Mid-South
Emergency Planning Coalition

Surge Full Scale Exercise

After-Action Report/Improvement Plan

October 17, 2018

The After-Action Report/Improvement Plan (AAR/IP) aligns exercise objectives with preparedness doctrine to include the National Preparedness Goal and related frameworks and guidance. Specific to this report, the exercise objectives align with ASPR's National Guidance for Healthcare Preparedness and the Hospital Preparedness Program Measures. Exercise information required for preparedness reporting and trend analysis is included; users are encouraged to add additional sections as needed to support their own organizational needs.

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EXERCISE OVERVIEW

Exercise Name	Mid-South Emergency Planning Coalition Surge Full Scale Exercise
Exercise Dates	October 17, 2018
Scope	This exercise is a Full Scale Exercise, planned for multiple locations within the jurisdiction of the Mid-South Emergency Planning Coalition Region.
Mission Area(s)	Response and Recovery
Core Capabilities, Objectives, and Activities	HPP/PHEP 1. Capability 2: "Health Care and Medical Coordination" Objective 2: Utilize Information Sharing Platforms Activity 3: Utilize Communications Systems and Platforms. Identify and use reliable, resilient, interoperable, and redundant communications systems to effectively coordinate information during emergencies, and maintain ability to communicate among all HCC members. Objective 3: Coordinate Response Strategy, Resources, and Communications Activity 1: Inform the HCC of operational status, actions taken, and resource needs. Track and report available beds by type. Activity 3: Share accurate and timely information with employees, patients, and visitors Objective 5: Protect Responder's Safety and Health Activity 1: Provide access to food and sleeping arrangements for staff members. 2. Capability 4: "Medical Surge" Objective 2: Respond to a Medical Surge Activity 1: Implement Emergency Department and Inpatient Medical Surge Response. Make beds and surge spaces readily available for initial triage and stabilization, and obtain additional staff, equipment and supplies. Ensure at least 20% additional acute hospital inpatient capacity within the first four hours by rapidly prioritizing patients for discharge, maximizing use of staffed beds, and using non-traditional spaces, such as observation areas. Include Emergency Department,

General Med-Surg and Monitored Beds, Critical Care, Surgical Intervention, Clinical Laboratory, Radiology, Staffing, Volunteer Management, and Equipment and Supplies in surge activities.

Activity 4: Provide Pediatric Care during a Medical Response. All hospitals should be prepared to receive, stabilize, and manage pediatric patients. Ensure that pediatric patients who would benefit most from specialty services receive priority for transfer.

Activity 7: Provide Trauma Care during a Medical Surge Response. All hospitals should be prepared to receive, stabilize, and manage trauma patients. Ensure that trauma patients who would benefit most from specialty services receive priority for transfer.

Activity 8: Respond to Behavioral Health needs during a Medical Surge Response. Provide psychological first aid and ongoing support for patients, providers, families, and the community, including information concerning signs and symptoms of acute stress responses, and where to seek help.

Activity 11: Manage Mass Fatalities. Prepare for a surge in initial storage of decedents. Manage large numbers of family members and friends of decedents who may come to the hospital. Facilitate the identification of temporary, ad hoc storage sites in the community when refrigerated trailers and other conventional storage means are not available.

Exercise Objectives

HPP/PHEP

1. Evaluate the demonstration of coordination within the jurisdictional response framework during emergency operations, including communication of the healthcare system's status, and resource management to support operations.

Associated Critical Tasks: Demonstrate the process to monitor patient acuity and staffed bed availability in real time to provide status of bed availability to partners (i.e., ratio of beds available per current resourced beds; demonstrate EMS triggers for the activation of surge management protocols (i.e., pre-hospital surge distribution);based on triggers, protocols to alert HCC members of a potential need for facility emergency operations activation and communication of expected surge activation level.

2. Evaluate the demonstration of processes for using redundant communications systems to achieve and sustain situational awareness by communicating Essential Elements of Information. (EEI)

	Associated Critical Tasks: Demonstrate notification protocols for pending surge events to alert members to activate facility specific surge plans. **3.** Evaluate the demonstration of resource management processes to deliver appropriate levels of care for all patients, including the provision of at least 20% availability of staffed beds within four hours of a disaster; to monitor acuity, staff, and beds; and to off-load and on-load patients, and track patient movement. *Associated Critical Tasks: Identify healthcare facility processes to expand capacity and decompress beds per facility surge plans to achieve surge capacity numbers; demonstrate the process to report the number of resourced beds available. Include special needs, behavioral, pediatric, and elderly patients. Also provide for management of fatalities, internally and throughout the HCC region when morgue trailers are limited or unavailable.* **4.** Evaluate the demonstration of resource management processes that ensure delivery of essential healthcare services during and after a disaster. *Associated Critical Tasks: Demonstrate the resource management processes to support healthcare system Mission Essential Functions (including one or more of the following: healthcare service delivery, healthcare workforce, community / facility critical infrastructure, healthcare supply chain, medical/ non-medical transportation system, healthcare information systems / communication, healthcare administration/finance;),identify the public health special resources that are vital to the delivery of essential healthcare services; demonstrate the back-up roles and responsibilities for HCC multiagency coordination; identify assistance available to healthcare facilities when implementing COOP activity.*
Threat or Hazard	Severe Weather/Aviation Accident
Scenario	Severe thunderstorms cause widespread damage and an airplane crash into the terminal at the Memphis Airport
Sponsor	Mid-South Emergency Planning Coalition
Participating Organizations	Participating organizations include all HCC member hospitals, local emergency management officials, first responder agencies, public health, and long-term care facilities. A complete list of participating agencies is included

