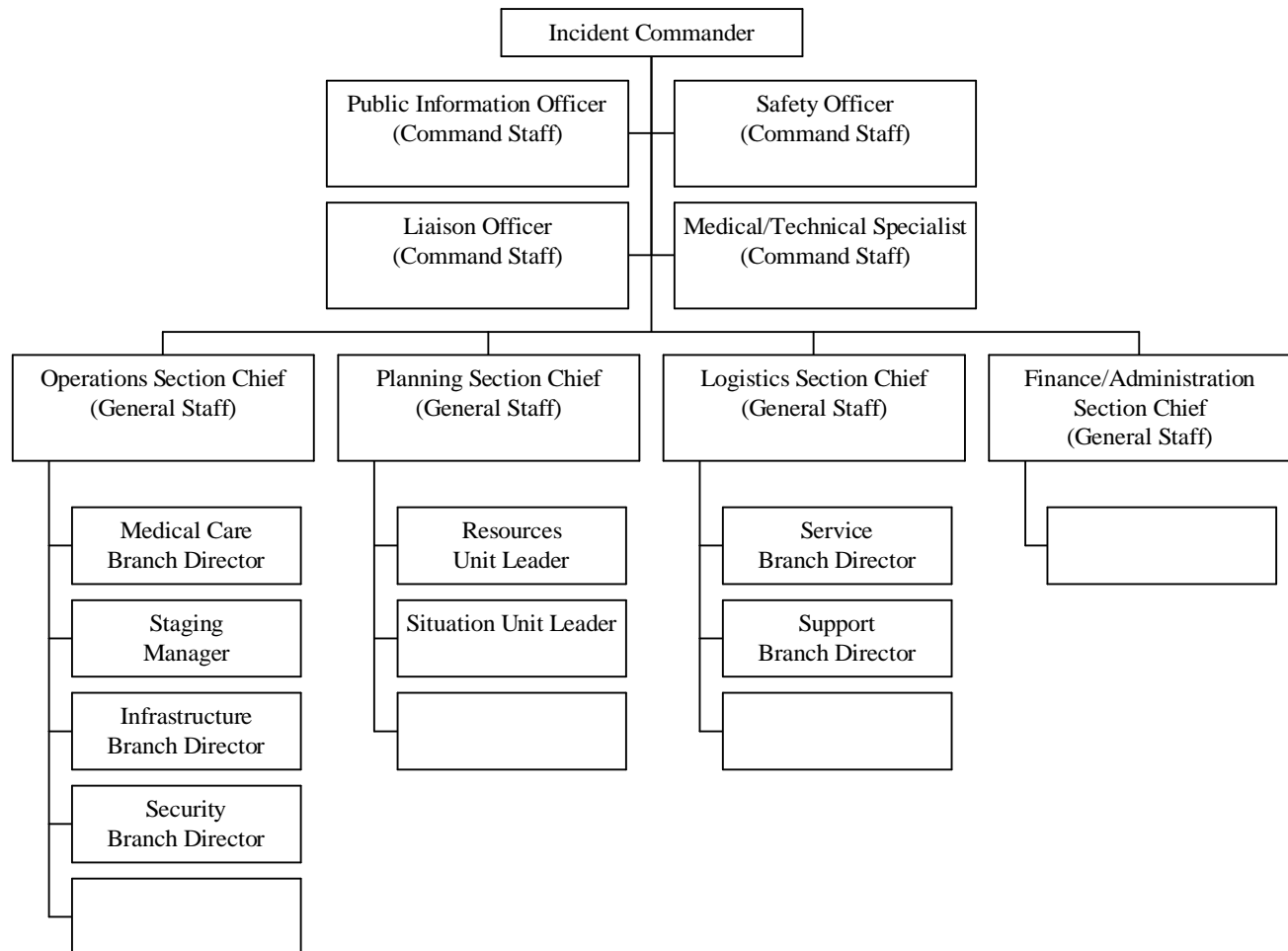
Figure 2: HICS Essential Positions
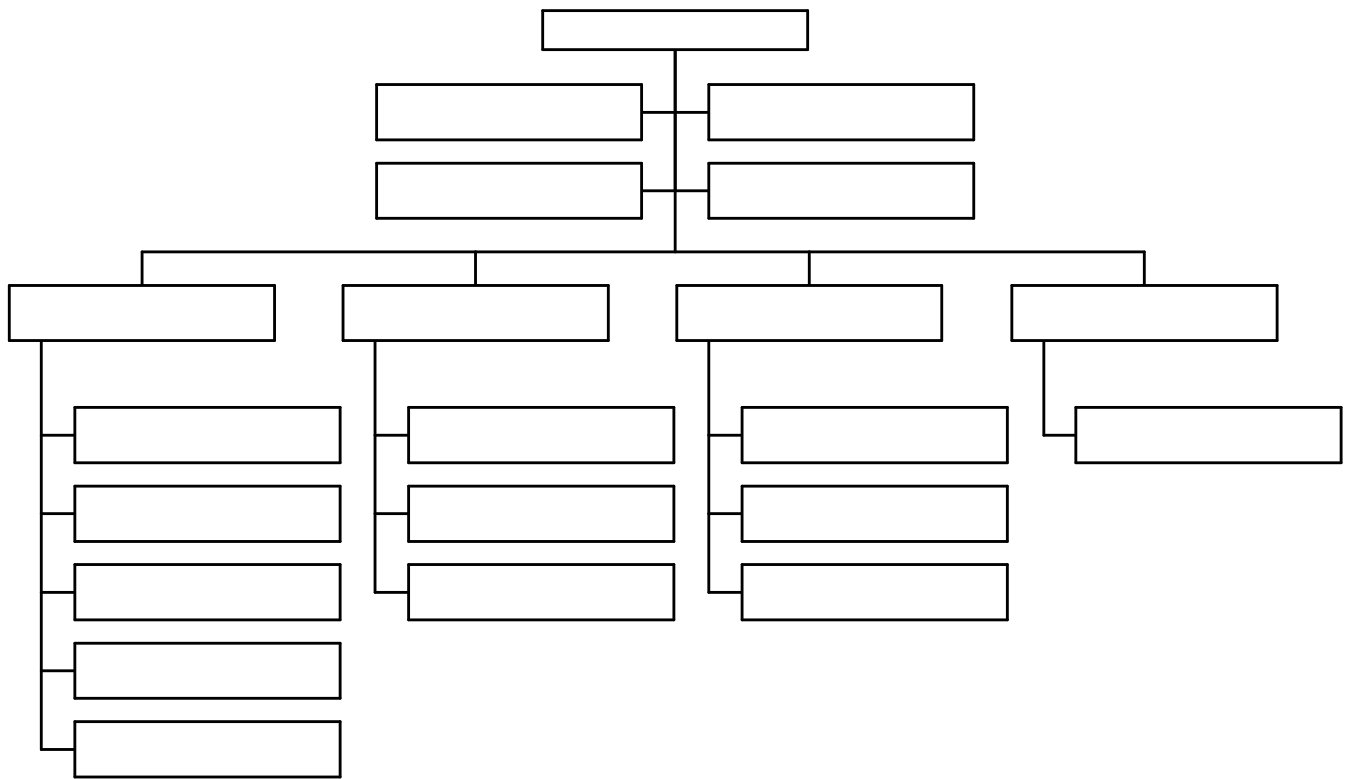
Figure 3: HICS Organizational Chart
Red, outlined boxes are essential positions

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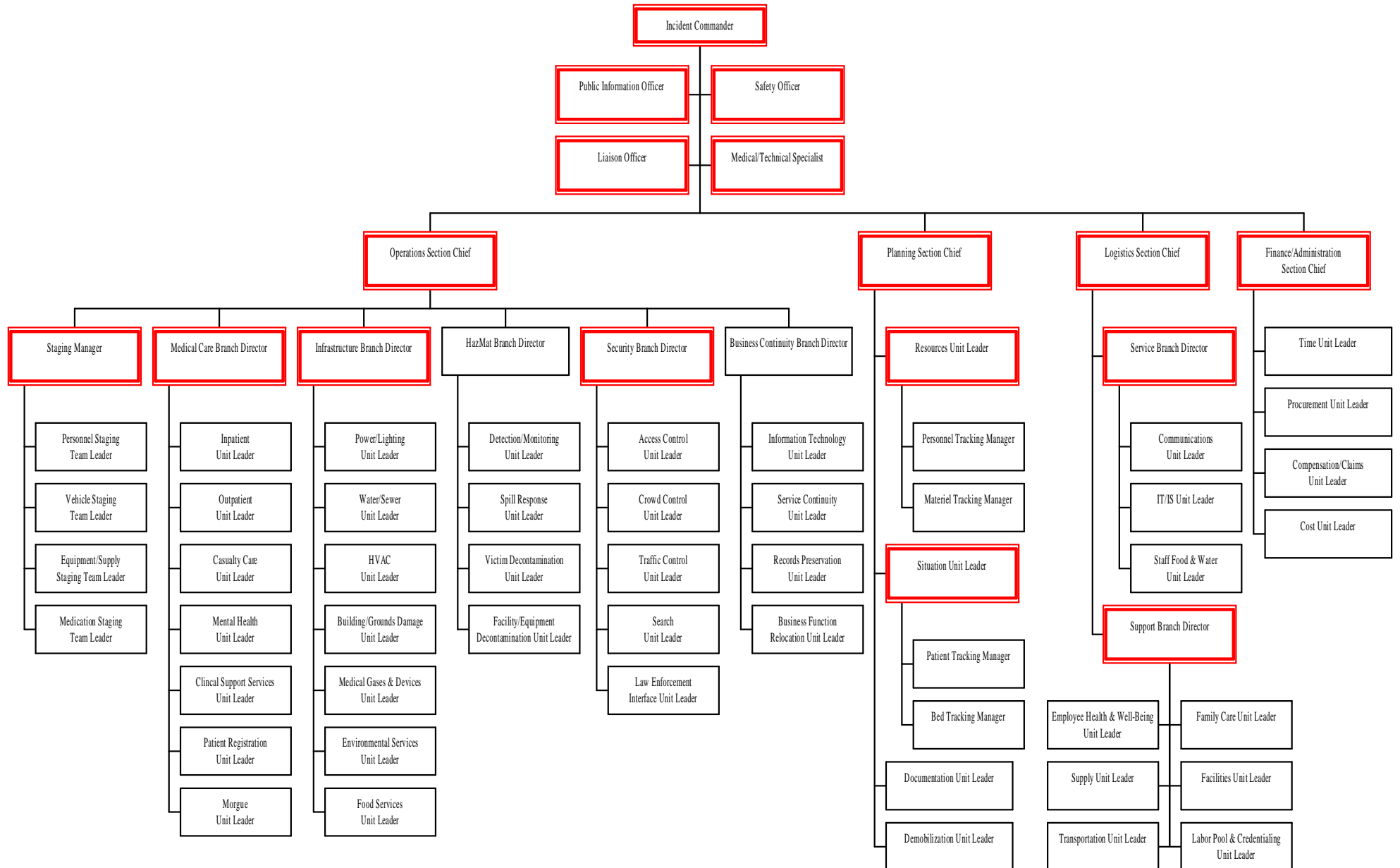
COMMAND STAFF & GENERAL STAFF

The Incident Commander (IC) directs and has responsibility for all activities at the Hospital Command Center (HCC). The *(Facility Name's)* HCC will be located at the _____ during an incident. The IC will appoint Command Staff and General Staff positions, which will operate from the HCC. The Command Staff and General Staff may appoint subordinate positions and Assistants/Deputies, depending on the magnitude of the situation.

Organizational Level	Title	Support Position
Incident Command	Incident Commander	Deputy
Command Staff	Officer	Assistant
General Staff	Section Chief	Deputy
Branch	Director	Deputy
Division/Group	Supervisor	N/A
Unit	Leader	Assistant
Task Force/Strike Team	Leader	Single Resource Boss

COMMAND STAFF: The Incident Commander may appoint Command Staff personnel, including a Public Information Officer, Safety Officer, Liaison Officer, and Medical/Technical Specialist(s). Command Staff members may appoint Assistants who have a level of technical capability, qualification, or responsibility to help the Officer fulfill the position's responsibilities. Position descriptions for the Command Staff positions may be found in the Job Action Sheets (JAS) in Annex G of this EOP. There are no Job Action Sheets for Assistants, who should follow the JAS for their supervisor's position as a guide.

GENERAL STAFF: The Incident Commander may appoint General Staff, including an Operations Section Chief, Planning Section Chief, Logistics Section Chief, and Finance/Administration Section Chief. Section Chiefs may assign qualified personnel to be Deputy Chiefs to help them fulfill the position's responsibilities. Section Chiefs also assign sub-functions to Directors and Unit Leaders, who assign Supervisors and Managers to fill other crucial roles. Position descriptions for the Section Chiefs and all subordinate positions may be found in the Job Action Sheets (JAS) in Annex G of this EOP. There are no a Job Action Sheets for Deputies, who should follow the JAS for their respective Chief's position as a guide. It will be important that qualified Deputy Chiefs be appointed to assist the Section Chiefs and serve in their absence from the HCC when necessary.

As personnel are assigned to the various command positions, they should receive a briefing from their supervisor and their names should be written on the Incident Management Team chart and announced over radio and/or overhead page system. Any changes in positions also will be announced during incident briefings at the HCC.

1. Operations Section: The Operations Section will manage tactical objectives outlined by the Incident Commander. The essential positions of the Operations Section include the Operations Section Chief, Staging Manager, Medical Care Branch Director, Infrastructure Branch Director, and Security Branch Director. Figure 4 represents how authority and responsibility will be distributed in the Operations Section. Position descriptions for the Operations Section may be found in the Job Action Sheets (Annex G).

Figure 4: Operations Section
Red font, double-lined boxes indicate essential positions.
* The Morgue Unit is essential during a Mass Fatality Incident.
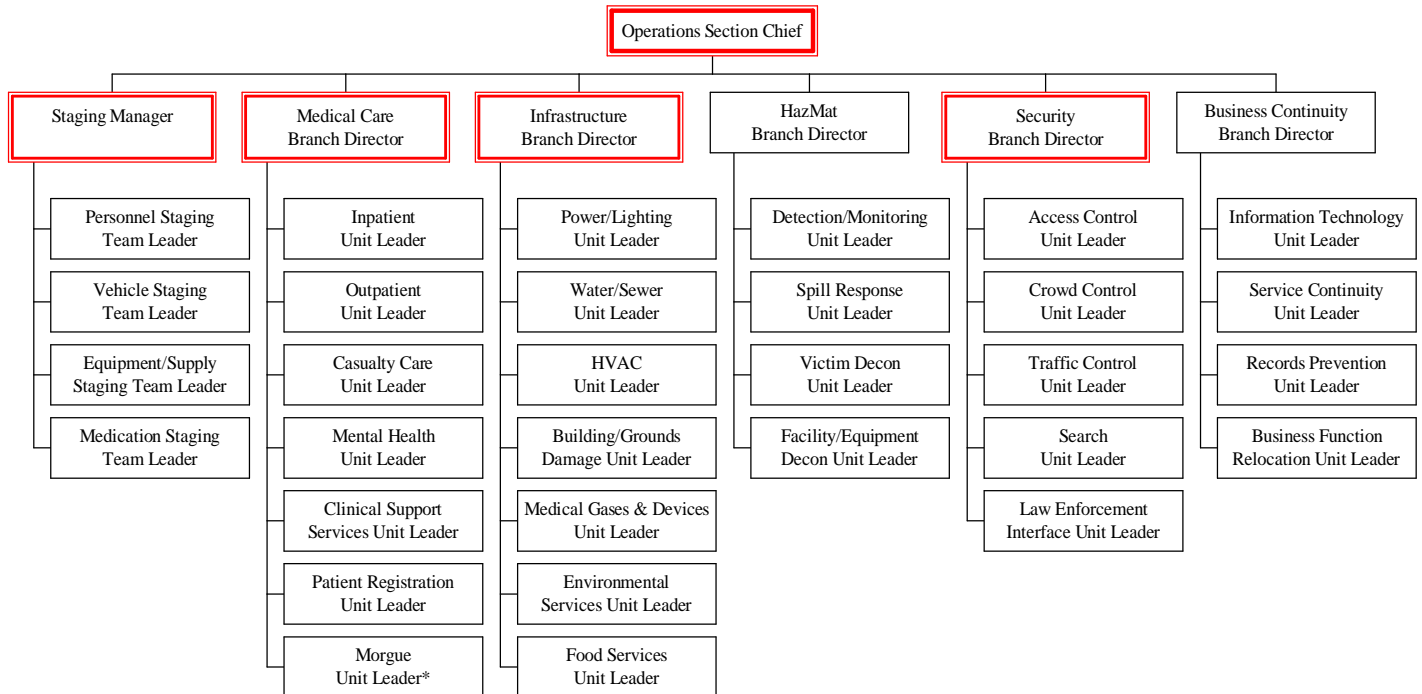
2. Planning Section: The Planning Section will collect, evaluate, and disseminate incident situation information and intelligence to Incident Command. The Planning Section also will prepare status reports and develop the Incident Action Plan (IAP). The essential positions of the Planning Section include the Planning Chief, Resources Unit Leader, and Situation Unit Leader. Figure 5 represents how authority and responsibility will be distributed in the Planning Section. Position descriptions for the Planning Section may be found in the Job Action Sheets (Annex G).

The Planning Section also will coordinate documentation efforts of the incident. More than 20 specific forms have been included in Annex J of this EOP. Each form identifies its purpose, which position is responsible for completing the form, and which positions should receive copies of the completed form. The Planning Section will be responsible for maintaining a file on all incident management information, including all forms submitted at the HCC. When necessary, duplicate copies may be made for security reasons.

Figure 5: Planning Section
Red font, double-lined boxes indicate essential positions.
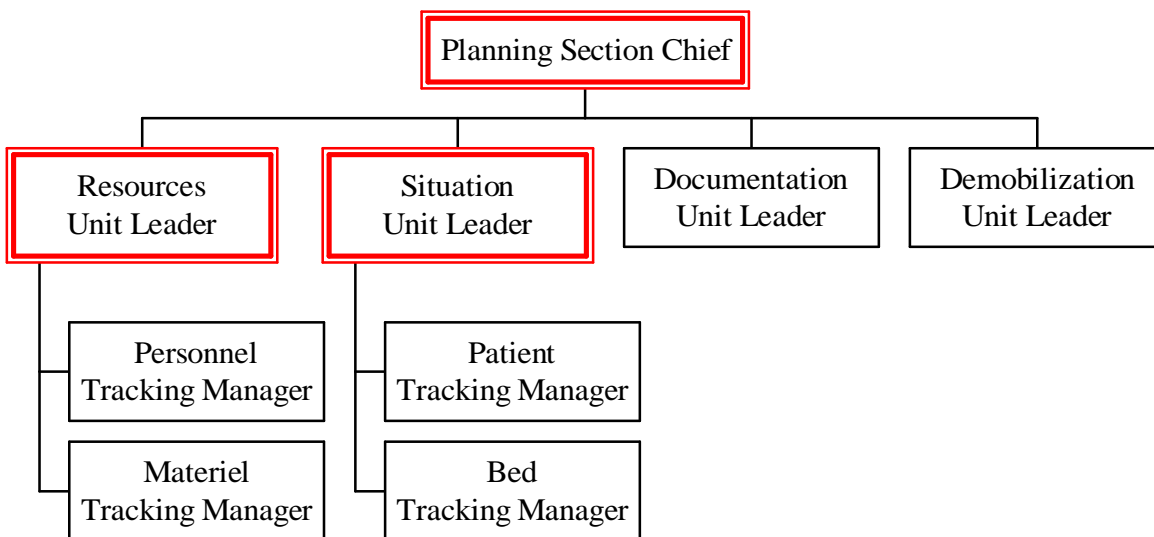
3. Logistics Section: The Logistics Section will coordinate the support requirements of disaster response and recovery, including acquiring resources from internal and external sources. The essential positions of the Logistics Section include the Logistics Chief, Service Branch Director, and Support Branch Director. Figure 6 represents how authority and responsibility will be distributed in the Logistics Section. Position descriptions for the Logistics Section may be found in the Job Action Sheets (Annex G).

Figure 6: Logistics Section
Red font, double-lined boxes indicate essential positions.

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                    ┌─────────────────────────┐
                    │ Logistics Section Chief │
                    └────────────┬────────────┘
           ┌─────────────────────┴─────────────────────┐
    ┌──────────────┐                          ┌──────────────┐
    │   Service    │                          │   Support    │
    │Branch Director│                          │Branch Director│
    └──────┬───────┘                          └──────┬───────┘
           │                                          │
   ┌───────────────────┐              ┌──────────────────────────────┐
   │  Communications   │              │ Employee Health & Well Being │
   │   Unit Leader     │              │        Unit Leader           │
   └───────────────────┘              └──────────────────────────────┘
   ┌───────────────────┐              ┌──────────────────────────────┐
   │      IT/IS        │              │        Family Care           │
   │   Unit Leader     │              │        Unit Leader           │
   └───────────────────┘              └──────────────────────────────┘
   ┌───────────────────┐              ┌──────────────────────────────┐
   │ Staff Food & Water│              │          Supply              │
   │   Unit Leader     │              │        Unit Leader           │
   └───────────────────┘              └──────────────────────────────┘
                                      ┌──────────────────────────────┐
                                      │        Facilities            │
                                      │        Unit Leader           │
                                      └──────────────────────────────┘
                                      ┌──────────────────────────────┐
                                      │      Transportation          │
                                      │        Unit Leader           │
                                      └──────────────────────────────┘
                                      ┌──────────────────────────────┐
                                      │ Labor Pool & Credentialing   │
                                      │        Unit Leader           │
                                      └──────────────────────────────┘
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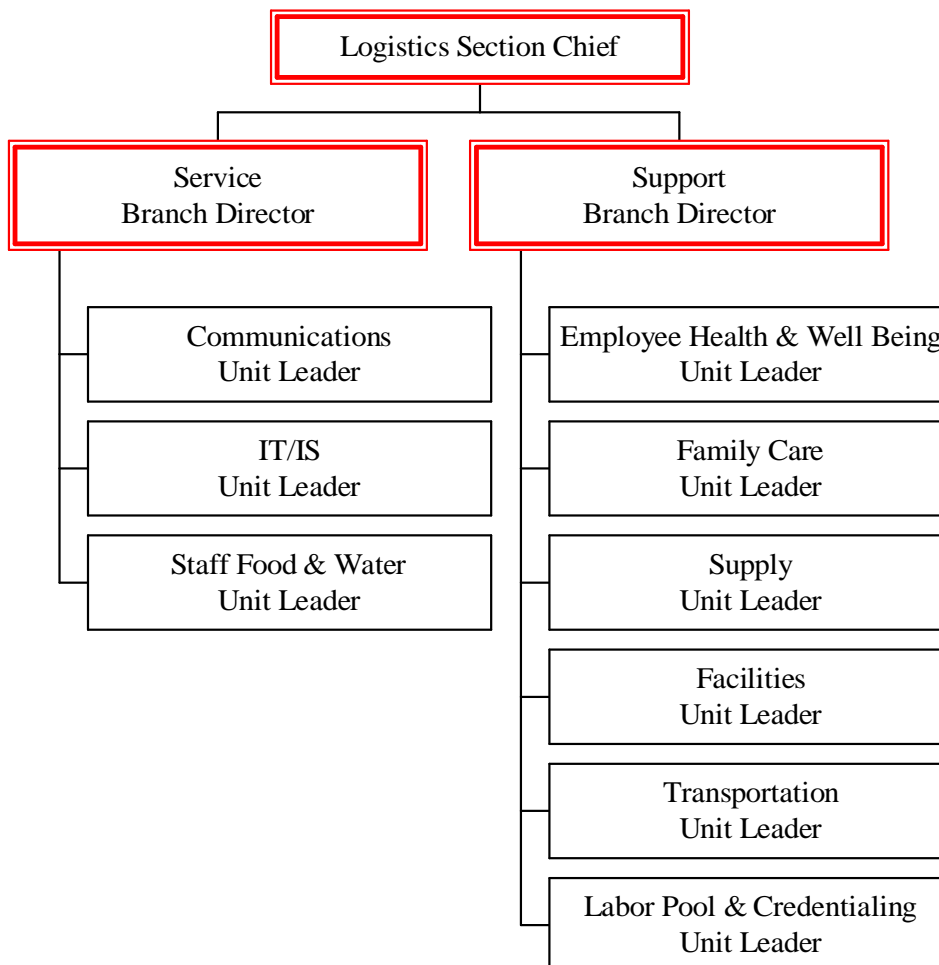
4. Finance/Administration Section: The Finance/Administration Section coordinates tracking personnel time, ordering items, initiating contracts, arranging personnel-related payments and Workers' Compensation, and tracking response and recovery costs and invoice payments. The Finance/Administration Section Chief is the only essential position for the section. Figure 7 represents how authority and responsibility will be distributed in the Finance/Administration Section. Position descriptions for the Finance/Administration Section may be found in the Job Action Sheets (Annex G).

Figure 7: Finance/Administration Section
Red font, double-lined boxes indicate essential positions.

