

2016 Knox/East Tennessee (KET) Healthcare Coalition Full Scale Exercise

After-Action Report/Improvement Plan
May 31, 2016



Ketcoalition.org

EXERCISE OVERVIEW

Exercise Name	KET HC Spring 2016 FSE: Water Contamination and Patient Surge
Exercise Dates	April 5, 2016
Scope	This exercise is a full scale exercise planned for one day at various locations within the Knox/East TN Healthcare Coalition’s jurisdiction. Exercise play is limited to the parameters set forth within each participating organization. This Regional exercise ultimately involved many local, regional, and state organizations and resources and involved the following counties: Anderson, Blount, Campbell, Claiborne, Cocke, Hamblen, Jefferson, Knox, Loudon, Monroe, Roane, Sevier and Scott. The exercise involved all of EMS Region 2.
Mission Area(s)	Mitigation, Response and Recovery
Core Capabilities	HPP Capabilities <ol style="list-style-type: none">1 Healthcare System Preparedness2 Healthcare System Recovery3 Emergency Operations5 Fatality Management6 Information Sharing10 Medical Surge
Objectives	The exercise planning team selected objectives that focus on evaluating emergency operations/ procedures, identifying areas for improvement, and achieving a collaborative attitude. This exercise focused on the following objectives: <ol style="list-style-type: none">1. Evaluate the participating organizations’ ability to process a surge of patients resulting from the event.2. Assess the participating organizations’ use of the incident command system to manage the incident – to include the use of appropriate ICS Forms to include – IAP Quick Start and the following HICS/ICS forms: 214 (Activity Log), 251 (Facility System Status Report), 252 (Section Personnel Time Sheet), and 254 (Disaster Victim/Patient Tracking).3. Evaluate participating organizations’ ability to identify resource needs and methods for requesting additional resources.4. Demonstrate the participating organizations’ ability to coordinate with outside agencies.5. Assess participating organizations’ ability to sustain operations for 96

	<p>hours considering the exercise circumstances.</p> <p>6 Evaluate participating organizations' recovery plans to return to normal operations following the event.</p>
<p>Threat or Hazard</p>	<p>Natural, Flooding</p>
<p>Scenario</p>	<p>The local community has been experiencing a series of heavy rains and storms with flooding, which ultimately results in the municipal water system being contaminated with E.coli. This impacts the hospital with patient surge, facility contamination and recovery efforts.</p>
<p>Sponsor</p>	<p>Knox/ East Tennessee Healthcare Coalition (KET HCC) utilizing ASPR grant funding</p>
<p>Participating Organizations</p>	<p>Full Participants:</p> <ul style="list-style-type: none"> Blount Memorial Hospital East TN Children's Hospital East TN Regional Health Office Fresenius Dialysis Ft. Loudon Medical Center Jefferson Memorial Hospital Knox County Health Department Knoxville/Knox County Emergency Management Agency Lakeway Regional Hospital LeConte Medical Center Methodist Medical Center Newport Medical Center North Knoxville Medical Center Parkwest Medical Center Physician's Regional Medical Center Regional Forensic Center Region 2 Medical Communications Center (Medlink 2) Roane Medical Center Rural Metro EMS (Knox County) Sweetwater Hospital Association Turkey Creek Medical Center University of Tennessee Medical Center
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ANALYSIS OF CORE CAPABILITIES

Aligning exercise objectives and core capabilities provides a consistent taxonomy for evaluation that transcends individual exercises to support preparedness reporting and trend analysis. Table 1 includes the exercise objectives, aligned core capabilities, and performance ratings for each core capability as observed during the exercise and determined by the evaluation team.

Objective	Core Capability	Program	Performed without Challenges (P)	Performed with Some Challenges (S)	Performed with Major Challenges (M)	Unable to be Performed (U)
Evaluate the participating organizations' ability to process a surge of patients resulting from the event.	3. Emergency Operations	HPP PHEP	P			
	5. Fatality Management	HPP PHEP	P			
	6. Information Sharing	HPP PHEP MCM ORR	P			
	10. Medical Surge	HPP PHEP	P			
Assess the participating organizations' use of the incident command system to manage the incident – to include the use of appropriate ICS Forms to include – IAP Quick Start and the following HICS/ICS forms: 214 (Activity Log), 251 (Facility System Status Report), 252 (Section Personnel Time Sheet), and 254 (Disaster Victim/Patient Tracking).	1. Healthcare System Preparedness	HPP PHEP MCM ORR		S		
	3. Emergency Operations	HPP PHEP MCM ORR		S		
	6. Information Sharing	HPP PHEP MCM ORR		S		
Evaluate participating organizations' ability to identify resource needs and	1. Healthcare System Preparedness	HPP PHEP MCM ORR	P			