	in Appendix B.
Points of Contact	Amy Cox, State Exercise Coordinator Tennessee Department of Health Amy.Cox@tn.gov Heather Fortner, MPA, Regional Hospital Coordinator Shelby County Health Department Heather.Fortner@shelbycountytn.gov

Executive Summary

This exercise was conducted in response to the need for evaluating current plans and procedures that govern the way that the HCC manages its resources and information during an severe weather event that causes widespread damage and blows an airliner into the airport terminal with high numbers of casualties.

Accomplishing this task requires considerable coordination with governmental and private entities, including local law enforcement, Emergency Medical Services, fire departments, hospitals, communications centers, emergency management, health departments, and other resources. The HCC has worked collaboratively to define and explore this process, and this exercise represents a continuation of these efforts.

As for the exercise itself, 118 healthcare and emergency response entities from a broad range of disciplines participated in the process. This number includes approximately 79 non-hospital entities that fall under the new Centers for Medicare and Medicaid Services (CMS) guidelines. Each was asked to submit evaluation data for inclusion in this report.

Surge Calculation

This exercise included an Objective that required each hospital to manage an influx of patients that would create a 20% surge of staffed beds in order to meet Joint Commission requirements. Some non-hospital entities also received patients, but they were not required to meet the surge requirement. The numbers of patients at those locations was left up to the individual facility or entity.

Therefore, the Coalition decided that it would calculate the number based on total staffed beds as reported in the Healthcare Resource Tracking System (HRTS). This resulted in a more realistic and useful exercise, and exceeded the requirement at 1100%, while still being manageable.

In cases where the required 20% would have been fewer than five patients, a minimum of five was established as the benchmark. Each facility received specialty patients, including “memory patients” or elderly, pediatrics, and fatalities. Although few specialty beds exist in the region, burn patients and serious trauma were not excluded. The numbers used for this exercise are different from those used in the last because of changing bed counts at various facilities. The method for calculation is unchanged.

The following table illustrates the numbers of patients assigned to each facility in order to meet the surge requirements as established by Joint Commission and the HCC.

Baptist Memorial Hospital-Collierville	17
Baptist Memorial Hospital-DeSoto	61
Baptist Memorial Hospital-Memphis	133
Baptist Memorial Hospital-Tipton	22
Baptist Memorial Hospital for Women and Children	33
HealthSouth Memphis North	10
HealthSouth Memphis Central	10
LeBonheur Children's Hospital	55
Memphis Mental Health Institute	11
Methodist Germantown Hospital	59
Methodist Hospital North	50
Methodist Olive Branch Hospital	15
Methodist South Hospital	30
Methodist University Hospital	95
Regional One Health	64
Saint Francis Hospital-Bartlett	36
Saint Francis Hospital-Memphis	73
Saint Jude Children's Research Hospital	~~(0)~~
VA Medical Center-Memphis	50
Total	**824**

Table 1. Surge Capacity Numbers

ANALYSIS OF HEALTHCARE PREPAREDNESS CAPABILITIES

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

For detailed associated tasks and activities, refer to "Exercise Overview" section, "Core Capabilities, Objectives, and Activities" and "Exercise Objectives" beginning on page 2.

Objective	Healthcare Preparedness Capability	Performed without Challenges (P)	Performed with Some Challenges (S)	Performed with Major Challenges (M)	Unable to be Performed (U)
1. Evaluate current plans for coordination within the jurisdictional response framework during emergency operations, including communication of the healthcare system's status, and resource management to support operations.	Capability 2: "Health Care and Medical Coordination"		X		
2. Evaluate current plans and processes for using redundant communications systems to achieve and sustain situational awareness by communicating Essential Elements of Information. (EEI)	Capability 2: "Health Care and Medical Coordination"		X		
3. Evaluate current plans for implementing resource management to deliver appropriate levels of care for all patients, including the provision of at least 20% availability of staffed beds within four hours of a disaster; and to monitor acuity, staff, and beds; to off-load and on-load patients, and track patient movement.	Capability 4: "Medical Surge"		X		