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                    ┌─────────────────────────┐
                    │ Finance/Administration  │
                    │     Section Chief       │
                    └─────────────────────────┘
        ┌──────────────┬──────────┴──────────┬──────────────┐
  ┌───────────┐  ┌───────────┐      ┌──────────────────┐  ┌───────────┐
  │   Time    │  │Procurement│      │Compensation/Claims│  │   Cost    │
  │Unit Leader│  │Unit Leader│      │   Unit Leader    │  │Unit Leader│
  └───────────┘  └───────────┘      └──────────────────┘  └───────────┘
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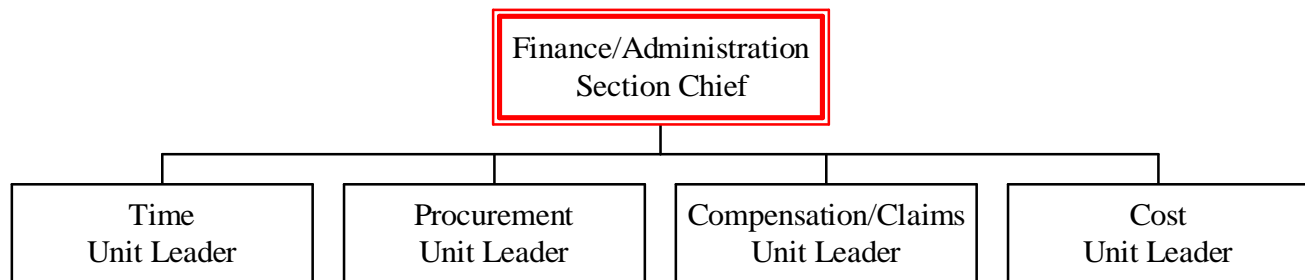
INCIDENT COMMAND STAFF IDENTIFICATION: All personnel assigned to an incident command role will wear an identification vest that correctly communicates his or her role. The color of all vests used by hospital personnel will be white. This color vest was selected so as not to be confused with officers from other agencies working on hospital property, such as fire or police. A colored, light reflective cross should be placed on the front of the vest, and a large colored cross should be placed in the center on the back of the vest. The job title is to be placed on the back of the vest and, if possible, on the front of the vest. The crosses and lettering are to be solid colored with the colors prescribed for each HICS section. The exception is the Incident Commander, who will utilize solid black lettering and a cross that are outlined in ½ to ¾ inch black borders.

Staff Identification Color Designations	
Command Staff	Grey/Black
Operations Section	Red
Finance/Administration Section	Green
Planning Section	Blue
Logistics Section	Yellow

JOB ACTION SHEETS: Each Job Action Sheet (JAS) includes a radio identification title, purpose, supervising officer's name, and critical action considerations. The JAS should be kept with the Incident Command identification (vest) for the position, along with needed administrative items, such as pens and paper. Additional information about the Job Action Sheets is located in Annex G of this EOP.

PART II
THE PLAN

PURPOSE: The goal of this plan is to prepare *(Facility Name)* to respond and recover from internal and external emergencies that affect hospital staff, patients, visitors, and the community. This plan provides a coordinated and organized response to incidents that without proper planning may overwhelm the capabilities of the community health care system.

COORDINATION: *(Facility Name)* has and will continue to cooperate with local, regional, state, and federal agencies in coordinating emergency management efforts. *(Facility Name)* is a participating hospital in the _____ Regional Hospital Group. The Regional Plan provides guidance for sharing supplies, equipment, and personnel in the event a member hospital's resources are exhausted in an emergency. A copy of the Regional Plan is located in the _____.

_____ County Emergency Management (CEM) is responsible for the local county Emergency Operations Plan, the coordinated response of public and private assistance during disasters, damage assessment, and resource coordination following disasters. _____ CEM also acts as the administrative arm of Local Emergency Planning Committee (LEPC). A copy of the *(Facility Name)'s EOP* will be provided to the CEM.

PLAN DEVELOPMENT AND MAINTENANCE: The Facility Administrator/CEO will delegate a person responsible for the content and maintenance of this plan. Responsibilities of this person include:

- Ensure a Hazard Vulnerability Assessment (HVA) is conducted at least every two years to facilitate revision to this plan and associated procedures.
- Ensure the responsibilities and actions contained in this plan are accurate and up to date.
- Ensure this plan is reviewed and exercised annually.
- Coordinate this plan with local government and regional authorities.
- Receive formal ICS/NIMS training.

PLANNING ASSUMPTIONS AND CONSIDERATIONS: An emergency can occur at any time. Emergencies differ in type, size, scope, and duration. The *(county)* area is threatened by many hazards that may cause a significant number of injuries to the local population and disrupt health care services. These hazards include:

- Natural disasters, such as tornados and floods,
- Technological incidents and others, such as hazardous materials incidents.
- Disease outbreaks
- Human-caused hazards, such as acts of terrorism, and

LOGISTICAL SUPPORT: *(Facility Name)* has developed a network of medical facilities and medical supply sources to ensure the ability to obtain needed medical supplies in an emergency. The participating facilities are _____, _____, and _____. Contact numbers can be found in the Resource Directory (Annex F, Attachment 1 of this EOP).

CONCEPT OF OPERATIONS: *(Facility Name)* will utilize Incident Command, Chain of Command, and Unity of Command to manage emergency operations in response to events affecting the facility and/or

surrounding community. (As defined by NIMS: *Chain of Command* refers to the orderly line of authority within the ranks of the incident management organization. *Unity of Command* means that every individual has a designated supervisor to whom he or she reports at the scene of the incident.)

1. PLAN ACTIVATION: *See Part I of this plan for information on HICS organizational structure.* Once the Facility Administrator/CEO has decided to implement emergency operations, the on-duty nursing supervisor will activate the EOP and relevant Annexes/Attachments. Activating the plan may apply to an internal or external emergency, including a partial or full hospital evacuation, patient surge, shelter in place, security incident, or other disaster of any size affecting the hospital.

   The on-duty nursing supervisor will notify the Switchboard that the EOP is on "standby" or "in effect." The switchboard operator will announce on the overhead system that the EOP is on "standby" or is "in effect," unless the emergency has its own activation code word or phrase (such as "Paging Dr. Newborn."):

   "The Emergency Operations Plan is on Standby."
   > This designation will be used when there is knowledge of an emergency or unusual event that may impact the hospital and requires analysis of the situation. Use of "standby" would require activation of an Incident Commander and other essential HICS positions identified in Part I of the EOP for planning and discussion.

   "The Emergency Operations Plan is in Effect."
   > This designation informs all hospital department heads and employees to activate the disaster plan in response to a known or perceived situation impacting the hospital; for example, patients are on the way from a disaster scene.

2. CODE WORDS: Some Annexes/Attachments of this EOP contain code words or phrases that will be announced on the facility's overhead page system to announce specific emergencies. For example, during an infant abduction, there is protocol in Annex B to page "Dr. Newborn." The chart below describes any code words or phrases that will be used and the appropriate Annex/Attachment to follow.

   (Note: The KHA Board of Directors was scheduled to vote on standardizing the emergency code nomenclature at its November meeting. If your facility opts to adopt the standardization, insert the common codes in the table below and amend the Annexes and Attachments are needed.)

Standardization of Emergency Code Nomenclature		
Refer to the Annexes of this EOP for specific response activities for these incidents.		
Code or Event	**Recommended Code Designation**	**EOP Annex**
Hazardous Material Incident	Code Orange	Annex D
Cardiac Arrest	Code Blue	N/A
Fire	Code Red	Annex C, Attachment 2
Security	Code Grey	Annex B
Infant Abduction	Dr. Newborn	Annex B, Attachment 2
Combative Patient	Dr. Strong	Annex B, Attachment 1
(Others)		

HOSPITAL COMMAND CENTER (HCC): The Hospital Commander Center (HCC) will be the location where command of hospital operations takes place during the lifecycle of the disaster, including

response and recovery phases. HCC staff will coordinate the request for needed items through the Local Emergency Operations Center (EOC), if activated. The Incident Commander is responsible for all activities operating at the HCC.

1. The Hospital Command Center will be located at _____.

2. The following positions will operate from the HCC. A telephone will be provided for each member of the HCC staff. The assigned telephone numbers are:

HICS Title	HCC Telephone Extension
Incident Commander	
Public Information Officer	
Safety Officer	
Liaison Officer	
Medical/Technical Specialist	
Operations Section Chief	
Planning Section Chief	
Logistics Section Chief	
Finance/Administration Section Chief	

LINES OF AUTHORITY, ROLES, AND RESPONSIBILITIES

Each department head or designee should develop an emergency contact list for staff 24 hours/7 days a week. (Annex F, Attachment 2 of this EOP). It will be important that each department or unit have ready access to equipment and supplies needed to respond to various internal emergencies, such as loss of power, lighting, and water. Each department head should maintain access to the following:

- Appropriate Job Action Sheets
- Organizational Charts
- Emergency Contact List
- Identification Vests (or other preferred method of identification)
- Radio/Phone
- Appropriate HICS forms
- Other Designated Resources (e.g., phonebook, procedures manual)
- Flashlights and Chemical Light Sticks
- Bottled Water
- RESTROOM CLOSED Signs
- Hand Washing Foam/Disinfectant Wipes
- Evacuation Chairs/Sleds

These items should be assembled into a Go-Kit for the department and stored in a secure location that will be readily accessible in an emergency. Deployment of needed equipment should be effectively managed and replacement needs should be reported to the Logistics Section during an emergency. Once the situation is over, arrangements should be made for the items to be replaced and put back into a ready state.

DEPARTMENTAL RESPONSIBILITES IN EMERGENCY RESPONSE

FACILITY ADMINISTRATOR/CEO: In an emergency, on-duty Administrator will assume the role of Incident Commander.

INCIDENT COMMANDER: The Incident Commander's focus is on the management of the hospital. In order to make informed decisions, a briefing with all Section Chiefs should take place as soon as possible. Information is needed from each section so the IC can issue the general directives concerning the hospital.

1. Initiate the Hospital Incident Command System (HICS) by assuming role of Incident Commander. Refer to the Incident Commander's Job Action Sheet. (Annex G)
2. Assign a Deputy Incident Commander, Command Staff (PIO, Safety Officer, Liaison Officer, and Medical/Technical Specialist), and General Staff (Operations, Planning, Logistics, and Finance/Administration), as needed.
3. Activate the Hospital Command Center (HCC), and coordinate the hospital's emergency response. The IC has command of all hospital personnel and resources during an emergency.
4. Check with local authorities to verify magnitude and scope of the disaster and other additional information.
5. Assign Liaison Officer to Local Emergency Operations Center (EOC), if activated.
6. Authorize announcement of disaster to hospital personnel utilizing the Concept of Operations outlined in the EOP.
7. Request assistance from local law enforcement, fire, and volunteer organizations as necessary.

SECTION CHIEFS (Planning, Logistics, Operations, and Finance/Administration)
1. Section Chiefs are appointed by the Incident Commander.
2. Obtain the Job Action Sheets (Annex G) for the assigned Section Chief positions.
3. Coordinate actions of assigned sections from the HCC.
4. Brief the IC and other Section Chiefs concerning the status/actions of their section.
5. Ensure directors and unit leaders are designated for sub-functions within their sections as needed and staff members have Job Action Sheets for their assigned positions.
6. Ensure you have all the proper HICS forms to be completed by your assigned Section.

DIRECTOR OF NURSING
1. In an emergency, perform Facility Administrator/CEO functions, if the CEO is absent.
2. Assume duties as Operations Section Chief. Obtain the position's Job Action Sheet and all forms required to be completed by the Operations Section.
3. Report to the HCC and receive an initial briefing from the Incident Commander.
4. The Operations Section Chief will brief the Operations Section's Branch Directors at *(Operations Section briefing location.)*
5. Notify all department heads or alternates and the hospital's Communications Center/Switchboard of the emergency.
6. Ensure families of victims are notified as soon as possible. Notification calls may be made by the physician who treats the patient, the Director of Social Services, or the Director of Nursing or his/her designee.

ON-DUTY NURSING SUPERVISOR

1. Determine the extent of the emergency, whether it is a "major" or a "minor" emergency; act as the Administrator and Director of Nursing, if they are absent. The Director of Nursing will notify all department heads or alternates.
2. Assume duties as Medical Care Branch Director. Obtain the Medical Care Branch Director Job Action Sheet and all forms to be completed by the Medical Care Branch.
3. Receive initial briefing from the Operations Section Chief at the *(Operations Section Briefing Location)*.
4. The Medical Care Branch Director will provide briefing to the Unit Leaders within the Medical Care Branch at *(Medical Care Branch Briefing Location)*.
5. Set up the Hospital Command Center (HCC). All department heads will report in to the HCC.
6. Attempt to find adequate numbers of nursing personnel; keep a list of those notified. This task may be assigned to the Resources Unit Leader or another nurse by the Planning Section Chief, but the Director of Nursing must be aware of the number of nurses coming in.
7. Leave phone extension number _____ open for communication with outside county Emergency Operation Center (EOC), if applicable.

DIRECTOR OF ADMINISTRATION
1. The Director of Administration will assume duties as Planning Section Chief. Obtain the position's Job Action Sheet and all forms required to be completed by the Planning Section.
2. Call in department personnel as needed after reporting to HCC to receive initial briefing from the Incident Commander.
3. The Planning Section Chief will hold briefings for the Planning Section's Unit Leaders at the *(Planning Section briefing location.)*

DIRECTOR OF THE CENTRAL BUSINESS OFFICE
1. The Director of the Central Business Office will assume duties as Logistics Section Chief. Obtain the position's Job Action Sheet and all forms required to be completed by the Logistics Section.
2. Call in department personnel as needed after reporting to HCC to receive initial briefing from the Incident Commander.
3. The Logistics Section Chief will hold briefings for the Logistics Section's Branch Directors at the *(Logistics Section briefing location).*

ADMITTING OFFICE
1. Department Head/Designee will assume duties of the Patient Registration Unit Leader. Obtain the position's Job Action Sheet and all forms required to be completed by the Patient Registration Unit.
2. Call in administrative personnel as needed after reporting to the Medical Care Branch Director (Operations Section) to receive a briefing.
3. The Admitting Office is responsible for announcements via Public Address, as directed by the Medical Care Branch Director.
4. Do not accept routine non-emergency admissions, except OBs.
5. Refer all public information calls to Public Information Officer (PIO).

6. Assign an admissions person to aid with discharging hospital patients if requested by Triage/Surge. This function could be tasked as the Outpatient Unit Leader by the Medical Care Branch Director.

MEDICAL RECORDS

1. Department Head/Designee will assume duties of Documentation Unit Leader. Obtain the position's Job Action Sheet and all forms to be completed by hospital staff during the incident.
2. Call in department personnel as needed, after reporting to the Planning Section Chief at the *(Planning Section briefing location.)*
3. Assign person to maintain casualty lists and assist with paperwork as needed at the HCC. This duty could be tasked as the Documentation Unit Leader by the Medical Care Branch Director.

PUBLIC INFORMATION OFFICER (PIO)

1. Obtain the Public Information Officer Job Action Sheet and all forms required to be completed by the PIO.
2. Coordinate information sharing with internal and external stakeholders, including the news media.
3. Call in personnel as needed after reporting to HCC to receive initial briefing from Incident Commander. Additional media relations personnel will serve as Assistants and report to the PIO.
4. The PIO will be attached to the County Joint Information Center (JIC) if an emergency is activated by the County. If a County JIC is not established, the PIO will operate from the HCC. A minimum of 10 phone lines and 10 walkie-talkies should be reserved for use by the PIO and his/her Assistants. Public and media inquires should be directed to those 10 phone lines; hospital staff should not give out the PIO and Assistants' cell phone numbers.
5. The PIO will establish "ground rules" in working with the media as determined necessary by the IC and given the seriousness of the emergency. Only information authorized by the IC may be released by the PIO or his/her Assistants.
6. Establish a Media Staging Area to control movement of news media at the facility and enforce the restrictions of the Media Staging Area. The Media Staging Area should provide the media with a suitable work area, but shall not interfere with emergency operations. Coordinate the location of the Media Staging Area with the incident Staging Manager.
7. Maintain written log of information received and authorized by the IC for release.
8. All news releases will be standardized to ensure consistency and accuracy of information. All written news releases will be initialed and authorized by the IC for release. Legal staff also will review all media releases prior to releasing the information.
9. Each staff member is responsible for directing media personnel to the PIO. The PIO will receive all incoming telephone inquiries from the news media, the public, and patients' families.
10. Coordinate and supervise any media interviews with hospital staff (as authorized by the IC) to ensure the established "ground rules" are followed.
11. If the emergency is extended in duration, coordinate and schedule regular news conferences for frequent release of information.

12. Monitor and minimize any negative publicity about *(Facility Name)*, correct inaccurate news reports, and provide rumor control.
13. After the incident has concluded or entered the recovery phase, prepare a written news release announcing conclusion/recovery phase upon approval of the IC.
14. After the event, monitor departure of all news media representatives from the facility's grounds per IC's instruction.

SUPPLIES & EQUIPMENT
1. Department Head/Designee will assume duties as Resources Unit Leader. Obtain the position's Job Action Sheet and all forms required to be completed by the Resources Unit.
2. Call in department personnel as needed after reporting to the Planning Section Chief at the *(Planning Section briefing location)* to receive a briefing.
3. Assesses needs, and process and distribute supplies and equipment.
4. Maintain a list of all resources for incident operations.
5. Work with the Finance/Administration Section to procure additional supplies and equipment as needed.

COMMUNICATIONS/SWITCHBOARD
1. Department Head/Designee will assume duties as Communications Unit Leader. Obtain the position's Job Action Sheet and all forms required to be completed by the Communications Unit.
2. Call department personnel as needed after reporting to the Service Branch Director for a briefing.
3. Assist with call-back of employees as directed. An updated call-back list will be kept with the on-duty switchboard supervisor.
4. Calls from concerned family members and all media representatives will be referred to the Public Information Officer (PIO).
5. Communications/switchboard will keep a copy of the Resource Directory, listing phone numbers of emergency management agencies, supply and equipment vendors, etc. (See Annex F for Resource Directory).

DIETARY
1. Department Head/Designee will assume duties as Service Branch Director. Obtain the position's Job Action Sheet and all forms required to be completed by the Service Branch.
2. Call in department personnel as needed after reporting to the Logistics Section Chief at the *Logistics Section briefing location*.
3. Prepare to serve nourishments to ambulatory patients, house patients, and personnel as the need arises.
4. Clear the hallways of all tray carts.
5. Utilize the hospital dining room and _____ for additional eating space.
6. Ensure items most needed in an emergency are kept on hand.
7. Set up emergency menus and maintain adequate supplies for the emergency menus.
8. Contact vendors as necessary to ensure supplies on hand are replenished as soon as used.
9. Document events into a Food Service Department Log.
10. In the case of loss of water, all food will be served on disposable service ware.

11. In the case of loss of electricity, Food Service will evaluate the possibility of using an alternate method of cooking. If alternate power is available, the standard menus will be followed.
12. The Food Service Department will maintain the standard house menus with appropriate substitutions unless delivery failure is of such a significant amount that emergency menus are required.
13. All Food Service employees are subject to call-back in the case of an emergency.

MAINTENANCE

1. Department Head and Designee will assume duties as Infrastructure Branch Director and Staging Manager. Obtain the positions' Job Action Sheets and all forms required to be completed by the Infrastructure Branch and Staging Branch.
2. Call in department personnel as needed after reporting to the Operations Section Chief at the *Operations Section briefing location*.
3. Maintain full operation of all facilities.
4. All doors should be locked immediately except employee entrance, Emergency Department door, and front lobby.
5. Set up any needed extra beds, transport store room supplies, and bring in extra supplies from other areas.

HOUSEKEEPING AND LAUNDRY

1. Department Head/Designee will call in personnel as needed after reporting to the Labor Pool (Logistics Section).
2. Assign all personnel to Labor Pool for assignment.

INTENSIVE CARE UNIT

1. The ICU nurse will assume duties as Inpatient Unit Leader and report to the Medical Care Branch Director for a briefing. Obtain the position's Job Action Sheet and all forms required to be completed by the Inpatient Unit.
2. Evaluate patients in the Intensive Care Unit for possible transfer using established discharge criteria as a guide, and transfer patients out if indicated.
3. Prepare to admit more critically ill patients.
4. Call in personnel or request additional personnel from the Labor Pool as needed.

MEDICAL/DIAGNOSTIC IMAGING

1. Department Head will:
   - Assume duties as Clinical Support Services Unit Leader and report to the Medical Care Branch Director for a briefing. Obtain the position's Job Action Sheet and all forms required to be completed by the Clinical Support Services Unit.
   - Determine the number of patients.
   - Call in personnel or request additional personnel from the Labor Pool as needed.
   - Work with Support Branch Director and Finance/Administration Section for extra supplies to be brought in, if needed.
   - Coordinate flow of work and delegation of work areas.

2. Day Shift
   - The Department Head/Designee will determine the number of patients involved and any other pertinent information from the HCC.

- The Department Head/Designee will call in personnel needed to sufficiently handle the patient load.

3. Evening Shift
   - The technician on duty or on call will report to the Medical Care Branch Director further information/direction.
   - Additional personnel may be called in and should report directly to Radiology to check in with the on-duty Department Head/Designee.

LABORATORY
1. Staff will remain in the Laboratory and will not report to the Labor Pool.
2. Department Head/Designee will call in department personnel as needed after reporting to HCC to receive briefing from the Incident Commander.
3. Call personnel from nearby hospitals and clinics as necessary.
4. Work with the Logistics Section and Finance/Administration to obtain additional blood, equipment, and supplies from area agencies.

PHARMACY
1. Department Head/Designee will report to HCC to receive a briefing from the Incident Commander. Staff will remain in the Pharmacy Department and will not report to the Labor Pool.
2. Maintain a list of drug suppliers that can provide emergency supplies quickly (Refer to Annex F: Resource Directory).
3. Keep minimum supply of emergency drugs on hand at all times.
4. Pharmacy should remain open and have a runner to deliver meds.
5. Work with the Finance/Administration Section to coordinate needed purchases.

PHYSICAL THERAPY
1. Department Head/Designee will assume duties as Labor Pool & Credentialing Unit Leader. Obtain the position's Job Action Sheet and all forms required to be completed by the Labor Pool & Credentialing Unit.
2. Call in personnel as needed after reporting to the Logistics Section Chief at the *Logistics Section briefing location*.
3. Coordinate assignments of all staff reporting to the Labor Pool, and maintain a log of those assignments.
4. Work with the Finance/Administration Section on time, compensation/claims, and other personnel-related expenses.

RESPIRATORY THERAPY
1. Department Head/Designee will call in extra personnel as needed after reporting to the HCC to receive a briefing from the Support Branch Director (Logistics Section). Staff will report to the Labor Pool & Credentialing Unit Leader as situation allows.
2. Keep supply of bubblers, cannulas, masks, and flow meters available in Respiratory Therapy Department.
3. Be prepared to request additional respirators and equipment as needed. Work with the Logistics Section to obtain needed equipment.

OCCUPATIONAL THERAPY

1. Department Head/Designee will assume duties as Situation Unit Leader. Obtain the position's Job Action Sheet and all forms required to be completed by the Situation Unit.
2. Call in department personnel as needed after reporting to HCC and receiving briefing from the Planning Section Chief.
3. Assign personnel to Labor Pool as they arrive.

SOCIAL SERVICES/PASTORIAL CARE

1. Department Head/Designee will assume duties the Support Branch Director. Obtain the position's Job Action Sheet and all forms required to be completed by the Support Branch.
2. *Report to and receive initial briefing from the Logistics Section Chief at the Logistics Section briefing area.*
3. Be prepared to counsel victims and/or their families, staff, and other responders.
4. Observe and assist staff members who exhibit signs of stress, fatigue, and inappropriate behavior.
5. Provide HCC staff with a list of the family members who arrive at hospital.
6. Pastoral care will consult with the Medical Care Branch Director and/or Logistics Chief to determine areas of need.

MORGUE

1. The Department Head/Designee will assume duties as the Morgue Unit Leader and report to HCC the Medical Branch Director to receive a briefing. Obtain the position's Job Action Sheet and all forms required to be completed by the Morgue Unit.
2. During a Mass Fatality Incident (MFI), the Morgue Leader or his/her designee will assume the position of Morgue Unit Leader. Morgue personnel will not report to the Labor Pool during an MFI.
3. Collect and protect deceased patients.
4. Coordinate with the Medical Care Branch Director and Staging Manager to establish a morgue area and Family Assistance Center, as needed.
5. Ensure all transporting devices are removed from under deceased patients and returned to the transportation area.
6. Maintain master list of deceased patients.
7. Ensure all deceased patients in morgue areas are covered, tagged, and identified where possible.
8. Keep PIO and IC informed of the number of deceased.
9. Department head will arrange for frequent rest and recovery periods away from the morgue, as well as staff relief.
10. Observe and assist staff members who exhibit signs of stress, fatigue, and inappropriate behavior.
11. Review and approve the area documenter's recording of action/decisions in the morgue area.

HOSPITAL SECURITY

1. The Department Head/Designee will assume the position of Security Branch Director. Obtain the position's Job Action Sheet and all forms required to be completed by the Security Branch.
2. Report to the HCC and receive initial briefing from the Operations Section Chief.
3. Coordinate all activities relating to the safety of personnel, the facility, patients, visitors, and decedents including access control and traffic control.

4. Establish, maintain, and enforce any needed checkpoints or restricted access areas of the hospital.
5. Work with local law enforcement on issues of security outside the facility.
6. See Annex B of this EOP for actions related to specific security issues.

FINANCIAL SERVICES

1. The Chief Financial Officer/Designee will assume the position of Finance/Administration Section Chief. Obtain the position's Job Action Sheet and all forms required by the Finance/Administration Section.
2. Report to the HCC and receive initial briefing from the Incident Commander.
3. Provide briefings to Unit Leaders within the Finance/Administration Section at the *Finance/Administration briefing location*.
4. Maintain accurate records of all emergency/disaster related expenditures.
5. If required, arrange to advance funds to those in need and coordinate recovery of the funds.
6. Prepare claims for potential state and/or federal funding.
7. Analyze the impact of the emergency/disaster on the hospital's budget.
8. Prepare insurance claims on behalf of the hospital.
9. Assist, if required, with insurance claims on behalf of affected residents.

INFORMATION TECHNOLOGY

1. The Department Head /Designee will assume the position of IT/IS Unit Leader. Obtain the position's Job Action Sheet and all forms required to be completed by the IT/IS Unit.
2. Report to the HCC and receive initial briefing from the Logistics Section Chief.
3. Attempt to keep the facility's computerized system operational for information sharing among various areas of the hospital.
4. Assist setting up information technology needs in the HCC.
5. Provide computer hardware, software, and infrastructure to support staff.

OTHER DEPARTMENTS

1. After reporting to your supervisor, check in with the Labor Pool to receive an assignment.

Table 1: This table depicts which HICS duties will be assumed by the hospital staff. This table only depicts the essential positions and a limited number of the sub-functions.