Objective	Core Capability	Program	Performed without Challenges (P)	Performed with Some Challenges (S)	Performed with Major Challenges (M)	Unable to be Performed (U)
methods for requesting additional resources	3. Emergency Operations	HPP PHEP MCM ORR	P			
	6. Information Sharing	HPP PHEP MCM ORR	P			
Demonstrate the participating organizations' ability to coordinate with outside agencies.	3. Emergency Operations	HPP PHEP MCM ORR	P			
	6. Information Sharing	HPP PHEP MCM ORR	P			
Assess participating organizations' ability to sustain operations for 96 hours considering the exercise circumstances.	1. Healthcare System Preparedness	HPP PHEP MCM ORR		S		
	3. Emergency Operations	HPP PHEP MCM ORR		S		
	10. Medical Surge	HPP PHEP	P			
Evaluate participating organizations' recovery plans to return to normal operations following the event.	2. Healthcare System Recovery	HPP PHEP		S		
	Ratings Definitions: <ul style="list-style-type: none"> Performed without Challenges (P): The targets and critical tasks associated with the core capability were completed in a manner that achieved the objective(s) and did not negatively impact the performance of other activities. Performance of this activity did not contribute to additional health and/or safety risks for the public or for emergency workers, and it was conducted in accordance with applicable plans, policies, procedures, regulations, and laws. Performed with Some Challenges (S): The targets and critical tasks associated with the core capability were completed in a 					

Objective	Core Capability	Program	Performed without Challenges (P)	Performed with Some Challenges (S)	Performed with Major Challenges (M)	Unable to be Performed (U)
<p>manner that achieved the objective(s) and did not negatively impact the performance of other activities. Performance of this activity did not contribute to additional health and/or safety risks for the public or for emergency workers, and it was conducted in accordance with applicable plans, policies, procedures, regulations, and laws. However, opportunities to enhance effectiveness and/or efficiency were identified.</p> <ul style="list-style-type: none"> • Performed with Major Challenges (M): The targets and critical tasks associated with the core capability were completed in a manner that achieved the objective(s), but some or all of the following were observed: demonstrated performance had a negative impact on the performance of other activities; contributed to additional health and/or safety risks for the public or for emergency workers; and/or was not conducted in accordance with applicable plans, policies, procedures, regulations, and laws. • Unable to be Performed (U): The targets and critical tasks associated with the core capability were not performed in a manner that achieved the objective(s). 						

Table 1. Summary of Core Capability Performance

The following sections provide an overview of the performance related to each exercise objective and associated core capability, highlighting strengths and areas for improvement.