Objective	Healthcare Preparedness Capability	Performed without Challenges (P)	Performed with Some Challenges (S)	Performed with Major Challenges (M)	Unable to be Performed (U)
4. Evaluate current plans to implement resource management processes that ensure delivery of essential healthcare services during and after a disaster.	Capability 4: "Medical Surge"		X		

Ratings Definitions:

- Performed without Challenges (P): The targets and critical tasks associated with the healthcare preparedness 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 healthcare preparedness 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. However, opportunities to enhance effectiveness and/or efficiency were identified.
- Performed with Major Challenges (M): The targets and critical tasks associated with the healthcare preparedness 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 healthcare preparedness capability were not performed in a manner that achieved the objective(s).

Table 2. Summary of Healthcare Preparedness Capability Performance

Exercise Findings

Each participating facility was required to evaluate three broad categories of activities, and was required to note their findings on three different Exercise Evaluation Guides (EEGs). The categories were Medical Surge, Hospital Incident Command, and Communications. Non-hospital participants evaluated using a Non-hospital EEG.

For the purpose of reporting, the format for this report will document overall findings and observations from each facility individually. Findings were compiled by reviewing information from all sources, including EEGs, Participant Evaluations, Hotwash notes, and summaries compiled by Evaluators in narrative form. In addition, observations made by the Regional Hospital Coordinator (RHC), other Senior Control and SimCell staff, and qualified observers from the Mobile Communications Trailer provided and partially staffed by the Jackson-Madison County Regional Health Department were solicited. Input from the Mid-South RMCC personnel was also considered.

The "Hospital Findings" section includes summaries of observations at each facility. "Non-hospital Findings" are based upon information provided by several entities that fall under the requirements of the new Centers for Medicare and Medicaid Services (CMS) Emergency Preparedness Rule and include dialysis clinics, home health, assisted living, hospice, and others. In many cases, the findings at certain facilities may have no bearing on activities at other facilities, and would be properly addressed in Improvement Plans that the reporting facility should develop for internal use. At the conclusion of the individual facility data, a summary of trends and common issues will be documented for consideration by the HCC in determining what corrective actions might have broad implications for all its members. Such common issues might be of importance as the HCC engages in strategic planning and purchasing decisions.

Findings are recorded and compiled *as submitted* with only minor editing for clarity. The content or validity of each observation has been left to Evaluator discretion. Irregularities or inaccuracies should be addressed at the facility level during the internal Improvement Planning process.

Hospital Findings

Baptist Memorial Hospital-Collierville

The following findings were reported from this facility, which received 20 patients.

Strengths:

- An Incident Commander (IC) and backup were identified.
- The facility demonstrated redundant communications through the use of HRTS, TNHAN, HAM radio, internal radios, email, and land lines. HC Standard was logged into, but could not input data.

- Contact was made with the RHC. Overhead paging and internal Everbridge system provided initial notification to staff.
- MOUs with two facilities were leveraged and those placed on standby.
- A white board was used to track patients from arrival to discharge.
- Logistical need of family members was discussed and MOUs with two churches were validated.
- A room was set aside for managing fatalities.

Opportunities for Improvement:

- The scanner in registration did not function properly.
- HC Standard "froze."
- The 800 MHz radio will not reach Collierville

Baptist Memorial Hospital-DeSoto

The following findings were reported from this facility, which received 61 patients.

Strengths:

- The Incident Command Center was opened in a timely manner.
- The IC and a backup were immediately identified. Command Staff positions were established. The IC stressed the need for reviewing Job Action Sheets and identifying any improvements that needed to be made to the JAS. HICS forms were provided and staff were encouraged to use them. The IC was very effective and maintaining an orderly atmosphere within the command center.
- Logistic and Operations Section Chief positions and each was provided with an 800MHz radio.
- Immediate priorities were identified and an Incident Action Plan was developed.
- Bed, food, staff, and supply status was obtained and reported to the command center.
- All assigned positions used Job Action Sheets.
- Management by Objectives was observed, and operational periods were identified.
- Unity of Command principles and Span of Control issues were specifically addressed by the IC.
- An internal loss of Internet connectivity was introduced into the exercise. Other forms of communication were employed successfully, and patient information was recorded on paper.
- Continuity of Operations issues were addressed. HC Standard patient tracking went offline and paper forms were used to track patients. This worked seamlessly, and the IC was not aware of the failure until after the exercise was completed.
- Counseling services were made available, and the status and needs of this function were updated at the beginning of the second operational period.