EMERGENCY ASSIGNMENTS	
Essential Positions	
Regular Hospital Duty	**HICS Assigned Position**
On-Duty Administrator	Incident Commander (IC)
Public Information Officer	Public Information Officer
Appointed by IC	Safety Officer
Appointed by IC	Liaison Officer
Appointed by IC	Medical/Technical Specialist(s)
Director of Nursing	Operations Section Chief
Director of Administration	Planning Section Chief
Director of Central Business Office	Logistics Section Chief
Chief Financial Officer	Finance/Administration Section Chief

Maintenance	Staging Manager
On-Duty Nursing Supervisor	Medical Care Branch Director
Maintenance	Infrastructure Branch Director
Director of Security	Security Branch Director
Dietary	Service Branch Director
Social Services/Pastoral Care	Support Branch Director
Supplies & Equipment	Resources Unit Leader
Occupational Therapy	Situation Unit Leader
Non-Essential Positions	
Medical Records	Documentation Unit Leader
Admitting Office	Patient Registration Unit Leader
Admitting Office	Outpatient Unit Leader
Diagnostics/Imaging	Clinical Support Services Unit Leader
Communications/Switchboard	Communications Unit Leader
ICU Nurse	Inpatient Unit Leader
Physical Therapy	Labor Pool & Credentialing Unit Leader
(Others)	

PREPARE
Disaster Plan Template and Guidelines

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PAGE

DISASTER PLAN TEMPLATE AND GUIDELINES

The following document serves as a template to assist your long-term care organization to plan and prepare to meet the needs of both your residents and staff in the event of a disaster/emergency. The Disaster Plan is compliant with current federal guidelines for disaster planning (National Incident Management System). Your state and local emergency preparedness agencies will also be key resources to your organization for guidance and information about local plans to integrate into your Disaster Plan. Your Disaster Plan should be shared with local emergency preparedness and government agencies to assure your local first responders are aware of your plans.

ORGANIZATION INFORMATION

Organization: _____

Address: _____

City: _____ **State:** _____ **Zip code:** _____

Phone Number: (_____)_____ **Fax:** (_____)_____

Owner of LTC Community/Organization

Name: _____

Address: _____

City: _____ **State:** _____ **Zip code:** _____

Phone Number: (_____)_____ **Fax:** (_____)_____

Cell Phone Number: (____)_____

E-mail: _____

Administrator/Executive Director

Name: _____

Address: _____

City: _____ **State:** _____ **Zip code:** _____

Phone Number: (_____)_____ **Fax:** (_____)_____

Cell Phone Number: (____)_____

E-mail: _____

I. INTRODUCTION TO THE PLAN

PURPOSE: To continue providing quality care to residents of ___(name of your community)___ during times of major emergencies and/or disasters or when such events are reasonably believed to be pending by maintaining close coordination and planning links with local emergency response organizations on an ongoing basis.

It will be the responsibility of the highest ranking staff person on duty to declare a situation a disaster and activate the disaster and evacuation policy and procedure.

A disaster may be classified as a fire, tornado, flood, electrical power outage, explosion, bomb threat, hazardous material spills or releases, or any other situation that would warrant evacuation of the community in order to protect the lives and safety of residents and staff.

This disaster/emergency plan is implemented under the following circumstances:

_____

_____

_____

II. FACILITY PREPARATION

Physical Plant Risk Assessment is completed _____ (indicate frequency – quarterly, biannually, annually).

Physical Plant Risk Assessment Schedule:

_____   _____

_____   _____

Physical Plant Risk Assessment includes (develop checklist for these items):

- Clearly marked gas and water shut-off valves with legible instructions how to shut off each
- Available tools to facilitate prompt gas shut-off
- Check gas shut off-valves and generators to insure proper operation
- Evaluate heating, ventilating, and air conditioning function and control options
- Assess ducted and non-ducted return air systems
- Building air tightness
- Preventive maintenance of HVAC system
- Community's evacuation plan in area accessible to the public

Photographs of buildings needed for insurance purposes have been taken on _____ **and are located** _____.

A plan to have Protected Cash on hand is in place (specify plan).

_____

_____

III.   AUTHORITIES AND REFERENCES

Emergency Response Roles

Each role listed in the emergency response Chain of Command has specific duties to perform should the Emergency Preparedness Plan be implemented. Although there are specific personnel that would be best to fill a position, they may not necessarily be on site when a disaster might occur; therefore, each job does not necessarily require a specific person to fill the position.

The following structures parallels the government's Incident Command System (ICS) outlined in the National Response Plan. This clarifies key functional areas that need your attention when responding to emergencies/disasters. Using the ICS conforms to the state Emergency Management System which increases the likelihood of your organization's eligibility for reimbursement of disaster-related costs.

In addition, one person may need to take responsibility for the functions of more than one job until relieved. The main priority is to begin the functions until additional or more qualified personnel are available to fulfill these duties. In the event the emergency occurs on off-shifts or weekends designate which staff will hold key roles until the designated personnel arrive on site.

Additionally, if your organization owns or manages more than one LTC community or CCRC and/or you have a corporate office dedicated to managing more than one community, you must identify responsible personnel for each community.

Insert your Organizational Chart to outline the Chain of Command with lines of authority for functional responsibilities and communication. (Depending on the size of the organization some individuals may have more than one function.)

---

1. **Designated Incident Command Manager and Community Spokesperson** - Manages the overall response and communications with the external community (generally filled by the organization's chief administrator/executive director)

Name:

Phone Number: (_____)_____ **Cell Phone Number:** (_____)_____
E-mail:

2. **Succession Incident Command Manager** - Responsible for Incident Command in the event the initial designee is unable to assume responsibility.

Name:

Phone Number: (_____)_____ **Cell Phone Number:** (_____)_____
E-mail:

3. **Operations Manager** – Directs carrying out of the initial response functions including delegation of other functions (i.e., utility checks, fire suppression, search and rescue, and first aid).

Name:

Phone Number: (_____)_____ **Cell Phone Number:** (_____)_____
E-mail:

---

4. **Logistics Manager –** Acquires resources needed for operations to ensure the safety of residents and staff (i.e., obtains everything operations needs to function to ensure health and safety of residents, staff, and volunteers).

Name: _____

Phone Number: (_____)_____ **Cell Phone Number:** (_____)_____
E-mail: _____

5. **Finance Manager –** Tracks all activities and costs including ensuring there are safe backup copies of the organization's documents including: articles of incorporation, photographs documenting the interior and exterior of buildings, insurance documents, licensing documentation, and current mission statement.

Name: _____

Phone Number: (_____)_____ **Cell Phone Number:** (_____)_____
E-mail: _____

6. **Information/Planning Manager-** Gathers facts and provides information on the status of the disaster/emergency situation. Projects short (i.e. priorities for the next 24 hours) and long term needs for recovery.

Name: _____

Phone Number: (_____)_____ **Cell Phone Number:** (_____)_____
E-mail: _____

7. **Physician First Responder-** Provides and oversees health care provided to residents, staff, and other victims.

Name: _____

Phone Number: (_____)_____ **Cell Phone Number:** (_____)_____
E-mail: _____

8. **Other On-Call Physicians**

_____

_____

9. **Identify other roles appropriate to the organization.**

_____

_____

_____

Job Action Sheets

Job Action Sheets should be developed for all personnel involved in the emergency response. The following is an example. In a skilled care nursing center, the Director of Nursing would be assigned the role of Senior Nursing Officer during an emergency.

JOB ACTION SHEET
Senior Nursing Officer

Position assigned to: **Director of Nursing**

Reports to: **Emergency Incident Commander**

Immediate Responsibilities:

_____ Establishes contact with Emergency Incident Commander.

_____ Reads this entire job action sheet.

_____ Initiates Nursing Disaster plan.

_____ Determines the number of available beds and status.

_____ Assists and facilitates the organization's response to the disaster.

_____ Provides updates to the Emergency Incident Commander.

_____ Evaluates staff for signs of fatigue and stress.

_____ Rotates staff to allow rest.

Extended Responsibilities:

_____ Facilitates special family/patient needs.

_____ Provides an update to the Emergency Incident Commander on status of services.

_____ Returns inventories to appropriate level.

_____ Returns to normal staffing pattern when feasible.

_____ Evaluates staff for signs of delayed stress.

_____ Evaluates departmental emergency response and update plan as needed.

Other Responsibilities as assigned:

_____

_____

Date Revised:

_____

IV.   COMMUNICATION PLAN AND RESOURCES

The Disaster Plan should include a 24-hour, 7-day per week communications network with internal and external components.

Additionally, as traditional communication systems may not function in an emergency or disaster (i.e., telephone lines down or cellular phones not functioning), the LTC community should identify mechanisms for alternate communications as back-up.

Consider use of radios, broad band technology, walkie-talkies, nearest pay phone, and runner messenger system.

Components of Your Alternate Communication Plan:

1. _____

2. _____

3. _____

4, _____

5. _____

Inventory of Emergency Resources

Indicate the location at each building/floor where the following items, in working condition, may be found. As part of regular safety inspections, your LTC community should include checks of these items. Here is an example template you may use and modify for your community.

Emergency Resources - Number Available	Indicate Location	Date of Safety Check			
		1/3/06	4/3/06	7/3/06	10/3/06
Portable radio/extra batteries – 1 radio/4 batteries	5 North supply closet	√			
Portable radio/extra batteries – 1 radio/4 batteries	Nursing office	√			
Emergency first aid supplies – 4 kits	Nursing office	√			
Flashlights and extra batteries – 2 flashlights/4 batteries	Reception desk	√			
Flashlights and extra batteries – 2 flashlights/4 batteries	Dining room	√			
Wrenches and other tools – 1 wrench/1 dual head screwdriver	Reception desk	√			
Fire extinguisher – 2 per floor	Front and back stairwells	√			
Personal protective equipment – 12 gowns, 2 boxes gloves, 2 boxes masks, 12 pairs goggles	Nursing office	√			
Personal protective equipment – 12 gowns, 2 boxes gloves, 2 boxes masks, 12 pairs goggles	5 North supply closet	√			

Emergency Resource Call List

Outline the plan for contacting managers, staff, necessary emergency resources, and outside agencies such as the local public health department, CDC, fire department, and key businesses/resources. Modify the call list based on your LTC community's chain of command. The type of disaster dictates who will be contacted in an emergency. If unsure, always start with the local emergency response system and first responders. **This list should be reviewed and updated at least once a year.**

Contact	Name	Number (indicate at least 2 phone numbers for each contact as applicable)
Local Emergency Response System		911
Internal Contacts:		
Administrator		
Supervisor		
Director of Nursing		
Department Managers/Directors		
Safety Officer		
Infection Control Officer		
Medical Director		
Other Staff (as appropriate)		
External Contacts:		
Fire Department (first responders)		
Police or Sheriff's Department (first responders)		
Local Hospital/Emergency Room		
Local Health Department		
State Health Department		
FBI Field Office		
CDC BT Emergency Hotline		770-488-7100
CDC Hospital Infections Program		404-639-6413
Local FEMA Office		
Local Red Cross Office		
Area Agency on Aging		
Local Electrical Power Provider		Include emergency reporting number and business office number
Local Water Department		Include emergency reporting number and business office number
Local Telephone Company		Include emergency reporting number and business office number
Local Natural/Propane Gas Supplier		Include emergency reporting number and business office number

Other emergency contacts and community resources may be added to the call list including: elevator maintenance company; cleaning company; exterminator; fire alarm system; insurance company; locksmith; plumbing company; snow removal; sprinkler system; water softener distributor; local church; neighboring LTC communities; public health clinic; and other hospitals.

Staff Call Protocol

Outline the protocol for contacting staff in the event that a disaster/emergency necessitates additional staff resources. Ensure that call lists include 24-hour contact information for all key staff including home telephones, pagers, mobile phones, and electronic mail.

A list of telephone numbers of staff for emergency contact is located at _____(location)_____.

During an emergency, _____(name/position)_____ is responsible for contacting staff to report for duty.

The alternate contact is :_____(name/position)_____.

Resident Family Notification

Outline the plan for notifying residents/families of the emergency and the specifics of the plan. Provide a written copy of the plan for residents and families.

During an emergency, _____(name/position)_____ is responsible for notifying residents.

The alternate contact is :_____(name/position)_____.

A list of telephone numbers of resident emergency contacts is located at _____(location)_____.

During an emergency, _____(name/position)_____ is responsible for contacting family members/guardians.

The alternate contact is :_____(name/position)_____.

You may also have a situation where some of your residents could be off site during an emergency or disaster. You should have a procedure in place to know where your residents are and how to contact them when off site. Describe your procedure and how you plan to find out about the condition of residents who may be off site during an emergency/disaster.

_____

_____

_____

_____

_____

_____

Community Resources Call Protocol

Outline the plan for contacting community resources to request their assistance in the emergency.

During an emergency, _____(name/position)_____ is responsible for notifying community resources (i.e., Red Cross, Area Agency on Aging, etc.).

V.   RESPONSE

Department Response

Departments are responsible for developing standard operating procedures to reflect how the department would continue to provide services during a disaster/emergency. These plans should be included in the community's Disaster Plan and kept on file in the specific department. These departments include the following (additional departments may be added by individual communities):

1. Administration
2. Nursing
3. Infection Control
4. Pharmacy
5. Central Supply/Equipment
6. Security
7. Food and Nutrition
8. Environmental Services
9. Social Services
10. Medical Services
11. Engineering/Physical Plant/Maintenance

Pre-Disaster Checklist (for emergencies with advance warning such as hurricanes and floods)

Develop a list of all assignments that must be completed before the emergency strikes. Use the following table as a template for emergency planning in your LTC community. We have provided some areas to consider in emergency planning.

Your LTC community should identify resources and arrangements you have made. In some cases, a written agreement should be obtained to support these arrangements. The first item is provided as an example.

Emergency Planning Checklist	Resources and Arrangement Made	Written Agreement?
What arrangements are in place to obtain additional sources for bottled water?	Local Costco commits 300 24-ounce bottles of water.	Yes – 10/5/05
What arrangements are in place to obtain additional sources for food?		
What arrangements are in place to obtain additional sources for emergency supplies?		
What arrangements are in place to obtain additional sources for medical equipment?		
What immediate medical staff is available?		
What arrangements are in place for prescription delivery services?		
What arrangements are in place on site for separate heating/cooling units for food and medications?		
What arrangements are in place to protect records and documents (i.e., paper and electronic)?		
What arrangements are in place to protect equipment?		
What resources are in place to provide baths, clean clothes, and/or personal care		

at your site?		
What arrangements/training are in place for volunteers to assist with persons with memory disorders, mental/behavioral problems, or to help with activities of daily living?		
What arrangements are in place to accommodate oversized wheelchairs?		
What arrangements are in place for residents with hearing impairments or language barriers?		
What arrangements are in place with hospitals for transfer of patients with less acute health care needs to your site?		
What other special equipment arrangements need to be in place for your site?		

Suppliers

Develop procedures to ensure that food, water, and other supplies including materials for hand washing and sanitizing are available.

At minimum, a three-day supply of medical supplies, food, and water, and medications should be kept on hand in the setting. In the event of an emergency/disaster the following are sources are utilized to procure supplies:

Food/Water

Name of Supplier: _____

Supplier Address: _____

Supplier Phone Number: _____

Alternate Supplier:

Supplier Address: _____

Supplier Phone Number: _____

Medical Equipment/Supplies

Name of Supplier: _____

Supplier Address: _____

Supplier Phone Number: _____

Alternate Supplier: _____

Supplier Address: _____

Supplier Phone Number: _____

Pharmacy

Name of Supplier: _____

Supplier Address: _____

Supplier Phone Number: _____

Alternate Supplier: _____

Supplier Address: _____

Supplier Phone Number: _____

Staff Mobilization Protocol

Outline the plan for staff assignments during the emergency or disaster situation include plan for assigning staff who are on-duty and those who are called to report for duty. Depending on the size of the LTC community, this may include using a labor pool manager.

During a disaster/emergency, _____(name/position)_____ determines if the staff call plan needs to be implemented and implements the call plan based on this decision.

Use of Volunteers

Volunteers from agencies providing mutual aid will be assigned to duties by the Operations Manager.

To support the work of staff in an emergency/disaster, we will use volunteers for the following activities:

1. _____

2. _____

3. _____

4, _____

5. _____

A list of trained volunteers will be developed and updated monthly by: _____(name/position)_____ .

During an emergency, _____(name/position)_____ is responsible for contacting staff to report for duty.

Resident Identification and Information System

_____(name/position)_____ will be responsible for insuring that all residents have a current Emergency Information Profile including a photo which is updated annually. Depending on the level of care, residents will be identified by an arm-band or instructed to keep a photo ID on their person at all times during the emergency. A template on the following page may be used as a sample resident identification profile.

RESIDENT EMERGENCY PROFILE

Resident Name: _____ AKA: _____

DOB: _____ HT: _____ WT: _____ MALE/FEMALE _____

Assistive Devices Used _(circle all that apply):_

Dentures   partial or full

Cane

Walker

Wheelchair

Eyeglasses

Hearing aid

_Oxygen   Indicate concentration: _____

Resident
Current Photo

Emergency Contact Information

Name: _____ Relationship: _____

Address: _____ Phone: _____

Physician

Name: _____

Address: _____ Phone: _____

Pertinent Medical Conditions:

_____

_____

Medications:

Name:	Doseage:	Frequency:
Name:	Doseage:	Frequency:
Name:	Doseage:	Frequency:
Name:	Doseage:	Frequency:
Name:	Doseage:	Frequency:
Name:	Doseage:	Frequency:
Name:	Doseage:	Frequency:

Allergies:_____

Medical Devices: _____

Insurances: _____

Pet: _____   Name: _____   Age: _____

Resident Tracking System

During a disaster/emergency situation a list of all residents and their locations will be developed and updated by: (name/position) and kept at: (location) .

Admission and Discharge Protocols

In the event that the facility needs to discharge residents or accommodate displaced residents, or discharges from hospitals (name/position) will be responsible for reviewing a roster of current residents and developing a list of those that are appropriate for discharge.

Discharge criteria include:

1. _____

2. _____

3. _____

4, _____

5. _____

Transfer Agreements are in place with the following LTC communities and hospitals:

Name of LTC Community: _____

Address: _____

Contact Person: _____

Phone: _____

Name of Hospital: _____

Address: _____

Contact Person: _____

Phone: _____

SAMPLE MUTUAL AID TRANSFER AGREEMENT

"The following long-term care community agree to accept residents from other communities (specify) in the event of a disaster. A disaster is any event, natural, man-made or technological, that the community determines that a partial or full evacuation is necessary.

"This transfer would not exceed the receiving community's total bed capacity on a long-term basis.

"All facilities involved in a transfer during a disaster will be responsible for contacting the Department of Health and Family Services for decisions regarding Medicare/Medicaid reimbursement and any other issue.

"The facilities involved in transferring residents during a disaster will mutually determine the beds available, whether special needs and resident choice can be accommodated.

"All employees of the transferring community will remain employees of the transferring community for the purpose of worker's compensation insurance.

"The receiving community will distribute community policies and procedures and information on emergency plans to employees of the transferring community. The receiving community will assign all employees to work with the transferring community personnel.

"Medical records will be evacuated as discussed in each community's emergency plan.

"The receiving community will be responsible for all resident related costs after 12:00 midnight on the day of evacuation.

"This agreement will renew automatically annually unless prior written 30-day notice is given."

Surge Capacity Plan

Outline a plan for dealing with surge capacity describing methods to increase admission capacity in non-resident care areas and to facilitate rapid transfers and/or discharges.

The following table may be used by your LTC community as a template to identify areas during an emergency/disaster situation where your community may shelter residents from neighboring LTC communities or hospital or care for victims from the emergency site.

For example, in your skilled nursing care areas, could you add additional beds to private rooms or could some rooms being used for storage be converted into care areas (example given below).

Additionally, the location where additional beds/mattresses are stored or where they may be obtained should be indicated in your Disaster Plan.

Bed Capacity in Following Areas (modify below areas based on your LTC community's environment)	Current Staffed Beds (based on your current operational capacity)	Approximate Surge Bed Capacity (estimate maximum number of additional staffed beds created in 12 hours)
Skilled nursing care – 2nd floor	40	10
Skilled nursing care – 3rd floor	25	6
4th floor storage room	0	2

If your LTC community needed to isolate residents due to BT or influenza outbreaks, your Disaster Plan should also identify areas to be used for isolation. In the situation of an influenza outbreak, hospitals may be at overcapacity, and thus may not be able to accept transfers from your LTC community.

Areas/Units that May be Used for Isolation Areas/Units	Current Staffed Beds (based on your current operational capacity)	Uneffected Residents May be Moved to:
Skilled nursing care – 3rd floor	25	Skilled nursing care – 2nd floor Skilled nursing care – 1st floor

If non-resident care areas are used for emergency overflow of victims (i.e., lobby, dining room, activity room) in the event of a declared disaster, access to the following services, supplies, and equipment needs to be considered in your Disaster Plan.

Do overflow areas have ready access to:	Yes	No	Unknown
Beds or cots			
Running water			
Toilets			
Hand washing areas			
Food supplies			
Medical supplies			
Medications			
Telephones			
Radio			

Emergency Power Plan

In the event that power to the facility is disrupted, does your LTC community have access to an emergency generator to provide back-up power?

If an emergency generator is not available one can be obtained from:

Name of Supplier: _____

Supplier Address: _____

Supplier Phone Number: _____

Alternate Supplier: _____

Supplier Address: _____

Supplier Phone Number: _____

Family/Visitor Procedures

Develop strategies to address the needs of families and visitors including a provision of support services such as counseling and information updates in a designated area.

The following area will be designated as the family visitor waiting area: _____

_____(name/position)_____ will be assigned to the role of providing family support during the emergency/disaster.

Procedures for Pets

Residents with pets should specify arrangements for their pets in the event the building is evacuated. The following is a template for a Pet Preparation Form.

PET PREPARATION FORM

I, _____have made the following arrangements for my pet in the event there is a disaster/emergency. I am aware of the fact that some temporary shelters do not allow pets to be housed. Therefore I have made the following arrangements:

Type of Pet: _____**Age of Pet:** _____

Name of Pet: _____

Name of Kennel/Relative/Friend taking responsibility for my pet: _____

_____

Address: _____

Telephone Number: _____

Pet's special Needs: _____

<u>**Family of Staff Procedures**</u>

In the event of a disaster/emergency, staff will be allowed to contact their families as soon as possible following the disaster on the direction of the Incident Command Manager.

Plans should be made to shelter families of staff if necessary. The following area will be designated as the shelter area for families of staff: _____

<u>**Cleaning and Disinfecting Procedures for BT Exposure**</u>

Principles of Standard Precautions should be generally applied for the management of equipment and environmental control in the event of a bioterrorism (BT) event.

- Each LTC community should have in place adequate procedures for the routine care, cleaning, and disinfection of environmental surfaces, beds, bedrails, bedside equipment, and other frequently touched surfaces and equipment, and should ensure that these procedures are being followed.
- Approved germicidal cleaning agents should be available in resident care areas to use for cleaning spills of contaminated material and disinfecting non-critical equipment.
- Used equipment soiled or potentially contaminated with blood, body fluids, secretions, or excretions should be handled in a manner that prevents exposures to skin and mucous membranes, avoids contamination of clothing, and minimizes the likelihood of transfer of microbes to other patients and environments.
- Policies should be in place to ensure that reusable equipment is not used for the care of another resident until it has been appropriately cleaned and reprocessed, and to ensure that single-use resident items are appropriately discarded.
- Sterilization is required for all instruments or equipment that enter normally sterile tissues or through which blood flows.
- Rooms and bedside equipment of residents with BT-related infections should be cleaned using the same procedures that are used for all patients as a component of Standard Precautions, unless the infecting microorganism and the amount of environmental contamination indicates special cleaning. In addition to adequate cleaning, thorough disinfection of bedside equipment and environmental surfaces may be indicated for certain organisms that can survive in the inanimate environment for extended periods of time. The methods and frequency of cleaning and the products used are determined by organizational policy.
- Linen should be handled in accordance with Standard Precautions. Although linen may be contaminated, the risk of disease transmission is negligible if it is handled, transported, and laundered in a manner that avoids transfer of microorganisms to other patients, personnel and environments. Organizational policy and local/state regulations should determine the methods for handling, transporting, and laundering soiled linen.
- Contaminated waste should be sorted and discarded in accordance with federal, state and local regulations.
- Policies for the prevention of occupational injury and exposure to bloodborne pathogens in accordance with Standard Precautions and Universal Precautions should be in place within each LTC community. In the event of a BT attack, hospital-grade germicidal cleaning agents are used for cleaning spills of contaminated material and disinfecting non-critical equipment. The goal of decontamination after a potential exposure to a BT agent is to reduce the extent of external contamination of victims and contain the contamination to prevent further spread.
- Decontamination should only be considered in instances of gross contamination. Decisions regarding the need for decontamination should be made in consultation with state and local health departments.

Exposure of Persons to Chemical or Other BT Agents

- If the agent presents likelihood for re-aerosolization, or a risk associated with cutaneous exposure, clothing of exposed persons may need to be removed. After removal of contaminated clothing, residents should be assisted to shower/bathe with soap and water immediately.
- Potentially harmful practices, such as bathing residents with bleach solutions, are unnecessary and should be avoided. Clean water, saline solution, or commercial ophthalmic solutions should be used for rinsing eyes.
- If indicated, after removal at the decontamination site, resident clothing should be handled only by personnel wearing appropriate personal protective equipment, and placed in an impervious bag to prevent further environmental contamination.

Treatment for BT Exposure

In the event of exposure to BT agents, local and state health departments and the CDC should be contacted for the most current treatment regimen. Until agents can be received from the National Pharmaceutical Stockpile program, pharmaceutical agents will be supplied by:

Name of Supplier: _____

Supplier Address: _____

Supplier Phone Number: _____

Alternate Supplier: _____

Supplier Address: _____

Supplier Phone Number: _____

Post-Mortem Procedures

In the event of disaster-related deaths, arrangement to transport and store bodies have been made with (may include hospital, mortuary, or local health department)

Name of Facility: _____

Facility Address: _____

Facility Phone Number: _____

Alternate Facility: _____

Facility Address: _____

Facility Phone Number: _____

VI.   SECURITY/SAFETY ISSUES

Building Access

Outline a plan to minimize points of egress and access to the building(s).