Exercise Objective		Core Capability	
1	Evaluate the participating organizations' ability to process a surge of patients resulting from the event.	Capability 3: Emergency Operations	HPP, PHEP, MCM ORR
		Capability 5: Fatality Management	HPP, PHEP
		Capability 6: Information Sharing	HPP, PHEP, MCM ORR
		Capability 10: Medical Surge	HPP, PHEP
<p>Strengths:</p> <ol style="list-style-type: none"> Consistent exercise participation has enabled hospitals to efficiently process patient surge events. This continues to improve as details are identified and resolved with each exercise/event. Staff and volunteers create a realistic environment by taking exercise roles seriously. Overall internal staffing needs were identified early and plans enacted to compensate for surge of patients. <p>Areas For Improvement:</p> <ol style="list-style-type: none"> Security for events needs to be more of a priority. Facilities should consider actions that will be taken to support family members that will present during an event. Healthcare facilities should identify neighboring facilities (such as long term care) and ensure contact is made before an event to identify evacuation processes. 			
2	Assess the participating organizations' use of the incident command system to manage the incident – to include the use of appropriate ICS Forms to include – IAP Quick Start and the following HICS/ICS forms: 214 (Activity Log), 251 (Facility System Status Report), 252 (Section Personnel Time Sheet), and 254 (Disaster Victim/Patient Tracking).	Capability 1: Healthcare System Preparedness	HPP, PHEP, MCM ORR
		Capability 3: Emergency Operations	HPP, PHEP, MCM ORR
		Capability 6: Information Sharing	HPP, PHEP, MCM ORR
<p>Strengths:</p> <ol style="list-style-type: none"> Healthcare facilities are strong in basic ICS roles and the corresponding responsibilities. They have developed individual response actions that streamline operations and start up for their needs. Executive level staff is supportive of implementing and following ICS for event/exercise management. <p>Areas For Improvement:</p> <ol style="list-style-type: none"> Healthcare facility staff needs further training with the use of the Incident Command System, particularly the use of forms. Specific role training needs to be done for ICS positions, specifically for roles that may not be routinely activated for an event/exercise. Supporting paper documentation is difficult to maintain during an active even, especially for those unfamiliar with formats. Much of the information is repetitive throughout the different roles. Consideration should be given for a more efficient system to achieve more comprehensive and accurate documentation. 			
3	Evaluate participating organizations' ability to identify resource needs and methods for requesting additional resources.	Capability 1: Healthcare System Preparedness	HPP, PHEP, MCM ORR
		Capability 3: Emergency Operations	HPP, PHEP, MCM ORR
		Capability 6: Information Sharing	HPP, PHEP, MCM ORR
<p>Strengths:</p> <ol style="list-style-type: none"> Facilities were aware of MOU's in place and contact information for activating those MOU's Facilities consistently followed regional plans for resource needs that can be provided through RHCs. KET Coalition established a Sim Cell operation for the first time to be used during the exercise. This proved beneficial for facilities to call for resource support. The Sim Cell also made calls to participants to increase play. <p>Areas For Improvement:</p> <ol style="list-style-type: none"> Healthcare facilities need to make formalized plans to address dialysis needs during any type of water event. 			

Exercise Objective		Core Capability	
2. Facilities should reach out to community members and create more comprehensive contact lists (example: water, utilities)			
4	Demonstrate the participating organizations' ability to coordinate with outside agencies.	Capability 3: Emergency Operations	HPP, PHEP, MCM ORR
		Capability 6: Information Sharing	HPP, PHEP, MCM ORR
<p>Strengths:</p> <ol style="list-style-type: none"> Facilities consistently followed regional plans for resource needs that can be provided through RHCs. Facilities were, for the most part, well connected with outside agencies and community partners. <p>Areas For Improvement:</p> <ol style="list-style-type: none"> Facilities should update and expand local contact list to ensure quick notification to proper agencies can be made for events. Direct communication methods/contacts should be established with outside agencies to expedite information sharing. The effects of media misinformation should be considered when planning and executing an exercise more closely. 			
5	Assess participating organizations' ability to sustain operations for 96 hours considering the exercise circumstances.	Capability 1: Healthcare System Preparedness	HPP, PHEP, MCM ORR
		Capability 3: Emergency Operations	HPP, PHEP, MCC ORR
		Capability 10: Medical Surge	HPP, PHEP
<p>Strengths:</p> <ol style="list-style-type: none"> Facility procedures not typically exercised were played out and indicated several areas for improvement. Facilities had clear plans in place to address steps needed to operate for an extended period during an event. <p>Areas For Improvement:</p> <ol style="list-style-type: none"> Supplies, especially on hand water, need to be re-evaluated for realistic amounts. Staffing needs for an extended time frame should be addressed to accommodate low employee turn out during an actual event due to illness or personal circumstances that may keep them from work. 			
6	Evaluate participating organizations' recovery plans to return to normal operations following the event.	Capability 2: Healthcare System Recovery	HPP, PHEP
<p>Strengths:</p> <ol style="list-style-type: none"> Facilities had plans in place to address steps needed to operate for an extended period during an event. Personnel (such as facility engineers) not typically involved with exercises were given the opportunity to play given the scenario. <p>Areas For Improvement:</p> <ol style="list-style-type: none"> Exercise identified equipment functionality issues that will need to be address specific for each facility. Although facilities had plans in place to address recovery, those plans need to be updated and shared with all staff. 			

APPENDIX A: IMPROVEMENT PLAN

This IP has been developed specifically for Knox/East Tennessee (KET) Healthcare Coalition as a result of KET HC Spring 2016 FSE: Water Contamination and Patient Surge conducted on April 5, 2016.