- Provisions for staff and patient families was discussed, but not specifically addressed because it was considered to be a secondary priority that would have been addressed in the second 2-hour operational period.
- The Logistics Section Chief coordinated with the Planning Section Chief very early to anticipate needs and begin acquiring them in accordance with operational period requirements.
- The cath lab and holding areas were identified as areas for patient overflow.
- The IC and PIO cooperated with the corporate headquarters to draft a press release.
- The Logistics Section calculated food and water needs and determined that a two-day supply was on hand. They also identified 2N and 2S as locations for accommodations for additional staff and others.
- Service animal needs were identified, but no specific actions were taken. Arrangements were made with local veterinarians and the DeSoto County Animal Shelter.
- Information flowed freely between the command center and internal/external entities. This was primarily due to having separate phone lines and radios for each activated Section Chief position. *(This was identified as a problem in the last exercise, so improvements were apparently made since then. Based on previous descriptions of the problem, it appeared that information did not flow through the proper channels. It was specifically mentioned that the proper channels were used this time. –NG)*
- Contact was made with the RHC and corporate headquarters.
- Call-back procedures were initiated for all departments.
- 800MHz, cell phones, HAM radio, , and land lines were all demonstrated during the exercise.
- The command center staff continually assessed the need for expanding or contracting the ICS positions required to effectively manage the incident.
- The Medical Examiner's Office was contacted to determine how much morgue space would be available if the hospital morgue space was exhausted.

Opportunities for Improvement:

- The documentation in the Information Unit Leader packet was in need of an update. Need to update pager and cell phone information for key leadership positions. The IT manager will address this within the next 30 days.
- The Logistics and Operations Section Chiefs need better descriptions of their responsibilities and those who report to them within the command structure. Both of these individuals were new to their positions and will require additional training. This should occur within the next 90 days. IC and NIMS overseer should arrange for this training.
- The 800 MHz radio used to contact the RHC was marginal at best. The possibility of adding an external antenna should be considered. The IS manger should make this determination within the next 90 days.
- Job Action Sheets should be more detailed. The hospital EM should review these and make revisions within the next 90 days.

- The storage of the Section Chief boxes might be improved by using smaller standing containers. To some degree, more practice would make things clearer to those serving in these roles.
- The Everbridge system is available within the corporate structure, but it should be built out for this facility.

Baptist Memorial Hospital-Memphis

The following findings were reported from this facility, which received 133 patients.

Strengths:

- TNHAN, HRTS, UHF, VHF, HAM, email, landline, HC Standard, and the internal alert system were all demonstrated during the exercise.
- Everyone seemed to be aware of their roles.
- Costs were tracked by the Finance Section.
- COOP issues were discussed.
- Leadership at all levels, including corporate, worked well to manage the surge. This was much better than in previous exercises.
- Internal communication went well.
- Information exchange between command center and other staff was good. Regular updates and briefings were scheduled.

Opportunities for Improvement:

- The battery in the 800 MHz radio was dead. Need training in order to test the satellite phone.
- HRTS registration needed to be changed, and TNHAN registration needs to be reviewed.
- City-wide channel 1A was not operational.
- Intercom needs to be expanded in POBs.
- Everbridge did not work. *(This finding was also identified in last year's exercise. –NG)*
- Handheld scanners did not work.
- HRTS was not working for part of the exercise.
- Admissions did not report to BAC. ED admissions had to report.
- Medical staff should try to conduct additional surge training throughout the year, and participate in Triage Tuesdays.

Baptist Memorial Hospital-Tipton

The following findings were reported from this facility, which received 22 patients.

Strengths:

- ICS worked well within the ED, but the focus was on tasks, not overall management of the incident throughout the hospital.
- Radios worked well. *(This represents a correction from the previous exercise. –NG)*

Opportunities for Improvement:

- ICS was established in the ED, but no ICS structure for the overall facility was maintained. The IC continued to be involved with patient care. The lack of a staffed command center resulted from all leadership staff being at a conference. Other staff need to be trained to fill these roles.
- TNHAN notification of the disaster was not received until nine minutes after the arrival of patients.
- Patient registration was not able to keep up with the influx of patients due to problems with the scanners.
- We were unable to locate IC kit, which includes radios, vests, etc.
- No accounting for the use of internal resources.
- Contact with call-in staff had to be accomplished by making individual calls to each person to check their availability. This tied up a staff member who could do nothing else. Programs are available that would eliminate this problem.
- *No Communications Checklist was submitted. -NG*

Baptist Memorial Hospital for Women and Children

The following findings were reported from this facility, which received 33 patients.