During an emergency/disaster, the point of access is: _____

All staff will be required to show a staff photo Identification Badge to gain entry to building(s).

*The entry point designated for staff, emergency responders and volunteers is:*_____

Security staff will be provided with a list of designated family members who will be allowed access to building(s) with photo identification.

Security staff will be provided with a list of designated volunteers who will be allowed access to building(s) with photo identification.

Emergency vehicles will have access at: _____

Support agency vehicles will have access at: _____

Delivery vehicles will have access at: _____

The following table may be used as a template to identify staff responsible for safety issues during an emergency/disaster. Modify the table based on your LTC community's safety needs.

Safety Area	Responsibilities	Staff Responsible/Phone
Building Security	▪ Check and turn off gas (if odor detected or damage is evident) and electricity. ▪ Turn off water if pipes are broken or leaking.	
Fire Suppression	▪ Check for and suppress small fires. ▪ Notify fire department.	
Search and Rescue	▪ Ensure everyone has evacuated if required. ▪ Search for trapped or injured persons and seek help from other responders.	
First Aid	▪ Administer first aid to injured persons.	

VII.   EVACUATION

Your LTC organization may wish to individualize the following evacuation procedures to indicate personnel/titles and responsibilities pertinent to your community/setting. At the time of a disaster, it is imperative that the Administrator be contacted in order to give staff proper direction.

This evacuation procedure is written so that there are clear guidelines for providing resident and staff safety in the event of a disaster. It is important to know that each situation is going to be different, and that a situation may not allow for the following procedure to be implemented in this specific order.

1. In the event of an emergency, the shift supervisor shall immediately contact the Administrator, Director of Nursing, and the Maintenance Supervisor.
2. Once the Administrator, Director of Nursing, or Maintenance Supervisor arrives and determines that the situation requires evacuation, the facility call tree shall be put into effect in order to obtain available persons to evacuate the residents to safety.
3. A command center shall be set up in the Administrator's and connecting Business Office to handle and coordinate all internal communications. If this area is in the line of danger a new location will be determined at that time.
4. The Administrator, or Highest Ranking person at the scene, will direct people to areas needing assistance.
5. If temporary placement for residents is needed, the Administrator, or Highest Ranking person at the scene, shall contact the American Red Cross by calling 911 and requesting an emergency shelter through the County Department of Emergency Government Center.
6. If permanent placement for residents is needed, the Administrator and Director of Nursing, or highest ranking person at the scene, will assess which residents need to be hospitalized or transferred to another LTC community.
7. The Administrator, or Highest Ranking person on the scene, shall assign a person to coordinate transportation.
8. Once a shelter is arranged, the residents will be evacuated from the building in an orderly fashion. All department personnel shall report at this time with the supplies they are assigned to gather.
9. Medical Records personnel will be responsible for putting name tags on all residents upon evacuation. They shall also be responsible for ensuring that the residents' medical records are transported with the resident.
10. Nursing personnel will be assigned to specific areas, and are responsible for evacuating those residents and assisting with others when complete.
11. The Charge Nurse shall be responsible for removing the Medications, the Medication Administration Record, Resident Charts and the current Resident Roster to the designated shelter.
12. Dietary personnel will be responsible for gathering food and dietary supplies.
13. Housekeeping and Laundry personnel will be responsible for gathering all linens and supplies for resident care.
14. The Activities personnel shall assist wherever needed.
15. The Administrative Assistant and the Bookkeeper shall gather all departmental employee schedules and the employee call roster, as well as other important business office supplies and records.
16. The Social Worker will be responsible for contacting family members to notify them of the disaster and where residents are being transported.
17. The Day Care personnel shall be responsible for accounting for all children, phone numbers of family members of the children and organizing the children for evacuation.
18. The Apartment Residents will be evacuated the same as the residents in skilled nursing being evacuated. Reminder to nurses to bring the apartment files.
19. The Administrator shall check all rooms before leaving the grounds. A "white tag" will be placed on each door handle to verify that the room is empty to ensure that no residents or staff members are left behind.

Your Disaster Plan should clearly indicate who is responsible for:

Decision to evacuate the facility: (name, position, phone numbers)

Facility evacuation procedures implementation: (name, position, phone numbers)

Notification of transportation/ambulance companies: (name, position, phone numbers)

Notification of sites/shelters receiving residents: (name, position, phone numbers)

Agreements for transporting residents to evacuation sites have been made with the following transportation and ambulance companies (include copies of the written agreements with the plan):

Transportation Company

Name of Company: _____

Company Address: _____

Company Phone Number: _____

Alternate Company: _____

Company Address: _____

Company Phone Number: _____

Ambulance Company

Name of Company: _____

Company Address: _____

Company Phone Number: _____

Alternate Company: _____

Company Address: _____

Company Phone Number: _____

Evacuation Locations (include copies of the written agreements)

Name of Setting/Shelter: _____

Facility Address: _____

Facility Phone Number: _____

Name of Setting/Shelter: _____

Facility Address: _____

Facility Phone Number: _____

Evacuation Logistics

Based on your residents' needs, levels of mobility, cognitive abilities, and health status, your LTC community should develop evacuation logistics as part of your Disaster Plan. The following table is an example of such a logistics plan.

Evacuation Plan

Transportation

- **Residents who are independent in ambulation**: will be accompanied by a designated staff member to the designated mode of transportation.
- **Residents who require assistance with ambulation:** will be accompanied by designated staff member to the designated mode of transportation.
- **Residents who are non-ambulatory:** will be transferred by designated staff members via the designated mode of transportation.
- **Residents with cognitive impairments:** will be accompanied by an assigned staff member via the designated mode of transportation.
- **Residents with equipment/prosthetics:** equipment/prosthetics should accompany residents and should be securely stored in the designated mode of transportation.

Medical Records

At a minimum, each resident will be evacuated with the Resident Emergency Profile.

Medications

Each resident will be evacuated with a minimum of a 3-day supply of medications. If medications require refrigeration, indicate plan to keep medications cool.

Estimated Evacuation Time

Calculate based on the number of residents and estimated time for each based on assistance required.

Resident Tracking

Indicate who is responsible for keeping the log of residents' locations post-evacuation (some situations may require residents going to numerous locations).

Resident Justification

Indicate who is responsible for making a final check and head count of residents to ensure all residents have been evacuated.

Evacuation Routes/Destinations

Attach copies of maps with the primary and secondary routes and destinations.

VIII.   RE-ENTRY

Identify who is responsible for decision for authorizing re-entry to the buildings: _____

_____

IX.   POST- DISASTER RECOVERY

Identify the Designated Recovery Officer (responsible for planning inventory and supply checks, clean-up, physical plant restoration, equipment servicing, etc. post-disaster): _____

_____

Ensuring service continuation is an important post-disaster component of your Disaster Plan. Use the following template to identify key services necessary to re-establish or continue service to your residents.

Post-Disaster Recovery Plans			
Primary Services Needed to Continue	**Critical Material Resources to Maintain These Services**	**Neighboring LTC Communities, Agencies, Businesses Willing to Provide These Resources**	**Key Contact Information**

Post-Disaster Debriefing and Counseling

The impact of a disaster will affect persons in different ways. The stress of the situation and how persons cope in the aftermath is difficult to determine, but the LTC community may take several steps to assure residents and staff that they will be heard.

Counselors, psychologists, and mental health practitioners with experience in disasters may be called upon to assist in post-disaster counseling. Your Disaster Plan should indicate who is responsible for:

Critical incident stress debriefing for residents and staff: _____(name, title, phone number)_____

Post-incident counseling for residents and staff: _____(name, title, phone number)_____

X.   INFORMATION, TRAINING, AND EXERCISE

Indicate where the Disaster Plan will be located for staff reference: _____

Staff training on the specifics of the Disaster Plan including their roles will be required of all staff on annual basis and included in orientation for all new staff. Review of staff training will be conducted for each staff member during their annual performance appraisal.

Emergency Disaster training exercises will be held on an annual basis. The Disaster/Safety Committee will be responsible for planning and critiquing the exercises. After the critique of the exercise, the Disaster Committee will develop a written plan to address noted deficiencies.

Provide all staff an outline for an individual/family emergency plan (see Module 11) and encourage them to complete it.

XI.   PLAN FOR UPDATING THE DISASTER PLAN

This disaster plan will be reviewed and updated every six months by the following staff:

Disaster Plan Review Schedule	
Date	**Responsible Personnel**

Developing Your LTC Community Disaster Plan
Example Policies and Procedures

The following are example policies and procedures that your organization may use as templates for developing your own Disaster Plan. Depending on your geographic area, you will need to identity policies and procedures targeting potential natural disasters in your locale.

Disaster Plan Definitions

Partial Evacuation: Residents are not required to leave the premises. They may be brought to hallways in the event of a severe weather situation. In the event of a controlled/contained fire, residents may only be evacuated to beyond the fire doors to a wing.

Total Evacuation: Residents are taken from the building to area shelters or hospitals.

Internal Disaster: Fire, explosion, flooding, bomb threat, etc. which threatens the safety of persons within the community and necessitates setting the evacuation plan in order.

External Disaster: Tornado, flood, disbursement of dangerous airborne particles or poisonous gases which threaten the safety of persons within the community and necessitates setting the evacuation plan in order.

Triage: The screening and classification of sick or injured persons during a disaster to determine priority needs for efficient use of medical manpower, equipment, and facilities and to determine the priority of treatment.

FIRE POLICY AND PROCEDURE

POLICY: The primary purpose of the Fire Policy and Procedure is to provide a course of action for all personnel to follow in the event of a fire.

PROCEDURE:

R - Rescue anyone in immediate danger.

A - Alert other staff members of the fire and location over the intercom system. Pull the nearest fire **alarm**. The Person in Charge shall contact the fire department by calling 911.

C - Contain the fire. Close all doors and windows adjacent to the fire. Close all fire doors. Shut off all fans, ventilators and air conditioners, as these will feed the fire and spread smoke throughout the building.

E - Extinguish if the fire is small. The extinguisher should be aimed low at the base of the fire, and move slowly upward with a sweeping motion.

- Never aim high at the middle or top of the flames as this will cause the fire to spread.
- If you cannot extinguish the fire, **evacuate** the building immediately.

Special Note: The most common cause of death in a fire is smoke, and not the flames. Keep low to the floor and avoid inhaling too much smoke.
Person In Charge:

1. Call the fire department at 9-1-1. Give exact location of the fire and its extent.
2. Call the Administrator.
3. Assist with residents if evacuation is necessary.
4. Assign a staff member to meet the fire department in order to direct them to the fire. Assign a staff member to keep a roster of residents if evacuation is necessary. Assign a staff member to answer the telephone and relay messages and instructions.

Nursing, Dietary, and Housekeeping/Laundry Personnel:

1. Remove residents from immediate danger.
2. Close all doors and windows.
3. Turn off fans, ventilators, air conditioners, and other equipment.
4. Stay close to residents to provide reassurance and provide comfort measures.
5. Make sure fire exits are clear.

Maintenance Personnel:

1. Go directly to scene of fire, taking extra fire extinguishers.
2. Check to be sure that all ventilating or blower equipment is shut off.
3. Once fire is over, care for all fire extinguishers.

Administrator:

1. Call the fire department if not already done.
2. Coordinate staff movement for highest efficiency.
3. Assist with resident movement in coordination with supervisor/charge nurse.
4. Delegate responsibility for the movement of records as deemed necessary.
5. Check with department heads in the event of evacuation to determine that all staff and residents are out of the building.

SKILLED NURSING CARE EVACUATION PROCEDURE

Depending on the location of the fire, residents may be evacuated to another portion of the building, rather than total community evacuation. However, in the event that a partial or complete evacuation of the building becomes necessary, the following procedure shall be followed:

1. The shift supervisor/charge nurse shall immediately contact the Administrator, Maintenance Director, and Director of Nursing, if they are not yet present.
2. Once the Administrator, Director of Nursing, or Maintenance Director arrives and determines that the situation requires evacuation, the call tree shall be put into effect in order to obtain available persons to evacuate the residents to safety.

   - Administrator contacts: Medical Records and Business Office personnel
   - Director of Nursing contacts: Social Worker and Activity Director
   - Maintenance Director contacts: Housekeeping/Laundry Supervisor and Dietary Manager

Once Business Office and Medical Records personnel arrive, they shall contact department managers and other off-duty personnel to come and assist with the evacuation.

3. A command center shall be established per the Administrator's direction. This should be in a convenient location out of the line of danger.

   - The Administrator, or highest ranking person at scene, shall become the "Incident Command Manager" in order to direct people to areas needing assistance.

4. Alternate placement for residents must be arranged. the Administrator, or highest ranking person at scene, shall designate someone to coordinate a shelter.

   - This can be arranged by calling 9-1-1 and requesting a shelter or contacting other LTC communities or organizations who have established mutual aid agreements.

5. Residents should be evacuated in this order: residents in immediate danger, nonambulatory or bedridden residents, wheelchair residents, and ambulatory residents.
6. The Administrator, or highest ranking person on scene, shall assign a second person to coordinate transportation.
7. Once a shelter is arranged, the Incident Command Manager shall designate a meeting spot outside of the building. Residents shall be evacuated from the building in an orderly fashion.

   - All departmental personnel shall report to the designated location with the supplies they are assigned to gather.

8. Medical Records personnel shall be responsible for tagging and identifying all residents upon evacuation. They shall also be responsible for ensuring that the residents' medical records are transported with the resident.
9. Nursing personnel will be responsible for caring for residents. The Charge Nurse shall be responsible for taking the Med Cart to the meeting spot.
10. Housekeeping and Laundry personnel will be responsible for gathering all linens and supplies needed for resident care. If possible, attempts should be made to gather resident clothing also.
11. Dietary personnel will be responsible for gathering food and dietary supplies.
12. The Social Worker will be responsible for contacting family members to notify them of the disaster and where residents are being transported.

    - The Social Worker may also have to reassure and supervise family members and on-lookers that may arrive on the scene.

13. The Activities personnel shall be assist wherever needed. The Activities personnel shall also be responsible for the community pets.
14. The Business Office Manager shall gather all departmental employee schedules and the employee roster, as well as other pertinent business office supplies and records.
15. The Administrator, or designated person, shall check all rooms before leaving the grounds. An "X" should be marked on each door to verify that the room is empty.

    - All available staff members shall assist with a last walk through of the building to ensure that no residents or staff members are left behind.

16. Once everyone has been evacuated and all supplies gathered, boarding of residents and supplies for relocation shall begin in an orderly fashion.
17. The Social Worker shall be responsible for keeping an official roster with names of residents, staff, board members, and volunteers present at the time of disaster and during the evacuation. Information to be recorded shall include:

    - name of resident and next of kin/responsible party
    - shelter transferred to and person accompanying resident
    - medications, med sheet, and chart sent with resident to location of transfer.

APARTMENT EVACUATION PROCEDURE

PURPOSE: To evacuate all apartment residents to safety in the event of a disaster.

PROCEDURE: In the event it becomes necessary to evacuate the entire building, or part of a building, the following procedure will be followed:

1. The Administrator or designated person will notify the apartment residents in the event of a disaster.
2. For the purpose of an emergency, the apartment resident will be evacuated the same as the residents in skilled nursing areas would be evacuated.
3. Nursing personnel will direct staff to evacuate these tenants with the nursing home residents.
4. Nursing staff will knock on the apartment door and notify the tenants on what to do, if no one answers the door, go on to the next apartment and report to the Administrator anyone who was not home.

   ▪ The Administrator will then take the master key to ensure there is no one left in the apartment.

5. The nursing staff will be responsible for bringing the apartment residents files in the event of disaster.
6. A designated person will notify family members what has transpired and where the apartment residents are located.

Disclaimer: It is important to note that each situation is going to be different, and that a situation may not allow for the above procedures to be implemented in this specific order. At a time of a disaster, it is imperative that the Administrator be contacted in order to give staff proper direction. This policy and procedure is written so that there are clear guidelines for providing resident care and ensuring their safety in the event of a disaster. Sound judgment and common sense are the best practices in an emergency. Therefore, the Administrator and charge persons will have to make the best judgment at that time. This plan should be in cooperation with the American Red Cross, the County Emergency Government office, and local Police and County Sheriff's Departments.

SEVERE WEATHER POLICY AND PROCEDURE

Purpose: The purpose of a Severe Weather Policy and Procedures is to educate and inform staff of weather conditions that warrant their attention.

It is the community's responsibility to keep the residents and staff safe at all times. If severe weather strikes, precautions need to be taken to ensure their safety.

Definitions: *Watch* -- Means that conditions are favorable for a thunderstorm or tornado to develop.

Warning -- Means that a thunderstorm or tornado has been sighted. If a siren sounds, stay inside and take cover.

Procedure:

1. Account for all residents and staff. Make sure everyone is inside.
2. Close all windows and pull all curtains.
3. Keep all residents away from windows.

If there is a tornado warning, further precautions need to be taken:

4. Gather residents in hallways behind fire doors, or in the bathroom. If residents are in bed, pull the beds into the hallway. If this is not possible, make sure all curtains in room are pulled, including cubicle curtains.

   ▪ Cover the resident with extra blankets and pillows, especially near the head.

5. Gather flash lights and radio. Be sure to listen to weather reports for updates. Do not leave the area until the storm has passed and the warning has lifted.
6. Stay calm and provide reassurance to the residents. Keep them as comfortable as possible.

Receptionist/Charge Nurse:

   ▪ Announce: "Attention all staff, we are now in a severe weather/ tornado warning, begin severe weather procedures at once."
   ▪ If phone does not work, send runners to all areas.

Receptionist:

   ▪ Repeat announcement.
   ▪ Stay at the desk as long as is safe to supervise the front door.
   ▪ Send people to the assembly area and close fire doors in the area.

All Staff:

   ▪ See also specific department, if listed. If on the nursing floor, help move residents to assembly area. Reassure and comfort residents.
   ▪ Advise visitors and residents not to leave the building.

Nursing Staff:

   ▪ Move residents to assembly area. Reassure and make residents comfortable.
   ▪ Account for all residents.

WINTER STORM SAFETY PRECAUTIONS

Purpose: The purpose of these winter storm safety precautions is to inform staff of measures that should be taken during severe winter weather.

The following winter storm safety precautions have been established for all personnel to follow during blizzards, heavy snow, freezing rain, ice storms, or sleet.

Precautions:

1. Keep posted on all area weather bulletins and relay to others.
2. Have portable radio available. Make sure extra batteries are available.
3. Be prepared for isolation at the community.
4. Make sure all emergency equipment and supplies are on hand, or can be readily obtained.
5. Make sure emergency food supplies and equipment are on hand.
6. Make sure emergency supply of water is available.
7. Make sure emergency power supply is operable.
8. Make sure heating system is operable.
9. Have extra blankets available and keep residents as warm as possible.
10. Make sure adequate staff is available.
11. Keep flashlights handy, and extra batteries available.
12. Close drapes on cloudy days and at night.
13. Travel only when necessary, and only during daylight hours. Never travel alone. Travel only assigned routes.
14. Be prepared to evacuate residents if necessary.
15. Do not make any unnecessary trips outside. If you must venture outside, make sure you are properly dressed, and fully covered.
16. Avoid overexertion by doing only what is necessary. Cold weather strains the heart.
17. Do not panic; remain calm.

BOMB THREAT POLICY AND PROCEDURE

Purpose: The purpose of this policy is to inform staff of precautions to be taken in the event of a bomb threat.

The current national situation of increased bombings, bomb threats, and bomb scares must be given immediate consideration. In the past, the vast majority of bomb threats were hoaxes. However, the current trend nationally is that more of the threats are materializing.

Upon receipt of a bomb threat, it is impossible to know if it is real or a hoax. Therefore, precautions need to be taken for the safety of residents and employees.

Procedure: If you receive a bomb threat over the phone, follow these procedures:

1. Keep the caller on the line as long as possible.
2. Ask the caller to repeat the message.
3. Ask the caller his name.
4. Ask the caller where the bomb is located.
5. Record every word spoken by the person making the call.
6. Record time call was received and terminated.
7. Inform the caller that the building is occupied and the detonation of a bomb could result in death or serious injury to many innocent people.
8. Complete the bomb threat form, attached, to record the caller's characteristics.

If possible, during the call, try to notify the charge nurse immediately. The charge nurse shall:

1. Call the Police Department at 911.
2. Call the Administrator if not present.
3. Organize staff to evacuate residents upon police or administrative order.

Once the Police have arrived:

- Keys shall be available so that searchers can inspect all rooms. Employee lockers will be searched. If padlocked, padlock will be cut off.
- The Administrator or designee shall remain with the Search Commander during the entire search to provide assistance and counsel during the search.
- If a suspected bomb is located within the building, the responsibility for investigation will be that of the law enforcement officials having jurisdiction over such matters.

BOMB THREAT – TELEPHONE PROCEDURE

Use the following template in the situation of a potential bomb threat.

PROCEDURE: Listen - Do Not Interrupt Caller Except to Ask:			
When will it go off?		Certain House	
Where is it planted?		Time Remaining	
What does it look like?		Area	
Did caller seem familiar with building by the description of bomb location?			
Your Name		Time of Call	Date
CALLER'S IDENTITY:	Male	Female	Approximate Age
VOICE CHARACTERISTICS	Loud	Soft	
High Pitch	Deep	Fast	Excellent
Raspy	Pleasant	Slow	Good
Intoxicated	Distinct	Stutter	Fair
Nasal	Foul	Slurred	Poor
Other			
ORIGIN OF CALL:	Local	Long Distance	Booth
Internal (from within the building)			
ACCENT:	Local	Not Local	Foreign
Regional	Race	Calm	Angry
Rational	Irrational	Coherent	Incoherent
Emotional	Laughing	Deliberate	Righteous
Other			
BACKGROUND NOISES:		Quiet	Voices
Music	Animals	Mixed	Party
Airplanes	Bedlam	Office Machines	Factory Machines
Street Traffic	Other		

EMERGENCY PROCEDURES DURING DISCONTINUATION OF WATER SUPPLY

Purpose: To ensure that there will be adequate water supply on hand to supply residents with water for personal and hygienic needs.

Procedure: If water supply is suddenly disrupted for any reason, the following steps will be taken by staff on duty during the time of the discontinuation of water supply.

1. Notify the Administrator or Administrator's designee and the Maintenance personnel.
2. All attempts will be made to determine the cause for water disruption and the probable length of shutdown.
3. Dietary department will give out juices and other fluids that are on hand for consumption by residents.
4. Disposable dishes and utensils may be used during emergencies.
5. If necessary, water will be brought in and dispensed as needed. This will be initiated through emergency government.
6. If it becomes apparent that a water shortage will last for an undetermined length of time, the Administrator will order emergency measures taken to ensure proper care for ill residents and for those whose treatment has been disrupted by lack of water supply.

   ▪ Arrangements may need to be made to transfer those residents to hospitals or other long term care facilities for care.

ELECTICAL POWER OUTAGE POLICY AND PROCEDURE

Purpose: It is the policy of this community to provide auxiliary power to designated areas within the community to operate life-support equipment should our normal power supply fail.

The community has an emergency generator that should be automatically activated in the event of a power outage. The generator operates on natural gas, and as long as the gas lines are not damaged or disrupted, the generator is capable of providing the community with a minimal supply of electricity.

Procedure: In the event of a power outage, the following steps should be followed:

1. Immediately identify any residents that require oxygen concentrators or other life support equipment. Move the resident to areas supplied with emergency power (outlets marked with a red "X" on them).
2. Gather all flashlights and other needed supplies. Check on all residents to ensure their safety. Calm any residents experiencing distress.
3. Unplug the fax machine, and plug in the ***"Emergency Phone."***

Community Generator DOES NOT...

- Provide Heat or Water
- Provide Power to Laundry or Kitchen
- Operate Fire Alarm System (this is on its own battery back-up system)
- Operate the phone system

Areas Equipped with Emergency Lighting:

- Front Lobby
- Hallways
- Break room
- Laundry Room
- Boiler Room
- Stairways

HEAT AND HUMIDITY POLICY AND PROCEDURE

Purpose: The purpose of this policy is to provide precautionary and preventative measures for our residents during the hot and humid summer months. Older adults are extremely vulnerable to heat related disorders.

Definitions:

Heat Exhaustion: A disorder resulting from overexposure to heat or to the sun. Early symptoms are headache and a feeling of weakness and dizziness, usually accompanied by nausea and vomiting.

There may also be cramps in the muscles of the arms, legs, or abdomen. The person turns pale and perspires profusely, skin is cool and moist, pulse and breathing are rapid.

Body temperature remains at a normal level or slightly below or above. The person may seem confused and may find it difficult to coordinate body movements.

Heat Stroke: A profound disturbance of the body's heat-regulating mechanism, caused by prolonged exposure to excessive heat, particularly when there is little or no circulation of air.

The first symptoms may be headache, dizziness and weakness. Later symptoms are an extremely high fever and absence of perspiration. Heat stroke may cause convulsions and sudden loss of consciousness. In extreme cases it may be fatal.

Precautionary Procedures:

1. Keep the air circulating.
2. Draw all shades, blinds and curtains in rooms when exposed to direct sunlight.
3. Remove residents from areas that are exposed to direct sunlight.
4. Keep outdoor activities to a minimum.
5. Check to see that residents are appropriately dressed.
6. Provide ample fluids, and provide as many fluids as the resident will take.
7. Increase the number of baths given for skilled care nursing residents. Encourage independent residents to take showers/baths.
8. Place fans in hallways to increase circulation.
9. Report any changes in the resident's condition such as edema, shortness of breath, the skin being hot or dry.

PROCEDURE FOR EVACUATION IN CASE OF A RADIOLOGICAL ACCIDENT

Purpose: To outline an emergency plan to be followed in the case of a radiological accident.

Policy: The following is the procedure to be followed in the case of a radiological accident.

In the case of an accident at a nuclear power plant, the local/state office of emergency services will use the following alert systems:

- Emergency siren system
- Emergency scanner system

The community will receive a phone call from the Emergency Broadcast System on the radio and television.

Upon notification, community staff should immediately call the Administrator and Director of Nursing to inform them of the exact notification. All in-town community staff members should immediately report to the community to assist with the evacuation of residents and community records.