Core Capability	Issue/Area for Improvement	Corrective Action	Capability Element ¹	Primary Responsible Organization	Organization POC	Start Date	Completion Date
Healthcare System Preparedness	The presence of security personnel needs to be evaluated to ensure adequate coverage.	Facilities should evaluate current security staffing for areas other than ED, taking into consideration additional factors that will affect safety during an event.	Planning	Facility Specific	Emergency Manager	07/01/16	01/31/17
		Facilities should identify additional staff that could be utilized in the security role during an event, if needed.	Planning	Facility Specific	Emergency Manager	07/01/16	01/31/17
	Facilities should formalize and exercise plans to address the additional needs during an event presented by the addition of family members arriving at the facility.	Facilities should ensure current plans address the additional needs that will arise with family members	Planning	Facility Specific	Emergency Manager	07/01/16	01/31/17
		Plans in place should be reviewed by staff and discussed/ activated during exercises to ensure procedures are clearly understood.	Planning Training Exercise	Facility Specific	Emergency Manager	07/01/16	01/31/17
	Contact information for	Facilities should reach	Planning	Facility Specific	Emergency	07/01/16	01/31/17

¹ Capability Elements are: Planning, Organization, Equipment, Training, or Exercise.

	local partners was inaccurate or non-existent between non-traditional partners.	out to community members and create more comprehensive and up to date contact lists (example: water, utilities)			Manager		
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Core Capability	Issue/Area for Improvement	Corrective Action	Capability Element ²	Primary Responsible Organization	Organization POC	Start Date	Completion Date
Healthcare System Recovery	Procedures for equipment recovery after an event need to be readily available and identified.	The effects of water contamination on equipment should be considered for equipment at the facility that is water dependent	Planning	Facility Specific	Emergency Manager	07/01/16	01/31/17
	Recovery plans are not familiar with staff or not detailed to sufficiently cover all operation	Plans should be updated and shared as appropriate	Planning	Facility Specific	Emergency Manager	07/01/16	06/31/17
Emergency Operations	In some cases, there is not a clear understanding between partnering healthcare facilities on evacuation processes during an event	Healthcare facilities should identify neighboring facilities (such as long term care) and ensure contact is made before an event to identify evacuation processes.	Planning	Facility Specific	Emergency Manager	07/01/16	06/31/17
Fatality Management	Non Identified						

² Capability Elements are: Planning, Organization, Equipment, Training, or Exercise.

Information Sharing	ICS forms are not being utilized efficiently.	Additional ICS training needs to be offered to staff. Training will include form documentation and roles	Training Exercise	KET Coalition Facility Specific	KET Coalition Advisory Board Emergency Manager	07/01/16	06/31/17
	Documentation during an event requires repetitive entries by using individual ICS forms. It also makes documentation difficult to merge after the event.	Consideration should be given for a more efficient system for event documentation. A regional program that could provide consistency would be ideal.	Equipment	KET Coalition	KET Coalition membership	07/01/16	06/31/17
	Despite "this is an exercise" messaging being consistent on all verbal and written communication, media misinformation resulted in unnecessary actions and the dissemination of inaccurate information.	Additional Signage should be more prominently displayed at all participating facilities	Planning	Facility Specific	Emergency Manager	07/01/16	06/31/17
KET Coalition PIO will be identified to provide pre-exercise information to media		Planning	KET Coalition	KET Coalition Advisory Board	04/05/16	06/01/16	
Medical Surge	Healthcare facilities need to make formalized plans to address dialysis needs during any type of water event.	Facilities should contact local providers and formalize plans in the event of an emergency	Planning	Facility Specific	Emergency Manager	07/01/16	06/31/17

APPENDIX B: EXERCISE PARTICIPANTS

Participating Organizations
Federal
State
East Tennessee Regional Health Office
Region 2 Regional Medical Communications Center-Medlink 2
County
Knox County Health Department
Roane County EMA
Regional Forensic Center
Knoxville/Knox County Emergency Management Agency
Knox County Rural Metro EMS
[Coalition Members]
Blount Memorial Hospital
Covenant Health Corporate
East Tennessee Children's Hospital
Fort Loudon Medical Center
Fort Sanders Regional Medical Center
Jefferson Memorial Hospital
Lakeway Regional Hospital
LeConte Medical Center
Methodist Medical Center of Oak Ridge
Morristown Hamblen Healthcare
Newport Medical Center
North Knoxville Medical Center
Parkwest Medical Center
Pennisula Psychiatric Hospital
Physicians Regional Medical Center
Roane Medical Center