Strengths:

- Internal costs were not tracked, but the need for a specific code for disaster patients was identified.
- Counseling and pastoral care services were available.
- The command center was set up quickly with a dry erase board of each floor to identify available rooms.
- IT did an amazing job getting computers and phone systems up quickly.
- The labor pool set up in HR to avoid overcrowding the command center.
- Radios were picked up in HR as staffing documents were dropped off.
- ED leaders did a quick sort, then went back to assessing treatment plans.
- Once requested, several staff members reported to the triage area and showed urgency in response.
- House supervisor was quick to conduct Just-in-Time training on the floors and get call trees together. Worked well at getting patients moved to accommodate disaster victims. *(This showed improvement from previous exercises. –NG)*

Opportunities for Improvement:

- An Incident Commander was identified, but no backup. IC let others take charge in the command center.
- IC staff functions were taken from some and assigned to others, which led to some positions taking on more work than they could effectively manage.
- The IC had to be prompted to ensure that COOP issues were addressed.
- EMS personnel were initially available to assist with triage, but got called away on a real emergency. Additional staff was reassigned from within the hospital.
- IC had to be prompted to address the issue of potential morgue space, food supplies, and care for service animals and pets. Some of the personnel who would normally handle these functions were not available during the exercise.
- Job Action Sheets and Checklists should be made available to better organize the command center.
- HRTS refresh eliminated messages before they could be sent.
- HRTS failed. HAM operator was asked to use the radio to determine where the problem was.
- Corporate headquarters called to find out if we were active in the exercise. They could have seen this information in HRTS.
- Need to identify isolation rooms on dry erase boards.
- Need to better distribute workload among command center personnel. This will be discussed at debrief this week.
- Radios were not fully charged. Some power strips had been turned off, and the lights were not visible. We have rearranged to charging area so that this can be noticed. Need more education on triage tags and system. A class is scheduled for November.
- Incident Action Planning was done, but not everyone was made aware of it.
- Radio communication was hindered by the use of the same channel for emergency and routine traffic.
- Call trees were seriously outdated. This should be corrected by managers within the next month.
- Need to conduct disaster training for all hospital leadership personnel within the next year.
- Initial triage took longer than expected. Overcrowded areas were relieved by moving patients to other locations, but this information did not come quickly enough to get supplies to the newly-opened areas.
- The process of scanning patients into Epic was not able to be assessed because patients had already been scanned into system before being transported to hospitals. *(Need to investigate what was meant by this. –NG)*

HealthSouth Memphis Central

The following findings were reported from this facility, which received 10 patients.

Strengths:

- The IC was new to this role, but senior team assisted effectively.
- Internal notifications and reporting of personnel to the board room was accomplished within two minutes.
- Past problems during exercises led to several improvements in the operation of the command center. Position name badges and checklists have been added, and several new practices to help prioritize needs have been instituted since the last exercise.
- Adequate staff was on hand, and additional staff that could have been called in were identified.
- TNHAN, email, landlines, internal radios, and HC Standard were demonstrated during the exercise, although the HC Standard system failed.
- Communication and the flow of EEI are improved over past exercises.

Opportunities for Improvement:

- ICS and support staff members were specifically chosen to "have a good drill" rather than using whatever staff would have been available under real circumstances.
- The process for demobilization and return to normal operations was less complicated than would be expected during a real event because extra staff was brought in for the exercise.
- The HC Standard patient tracking system froze and the cause could not be determined. Email was used as a backup.
- More ICS training is needed, and greater familiarity with its associated paperwork would be beneficial. ICS practices should occur on a regular basis. This should be instituted by December 31, 2018. All management staff should have monthly training, and the use of trained support staff should be part of the program. This training should occur monthly.
- Registration staff assigned patient numbers, but these were not entered into the system. If scanners had been used, these could have been operated by non-medical staff.

HealthSouth Memphis North (Rehab)

This is a rehab facility, which received 10 patients.

Strengths:

- An Incident Commander was identified, and a backup was in place. *(This was corrected since the last exercise. –NG)*
- Command center staff was given clear sets of responsibility.
- Staff members exhibited teamwork and cooperation.
- HRTS, Email, Landline, and internal radios were demonstrated during the exercise.
- Lessons learned from last year's exercise resulted in a much better performance this year.
- Physician instructions were clear, and the doctor made sure that instructions were understood before moving on to the next patient.

- The entire team was well-organized and better prepared than in previous exercises. *(This was almost universally identified as a strength in participant evaluations.)*

Opportunities for Improvement:

- Patient tracking was not in place. (No explanation.)
- The overhead announcement was not clear and/or could not be heard in some parts of the facility. *(This issue was identified in the last exercise. –NG)*
- We need additional handheld radios.
- Need to institute a policy to check all equipment quarterly since it is seldom used except in exercises.
- Backup staff needs to be identified to support admissions staff.
- Need to formalize patient tracking system.
- Radio reception is not good in all parts of the facility.
- Some staff members were not clear on their roles or where designated areas had been set up. *(This finding appears to have been dependent on where staff was assigned. Some other participant evaluations commented on how well things were identified, marked and communicated to staff. –NG)*

Le Bonheur Children's Hospital

The following findings were reported from this facility, which received 55 patients.