All residents and staff will be evacuated by transportation provided by emergency government. Concentrate on preparing all residents for evacuation. Do not take clothing, food or water. They will be provided at the evacuation site.

The following residents will be transferred to hospitals by ambulance or medi-van:

- Oxygen dependent residents
- Tracheostomy residents
- Tube fed residents
- Severe wounds and decubiti
- Severe pain control i.e., terminal cancer
- Severe obesity (Hoyer lift assist required)

All staff outside the community should report to assist in resident evacuation as soon as possible. Staff will be needed to care for residents at the shelter areas.

One staff member will accompany each vehicle going to the hospital and to each shelter area to calm residents and reassure them. Resident medical chart will be transferred to the hospital and/or shelter.

Nurse will make certain that the chart accompanies the resident to the hospital or shelter.

The Administrator and supervisory staff will contact other LTC communities and residents' families to relocate residents in proper environments to ensure appropriate care.

If return to the community is not possible, the Administrative staff will seek supplemental staff to assist in the care of residents until return or relocation is completed.

CHEMICAL SPILLS

Purpose: To inform staff of action to be taken in the event of an outdoor chemical spill.

Policy: The following action will be taken in the event of an outdoor chemical spill.

1. Shut down outside intake ventilation.
2. Close all doors to the outside and close and lock all windows.
3. Maintenance staff should set all ventilation systems to 100% recirculation so that no outside air is drawn into the building. When this is not possible, ventilation systems should be turned off. This is accomplished by pulling the fire alarm.
4. Turn off all heating systems.
5. Turn off all air conditioners and switch inlets to the "closed" position. Seal any gaps around window type air conditioners with tape and plastic sheeting, wax paper or aluminum wrap.
6. Turn off all exhaust fans in kitchens and bathrooms.
7. Close as many internal doors as possible in the building.
8. Use tape and plastic food wrapping, wax paper or aluminum wrap to cover and seal bathroom exhaust fan grills, range vents, dryer vents, and other openings to the outside.
9. If the gas or vapor is soluble or partially soluble in water, hold a wet cloth over your nose and mouth if gases start to bother you. For a higher degree of protection, go into the bathroom, close the door and turn on the shower in a strong spray to wash the air.
10. If an explosion is possible outdoors, close drapes, curtains or shades over windows. Stay away form external windows to prevent injury from flying glass.
11. Tune into the Emergency Broadcasting System on the radio or television for further information and guidance.

Law enforcement agencies will make a determination regarding possible evacuation of residents.

BIOTERRORISM THREATS

<u>**Reporting Requirements and Contact Information**</u>

In the event a bioterrorism (BT) event is suspected, local emergency response systems should be activated. Notification should immediately include local infection control personnel and the LTC community's administration, and prompt communication with the local and state health departments, FBI field office, local police, CDC, and medical emergency services. **Each LTC community should include a list containing the following telephone notification numbers in its readiness plan**:

INTERNAL CONTACTS:
INFECTION CONTROL
EPIDEMIOLOGIST
ADMINISTRATION/PUBLIC AFFAIRS

EXTERNAL CONTACTS:
LOCAL HEALTH DEPARTMENT
STATE HEALTH DEPARTMENT
FBI FIELD OFFICE
BIOTERRORISM EMERGENCY NUMBER, CDC Emergency Response Office <u>770/488-7100</u>
CDC HOSPITAL INFECTIONS PROGRAM <u>404/639-6413</u>

<u>**Detection of Outbreaks Caused by Agents of BT**</u>

BT occurs as covert events, in which persons are unknowingly exposed and an outbreak is suspected only upon recognition of unusual disease clusters or symptoms. BT may also occur as announced events, in which persons are warned that an exposure has occurred. A number of announced BT events have occurred in the United States during 1998-1999, but these were determined to have been "hoaxes;" that is, there were no true exposures to BT agents. A healthcare facility's BT Readiness Plan should include details for management of both types of scenarios: suspicion of a BT outbreak potentially associated with a covert event and announced BT events or threats. The possibility of a BT event should be ruled out with the assistance of the FBI and state health officials.

<u>**Infection Control Practices for Patient Management**</u>

Agents of BT are generally not transmitted from person to person; re-aerosolization of these agents is unlikely. **All** persons, including symptomatic patients with suspected or confirmed BT-related illnesses, should be managed utilizing **Standard Precautions**. Standard Precautions are designed to reduce transmission from both recognized and unrecognized sources of infection, and are recommended for all persons receiving care, regardless of their diagnosis or presumed infection status. **For certain diseases or syndromes (e.g., smallpox and pneumonic plague), additional precautions may be needed to reduce the likelihood for transmission.**

Standard Precautions prevent direct contact with all body fluids (including blood), secretions, excretions, nonintact skin (including rashes), and mucous membranes. Standard Precautions routinely practiced by healthcare providers include:

▪ **Handwashing**

Hands are washed after touching blood, body fluids, excretions, secretions, or items contaminated with such body fluids, whether or not gloves are worn. Hands are washed immediately after gloves are removed, between contacts, and as appropriate to avoid transfer of microorganisms to others and the environment. Either plain or antimicrobial-containing soaps may be used according to policy.

- **Gloves**

  Clean, non-sterile gloves are worn when touching blood, body fluids, excretions, secretions, or items contaminated with such body fluids. Clean gloves are put on just before touching mucous membranes and nonintact skin. Gloves are changed between tasks and between procedures on the same person if contact occurs with contaminated material. Hands are washed promptly after removing gloves.

- **Masks/Eye Protection or Face Shields**

  A mask and eye protection (or face shield) are worn to protect mucous membranes of the eyes, nose, and mouth while performing procedures and care activities that may cause splashes of blood, body fluids, excretions, or secretions.

- **Gowns**

  A gown is worn to protect skin and prevent soiling of clothing during procedures and care activities that are likely to generate splashes or sprays of blood, body fluids, excretions, or secretions. Selection of gowns and gown materials should be suitable for the activity and amount of body fluid likely to be encountered. Soiled gowns are removed promptly and hands are washed to avoid transfer of microorganisms to others.

Post Exposure Management

The need for decontamination depends on the suspected exposure and in most cases will not be necessary. The goal of decontamination after a potential exposure to a BT agent is to reduce the extent of external contamination of the residents and contain the contamination to prevent further spread.

Decontamination should only be considered in instances of gross contamination. Decisions regarding the need for decontamination should be made in consultation with state and local health departments. Decontamination of exposed individuals prior to receiving them in the healthcare facility may be necessary to ensure the safety of residents and staff while providing care.

When developing BT Readiness Plans, facilities should consider available locations and procedures for patient decontamination.

Depending on the agent, the likelihood for re-aerosolization, or a risk associated with cutaneous exposure, clothing of exposed persons may need to be removed. After removal of contaminated clothing, patients should be instructed (or assisted if necessary) to immediately shower with soap and water. **Potentially harmful practices, such as bathing residents with bleach solutions, are unnecessary and should be avoided**. Clean water, saline solution, or commercial ophthalmic solutions are recommended for rinsing eyes. If indicated, after removal at the decontamination site, patient clothing should be handled only by personnel wearing appropriate personal protective equipment, and placed in an impervious bag to prevent further environmental contamination.

Development of Bioterrorism Readiness Plans should include coordination with the FBI field office. The FBI may require collection of exposed clothing and other potential evidence for submission to FBI or Department of Defense laboratories to assist in exposure investigations.

Prophylaxis and post-exposure immunization

Recommendations for prophylaxis are subject to change. However, up-to-date recommendations should be obtained in consultation with local and state health departments and CDC. Communities should ensure that policies are in place to identify and manage health care workers exposed to infectious residents. In general, maintenance of accurate occupational health records will facilitate identification, contact, assessment, and delivery of post-exposure care to potentially exposed healthcare workers.

Psychological aspects of BT

Following a BT-related event, fear and panic can be expected from both residents and healthcare providers. Psychological responses following a BT event may include horror, anger, panic, unrealistic concerns about infection, fear of contagion, paranoia, social isolation, or demoralization. Health care professionals should develop prior working relationships with mental health support personnel (e.g., psychiatrists, psychologists, social workers, clergy, and volunteer groups) and assist in their collaboration with emergency response agencies and the media. Local, state, and federal media experts can provide assistance with communications needs.

When developing the community BT Readiness Plan, consider the following to address resident and general public fears:

- Minimize panic by clearly explaining risks, offering careful but rapid medical evaluation/treatment, and avoiding unnecessary isolation or quarantine.
- Treat anxiety in unexposed persons who are experiencing somatic symptoms (e.g., with reassurance, or diazepam-like anxiolytics as indicated for acute relief of those who do not respond to reassurance).

Consider the following to address healthcare worker fears:

- Provide BT readiness education, including frank discussions of potential risks and plans for protecting healthcare providers.
- Invite active, voluntary involvement in the BT readiness planning process.

Encourage participation in disaster drills. Fearful or anxious healthcare workers may benefit from their usual sources of social support, or by being asked to fulfill a useful role.

SPECIFIC BIOTERRORISM AGENTS

Anthrax Facts

- Anthrax is an acute infectious disease caused by *Bacillus anthracis,* a spore forming, gram-positive bacillus. Associated disease occurs most frequently in sheep, goats, and cattle, which acquire spores through ingestion of contaminated soil.
- Humans can become infected through skin contact, ingestion, or inhalation of *B. anthracis* spores from infected animals or animal products (as in "woolsorter's disease" from exposure to goat hair).
- Person-to-person transmission of inhalational disease does not occur. Direct exposure to vesicle secretions of cutaneous anthrax lesions may result in secondary cutaneous infection.
- Human anthrax infection can occur in three forms: pulmonary, cutaneous, or gastrointestinal, depending on the route of exposure. Of these forms, pulmonary anthrax is associated with BT exposure to aerosolized spores.

Anthrax Clinical Features

Pulmonary

- Non-specific prodrome of **flu-like symptoms** follows inhalation of infectious spores.
- Possible brief interim improvement.
- Two to four days after initial symptoms, **abrupt onset of respiratory failure**.
- Mortality remains extremely high despite antibiotic treatment if it is initiated after onset of respiratory symptoms.

Cutaneous

- Local skin involvement after direct contact with spores or bacilli.
- Commonly seen on the head, forearms or hands.
- Localized itching, followed by a papular lesion that turns vesicular, and within 2-6 days develops into a depressed black eschar.
- Usually non-fatal if treated with antibiotics.

Gastrointestinal

- Abdominal pain, nausea, vomiting, and fever following ingestion of contaminated food, usually meat.
- Bloody diarrhea, bloody sputum.
- Gram-positive bacilli on blood culture, usually after the first two or three days of illness.
- Usually fatal after progression to toxemia and sepsis.

Isolation Precautions

- Standard Precautions are used for the care of patients with infections associated with *B. anthracis.* Standard Precautions include the routine use of gloves for contact with nonintact skin, including rashes and skin lesions.
- Private room placement for patients with anthrax is <u>not</u> necessary. Airborne transmission of anthrax does not occur. Skin lesions may be infectious, but requires direct skin contact only.

Treatment

Antibiotics are available for prophylactic therapy. Oral Fluoroquinolones are prescribed (Ciprofloxacin – 500 mg twice a day; Levofloxacin - 500 mg once a day) or if Fluoroquinolones are contraindicated or not available, use Doxycyline - 100 mg twice a day.

Botulism Facts

- *Clostridium botulinum* is an anaerobic gram-positive bacillus that produces a potent neurotoxin, botulinum toxin.
- In humans, botulinum toxin inhibits the release of acetylcholine, resulting in characteristic flaccid paralysis.
- *C. botulinum* produces spores that are present in soil and marine sediment throughout the world.
- Foodborne botulism is the most common form of disease in adults. An inhalational form of botulism is also possible.
- Botulinum toxin exposure may occur in both forms as agents of bioterrorism.

Botulism Clinical Features

- Foodborne botulism is accompanied by gastrointestinal symptoms. Inhalational botulism and foodborne botulism are likely to share other symptoms including:

  o Responsive patient with absence of fever.
  o **Symmetric cranial neuropathies (drooping eyelids, weakened jaw clench, difficulty swallowing or speaking).**
  o **Blurred vision** and diplopia due to extra-ocular muscle palsies.
  o **Symmetric descending weakness in a proximal to distal pattern** (paralysis of arms first, followed by respiratory muscles, then legs).
  o **Respiratory dysfunction** from respiratory muscle paralysis or upper airway obstruction due to weakened glottis.

Isolation Precautions

- Standard Precautions are used for the care of patients with infections associated with *B. anthracis.* Standard Precautions include the routine use of gloves for contact with nonintact skin, including rashes and skin lesions.
- Private room placement for patients is <u>not</u> necessary.

Suspicion of even single cases of botulism should immediately raise concerns of an outbreak potentially associated with shared contaminated food. In collaboration with CDC and local /state health departments, attempts should be made to locate the contaminated food source and identify other persons who may have been exposed. Any individuals suspected to have been exposed to botulinum toxin should be carefully monitored for evidence of respiratory compromise.

Treatment

- Patients affected by botulinum toxin are at risk for respiratory dysfunction that may necessitate mechanical ventilation.
- Ventilatory support is required, on average, for 2 to 3 months before neuromuscular recovery allows unassisted breathing.
- Large-scale exposures to botulinum toxin may overwhelm an institution's available resources for mechanical ventilation.

Smallpox Facts

- Smallpox is an acute viral illness caused by the variola virus.
- Smallpox is a bioterrorism threat due to its potential to cause severe morbidity in a nonimmune population and because it can be transmitted via the airborne route.
- A single case is considered a public health emergency.

Smallpox Clinical Features

- Acute clinical symptoms of smallpox resemble other acute viral illnesses, such as influenza. Skin lesions appear, quickly progressing from macules to papules to vesicles. Other clinical symptoms to aid in identification of smallpox include:

    o 2-4 day, non-specific prodrome of **fever, myalgias.**
    o **Rash most prominent on face and extremities** (including palms and soles) in contrast to the truncal distribution of varicella.
    o **Rash scabs over in 1-2 weeks**.
    o In contrast to the rash of varicella, which arises in "crops," **variola rash has a synchronous onset**.

Isolation Precautions

- For patients with suspected or confirmed smallpox, both Airborne and Contact Precautions should be used in addition to Standard Precautions.
- Airborne Precautions are used for patients known or suspected to be infected with microorganisms transmitted by airborne droplet nuclei (small particle residue, 5m or smaller in size) of evaporated droplets containing microorganisms that can remain suspended in air and can be widely dispersed by air currents.
- Airborne Precautions require healthcare providers and others to wear respiratory protection when entering the patient room. (Appropriate respiratory protection is based on facility selection policy; must meet the minimal NIOSH standard for particulate respirators, N95). Contact Precautions are used for patients known or suspected to be infected or colonized with epidemiologically important organisms that can be transmitted by direct contact with the patient or indirect contact with potentially contaminated surfaces in the patient's care area.
- Contact precautions require healthcare providers and others to:

    o Wear clean gloves upon entry into patient room.
    o Wear gown for all patient contact and for all contact with the patient's environment. Based on local policy, some healthcare facilities require a gown be worn to enter the room of a patient on Contact Precautions. Gown must be removed before leaving the patient's room.
    o Wash hands using an antimicrobial agent.

Treatment

- Post-exposure immunization with smallpox vaccine (vaccinia virus) is available and effective. Vaccination alone is recommended if given within 3 days of exposure.
    - Passive immunization is also available in the form of vaccinia immune-globulin (VIG) (0.6ml/kg IM). If greater than 3 days has elapsed since exposure, both vaccination and VIG are recommended.

INTERNAL DISASTER PLAN

Procedure: An internal disaster is one that occurs within the building and which causes a disruption of services or destruction in some form. An internal disaster may be minor to extremely serious.

The Administrator and Maintenance Supervisor shall be notified in the event of disasters and for all fires regardless of the size. The following disasters are listed with type of action to be taken in the event of an internal disaster.

FIRE: In the event of a fire, procedures in the fire plan shall be followed.

BOMB THREAT: In the event of a bomb threat, procedures in the bomb threat procedures portion of this disaster plan shall be followed.

LOSS OF TELEPHONE SERVICES: In the event that telephone service is lost at the community due to outside causes, the telephone company must be notified immediately. There is a cellular phone in the med. room that may be used if the phone system does not work.

If the cellular phone does not work, the nurse should designate a staff person to go to the nearest operating local telephone to report the telephone outage. The number to call for service is xxx-xxxx.

If the telephone outage continues, a driver and a vehicle should be designated to be ready to depart in an emergency to report any disaster requiring emergency services from the Police, Fire Department or Ambulance Service.

EXPLOSION: An explosion of some form is always possible from many causes. In the event of an explosion, persons witnessing the explosion should alert other persons in danger immediately.

Explosions can be caused by short circuiting electrical systems, unsafe fuel vapors, dropping compressed gasses containers in such a way as to break off valve heads, improper use of chemicals or spilling volatile liquids, and putting too much pressure in an enclosure (tank, pipeline, bottle, etc.).

Explosions result in some form of property damage and can cause personal injuries or death. In the event of personal injuries, persons witnessing the explosion shall take immediate action to assist the injured without placing themselves in immediate danger.

The injured persons should be given first aid and treatment as necessary. When the injured have been removed from the scene and others have been removed from immediate danger, the assessment of damages must be made.

A report must also be made. The report must contain what happened, the time of the explosion, the extent of injuries, etc. It is essential to try to remember all details of the explosion. This information is vital in the event of any future legal actions.

PRQC DISASTER BUNDLE - DISASTER DOMAIN 1

Pediatric Disaster Coordination

4. Suggested Qualifications for Pediatric Point Person on EM Team

Recommended Disaster Core Competencies For Hospital Personnel

Revised Spring 2011

HEALTH

Message from the Department of Health, Division of Emergency Medical Operations

Dear Hospital Partner:

We are pleased to present you with the **2011 Edition of Florida's Recommended Disaster Core Competencies for Hospital Personnel**. This third version of Florida's Recommended Disaster Core Competencies, reflects the latest in federal and state guidance and the current state of the art preparedness for Chemical, Biological, Radiological, Nuclear, and high-yield Explosive events (CBRNE).

This document is designed to assist hospitals with planning for response to all hazards, determining job specific competencies and training personnel. The 2011 edition builds on three levels of proficiency: awareness, mid-level, and advanced.

The list of core competencies reflects disaster preparedness and response knowledge, skills, and abilities applicable to various hospital personnel roles, and offers a consistent approach for assessing hospital readiness for no-notice as well as anticipated disaster events.

The appendix to the Core Competencies includes tips and tools for using the competencies along with ready to print copies of the individual Competency Check Lists.

The department recognizes the contributions of our hospital partners and extends a special thank you to all who provided input and assistance in the development and review of the 2011 Edition of the Florida Recommended Disaster Core Competencies.

Thank you to all of our hospital partners for your continued participation in local and statewide efforts for preparedness and response.

This document will also available on the Florida Department of Health website at:
www.floridashealth.com/prepare/hospprepared.html

Table of Contents

Recommended Disaster Core Competencies for Hospital Personnel

Background

The 2011 Recommended Disaster Core Competencies for Hospital Personnel is an update to the 2006 published version. Competencies were developed and updated by the Hospital Surge Capabilities Team Core Competencies Workgroup supported by the Florida Department of Health, Bureau of Preparedness and Response and the Florida Hospital Association. This project is made possible by grant funds from the U.S. Health and Human Services Office of the Assistant Secretary for Preparedness and Response and Services Administration (ASPR).

The Department of Homeland Security has identified National Preparedness Guidelines to support a capabilities-based planning process to define critical tasks and activities in order to achieve the national mission areas of "Prepare, Prevent, Protect, Respond and Recover." A Target Capabilities list was developed that includes Medical Surge-the capability to rapidly expand the capacity of the healthcare system in order to provide triage and medical care for a patient surge that can potentially overwhelm routine medical capacity. It should be anticipated that there will be a need for additional clinical and non-clinical personnel, support functions, and services such as laboratory and radiological, physical space (emergency department/outpatient and inpatient treatment areas including the use of alternate care sites) and logistical support (clinical and non-clinical equipment and supplies).

The key outcomes for Medical Surge are:
- Injured or ill from the event are rapidly and appropriately cared for
- Continuity of care is maintained for non-incident related illness or injury[1]

The disaster events of Hurricane Katrina in 2005 and the Haiti Earthquake in 2010 have highlighted the need to advance planning for catastrophic health events including mass casualty incidents and public health emergencies with a sustained patient surge. There is a continued need to support capabilities to manage biological, chemical, radiological, and explosive events in addition to naturally occurring incidents. Complex events could also occur that involve a combination of agents, such as a radiological source with an explosive delivery mechanism. Competencies need to therefore include all-hazards performance measures in addition to hazard-specific ones.

Florida population includes those who are at risk or vulnerable to decompensation of their medical status in disasters. Hospitals routinely care for persons with special needs, however certain groups such as children, older adults and persons with disabilities will have unique needs requiring trained competent staff, dedicated equipment and supplies and space considerations.[2]

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[1] Department of Homeland Security, Federal Emergency Management Administration. Target Capabilities List. September 2007, http://www.llis.dhs.gov/docdetails/details.do?contentID=26724, page 449, accessed October 10, 2010.

[2] National Commission of Children and Disasters. 2010 Report to the President and Congress. October 2010, http://www.ahrq.gov/prep/nccdreport/nccdreport.pdf, accessed October 12, 2010.

Scope

Disaster response requires a unique set of capabilities related to knowledge, skills, and abilities. The disaster core competencies are intended to establish a baseline of knowledge for all levels of hospital personnel. This will enable staff in assigned disaster roles to function efficiently and effectively during disaster events. Individuals may begin their employment at a hospital without any foundation of disaster-related knowledge, skills, or abilities. Others may transfer from a facility in which they were an emergency response team member or had a role in their Hospital's Incident Command Team. There will always be a need to orient and refresh hospital personnel for hospital-specific emergency codes, notification processes, organizational resources, and relationships the hospital has with community partners.

A disaster or catastrophic level response may stress the hospital to an extraordinary level. This requires additional advance preparation to be able to successfully mitigate and manage a surge of patients and a potential impact on hospital infrastructure. The 2011 Core Competencies reflect the need for teamwork within and across organizations to manage preparedness, response, and recovery.

Purpose

This core competencies list the disaster preparedness and response knowledge, skills and abilities needed by relevant types of hospital personnel given the current state of the art of CBRNE hazards and healthcare system vulnerabilities. Applying these competencies will assist hospitals in the development, implementation, coordination, and evaluation of disaster preparedness and response training programs. Standardized competencies are also intended to increase consistency within levels of training for acute care hospitals in Florida.

> "The healthcare system is rapidly expanding ...This growth has stimulated a need to better define the hospital core competencies...The new Core Competencies provide a framework for all hospitals to continue to address challenges in our daily practice and to improve upon our profession."
> ---Connie Bowles BSN, RN, CEN, CHEC, Disaster Preparedness Coordinator, Lee Memorial Health System

The 2011 Florida Recommended Disaster Core Competencies builds upon the 2006 version in recognizing three levels of preparedness:
- Awareness level
- Mid-level
- Advanced level

All hospital personnel should be trained to the awareness level. Mid-level competencies build on the awareness competencies and are applicable to clinical, non-clinical, and specialty trained personnel, dependent upon response role. Advanced level competencies build on the previous two levels and are suggested for personnel who are a part of a specialty team such as the hospital mass decontamination team or the incident command team. It is also recommended for clinicians whose response role requires them to be subject matter experts for assisting persons who have traumatic injuries from an intentional or unintentional event, and / or have been exposed to chemical, biological, or radiological agents.

It is up to each individual hospital to determine who needs to be trained to which level, based on their primary and/or cross-trained roles. The preparation for hospital staff is intended to be dynamic, with ongoing training, so that individuals can be trained to progress to higher levels of capability.

Hospitals that participate in the ASPR Hospital Preparedness Program are expected to be compliant with the National Response Framework (NRF) and National Incident Management System (NIMS). An acceptable progressive competency would be documentation of attendance at training that discusses NRF and NIMS for skills at the awareness level, and FEMA certifications as evidence of training for mid and advanced levels. Incident Command System (ICS) training serves as a mechanism to help ensure consistency of response within and among organizations locally, statewide, and nationally.

Alignment of Competencies

In order to promote alignment of the Florida Disaster Core Competencies with existing accreditation standards, competencies are organized across the various capability levels using familiar Joint Commission Emergency Management Standard's broad categories:

- General (including planning, hazard vulnerability analysis, detection, and evaluation & exercises)
- Communications (including notification, back-up systems, and ICS)
- Resources and Assets
- Security and Safety
- Staff (to include hospital staff, Medical Staff and Volunteers)
- Utilities
- Patient Support

Over 92% of Florida hospitals are Joint Commission accredited and certified.[3] This supports maintaining continuous compliance with federal regulations and includes requirements for standards and associated elements of performance. The standards include Environment of Care, Emergency Management, Human Resources, Infection Prevention and Control, Information Management, Leadership, Life Safety, Provision of Care, Treatment and Services, Performance Improvement, and others. Emphasis is placed on having structures and processes in place to provide safe quality care, treatment, and services.[4] Unannounced on-site surveys within a timeframe of every 18 to 39 months are conducted by experienced subject matter experts to validate the

> "Florida leads the nation in public health preparedness in several areas. Following this new version of our Hospital Core Competencies ensures our hospitals can maintain that position."
> ---Dan Simpson, FPEM Regional Coordinator, RDSTF-4 Health and Medical

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[3] The Joint Commission website:
http://www.qualitycheck.org/consumer/searchResults.aspx?ddstatelist2=FL&ddcitylist=&st_cd=&st=FL&st_nm=FLORIDA&cty_nm=&cty_id=-1&provGrpId=2&provGrpIdtracker=2 (accessed October 25, 2010).
[4] The Joint Commission on Accreditation of Healthcare Organizations. 2010 Hospital Accreditation Standards.

assessment process and support an objective of transforming healthcare into a high-reliability industry.[5] There are other national healthcare accreditation organizations, however, they do not yet have a significant presence in Florida.

The competencies selected for inclusion in the 2011 recommendations are performance-oriented and determined to be critical for an efficient and effective disaster response. They will also promote resilience for the staff and the healthcare organization so that they are prepared for, able to respond to, and recover from events. Incorporation of the competencies into the skill sets of their personnel will assist them in sustaining the critical infrastructure and maintaining medical treatment and services. Building resilience is considered a foundation for public health emergency preparedness, per the recently published U.S. National Health Security Strategy.[6]   In Florida, it is critical to be prepared for no-notice events in addition to ensuring better management of higher probability and anticipated tropical weather events.

Building Organizational Competencies

This document is organized into sections that include:
- Core Competencies for each level including awareness, mid and advanced
- Core Competencies across levels

Within each category, the progression of response capability skills can be demonstrated using a building block framework. A specific example within the Communications category for Notification is:

Awareness Level:
- State personal response to internal/external notification during an emergency or disaster
- State employee hotline number
- Describe downtime documentation procedures

Mid-Level:
- Demonstrate use of situational awareness resources & process to share threat information with staff
- Demonstrate processes to rapidly notify department staff, patients and patients families of events and keep them updated

Advanced Level
- Explain process for hospital to receive official notification of threats or events
- Explain how public health and/or emergency management will be notified of a threat or event at the hospital

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[5] The Joint Commission website, http://www.jointcommission.org (accessed October 10, 2010).
[6] U.S. Department of Health & Human Services. National Health Security Strategy of the United States of American. December 2009, http://www.phe.gov/Preparedness/planning/authority/nhss/strategy/Documents/nhss-final.pdf (accessed October 10, 2010).

- Demonstrate successful communication of messaging to staff throughout the organization internally & externally through mass notification mechanisms & hotlines
- Demonstrate successful staffing callback rates from drills and events
- Demonstrate ability to contact vendors for essential supplies, services & equipment during an emergency
- Demonstrate access to 24/7 list of critical contacts for organization, community partners and external authorities

It is understood that persons who achieve the advanced level competency have completed competencies associated with the awareness and mid-level.

It is strategic planning for hospital leadership to determine how many staff members are trained to each competency level and how many persons are needed for sufficient capacity within assigned or cross-trained roles. The "3-deep" concept is used in incident command to ensure that there is a designated person per role, an alternate person, and a backup to the alternate. Attention must be paid to the number of persons within specific roles but also the availability of the team mix needed to manage an incident. Caring for patients typically requires a multidisciplinary team approach, for example, in the event of emergency evacuation or to receive contaminated casualties.

> "Core competencies are a valuable tool that can be utilized in all aspects of the emergency management cycle...Core competencies can be utilized as a progression guide, helping move the staff from a novice to being a useful partner in the planning and response phase."
> --- Karen Ketchie RN, PMD Certified HSEEP provider

Competency checks can be conducted for:
- Each staff member to ensure personal preparedness and readiness for their assigned roles in disasters
- Leaders of departments to ensure their staff's performance and functioning of their particular service area
- Leaders of the organization to ensure their capability to serve in an incident command role or as a subject matter expert

Competencies can be demonstrated through training, exercises, deployment during an event or by examination. Initial and refresher competency checks will need to occur to maintain skill and performance levels. Participation in exercises and events will sustain a level of efficiency and effectiveness for the organization overall.

The Florida Department of Health supports the development of training materials and courses that can be used for competency development. This document includes tips and tools to assist hospital partners in applying the recommended core competencies. The department's hospital preparedness webpage provides links to additional resources for training and exercises. www.floridashealth.com/prepare/hospprepared.html

CORE COMPETENCIES FOR EACH LEVEL

Awareness Level

Mid-Level

Advanced

AWARENESS LEVEL

Competencies at this level are common for all hospital personnel, regardless of the type of emergency or disaster.

General Competencies:
1. Describe the department's all-hazards response for an event
2. Describe overall key threats for hospital
3. Explain key components of personal/family preparedness plans
4. Complete attestation for personal preparedness plan
5. List indicators that can signal the onset of a threat[1]
6. Describe immediate actions and precautions to protect oneself and others from harm in a disaster or public health emergency
7. Demonstrate active participation in hospital exercises[2]
8. State who to report to during an event

Communication Competencies:
1. State personal response to internal/external notification during an emergency or disaster
2. State hospital employee hotline number
3. Describe downtime documentation procedures
4. Demonstrate use of backup systems for communications
5. Demonstrate successful use of internal & external radios sending & receiving transmissions

Resources Competencies:
1. Identify departmental resources during an emergency
2. Describe how to conserve resources if directed

Safety and Security:
1. Describe how to restrict department and facility access & control movement of unauthorized persons in department and facility
2. Demonstrate successful response to threats[3]
3. Demonstrate how to support chain of custody for personal belongings and valuables of casualties
4. Describe how the hospital will provide information about a situation or threat
5. Describe how to maintain situational awareness at home and in hospital role

Staff:
1. State primary (and cross-trained) disaster role(s) and responsibilities
2. Demonstrate how to access the facility and departmental emergency plans
3. Provide completed Disaster Awareness course certificate[4]
4. Demonstrate correct use of department's disaster equipment
5. Demonstrate correct donning and doffing of Level D PPE
6. Verbalize departmental respiratory protection plan

7. Demonstrate awareness of resources for CBRNE agent identification & appropriate treatment (For ER, Emergency Response Team, Security, CMO)

Utilities:
1. Demonstrate use of generator backup electrical outlets for critical equipment
2. Demonstrate process to manually shut off medical gases and notify staff
3. Locate battery powered or manual backup "power out" staff and patient equipment

Patient Support:
1. Identify departmental and hospital support mechanisms for persons with special needs[5]
2. Explain department surge plan and procedures
3. Demonstrate how to evacuate patients [6]
4. Demonstrate patient tracking capability
5. Demonstrate psychological first aid practices for patients and colleagues

[1]   Includes natural, unintentional and terrorist
[2]   Includes Tabletop, Functional and Full Scale Exercises
[3]   Includes unknown object, fire, bomb threat, evacuation, cyber security threat;
[4]   Includes description of NIMS, ICS, HICS
[5]   Includes personnel, equipment, processes, space for patients of all ages
[6]   Includes horizontal & vertical patient evacuation using equipment /carries, routes & locations of evacuation staging areas

A checklist that can be used to track individual achievement of the awareness level competencies is included in the Appendix.

MID-LEVEL

Competencies at this level build on the awareness level competencies and are applicable as appropriate to clinical, non-clinical, specialty trained personnel, and department managers dependent upon response role. Includes personnel whose response role may require them to protect and assist persons exposed to CBRNE agents and / or trauma related to an emergency or disaster; and / or control the spread of CBRNE agents either from person to person or in the hospital environment. Examples of personnel who will need to receive mid-level training and competency checks include Administration; HICS Team; Department Leaders; Emergency Response Team members; Security; Maintenance; Infection Preventionists and Radiation Safety Officer

General Competencies:
1. Describe the facility's Emergency Operations Plan (EOP) – for all hazards and hazard-specific threats
2. State how to operationalize EOP and lead staff in departmental implementation;
3. Verbalize risks associated with high-priority threats
4. Describe departmental and hospital disaster risk management activities
5. Describe how to operationalize immediate actions & precautions to protect staff, facility & patients from harm
6. Demonstrate active participation in hospital exercises and after-action reviews[1]
7. Demonstrate participation in departmental and organizational corrective action improvement planning
8. Demonstrate integration of corrective action recommendations into departmental processes

Communication Competencies:
1. Demonstrate use of situational awareness resources and process to share threat information with staff
2. Demonstrate processes to rapidly notify department staff, patients and patients families of events and keep them updated
3. Exercise departmental use of back-up systems and monitor success
4. Monitor for successful hospital roll-call checks using back-up communications equipment
5. Maintain communication back-up systems for continued 24/7 operability

Resources Competencies:
1. Maintain readiness and access to department and hospital disaster equipment;
2. Communicate triggers for requesting additional resources
3. Identify ready and accessible sources for surge equipment and supplies
4. Communicate guidelines for triage and allocation of scarce resources

Safety and Security:
1. Direct assignments for those assuming role of deputized security
2. Direct identification and containment of contaminated vehicles
3. Demonstrate scalable crowd control measures

Staff:
1. Assume an ICS functional role below section chief in an emergency or disaster
2. Provide IS-100.HC and IS-700 or equivalent course certification
3. Provide completed Disaster mid-level (Operations) course certification
4. Identify departmental JIT resource personnel for staff and emergency credentialed personnel on job roles and responsibilities and use of disaster equipment
5. Monitor use of agent identification and patient treatment internal and external resources during events [2]
6. Demonstrate disaster triage skills
7. Demonstrate decontamination skills for persons of all ages, ambulatory and non-ambulatory [3]
8. Demonstrate correct donning and doffing of Level C PPE
9. Monitor physical and behavioral health of staff and engage resources to actively support those in need

Utilities:
1. Actively institute fall prevention measures for staff and patients during reduction in lighting or evacuation
2. Provide for heating/cooling emergency protection measures as needed
3. Verbalize battery backup times of critical patient equipment [4]
4. Verbalize department capabilities during load-shedding

Patient Support:
1. Coordinate hospital, community, and public health resources for persons with special needs within vulnerable populations
2. Operationalize scalable patient surge plan for department
3. State overall hospital scalable patient surge plan
4. Conduct triage of patients for emergency evacuation including type of carry, equipment and transportation assignment
5. Post hospital internal behavioral health resources and location of list of community behavioral health resources for patients in need

[1] Includes Tabletop, Functional and Full-Scale Exercises
[2] Includes Poison Control, agent identification websites, MSDS and others
[3] Includes decon for infant, toddler, child, elderly, for those with access or functional needs and service animals
[4] Includes IV pumps, ventilators, balloon pumps and others

A checklist that can be used to track individual achievement of the mid-level competencies is included in the Appendix.

Recommendations for Staff Assignments to Mid-Level Competencies

Competency	Staff Assigned
GENERAL	
Describe the facility's EOP- all hazards and hazard-specific threats	Admin; HICS Team; Emerg Mgt Coord; Dept Leaders; RSO; ICP
State how to operationalize EOP and lead staff in departmental implementation	Admin; HICS Team; Emerg Mgt Coord; Dept Leaders; RSO; ICP
Verbalize risks associated with high-priority threats	Admin; HICS Team; Emerg Mgt Coord; Dept Leaders; RSO; ICP
Describe departmental and hospital disaster risk management activities	Admin; HICS Team; Emerg Mgt Coord; Dept Leaders; RSO; ICP
Describe how to operationalize immediate actions and precautions to protect staff, facility and patients from harm	Admin; HICS Team; Emerg Mgt Coord; Dept Leaders; RSO; ICP
Demonstrate active participation in hospital exercises and after-action reviews	Admin; HICS Team; Emerg Mgt Coord; Dept Leaders; RSO; ICP
Demonstrates participation in departmental and organizational corrective action improvement planning	Admin; HICS Team; Emerg Mgt Coord; Dept Leaders; Environment of Care Committee
Demonstrates integration of corrective action recommendations into departmental processes	Emerg Mgt Coord; Dept Leaders
COMMUNICATIONS	
Demonstrate use of situational awareness resources & process to share threat information with staff	Admin; HICS Team; Emerg Mgt Coord; Dept Leaders; Communications
Demonstrate processes to rapidly notify department staff, patients and patients families of events and keep them updated	Admin; HICS Team; Emerg Mgt Coord; Dept Leaders; Communications
Exercise departmental use of back-up systems & monitor success	Emerg Mgt Coord; Dept Leaders; Communications
Monitor for successful hospital roll-call checks using back-up communications equipment	Emerg Mgt Coord; Dept Leaders; Communications
Maintain communication back-up systems for continued 24/7 operability	Emerg Mgt Coord; Dept Leaders; Communications
RESOURCES	
Maintain readiness and access to department and hospital disaster equipment	Emerg Mgt Coord; Dept Leaders
Communicate triggers for requesting additional resources	Dept Leaders
Identify ready & accessible sources for surge equipment and supplies	HICS Logistics Chief; Emerg Mgt Coord; Dept Leaders
Communicate guidelines for triage and allocation of scarce resources	Chief Medical Officer; Dept Leaders; Legal; Admin

Competency	Staff Assigned
SAFETY & SECURITY	
Direct assignments for those assuming role of deputized security	Security
Direct identification and containment of contaminated vehicles	Security
Demonstrate scalable crowd control measures	Security; Dept Leaders
STAFF	
Assume an ICS functional role below section chief in an emergency or disaster	Dept Leaders; HICS Team
Provide IS-100.HC and IS-700 or equivalent course certification	Dept Leaders; HICS Team; ERT; Emerg Mgt Coord
Provide completed Disaster Operations level course certification	HICS Team; ERT; Emerg Mgt Coord; Security; Maintenance; ICP; RSO
Identify departmental JIT resource personnel for staff and emergency credentialed personnel on job roles and responsibilities and use of disaster equipment	Dept Leaders; Education
Monitor use of agent identification and patient treatment internal and external resources during events	Dept Leaders; Emerg Mgt Coord
Demonstrate disaster triage skills	ERT; ER; Education
Demonstrate decontamination skills for persons of all ages, ambulatory and non-ambulatory	ERT; ER; Education
Demonstrate correct donning and doffing of Level C PPE	ERT; ER; Education
Monitor physical & behavioral health of staff and engage resources to actively support those in need	Dept Leaders; Employee Health; HICS Team
UTILITIES	
Actively institute fall prevention measures for staff and patients during reduction in lighting or evacuation	Maintenance; Engineering; Dept Leaders; ERT; HICS Team
Provide for heating/cooling emergency protection measures as needed	Maintenance; Engineering; Dept Leaders; ERT; HICS Team
Verbalize battery backup times of critical patient equipment	Biomed; Dept Leaders
Verbalize department capabilities during load-shedding	Engineering; Dept Leaders; IC; HICS Liaison Officer

Competency	Staff Assigned
PATIENT SUPPORT	
Coordinate hospital, community, and public health resources for persons with special needs within vulnerable populations	Dept Leaders; Liaison Officer; Social Services; Case Management
Operationalize scalable patient surge plan for department	Dept Leaders; HICS Team; Admin; HICS Operations Chief
State overall hospital scalable patient surge plan	Dept Leaders; HICS Team; Admin; HICS Operations Chief
Conduct triage of patients for emergency evacuation including type of carry, equipment & transportation assignment	Charge Nurses; Dept Leaders; HICS Planning Chief; HICS Operations Chief
Post hospital internal behavioral health resources and location of list of community behavioral health resources for patients in need	Dept Leaders; HICS Liaison Officer

ADVANCED LEVEL

Competencies at this level build on the awareness and mid-level with specific knowledge, skills and abilities appropriate for clinical, specialty trained personnel, administrators, and designated and alternate staff assigned to the Hospital Incident Command System team. Personnel trained at the advanced level will have sufficient experience and knowledge to demonstrate necessary competencies for their response role. The level of training is contingent upon job function and response roles, and is at the discretion of each facility.

General Competencies:
1. Describe how to activate and operationalize EOP from response through recovery, including continuity of operations, for the organization
2. Describe annual review process for EOP including training of organization
3. Conduct hazard vulnerability assessment for facilities associated with hospital
4. Document situational awareness of potential threats
5. Prioritize HVA potential emergencies with community partners
6. Identify community's capability to meet potential needs
7. Initiate organizational steps to mitigate risks
8. Participate in leadership role in hospital exercises and events[1]
9. Participate in the development and approval process for MYTEP
10. Participate in the development and approval of the hospital's continuous improvement plan
11. Integrate corrective actions into EOP

Communication Competencies:
1. Explain process for hospital to receive official notification of threats or events
2. Explain how public health and/or emergency management will be notified of a threat or event at hospital
3. Demonstrate successful communication of messaging to staff throughout the organization internally and externally through mass notification mechanisms & hotlines
4. Demonstrate successful staffing callback rates from drills and events
5. Demonstrate ability to contact vendors for essential supplies, services and equipment during an emergency[2]
6. Demonstrate access to 24/7 list of critical contacts for organization, community partners and external authorities
7. Activate use of backup systems during an event
8. Provide for sufficient capacity and capability for redundant and backup communication systems throughout hospital organization
9. Provide for capacity and capability of ham radio access and equipment support
10. Demonstrate competency in using internal and external radio systems
11. Monitor organizational success rate using internal and external back-up systems

Resources Competencies:
1. Coordinate information with external authorities on agent identification
2. Conduct annual review of MOA's with vendors or other facilities
3. Identify trained organizational members to serve as clinical rounding team for triage & scarce allocation of resource process

Safety and Security:
1. State organizational protective actions for threats/events
2. Share instructions from public health or law enforcement authorities with facility for protective actions
3. Review MOA with local law enforcement to supplement security personnel during an event
4. Activate control of pedestrian and vehicle access on campus and within facility
5. Define organizational response to situation threats and monitor results
6. Define process to communicate and coordinate with local, county, regional, state, and federal partners to enhance health security during an event

Staff:
1. Assume an ICS functional role of section chief or higher
2. Identify appropriate personnel to complete ICS courses per response role;
3. Demonstrate access and use of ICS forms
4. Demonstrate documentation in event management software or process
5. Demonstrate process for generation of situation unit reports
6. Demonstrate reporting of bed availability on ESS
7. Demonstrate Incident Command certification for response role[3]
8. Demonstrate patient tracking process during an event [4]
9. State role of PIO and how to work with Joint Information Center (JIC)
10. Identify readily accessible and trained surge staff, equipment & supplies, and treatment space for all levels of care[5]
11. Identify organizational JIT training personnel to support staff, credentialed and volunteer personnel
12. Activate emergency credentialing procedures and assign supervisors for credentialed personnel
13. Monitor ongoing overall hospital personnel physical and behavioral health and safety during response and recovery
14. List personnel who have completed HAZWOPER course certification
15. Manage staff assignments and movement during disasters or evacuation[6]

Utilities:
1. State hospital reserve capacity and capabilities for utilities
2. Notify external authorities when on back-up power
3. Conduct load shedding to support critical services

Patient Support:
1. Maintain patient support and tracking during evacuation of patients[7]
2. Operationalize disaster behavioral health resources and processes for patients

3. Activate scalable patient surge capacity
4. Ensure appropriate and accessible equipment and practices for individuals with special needs[8]

[1] Includes Tabletop, Functional, and Full-Scale Exercises
[2] Includes annually-reviewed 24/7 vendor listing, MOA's & resource inventory list for disaster supplies, essential medical, non-medical, pharmaceuticals, PPE, water, fuel & other critical resources and assets
[3] Includes IS-100.HC, IS-200, IS-700 and IS-800 course certification for section chiefs; ICS 300 and ICS 400 for Hospital Incident Commander and/or Hospital Liaison Officer
[4] Includes family notification during facility emergency evacuation
[5] Includes Red, Yellow, Green, Black (deceased & expectant)
[6] Includes for internal use or to other facilities if evacuated
[7] Includes records, supplies, staff support, and appropriate transportation assets
[8] Includes pediatric, geriatric, persons with disabilities, and persons with access or functional needs (formerly special needs)

A checklist that can be used to track individual achievement of the advanced level competencies is included in the Appendix.

Recommendations for Staff Assignments to Advanced Level Competencies

Competency	Staff Assigned
GENERAL	
Describe how to activate and operationalize EOP from response through recovery (COOP) for the organization	HICS Team; Admin; Dept Leaders; ERT; Emerg Mgt Coord
Describe annual review process for EOP including training of organization	Emerg Mgt Coord.; Education; Environment of Care Committee; Admin
Conduct hazard vulnerability assessment for facilities associated with hospital	Emerg Mgt Coord; Security; Maintenance; ICP;
Document situational awareness of potential threats	Emerg Mgt Coord; ICP; IC
Prioritize HVA potential emergencies with community partners	Emerg Mgt Coord; Security; Maintenance; ICP; IC
Identify community's capability to meet potential needs	Emerg Mgt Coord; IC
Initiate organizational steps to mitigate risks;	Emerg. Mgt Coord; Security; IC; Admin; HICS Team; Dept Leaders
Participate in leadership role in hospital exercises, events and after-action reviews	HICS Team; Admin; Dept Leaders; ERT; Emerg Mgt Coord
Participate in the development and approval process for MYTEP	Emerg Mgt Coord; ICP; HICS Team; Education; IC; Environment of Care Committee
Participate in the development and approval of hospital continuous improvement plan	Emerg Mgt Coord; ICP; HICS Team; Education; IC; Environment of Care Committee
Integrate corrective actions into EOP	HICS Team; Admin; Emerg Mgt Coord
COMMUNICATIONS	
Explain process for hospital to receive official notification of threats or events	Emerg Mgt Coord; ICP; HICS Team; Admin;
Explain how public health and/or emergency management will be notified of a threat or event at hospital	Emerg Mgt Coord; ICP; HICS Liaison Officer; IC; Security;
Demonstrate successful communication of messaging to staff throughout the organization internally & externally through mass notification mechanisms & hotlines	HICS Team; Dept Leaders; Communications; Emerg. Mgt Coord; Admin
Demonstrate successful staffing callback rates from drills and events	Communications; Emerg Mgt Coord; HICS Team; Dept Leaders
Demonstrate ability to contact vendors for essential supplies, services and equipment during an emergency	HICS Logistics Chief

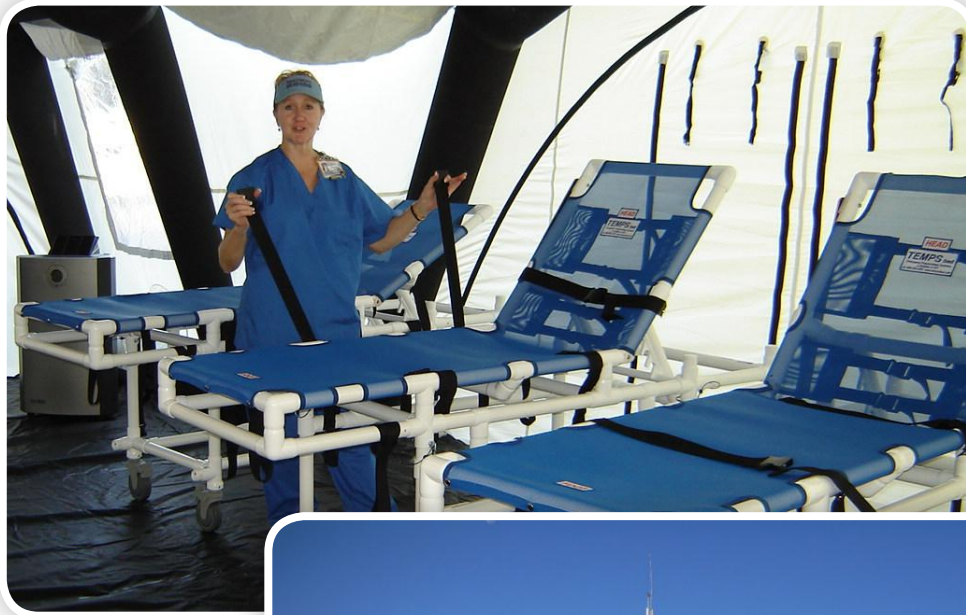| Competency	Staff Assigned
Demonstrate access to 24/7 list of critical contacts for organization, community partners and external authorities	HICS Liaison Officer; IC
Activate use of backup systems during an event	IC; Communications; Security
Provide for sufficient capacity and capability for redundant & backup communication systems throughout hospital organization	IC; Communications; Emerg Mgt.Coord
Provide for capacity and capability of ham radio access & equipment support	IC; Communications; Emerg Mgt.Coord
Demonstrate competency in using internal and external radio systems	HICS Liaison Officer; Communications; IC; HICS team
Monitor organizational success rate using internal & external back-up systems	Communications; Emerg Mgt Coord; Environment of Care Committee
RESOURCES	
Coordinate information with external authorities on agent identification	HICS Liaison Officer; Medical Staff Officer;
Conduct annual review of MOA's with vendors or other facilities	HICS Logistics Chief
Identify trained organizational members to serve as clinical rounding team for triage & scarce allocation of resource process	Administration; Legal; Risk Management; Medical Staff
SAFETY & SECURITY	
State organizational protective actions for threats/events	Emerg Mgt Coord; Security; Maintenance; HICS Team; IC
Share instructions from public health or law enforcement authorities with facility for protective actions	Emerg Mgt Coord; ICP; HICS Liaison Officer; IC; Security
Review MOA with local law enforcement to supplement security personnel during an event	Emerg Mgt Coord; Security; Maintenance; HICS Team; IC
Activate control of pedestrian and vehicle access on campus and within facility	Security; Maintenance; IC
Define organizational response to situation threats & monitor results	Emerg Mgt Coord; Security; Maintenance; HICS Team; IC; Environment of Care Committee
Define process to communicate & coordinate with local, county, regional, state and federal partners to enhance health security during an event	Emerg Mgt Coord; Security; IC
STAFF	
Assume an ICS functional role of section chief or higher	HICS Team

Competency	Staff Assigned
Identify appropriate personnel to complete ICS courses per response role	Emerg. Mgt Coord; Education; IC
Demonstrate access and use of ICS forms	Emerg Mgt Coord; HICS Team; Education
Demonstrate documentation in event management software or process	Emerg Mgt Coord; HICS Team; Education
Demonstrate process for generation of situation unit reports	Emerg Mgt Coord; HICS Planning Chief and Team; Education
Demonstrate reporting of bed availability on ESS	Emerg. Mgt Coord; Patient Flow Coordinator; HICS Operations Chief
Demonstrate Incident Command certification for response role (IS-100.HC, IS-200, IS-700, IS-800 for Section Chiefs; ICS 300 and ICS 400 for Incident Commander and/or Liaison Officer)	HICS Team
Demonstrate patient tracking process during an event	HICS Operations Chief; HICS Planning Chief
State role of PIO and how to work with Joint Information Center (JIC);	HICS PIO Officer; IC; Emerg Mgt. Coord
Identify readily accessible and trained surge staff, equipment and supplies, and treatment space for all levels of care	HICS Planning Chief; HICS Operations Chief
Identify organizational JIT training personnel to support staff, credentialed and volunteer personnel	HICS Team; Education; Dept Leaders
Activate emergency credentialing procedures and assign supervisors for credentialed personnel	HICS Planning Chief; HICS Operations Chief; Education
Monitor ongoing overall hospital personnel physical and behavioral health and safety during response and recovery	Employee Health; Dept Leaders; Security; HICS Team
List personnel who have completed HAZWOPER course certification	Education; Emerg Mgt Coordinator; Environmental Services; Emergency Response Team
Manage staff assignments and movement during disasters or evacuation	HICS Planning Chief
UTILITIES	
State hospital reserve capacity and capabilities for utilities	HICS Logistics Chief; Incident Commander; HICS Liaison Officer; Engineering; Maintenance; Emerg Mgt Coord
Notify external authorities when on back-up power	HICS Liaison Officer