Strengths:

- Command center staff was very knowledgeable about their roles. Each signed in quickly and began to set up their operations. There were five teams.
- Command center personnel were well prepared to offer reports every 30 minutes.
- The Finance Section distributed time sheets and documentation to track supply costs.
- Counseling services were available.
- Communication within the ED was very good.
- A board was used in the ED to track the movement of patients.
- HRTS, TNHAN, 800 MHz, satellite telephone, email, landline telephones, cell phones, HAM, HC Standard, and overhead paging systems were all demonstrated during the exercise.
- Senior leadership provided a strong presence.
- Good use of all IC resources. Excellent scribe and admin support.
- Excellent two-way communications system.
- This exercise went much smoother than previous ones.

Opportunities for Improvement:

- The command center was too crowded.
- Some reports within the command center indicated that there was duplication of roles.

- Need training on radio usage.
- Need more communication between the command center and ED personnel.
- Need to evaluate the availability of food, water, and supplies before disasters. (Had 3 days of water, six days of food.)
- Need better training and communication overall.
- Outside agencies were contacted, but the number for Germantown was incorrect.
- Need more radios to enhance communication with ED and maintain contact with runners.
- An unknown computer issue prevented effective patient tracking.
- Registration process was a little slower than desired due to the lack of registration equipment.
- Need more awareness and training on identifying and filling support positions.
- Need more training on responsibilities of those assigned to support roles.
- Need more training for leadership on radio use. Some were unsure how to operate the radio.
- Need more communication training and 3equipment in the ED.
- HC Standard web portal was very slow. And not working properly.
- Need two more HC Standard iOS devices.
- Need to establish better tracking system past the ED.
- Labor pool procedure adjustments and clarification is needed.
- Hyperlinks on Job Action Sheets might make it easier to find references.
- Need more knowledge of ICS at the Associate level.
- Need to develop a way to determine labor pool needs and availability, associates on site, and when call-back procedures should be initiated.may need to create a liason position for the ED.
- Need more exercises for weekend and off-hour shifts.
- Need to map out how the lab will interact with the disaster teams.
- Radiology should be excluded from labor pool. Those positions would be needed for imaging.

Memphis Mental Health Institute

Although this facility participated in the exercise as a hospital, its purpose is to provide mental health services. Therefore, the typical levels of medical supplies and other assets common to most hospitals are not readily available at this site. Evaluators recognized that this created some challenges during their participation. The following findings were reported from this facility, which received 11 patients.

Strengths:

- An IC was identified, but neither the IC nor Safety Officer contacted other authorities. No backup IC was identified.
- Handheld radios were distributed for communications.

- Command staff used available space for triage of referred patients
- The switchboard communicated clearly with staff in the facility from beginning to end.
- Command staff checked in with staff and patients outside command and triage center to provide specific details on the nature of the emergency.

Opportunities for Improvement:

- No staff was assigned to maintain a disaster log.
- The IC frequently walked between the command center and triage centers.
- *During a surge event, the IC should obtain a copy of the EOP to ensure that the Communications Plan and Expansion of Services sections address specific tasks outlined in the plan. The following tasks were not completed during the exercise:* Assignment of staff to start disaster log and answer telephone calls; email message to staff describing the expansion of service; request for necessary staff to report to the command center; instructing all designated staff to report to the conference room for briefing, instruction and assignment; the Clinical Director, nor Psychiatric Hospital Nurse Executive did not staff the command center; Provide the command center with a portable radio; notification of the switchboard of activation of the command center; posting of signage for the command center; include Mobile Crisis staff from Alliance Health to participate in screening mental health needs of referred patients (A certificate of need is required for emergency involuntary admission of patients.);corridor 2 North, a non-residential unit used for group activities; a triage center to allow more space for assessment of patients during an expansion of services.
- Need more hospital staff to be involved in setting up the command center.
- IC should remain in the command center with designated staff and maintain communication outside as necessary.
- Communications plan need to be updated.

Methodist Germantown Hospital

The following findings were reported from this facility, which received 59 patients.

Strengths:

- HRTS,TNHAN, HC Standard, email, landline phones, HAM radio, 800 MHz radio, VHF radio, and internal text paging systems were demonstrated during the exercise, although HRTS was inoperable for about 30 minutes and could not be updated.
- An IC and backup were identified. The IC set a timeline for updates and reports and created a very positive and cooperative atmosphere.
- Open discussion in command center ensured that any flawed information was immediately corrected.
- Cell phones were not used. Internal voice communication was primarily accomplished by radio.

- The Planning Section and Safety Officer worked extensively and did an excellent job. The Safety Officer anticipated several needs and was prepared to meet them before they occurred.
- There was "much less chaos" in this exercise as compared to previous ones.