Competency	Staff Assigned
Conduct load shedding to support critical services	Maintenance; Engineering
PATIENT SUPPORT	
Maintain patient support and tracking during evacuation of patients	HICS Planning Chief; HICS Operations Chief
Operationalize disaster behavioral health resources and processes for patients	HICS Operations Chief; Behavioral Health Team
Activate scalable patient surge capacity	HICS Operations Chief; HICS Team; Department Leaders
Ensure appropriate and accessible equipment and practices for individuals with special needs	HICS Logistics Chief

CORE COMPETENCIES

ACROSS LEVELS

CORE COMPETENCIES ACROSS LEVELS BY CATEGORY			
Category	**Awareness Level**	**Mid Level**	**Advanced Level**
GENERAL			
Planning	• Describe the department's all-hazards response for an event; • Explain key components of personal/family preparedness plans; • Complete attestation for personal preparedness plan; • State who to report to during an event;	• Describe the facility's EOP- all hazards and hazard-specific; • State how to operationalize EOP and lead staff in departmental implementation;	• Describe how to activate and operationalize EOP from response through recovery (COOP) for the organization; • Describe annual review process for EOP including training of organization;
HVA	• Describe overall key threats for hospital;	• Verbalize risks associated with high-priority threats; • Describe departmental and hospital risk management activities;	• Conduct hazard vulnerability assessment for facilities associated with hospital; • Document situational awareness of potential threats; • Initiate organizational steps to mitigate risks; • Prioritize HVA potential emergencies with community partners; • Identify community's capability to meet potential needs
Detection	• List indicators for the onset of a threat (natural, unintentional and terrorist); • Describe immediate actions and precautions to protect oneself and others from harm in a disaster or public health emergency;	• Describe how to operationalize immediate actions and precautions to protect staff, facility and patients from harm;	• State organizational protective actions for threats/events; • Explain how public health and/or emergency management will be notified of threat or event at hospital;
Evaluation & Exercises	• Demonstrate active participation in hospital exercises (TTX, FE, FSE)	• Demonstrate active participation in hospital exercises & after-action reviews; • Demonstrate participation in departmental and organizational corrective action improvement planning; • Demonstrate integration of corrective action recommendations into departmental processes;	• Participate in leadership role in hospital exercises (TTX, FE, FSE) and events; • Participate in the development and approval process for MYTEP; • Participate in the development and approval of hospital Continuous Improvement Plan; • Integrate corrective actions into EOP

CORE COMPETENCIES ACROSS LEVELS BY CATEGORY			
Category	**Awareness Level**	**Mid Level**	**Advanced Level**
COMMUNICATIONS			
Notification	• State personal response to internal/external notification during an emergency or disaster; • State employee hotline number; • Describe downtime documentation procedures;	• Demonstrate use of situational awareness resources & process to share threat information with staff; • Demonstrate processes to rapidly notify department staff, patients and patients families of events and keep them updated;	• Explain process for hospital to receive official notification of threats or events; • Explain how public health and/or emergency management will be notified of a threat or event at hospital; • Demonstrate successful communication of messaging to staff throughout the organization internally & externally through mass notification mechanisms & hotlines; • Demonstrate successful staffing callback rates from drills and events; • Demonstrate ability to contact vendors for essential supplies, services & equipment during an emergency; • Demonstrate access to 24/7 list of critical contacts for organization, community partners and external authorities;
Back-Up Systems	• Demonstrate use of backup systems for communications; • Demonstrate successful use of internal and external radios sending and receiving transmissions;	• Exercise departmental use of back-up systems & monitor success; • Monitor for successful hospital roll-call checks using back-up communications equipment; • Maintain communication back-up systems for continued 24/7 operability;	• Activate use of backup systems during an event; • Provide for sufficient capacity and capability for redundant & backup hospital organization communication systems; • Provide for capacity and capability of ham radio access & equipment support; • Demonstrate competency using internal and external radio systems; • Monitor organizational success rate using internal & external back-up systems;

CORE COMPETENCIES ACROSS LEVELS BY CATEGORY			
Category	**Awareness Level**	**Mid Level**	**Advanced Level**
ICS	• State who to report to during an event; • Demonstrate Disaster Awareness course certificate (includes description of NIMS, ICS, HICS)	• Assume an ICS functional role below section chief in an emergency or disaster; Demonstrate IS-100.HC and IS-700 or equivalent course certification;	• Assume an ICS functional role of section chief or higher; • Demonstrate documentation in event management software; • Identify event management capabilities including location of critical contacts list for internal/external authorities; • Demonstrate how to generate situation unit reports; • Demonstrate organizational use of ICS forms; • Demonstrate reporting of bed availability on ESS; Demonstrate IS-100.HC, IS-200, IS-700 and IS-800 course certification for all section chiefs; ICS 300 and 400 for incident commander and/or Liaison Officer; • State role of PIO and how to work with Joint Information Center (JIC);
RESOURCES & ASSETS			
	• Identify departmental resources during an emergency; • Describe how to conserve resources if directed;	• Maintain readiness and access to department and hospital disaster equipment; • Communicate triggers for requesting additional resources; • Identify ready & accessible sources for surge equipment and supplies; • Communicate guidelines for triage and allocation of scarce resources;	• Coordinate information with external authorities on agent identification; • Conduct annual review of MOA's with vendors or other facilities (including activation during exercise); • Identify trained organizational members to serve as clinical rounding team for triage & scarce allocation of resource process;

CORE COMPETENCIES ACROSS LEVELS BY CATEGORY			
Category	Awareness Level	Mid Level	Advanced Level
SAFETY & SECURITY			
	• Restrict access and control movement of unauthorized persons in facility; • Demonstrate successful response to unknown object, fire, bomb threat, evacuation, cybersecurity etc; • Support chain of custody for personal belongings and valuables of casualties; • Describe how hospital will provide information about a situation or threat; • Demonstrate situational awareness in role;	• Direct assignments for those assuming role of deputized security; • Direct containment of contaminated vehicles; • Demonstrate scalable crowd control measures;	• Review MOA with local law enforcement to supplement security personnel during an event; • Activate control of pedestrian and vehicle access on campus and within facility; • Define organizational response to situation threats & monitor results: • Define process to communicate & coordinate with local, county, regional, state and federal partners to enhance health security during an event; • Share instructions from public health or local law enforcement authorities with facility for protective actions;
STAFF RESPONSE			
	• State primary disaster role and responsibilities; • List additional cross-trained roles and responsibilities; • Demonstrate how to access the facility and departmental emergency plans; • Demonstrate correct use of department's disaster equipment; • Don and doff Level D PPE; • Verbalize department respiratory protection plan; • Provide disaster awareness course certification: • Demonstrates awareness of resources to support CBRNE agent identification & treatment;	• Identify departmental JIT resource personnel for staff and emergency credentialed personnel on job roles and responsibilities and use of disaster equipment; • Demonstrate disaster triage skills; • Demonstrate decontamination skills for persons of all ages, ambulatory and non-ambulatory; • Don and doff Level C PPE; • Demonstrate Operations level course certification; • Monitors use of resources during events (Poison Control, agent identification websites); • Monitor physical & behavioral health of staff and engage resources to actively support those in need;	• Identify organizational JIT personnel to support staff, credentialed and volunteer personnel; • Identify readily accessible surge staff, equipment & supplies, and treatment space for Red, Yellow, Green, Black (including expectant) levels of care; • Activate emergency credentialing procedures and assign supervisors for credentialed personnel; • Monitor ongoing overall hospital personnel physical and behavioral health and safety during response and recovery; • List personnel who have completed HAZWOPER course certification; • Coordinate information with external authorities on agent identification;

CORE COMPETENCIES ACROSS LEVELS BY CATEGORY			
Category	**Awareness Level**	**Mid Level**	**Advanced Level**
UTILITIES			
	• Demonstrate use of generator backup electrical outlets for critical equipment; • Demonstrate process to manually shut off medical gases and notify staff; • Locate battery powered or manual backup "power out" staff and patient equipment;	• Actively institute fall prevention measures for staff and patients during reduction in lighting; • Provide for heating/cooling emergency protection measures as needed; • Verbalize battery backup times of critical patient equipment (IV pumps, transport ventilators etc); • Verbalize department capabilities during load-shedding;	• State hospital reserve capacity and capabilities for utilities; • Notify external authorities when on back-up power; • Conduct load shedding to support critical services;
PATIENT SUPPORT			
	• Identify departmental and hospital support mechanisms (personnel, equipment, processes, space) for persons with special needs (all ages); • Explain department surge plan and procedures; • Demonstrate horizontal and vertical patient evacuation using equipment and/or carries, routes and location of evacuation staging areas; • Demonstrate patient tracking capability during an event; • Demonstrates psychological first aid practices for patients and colleagues;	• Coordinate hospital, community and public health resources for persons with special needs within vulnerable populations; • Operationalize scalable patient surge plan for department; • State overall hospital scalable patient surge plan; • Conduct triage of patients for emergency evacuation including type of carry, equipment & transportation assignment; • Identify location of list of community behavioral health resources for staff or patients in need;	• Operationalize disaster behavioral health resources and processes for patients and staff; • Activates scalable patient surge capacity; • Ensures appropriate and accessible equipment and practices for individuals with special needs; • Maintains patient support and tracking during evacuation of patients with records, supplies, staff support and appropriate transportation assets and informs families of patients of evacuation;

PLANNING AND MITIGATION STRATEGIES

Select Personnel

PLANNING AND MITIGATION STRATEGIES
Select Personnel

Note: It is recognized that all hospitals may not use the same titles for the positions or departments mentioned. In such cases, the next closest position or department carrying out those functions should be substituted.

Hospital Senior Administrator
- Commit and allocate resources for mitigation, preparation, response and recovery from an emergency;
- Establish a hospital emergency incident command system for all hazards / all emergencies consistent with the National Incident Management System;
- Determine designated and alternate Command staff, Section Chiefs, and Department leaders needed for HICS implementation;
- Identify the institutional experts for all emergencies, in consultation with CMO and CNO;
- Ensure the most recent and updated Joint Commission accreditation emergency management standards are met.

Hospital Chief Financial Officer (CFO)
- Estimate the costs of emergency management during an emergency;
- Develop a plan for cost distribution either to a single emergency cost code or by departments of the hospital;
- Determine the impact of emergency management on the budget of other hospital operations;
- Explore all possibilities for insurance, third party, local, state or federal governmental reimbursement for the cost of emergency management preparedness, mitigation, response and recovery;
- Develop protocols and policies regarding professional billing and insurance reimbursement for services rendered during different types of emergencies, with oversight from Chief Medical Officer;
- Consider developing a policy for compensation for exposed or injured employees.

Chief Medical Officer
- Oversee the development of a policy by Human Resources or other relevant section chiefs for emergency credentialing of outside licensed independent professionals;
- Determine at what point the hospital will initiate cancellation of non-critical admissions and elective surgeries and/or at what clinics will be cancelled;
- Identify the staff experts in infectious disease, toxicology and radiation illness;
- Oversee Human Resource planning for medical staff surge during emergencies, including communication and notification in coordination with the Communications Chief;
- Develop a plan for educating medical staff about their roles and responsibilities during different kinds of emergencies;
- Oversee a "Protocol/Policy" to be developed by the financial office regarding professional billing and insurance reimbursement for services rendered during different types of emergencies.

Chief Nursing Officer
- Work with Hospital Emergency Manager in planning scalable primary and alternate treatment locations for emergencies;
- Work with Hospital Emergency Manager to pre-determine the number and locations of Airborne Infection Isolation Rooms or Isolation Floors for infectious patients;
- Oversee human resource planning for a surge in the nursing staff capacity and other clinical and non-clinical support staff capacity during emergencies, including communication and notifications - coordinate with Communications Chief;
- Develop a plan for a surge in hospital bed capacity (medical-surgical, telemetry, intensive care), and specialty beds (psychiatric, LDRP, pediatric, burn, trauma) during emergencies. For example, conversion of single patient rooms into double patient rooms or identifying patients who can be discharged to a pre-designated "discharge lounge" from where they can go home with out-patient, home nursing, or a hospital clinic follow up, or converting endoscopy suites, elective cardiac catheterization labs, or other space into patient care areas;
- Develop a plan, in conjunction with the Pharmacy Section Chief, Infection Prevention Coordinator, Radiation Safety Officer and local public health officials, for administration and distribution of vaccines, prophylactic medications, antidotes and countermeasure medications; Biological/Chemical/Radiological agents;
- Develop a plan for staff support including housing, feeding, child care services, behavioral health and employee assistance programs;
- Develop a plan to decrease elective/non-urgent surgeries and admissions to free up staff for emergency operations;
- Consult with CEO/CMO to develop a protocol for transferring patients to other floors or institutions during an emergency due to capability, capacity or contamination issues;
- Develop a plan for educating nursing staff about their roles and responsibilities during different kinds of emergencies;
- Develop protocol for disposition of patients from a designated discharge area.
- Oversee Human Resource plan for the emergency credentialing of nurses from other institutions, so they may perform nursing duties during an MCI;
- Coordinate with Social Services/Pastoral Care/Mental Health and Hospital Emergency Manager to assign a location for a Family Assistance Center during emergencies.

Hospital Emergency Management Coordinator
- Perform annual Hazard Vulnerability Analysis with community partners and local emergency management for the hospital and campus facilities;
- Develop a written plan, updated annually and compliant with JCAHO standards, for Mitigation, Preparedness, Response and Recovery for all-hazard emergencies based on the results of Hazard Vulnerability Analysis and using the Hospital Incident Command System;
- Coordinate/integrate the institution's emergency management plan with the community agencies/resources including EMS, local health department, regional poison control, regional radiation safety and others;
- Coordinate plan for patient tracking with ESF-8 and local emergency management;

- Coordinate plans for sheltering of staff and their families with community emergency manager, including child care, elder care, pet care and special needs;
- Coordinate plans for Family Assistance Center and location;
- Develop a plan for acquiring, maintaining, inventorying and servicing disaster equipment.

Public Information Officer
- Prepare press releases and community messaging to explain/educate the public about hospital emergency management procedures;
- Plan how information will be disseminated during an emergency;
- Plan for the coordination and control of media access to the facility;
- Coordinate the Hospital's "Emergency Public Information Plan" with other Public Information Officers. Train and exercise joint information systems (JIS) / Joint Information Centers (JIC) with health and response Public Information Officers (PIO's) in the community;
- Establish a dedicated and redundant communication link for the PIO office;
- Have a plan in place to maintain situation awareness including monitoring of local, regional, state, national and world events;
- Have a "Rumor Control" protocol in place;
- Act as the identified spokesperson for media contacts. Prepare and develop liaison relationships with local media personnel.

Radiation Safety Officer
- Develop a "Radiation Safety Plan" for suspected or identified Radiological/Nuclear exposure and/or emergencies. Coordinate with Hospital Emergency Management Coordinator;
- Arrange for the acquisition of dosimeters, radiation monitoring equipment, communications, and personal protective equipment (PPE) for the staff doing assessment, monitoring and/or decontamination;
- Develop a safety and security plan for receipt, storage and disposal of radioisotopes/radiological material;
- Develop a radiological decontamination plan in consultation with the CMO/CNO, and determine where in the institution these patients will be decontaminated and treated;
- In consultation with CMO and Pharmacy, acquire the pharmaceuticals or countermeasures for internal decontamination;
- In consultation with CMO/CNO, develop education/training programs related to Radiological/Nuclear exposure and/or emergencies for hospital staff;
- Work with EMS and local/regional radiation safety offices to coordinate emergency management of radiologically contaminated patients and disposition of contaminated materials;
- Support Employee Health efforts to avoid contamination of employees, and arrange for treatment for exposed employees.

Anesthesia Services
- Develop anesthesia protocols for patients suffering from toxic effects of industrial chemicals or chemical warfare agents;

- Consider training anesthesia staff to safely care for a contaminated patient;
- Develop protocol for contamination of anesthesia machines due to patients with respiratory contamination from a radiological incident;
- Coordinate plans with the Decontamination Team for an "Intubations Corner" in the decontamination area, if intubations are needed prior to decontamination;
- Plan with Surgical Services for provision of anesthesia services to a temporary Operating Room if needed;
- Identify anesthesia machines that can serve as surge ventilators if needed.

Behavioral Health/Case Management/Pastoral Care
- Provide behavioral health training for all hospital professionals emphasizing disaster stress, normal reactions, how to provide psychological first aid and support resources;
- Provide guidance to staff regarding procedures for dealing with a possible surge of fearful patients and family members during disasters;
- Provide support for staff to communicate with family members during disasters;
- Coordinate with Mental Health and Employee Health in establishment of a crisis counseling team serving the staff;
- In coordination with Employee Health, establish protocols for mental health evaluations and treatment of staff;
- Establish a protocol to provide Mental Health Triage;
- Establish a protocol to provide mental health counseling and treatment to patients and their family members, in coordination with other community mental health resources;
- In coordination with Mental Health and similar community resources, establish protocols for providing pastoral or spiritual counseling to patients and their family members in emergencies;
- Identify private space for patients and family members to meet with Mental Health/Social Services/Pastoral Care;
- Develop a plan to assist families in identifying and locating victims, including communicating with the Red Cross and Medical Examiner;
- Support the development of mass fatality management protocols for providing appropriate religious/cultural observances rites for the deceased, both contaminated and non-contaminated.

Biomedical Engineering
- Have a plan in place for monitoring, decontamination, performance maintenance certification of equipment such as IV pumps, portable suction devices, portable monitors, pulse oximeters, ventilators, etc.
- Identify backup battery times for critical patient equipment;
- Provide portable electrical extension support for critical patient equipment during emergency evacuation;
- Make arrangements with suppliers, other hospitals or manufacturers for the emergency re-supply of equipment.

Central Sterile Supply
- Develop a plan to increase capacity of the central sterile supply area for cleaning and sterilizing the instruments and/or equipment during emergencies;
- Consider stocking a supply of available disposable and/or reusable instruments and supplies;
- Arrange for an alternate site for sterilization in case of contamination of the primary central sterile supply" site;
- Establish who in the institution will be responsible for decontaminating durable equipment.

Clinical Laboratory
- Determine the extent of toxicological and microbiologic testing that can be done at the hospital and what will be referred out and where;
- Develop protocols for obtaining samples from contaminated patients and assuring that appropriate PPE is available to persons collecting the specimens;
- Develop protocols for safe transportation of contaminated samples to the point where they will be tested;
- Establish protocols for early recognition of unusual isolates or multiple isolates of the same organism;
- Establish a protocol for the lab to handle radioactive lab specimens and proper PPE for lab technicians to work with a radiology contaminated patient;
- Establish protocols to increase the capacity of the Blood Bank and technicians on short notice;
- Work with all clinical departments to establish minimum and absolutely necessary blood/lab work needed for different types of Mass Casualty Incidents (MCI) and assist in educating medical staff about this;
- Have contact phone numbers for reporting/consultation with Public Health Officials;
- Identify alternate labs for use in the event of contamination of the hospital lab;
- Consider acquiring equipment to do basic labs which can be used for blood from patients with certain Biological agents (e.g. VHF);
- Ensure that laboratory personnel handling the contaminated specimens are properly educated and trained.

Communications
- Establish a secure and redundant communication system that ensures connectivity, internally and externally, during an emergency. Internal communications must include Security, Pharmacy, Respiratory, Senior Administration, Central Supply, Emergency Departments, ICU's, OR's, Maintenance and Medical Staff Office. External communications must include local and state health departments, EMS, law enforcement and intelligence agencies, emergency operation centers and various federal emergency management and public safety agencies;
- Systems should also be established to ensure secure, real-time communication with other local and regional healthcare facilities and also within the healthcare facility campus and/or system;
- Establish a system for Decontamination Team members to communicate with casualties and with the Decon Team Leader while working in their PPE.

- Maintain an updated list of Hazmat/Decontamination Team members and establish a mechanism to contact them on a 24/7 timely basis for no-notice events;
- Establish a mechanism to conduct mass notification of hospital staff, on a timely basis, at anytime;
- Have a backup plan (e.g. runners and HAM radio operators) if communication systems are compromised;
- Evaluate the use of event management software to advance communications between HICS team members and for access to resource information.

Critical Care Units
- Have protocol in place for surge capacity for critical care beds, staff and supplies;
- Plan for isolation of critically ill, highly contagious patients;
- Develop a plan to decompress ICU to create space for surge critical patients;

Dialysis Unit
- Plan for the availability of purified water for dialysis in case of contamination or disruption of the institution's water supply;
- Have additional "Disposable Dialysis Packs" available or a mechanism to acquire them on short notice;
- Develop a mutual aid agreement for the institution's dialysis patients to be transferred to other dialysis service providers in the area;
- Develop a plan for dialysis patients to maintain them during an emergency;
- Designate an alternate area in the hospital for a temporary dialysis unit, if the dialysis unit gets contaminated.

Emergency Department
- Develop the capacity and capability to handle a surge of disaster patients on a 24/7 basis from an MCI, WMD or public health emergency;
- Train staff in accomplishing communication, triage, assessment and life-saving treatment while in PPE;
- Establish an alternate site and plan for ED operations in case the facility becomes contaminated, damaged or destroyed by a secondary terrorist attack.
- Establish protocols to evaluate, stabilize and, if needed, transfer victims of a terrorist attack;
- Establish protocols to conduct chemical and radiological decontamination;
- Develop protocols for WMD event recognition, including identifying features indicative of a potential terrorism event, safety issues, notifications and algorithms for treatment of WMD Patients;
- Demonstrate respiratory protection process for potentially infectious patients;
- Coordinate with the CNO to plan for Emergency Department Surge Capacity, including identification of an alternate staffed and supplied location within the hospital or on the hospital campus to create room for incoming patients from emergency incidents;
- Plan for continuity of services for emergency non-event patients;
- Develop a plan in coordination with security and community law enforcement to restrict pedestrian and vehicular access to the hospital campus, including the ED;

- Demonstrate preparedness of staff and supplies for care of pediatric patients in a disaster.

Employee Health / Occupational Health
- Provide seasonal and event-specific vaccinations as prophylaxis for biological agent exposure;
- Maintain a log on hospital and departmental employee immunization status;
- Conduct eligibility assessment, medical monitoring and follow-up of Decontamination team members;
- Develop protocol to monitor employee well-being during event, including provision of Medical Threat Assessment to the Incident Commander;
- Develop protocol to address employee need for post -exposure immunizations and/or prophylactic antibiotics. Coordinate with local public health officials and CNO;
- Develop protocol for post-event employee evaluation for exposure, counseling, treatment and follow-up.

Environmental Services
- Determine the level of WMD training needed for Environmental Service employees, from awareness to operation level, and ensure the availability of mid level (operations- trained staff on all shifts;
- Develop a plan coordinated with Human Resources to increase the surge capacity for personnel and equipment;
- Determine Environmental Service's role in decontamination of disaster equipment, the facility and environmental monitoring;
- Develop a plan for storage of evidence and disposal of contaminated waste water and other contaminated materials and Biomedical Waste;
- Cross-train employees in stretcher handling.

Facilities and Engineering
- Develop plans to isolate the ventilation system/air handlers in selected areas of the building, if needed, due to airborne contamination;
- Maintain functionality of Airborne Infection Isolation Rooms and portable HEPA filtration and report availability and location to CNO;
- Develop a plan to monitor and centrally control the elevators in an emergency;
- Plan for quick set-up and availability of air, oxygen, vacuum and water for newly created patient care spaces in an emergency;
- Develop an alternate plan for providing electricity, water, air-conditioning, air, oxygen and suction in case these are lost during an emergency, coordinate with Hospital Emergency Manager and community Emergency Management;
- Provide warm water and ability to contain contaminated water at the decontamination site for the hospital;
- Establish pedestrian and vehicular access barriers as needed;
- Plan for continuity of critical functions during power outage;
- Identify scalable load-shedding that can be conducted and inform Command Team of capabilities during an event.

Food and Nutrition Services
- Plan to obtain additional food and water in a timely manner for scalable events for patients, staff and family members;
- Conduct annual review and exercise for food and water supply/re-supply agreements;
- Identify and sustain potable water reserves;

HIM/Medical Records
- Develop a process with available and surge staff, software and equipment access to generate medical records on patients presenting at all potential points of care in the facility;
- Create a backup system of paper records in case the electronic record system is not functioning;
- Develop a process to support medical record numbers for a surge in unidentified patients;
- Establish and exercise a process to ensure security of medical records and HIPPA Compliance during a disaster event;
- Develop a mechanism for handling and transcribing records accompanying contaminated patients;
- Establish a process to link triage tag number, patient valuable tag number and other file formats with medical records to maintain patient identification;
- Design a system to allow for complete documentation of times, volume and conditions of patients, and retain them for an appropriate length of time;
- Establish a time-efficient plan for obtaining old medical records, if needed, from other hospitals for the victims of MCI.

Hospital Epidemiology / Infection Control
- Establish criteria for early recognition of various syndromes;
- Identify personal protective equipment for specific biological agents/diseases including those on the CDC "Bioterrorism List" and arrange/provide training, fit testing and monitoring for hospital personnel in its PPE use and respiratory protection protocols;
- Establish protocols/procedures for isolation and movement of patients with suspected/or established exposure or manifestation of a biological agent on the CDC Bioterrorism list, from the point of entry in the healthcare facility to the point of care within the facility;
- Coordinate Syndromic Surveillance with Public Health officials;
- Provide and refresh hospital staff with training in standard precautions and transmission-based precautions for infection control;
- Oversee the development of protocols for conversion of portions of the hospital to isolation areas beyond existing AIIR's for an infectious disease patient surge;

Human Resources
- Maintain a master call-in list for staff;
- Maintain and update a list of operations level and HAZMAT trained personnel;

- Develop a protocol for hospital response to the arrival of non-physician and non-nursing volunteers;
- Maintain the records of employee participation in biological or HAZMAT incidents;

Legal Services
- Integrate regulatory guidance for EMTALA, HIPAA, OSHA, EPA into hospital operations for disasters;

Linen Service
- Develop an emergency procurement plan for a reserve of linen, blankets, hospital clothing, scrubs, pajamas, slippers and pediatric/infant clothing;
- Maintain a backup supply of staff uniforms and linen;
- Set protocol for handling potentially contaminated laundry;

Mail Room
- Establish a protocol for handling suspicious packages;
- Initiate screening for mail/packages to be screened for WMD hazards (Biological, Chemical, Radiological or Explosive) hazards if a threat is received;

Material Management/Purchasing
- Maintain 20% above baseline par levels of critical patient care equipment and supplies to accommodate a patient surge;
- Establish a rotation system based on the shelf life of disaster supplies;
- Develop a system for handling, inventorying, inspecting, delivering and resupplying PPE and other materials;
- Stock disposable and reusable supply items if shortage is anticipated;
- Have a Surge Capacity plan with mutual aid agreements with vendors, community partners and other hospitals;
- Identify supply and resupply needs for hospital alternate care sites;

Medical Services
- Identify hospital capacity and capabilities for medical specialties needed for various types of MCI's;
- Identify hospital capacity and capabilities for pediatric specialty;
- Designate medical surge staff that will be responsible for managing non-MCI medical patients in need of admission to be moved out of the emergency department;
- Provide medical staff for an alternate site(s) for patient care;

Mortuary Service
- Increase the hospital's capacity including space, supplies and trained staff to manage a surge in fatalities;
- Increase the hospital's capacity including space, supplies and trained staff to manage a surge in expectant patients through the provision of palliative care:
- Identify site for storage of contaminated bodies;

- Define procedures for security of morgue, storage of bodies, log ingress/egress, patient identification, evidence preservation, notification of Medical Examiner;
- Coordinate plans with medical examiner and community funeral homes to support surge capacity;
- Develop protocols, coordinated with Social Services/Pastoral Care, for providing family support and appropriate cultural/religious rites for the deceased, both contaminated and non-contaminated.

Patient Accounts and Billing
- Determine what Current Procedural Terminology (CPT) codes are used for decontamination, antidotes, vaccines etc;
- Define the level of documentation needed for these codes;
- Establish reimbursement rates for WMD Response related codes from third party payers;
- Track expenses that can be reimbursed by third party payors including state and federal agencies.

Patient Transport
- Increase the capacity to safely move or evacuate patients, staff and equipment within the hospital or to other facilities;
- Plan alternate routes to move patients, staff and equipment in case of contamination or damage to an area of the hospital;
- Plan for horizontal or vertical movement of patients, staff and equipment in case of elevator breakdown or power outage.
- Coordinate plans for transport of decontaminated patients with Decontamination Team.
- Plan for the decontamination of patient transportation vehicles and equipment.

Pediatric Services
- Increase the capacity and capabilities of the hospital to manage pediatric casualties with trained staff, designated age-appropriate supplies and infant incubators/pediatric beds;
- Maintain an agreement with a pediatric referral site for access to expertise or transfer of patients;
- Designate an alternate site for pediatric patient care in case pediatric service floor(s) are contaminated, damaged or capacity is exceeded;
- Maintain a pediatric supplies cart within any treatment area(s) that could receive pediatric disaster casualties.

Pharmacy
- Maintain an inventory and immediate access for of pharmaceuticals, drugs, antidotes, antibiotics, and vaccines needed for treatment/prophylaxis of patients exposed to various CBRNE agents;
- Coordinate distribution plans with CNO and ensure timely allocation within the institution;

- Set protocols for augmenting the institution's inventory by obtaining additional supplies from outside vendors and/or other pharmacies and/or other institutions including county health departments, state caches or Strategic National Stockpile;
- Set protocols for the emergency department to communicate pharmaceutical needs to the Pharmacy during an MCI or WMD event;
- Set protocols for accountability and billing for the stock during a WMD event;
- Develop a plan for the replacement of expired medications with fresh supply.

Quality / Accreditation Department
- Work with the hospital Emergency Manager to develop and write an Emergency Management Plan in accordance with accreditation standards;
- Educate staff to compliance standards for emergency management.

Radiology / Nuclear Medicine
- Plan for an alternate location with X-Ray capability in case the department becomes contaminated or damaged;
- Set protocols for use of portable equipment in the areas with contamination;
- Develop an increased index of suspicion for a WMD event on the basis of pattern recognition (e.g. widened mediastinum in a patient with fever and shortness of breath);
- Keep appropriate equipment and containers available for handling of clothing and personal effects for a patient surge with radioactive contamination or radioactive foreign bodies;
- Work with clinical departments to determine the minimum and absolutely necessary radiological studies for the victims of different kinds of MCI's and then help educate Medical Staff on this;

Respiratory Therapy
- Maintain an inventory of available ventilators and surge ventilator equipment that is updated annually;
- Have a plan in place to acquire additional ventilators in a timely manner, either from other hospitals or outside vendors;
- Develop a plan to augment respiratory therapy staffing by enlisting/supervising cross-trained non-respiratory department personnel to perform temporary assisted ventilation;
- Set a protocol for providing respiratory support for chemically and radiologically contaminated critically ill patients in the decontamination area;
- Work with security to develop a plan for oxygen reservoir tank protection;
- Develop an alternate plan for oxygen supply availability if the main oxygen reservoir is contaminated or damaged.

Risk Management
- Integrate guidance from HIPAA, EMTALA, Joint Commission, OSHA, EPA and other local/state/federal regulations with the hospital's emergency management plan;

- Provide risk management guidance to reduce the hospital's liability exposure during different aspects/phases of the Emergency Response Plan and establish a plan to minimize its impact;
- Review the institution's Hazard Vulnerability Analysis and provide risk management guidance to mitigate risk;
- Review institutional liability for volunteers including outside licensed independent providers who assist during a disaster;
- Coordinate compliance with the Hospital Emergency Manager, Human Resources, CNO, CMO, Infection Control and Employee Health.

Security
- Establish protocol and procedures, in coordination with community law enforcement, for total facility access control, crowd control and maintaining order in and around the healthcare facility.
- Maintain a plan for controlling vehicular and pedestrian access on the hospital campus, including its decontamination site and also access within the facility;
- Develop a coordinated plan for augmentation of the security force through use of trained deputized hospital staff and local law enforcement;
- Establish a plan for a media staging location and for control;
- Develop a plan to screen patients at other entrances to the healthcare facility for contamination, while maintaining an orderly patient flow through decontamination and triage areas;
- Demonstrate restraint techniques while in Personal Protective Equipment;
- Enforce a system for identification of authorized personnel;
- Plan for alternate traffic patterns and entrances if needed;
- Train all security personnel with operations level certification;
- Plan to control vehicle access to vulnerable and/or sensitive structures, and restrict parking areas close to critical buildings;
- Establish a plan to tow unattended vehicles near critical buildings or sensitive structures;
- Establish a plan to rapidly erect barriers to protect entrances;
- Consider a plan for a sign-in process for checking of all bags, suitcases, brief cases and packages at each access point;
- Develop a plan for strictly enforcing a visitor's policy and for checking the identification of all visitors, without exception;
- Develop a protocol for evidence collection and chain of custody transfer to appropriate law enforcement or public health agency.
- Cross train security employees in stretcher handling.

Surgical Services
- Develop protocols for handling contaminated or forensic material removed from patients;
- Work with Engineering to ensure that the hospital ventilation system is capable of preventing the contamination of operating rooms;
- Designate an alternate site for performing surgery in case the OR becomes contaminated;

- Designate medical and nursing staff that will be responsible for managing the non-MCI surgical patients moved out of emergency departments to create room for MCI patients;
- Implement a plan to increase Operating Room (OR) capacity during an MCI;
- Work with Anesthesia to ensure anesthesia capabilities for a temporary OR;

Volunteers
- Determine what role volunteers will play in the Hospital Emergency Management Plan.
- Have a contingency plan for functions dependent upon volunteers, in case they are not able to carry out those functions in an emergency;
- Develop a system for training and supervision of volunteers;
- In conjunction with Risk Management, determine the hospital's liability for volunteer injury, illness, exposure to WMD agents and psychological injury, and make necessary provisions;
- Predetermine an area for volunteers to report in and receive assignments during an emergency.

GLOSSARY of TERMS

AIIR: Airborne Infection Isolation Room

ASPR: Assistant to the Secretary for Preparedness and Response

Awareness Level: This level includes competencies common for all hospital personnel, regardless of the type of emergency or disaster encountered.

CBRNE: Refers to hazardous material (Chemical, Biological, Radiological, Nuclear and Explosive) that physically remains on or in people, animals, the environment, or equipment, thereby creating a continuous risk of direct injury or a risk of exposure.

CMO: Chief Medical Officer

CNO: Chief Nursing Officer

Competency: Knowledge, skills, and judgment needed to perform indicated objectives satisfactorily.

CPT: Current Procedural Terminology

Decontamination: The physical or chemical process of removing unwanted chemical, radioactive, or biological impurities or toxins from land or a person or object.

EMTALA: Emergency Medical Treatment and Active Labor Act

EOC: Emergency Operations Center

EOP: Emergency Operations Plan

EPA: Environmental Protection Agency

ESF-8: Emergency Support Function for Health and Medical

HIPAA: Health Insurance Portability and Accountability Act

JIC: Joint Information Center

Level C PPE: Personal Protective Equipment with skin protection that is liquid splash-resistant in addition to being chemically and biologically resistant clothing (tyvek) and air purifying respiratory protection. Acceptable in a warm zone environment of potentially contaminated patients.

Level D PPE: Personal Protective Equipment equivalent to work uniform or "splash protection" gown or coveralls, goggles and surgical masks or face shields. Acceptable for use in a cold zone environment.

MCI: Mass Casualty Incident

Mid-Level: This level builds on the awareness level competencies and is applicable to clinical, non-clinical, specialty trained personnel, department managers, and those assigned to an incident command system response role. Personnel whose response role may require them to protect and assist persons exposed to CBRNE agents and / or trauma related to an emergency or disaster; and / or control the spread of CBRNE agents either from person to person or in the hospital environment, should be trained at this level.

OR: Operating Room

OSHA: Occupational Safety and Health Administration

PAPR: Powered Air Purifying Respirator

PIO: Public Information Officer

PPE: Personal Protective Equipment. Refers to the respiratory equipment, garments, and barrier materials used to protect medical personnel from exposure to biological, chemical and radioactive hazards.

WMD: Weapons of Mass Destruction

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2011 Recommended Disaster Core Competencies for Hospital Personnel

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Appendix

Tools and Tips for using the
2011 Recommended Disaster Core
Competencies for Hospital Personnel

"Knowing is not enough; we must apply. Willing is not enough; we must do."
-- Goethe

Tips for Using the 2011 Recommended Core Competencies

The 2011 Recommended Core Competencies for Hospital Personnel are just that - recommendations. Some hospitals may be tempted to put the document on-a-shelf feeling overwhelmed or burdened by the scope of the list of competencies. These recommendations however, can be used to enhance and standardize the systems that hospitals already have in place for emergency preparedness and response.

Recommended core competencies were selected to comply with federal regulations and standards for performance. Recommended competencies can enable hospitals and staff to successfully perform the critical tasks and activities necessary to "Prepare, Prevent, Protect, Respond, and Recover" when it comes to natural or man-made disasters that can strain daily hospital medical capacity.

Recommended core competencies provide common standards that can make it easier for hospitals to work together at the local and regional level in responding to health care emergencies.

Achieving competencies are part of every hospital's standard operating procedures. Recommended core competencies define measurable tasks and capabilities to achieve national all-hazard competency standards. Tips and tools contained in this Appendix can help hospitals create options for use and implementation.

Tips for Using Core Competencies for Planning

Integrating core competencies into hospital disaster preparedness activities can simplify planning. Hospitals can incorporate core competencies into:

- Determination of necessary personnel and qualifications necessary to meet critical tasks and activities
- Development of hospital Emergency Operation Plans (EOP)
- Assessment of gaps in ability to independently meet hospital surge activities and respond to disasters
- Determination of need for Mutual Aid Agreements
- Assessment of overall hospital units and staffing preparedness levels and needs
- Assessment of individual, departmental, or organization response during exercises

Tips for Using Core Competencies for Training

Integrating core competencies into hospital disaster preparedness activities can lead to competency based education and training that focuses on the application and demonstration of skills and abilities necessary for response. Hospitals can incorporate core competencies into:

- Assessment of individual staff needs during new staff orientation and annual reviews
- Selection of specific competencies as a basis for training with site specific information
- Development of curriculum to meet assessed needs
- Establishment of individual development training plans (IDTP)

- Identification of courses that address selected competencies
- Improvement and standardization of existing training to meet assessed needs and improve competencies
- Development and use of competency checklists for individual performance expectations
- Development and use of competency checklists for specific work units
- Development of Multiyear Training and Exercise Plans (MYTEP) to meet assessed needs

Tips for Using Core Competencies for Developing Specific Job Descriptions

Integrating core competencies into hospital disaster preparedness activities can lead to the development of job descriptions that will allow hospitals to select personnel with the appropriate skills, knowledge, and education to perform critical disaster response activities. Competency based job descriptions can:

- Clarify functions and avoid confusion and duplication of responsibilities
- Provide a realistic picture of the roles and responsibilities during emergency preparation, response, and recovery
- Guide the selection of candidates to fulfill emergency response roles
- Serve as a basis for emergency response Job Action Sheets

How Hospitals Have Used the Competencies:

When it was not feasible to have all senior administrators take the three day ICS 300 course, a hospital selected and trained a liaison to the command staff who could complete the required training and provide this expertise to senior administrators.

When it was not feasible to have all senior administrators take the three day ICS 400 course, a hospital had a staff certified as an ICS 400 trainer and that person provided non certificate overview training to other staff.

Hospitals have developed systems for tracking individual staff training to meet specific competencies.

Hospitals have incorporated training on competencies into orientation and annual refresher training sessions.

Awareness Level Staff Competencies Checklist

This checklist can be used to track individual achievement of the awareness level competencies included in the 2011 Edition of Florida's Recommended Disaster Core Competencies for Hospital Partners.

Based on the structure of your agency, there may be some variation in personnel competency requirements. If a competency is not appropriate for a specific staff it can be marked as not applicable (N/A). Additional hospital specific competencies can be added to the checklist.

Employee Name/ID Number: **Department:**

Awareness Level Competency	Date
GENERAL	
Describe the department's all-hazards response for an event	
Describe overall key threats for hospital	
Explain key components of personal/family preparedness plans	
Complete attestation for personal preparedness plan	
List indicators that can signal the onset of a threat	
Describe immediate actions and precautions to protect oneself & others from harm in a disaster or public health emergency	
Demonstrate active participation in hospital exercises	
State who to report to during an event	
COMMUNICATIONS	
State personal response to internal/external notification during an emergency or disaster	
State hospital employee hotline number	
Describe downtime documentation procedures	
Demonstrate use of backup systems for communications	
Demonstrate successful use of internal & external radios sending & receiving transmissions	
RESOURCES	
Identify departmental resources during an emergency	
Describe how to conserve resources if directed	
SAFETY & SECURITY	
Describe how to restrict department/facility access & control movement of unauthorized persons	
Demonstrate successful response to threats	
Demonstrate how to support chain of custody for personal belongings/valuables of casualties	

Employee Name/ID Number: **Department:**

Awareness Level Competency	Date
Describe how hospital will provide information about a situation or threat	
Describe how to maintain situational awareness at home & in hospital role	
STAFF	
State primary (and cross-trained) disaster role(s) and responsibilities	
Demonstrate how to access the facility and departmental emergency plans	
Provide Disaster Awareness course certificate	
Demonstrate correct use of department's disaster equipment	
Demonstrate donning and doffing of Level D PPE	
Verbalize departmental respiratory protection plan	
Demonstrate awareness of resources for CBRNE agent identification & appropriate treatment (For ER, Emergency Response Team, Security, CMO)	
UTILITIES	
Demonstrate use of generator backup electrical outlets for critical equipment	
Demonstrate process to manually shut off medical gases and notify staff	
Locate battery powered or manual backup "power out" staff & patient equipment	
PATIENT SUPPORT	
Identify departmental and hospital support mechanisms for persons with special needs;	
Explain department surge plan and procedures;	
Demonstrate how to evacuate patients;	
Demonstrate patient tracking capability;	
Demonstrate psychological first aid practices for patients and colleagues	
OTHER	

Evaluator Name/ID/Title:_____

Comments:

Mid-Level Staff Competencies Checklist

This checklist can be used to track individual achievement of the mid-level competencies included in the 2011 Edition of Florida's Recommended Disaster Core Competencies for Hospital Partners.

Based on the structure of your agency, there may be some variation in personnel competency requirements. If a competency is not appropriate for a specific staff it can be marked as not applicable (N/A). Additional hospital specific competencies can be added to the checklist.

Employee Name/ID Number: **Department:**

Mid-Level Competency	Date
GENERAL	
Describe the facility's EOP- all hazards and hazard-specific threats	
State how to operationalize EOP and lead staff in departmental implementation	
Verbalize risks associated with high-priority threats	
Describe departmental and hospital disaster risk management activities	
Describe how to operationalize immediate actions and precautions to protect staff, facility and patients from harm	
Demonstrate active participation in hospital exercises and after-action reviews	
Demonstrates participation in departmental and organizational corrective action improvement planning	
Demonstrates integration of corrective action recommendations into departmental processes	
COMMUNICATIONS	
Demonstrate use of situational awareness resources and process to share threat information with staff;	
Demonstrate processes to rapidly notify department staff, patients and patients families of events and keep them updated	
Exercise departmental use of back-up systems and monitor success	
Monitor for successful hospital roll-call checks using back-up communications equipment	
Maintain communication back-up systems for continued 24/7 operability	
RESOURCES	
Maintain readiness and access to department and hospital disaster equipment	
Communicate triggers for requesting additional resources	
Identify ready & accessible sources for surge equipment and supplies	
Communicate guidelines for triage and allocation of scarce resources	
SAFETY & SECURITY	
Direct assignments for those assuming role of deputized security	

Employee Name/ID Number: **Department:**

Mid-Level Competency	Date
Direct identification and containment of contaminated vehicles	
Demonstrate scalable crowd control measures	
STAFF	
Assume an ICS functional role below section chief in an emergency or disaster	
Provide IS-100.HC and IS-700 or equivalent course certification	
Provide completed Disaster Operations level course certification	
Identify departmental JIT resource personnel for staff and emergency credentialed personnel on job roles and responsibilities and use of disaster equipment	
Monitor use of agent identification and patient treatment internal and external resources during events	
Demonstrate disaster triage skills	
Demonstrate decontamination skills for persons of all ages, ambulatory and non-ambulatory	
Demonstrate correct donning and doffing of Level C PPE	
Monitor physical & behavioral health of staff and engage resources to actively support those in need	
UTILITIES	
Actively institute fall prevention measures for staff and patients during reduction in lighting or evacuation	
Provide for heating/cooling emergency protection measures as needed	
Verbalize battery backup times of critical patient equipment	
Verbalize department capabilities during load-shedding	
PATIENT SUPPORT	
Coordinate hospital, community, and public health resources for persons with special needs within vulnerable populations	
Operationalize scalable patient surge plan for department	
State overall hospital scalable patient surge plan	
Conduct triage of patients for emergency evacuation including type of carry, equipment & transportation assignment	
Post hospital internal behavioral health resources and location of list of community behavioral health resources for patients in need	
OTHER	

Employee Name/ID Number: **Department:**

Mid-Level Competency	Date

Evaluator Name/ID/Title:_____

Comments:

Advanced Level Staff Competencies Checklist

This checklist can be used to track individual achievement of the advanced level competencies included in the 2011 Edition of Florida's Recommended Disaster Core Competencies for Hospital Partners.

Based on the structure of your agency, there may be some variation in personnel competency requirements. If a competency is not appropriate for a specific staff it can be marked as not applicable (N/A). Additional hospital specific competencies can be added to the checklist.

Employee Name/ID Number: **Department:**

Advanced Level Competency	Date
GENERAL	
Describe how to activate and operationalize EOP from response through recovery (COOP) for the organization	
Describe annual review process for EOP including training of organization	
Conduct hazard vulnerability assessment for facilities associated with hospital	
Document situational awareness of potential threats	
Prioritize HVA potential emergencies with community partners	
Identify community's capability to meet potential needs	
Initiate organizational steps to mitigate risks	
Participate in leadership role in hospital exercises, events and after-action reviews	
Participate in the development and approval process for MYTEP	
Participate in the development and approval of hospital continuous improvement plan	
Integrate corrective actions into EOP	
COMMUNICATIONS	
Explain process for hospital to receive official notification of threats or events	
Explain how public health and/or emergency management will be notified of a threat or event at hospital	
Demonstrate successful communication of messaging to staff throughout the organization internally & externally through mass notification mechanisms & hotlines	
Demonstrate successful staffing callback rates from drills and events	
Demonstrate ability to contact vendors for essential supplies, services and equipment during an emergency	
Demonstrate access to 24/7 list of critical contacts for organization, community partners and external authorities	
Activate use of backup systems during an event	
Provide for sufficient capacity and capability for redundant & backup communication systems throughout hospital organization	
Provide for capacity and capability of ham radio access & equipment support	

Employee Name/ID Number: **Department:**

Advanced Level Competency	Date
Demonstrate competency in using internal and external radio systems	
Monitor organizational success rate using internal and external back-up systems	
RESOURCES	
Coordinate information with external authorities on agent identification	
Conduct annual review of MOA's with vendors or other facilities	
Identify trained organizational members to serve as clinical rounding team for triage & scarce allocation of resource process	
SAFETY & SECURITY	
State organizational protective actions for threats/events	
Share instructions from public health or law enforcement authorities with facility for protective actions	
Review MOA with local law enforcement to supplement security personnel during an event	
Activate control of pedestrian and vehicle access on campus and within facility	
Define organizational response to situation threats & monitor results	
Define process to communicate & coordinate with local, county, regional, state, and federal partners to enhance health security during an event	
STAFF	
Assume an ICS functional role of section chief or higher	
Identify appropriate personnel to complete ICS courses per response role	
Demonstrate access and use of ICS forms	
Demonstrate documentation in event management software or process	
Demonstrate process for generation of situation unit reports	
Demonstrate reporting of bed availability on ESS	
Demonstrate Incident Command certification for response role	
Demonstrate patient tracking process during an event	
State role of PIO and how to work with Joint Information Center (JIC);	
Identify readily accessible and trained surge staff, equipment & supplies, and treatment space for all levels of care	
Identify organizational JIT training personnel to support staff, credentialed and volunteer personnel	
Activate emergency credentialing procedures and assign supervisors for credentialed personnel	
Monitor ongoing overall hospital personnel physical and behavioral health and safety during response and recovery	
List personnel who have completed HAZWOPER course certification	

Employee Name/ID Number: **Department:**

Advanced Level Competency	Date
Manage staff assignments and movement during disasters or evacuation	
UTILITIES	
State hospital reserve capacity and capabilities for utilities	
Notify external authorities when on back-up power	
Conduct load shedding to support critical services	
PATIENT SUPPORT	
Maintain patient support & tracking during evacuation of patients	
Operationalize disaster behavioral health resources and processes for patients	
Activate scalable patient surge capacity	
Ensure appropriate and accessible equipment and practices for individuals with special needs	
OTHER	

Evaluator Name/ID/Title:_____

Comments:

Sample Individual Development Plan Template based on Core Competencies

Staff Name_____   Position Title _____

Required Competency	Self Evaluation			Competency Validation			Training Recommended
	No Exp or Trng	Need to Review	Can Perform	Date Completed	Evaluator	Validation*	

Staff signature _____   Initial Plan Assessment / Review Date _____

Follow up Review Dates _____   _____   _____   _____

* Validation methods can include: Test; Simulation; Demonstration; Verbalization; Observation; Course Record; etc.

Recommended Disaster Core Competencies for Hospital Personnel Feedback Form

Your help is requested in evaluating the value and use of the "2011 Recommended Disaster Core Competencies for Hospital Personnel." Please respond to the following and return by email to DEMO_PHP@doh.state.fl.us or fax to 850-245-4580. Your comments will help ensure that the best possible, most valuable information is available for the state's healthcare system and the department's hospital partners.

Name _____ Date _____

Hospital _____ County _____

Is the document easy to understand?   Yes _____ No_____

Comments _____

Was guidance and information provided helpful?   Yes _____ No _____

Comments _____

Which information did you find most helpful? _____

_____

Which information did you find least helpful? _____

_____

Is there any additional guidance / information you would have liked to have had included? ____

_____

Did you use any of the tools included in the Appendix?   Yes _____ No _____

If so, how did you use them? _____

Do you have tools you would be willing to share with other hospitals? _____

Do you have other comments or suggestion to improve this document or information provided? (Please use additional sheet if necessary) _____

_____

_____

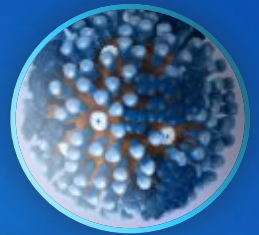_____

Thank you for your feedback!

Recommended Disaster Core Competencies For Hospital Personnel

Revised Spring 2011

Suggested Qualifications for pediatric point person on EM team

- MD/DO or RN with experience and education in the emergency care of children
- Organizational and supervisor skills to plan, organize and direct coordination activities that meet the expectations of patients, physicians, paramedics, and the community.
- Written and verbal skills necessary to communicate in a clear, concise manner.
- Interpersonal skills necessary to interact with all levels of hospital personnel, physicians, nurses, paramedics, and patients.
- Analytical skills necessary to evaluate effectiveness and to project and plan program goals.