Opportunities for Improvement:

- Did not write down Dr. Able and wrong call overhead. This was corrected.
- The labor pool does not get the overhead pages. Plan to go on site and run labor pool from a designated area.
- Need to request a scribe from the labor pool.
- Informational exchanges between the command center and ED was lacking.
- HRTS appeared to run about 30 minutes behind, and the time on the site was incorrect. This caused confusion.
- Overhead paging in OR was not working. A work order was immediately submitted.
- Need to have every "Send Word Now" message reviewed by at least two people before broadcast.
- Need a larger status board.
- Need clarification on communications channels for different types of information.
- Job Action Sheets need to be reviewed and updated. The standard HICS forms are too confusing and difficult to use. In addition, the roles appear to overlap and places, causing a duplication of effort.

Methodist Hospital North

The following findings were reported from this facility, which received 50 patients.

Strengths:

- TNHAN, HRTS, HAM radio, email, landline, and HC Standard, and "Send Word Now" internal texting were demonstrated during the exercise.
- This was the smoothest exercise in years at Methodist North.
- Call-back procedures were initiated for physicians, hospitalists, and surgeons.
- *Extensive notes concerning assignments and actions were submitted with the EEGs, including departmental actions. -NG*

Opportunities for Improvement:

- HRTS "blew up." It did not function.
- "Send Word Now" messages were received much later by some people than by others.
- Need to assign multiple people to manage communications systems.
- Need to program disaster cell phone numbers into disaster phones.
- Could not see patient tracking information in the command center.

- Forms for command center staff were not readily available and had to be printed, causing a slight delay.

Methodist Olive Branch Hospital

The following findings were reported from this facility, which received 15 patients.

Strengths:

- TNHAN, HRTS, HC Standard, 800 MHz, HAM, and landline telephones were all demonstrated during the exercise. The satellite telephone could not es5tablish a connection.
- The IC initially took charge and assigned a backup, but a real emergency elsewhere in the hospital caused some distraction.
- Assessment of current supplies, staff, and bed availability was completed quickly, including food, water, etc.

Opportunities for Improvement:

- Staff was unfamiliar with the use of the provided flip phones.
- Some IC staff did not receive the notification through "Send Word Now."
- The IC phone number was not available on the phones.
- The iPads used for patient tracking were not working properly. No good alternative was identified.
- It was suggested that radios that are in daily use (such as those with Security) be programmed with disaster frequencies.
- A runner was assigned to enter labor pool information into a list when not otherwise engaged. The runner stated that the list needed a drop-down menu to identify positions/roles.
- The overhead announcement included incorrect information, and did not include announcement that this was an exercise.
- Need to practice assigning dual roles when short-staffed. IC asked who "we" assigned to Planning Section Chief. (It had not been assigned.)
- TNHAN message was not clear.
- Leadership staff was away at a conference. Need to make sure that enough personnel are trained to fill these roles when the usual staff cannot.
- Need more ICS training overall.

Methodist South Hospital

The following findings were reported from this facility, which received 30 patients.

Strengths:

- An IC was identified and was first to arrive at command center. It was unclear if a backup was identified.
- Leadership positions were supplied with radios and communicated frequently.
- On-hand supplies and resources were identified and reported quickly.
- Status was continually updated.
- Regular updates were sent to the corporate office.

Opportunities for Improvement:

- This exercise mainly focused on the movement of people and communicating what was happening. It was a great exercise, but not comprehensive enough to prepare us for an actual event.
- Command center personnel appeared unsure of what to do.
- Non-ambulatory patients were not provided with cots, but were walked from one place to another. Deceased patients were moved to the other side of the room instead of transported to the regular or a temporary morgue.
- *No communications documentation was submitted, though it was mentioned that HRTS was down. -NG*

Methodist University Hospital

The following findings were reported from this facility, which received 95 patients.

Strengths:

- The team made plans and adjusted them as the exercise progressed.
- Moved furniture out of patient rooms to double capacity, which kept nurses in closer proximity to patients.
- The team identified ways to convert non-traditional areas into treatment areas, such as cath lab and GI.
- Adequate food for staff and family members was on hand.
- Pet care was addressed. Will use Wilson Hall if needed.

Opportunities for Improvement:

- Far too many people in command center. This should be reserved for top level staff. Relocate command center to conference room. Use runners to communicate between the two rooms if needed. This could be done within the next four months.

- Need to review the responsibilities of all command-level staff and train multiple people to fill these roles.
- Send Word Now did not work properly. This is a recurring problem.
- No backup IC was identified. *(This was identified in the last exercise. –NG)*

Regional One Health

The following findings were reported from this facility, which received 64 patients.

Strengths:

- Performance in this exercise was much better than in past exercises.
- The temporary labor pool worked well.
- Contact was made with the RHC.

Opportunities for Improvement:

- Communication with command center was minimal in the beginning because phones were not connecting with callers.
- Need checklists for ICS positions.
- Disaster assignments for frontline staff should be made daily and placed on each unit in a disaster manual.
- Notification was not heard in the CCA PPC office. Need to check for areas where PA announcements may not be heard.
- Triage box keys were not available to key players of the house supervisor.
- Reconsider trauma PCCs being in the triage area, as they need to be in CCA to receive patients and give staff direction.
- No one was designated as a leader in the triage area. This led to nursing staff just showing up and pitching in without any coordination or direction, which caused even more confusion.
- More triage staff should be available within the crowd instead of stationary behind a table.
- Scripting for the triage team: "Everyone that can walk go over here." Reds need to be quickly tagged and moved. They will have to be complete registration in the treatment area.
- Need more registration clerks to capture registration on the back end.
- Train staff in using the triage cards. We cannot assume that everyone knows. Some were tearing off the level that was the patient's classification instead of tearing off the level below. This led to two live patients being declared dead. We cannot afford to improperly identify critical patients. These tags are a form of communication.
- There were two triage systems in the cart. We used the cards, but the one with tape was also available. Are the cards being used universally?

- More tables were needed.
- The green box needs wheels.
- A yellow bus was parked in the disaster entry area. Security was not very effective with traffic of crowd control.
- Carts were late being delivered.
- Trauma stickers were missing. (This was quickly corrected.)
- Some tablets died, which complicated patient tracking. The command center was not notified of this until after the exercise.
- Phones were mislabeled or not charged.
- Where is the family assistance center?
- Where is the volunteer check-in center?
- Two patients were intentionally taken out of line and placed directly within the ER. No one noticed until after the exercise when the two were not accounted for. No one in the ER questioned it.
- Two of the three disaster logs were incomplete or not completed correctly. (This was caused by a lack of understanding and role handoff without direction.)
- No physicians were at the exercise. One arrived but received no direction. Another later arrived, but no house physicians reported to help. They could have helped with green and yellow patients. ER physicians would be needed in the triage area. Need to communicate exercises to all physicians and involve them in the process.
- Nursing response was plentiful. Exercise started late and nurses left the CCA area, leaving the remainder overwhelmed.
- Consider an on-campus class/simulation for the Emergency Services Team to teach critical components of disaster management and MCIs. Conduct in-house simulations more frequently than exercises.
- Consider using downtime packets for critically injured in CCA like we would with shock traumas. Walking wounded can be checked in and have orders placed in the EMR and just associate their triage tag to their registration information.
- Need additional signage for treatment areas for staff that are transporting patient to different zones.
- The OSC is not equipped to handle vent patients. Also need more nurses in the OSC.
- Some staff was unaware that there was a Command Center or how to communicate with them.
- Patient movement was confusing.
- Most in the command center understood their roles, but there was a lot of discussion about how things "should" be done instead of just working the current system. Need regular ICS training, especially with the high turnover rates.

Saint Francis Hospital-Bartlett

The following findings were reported from this facility, which received 36 patients.

Strengths:

- Contact was made with the RHC.
- Internal communication was excellent.

Opportunities for Improvement:

- Pets and service animals were not addressed. *(This was also a finding from last year's exercise. –NG)*
- Administration/command should have a strategy for mental health services and include it in the command book.
- COOP issues were not addressed except in the context of asking staff whether there were any problems that might require COOP activation, which there were not.
- Currently have a three-day supply of food on hand. This will not be adequate if a major disaster brings large numbers of patients and families to the hospital.

Saint Francis Hospital-Memphis

The following findings were reported from this facility, which received 73 patients.

Strengths:

- TNHAN, HRTS, VHF radios, Email, HAM radio, satellite phone, and HC Standard were all demonstrated during the exercise.
- Communication within the facility was good.
- Command center was staffed quickly.
- Command center staff were provided with Job Action Sheets as they were assigned their roles.
- Food supply would last for 11 days.
- Bed availability counts were quickly provided.
- Registration can complete admissions process for 80 patients in less than an hour.
- Performance was much improved over last year's exercise.

Opportunities for Improvement:

- Supplies were delivered to the ED 30 minutes late, but this did not affect patient care.
- Need further triage training and determination if staging areas are in the ideal places.
- Need ICS training. Have many new managers and staff. Conduct Tabletop Exercises as a follow-up.
- There was confusion regarding how handheld radios worked. The problems were corrected, but quarterly training should be considered.
- Need additional nursing and provider staff in the ED, especially to help move larger patients.

- Need more training on triage tag use and standards of care.
- Some of the packets in the command center are in need of updating, including phone lists.
- A fax machine was missing, and the doctors' laptop and printer need to be upgraded. *(The fax machine issue is already being resolved. –NG)*

St. Jude Children's Hospital

This facility did not receive patients. Its participation was limited to communication with the Regional Hospital Coordinator.

Strengths:

- This facility communicated with the RHC by completing and sending the requested status form, but did not submit any other data for inclusion in this report.

VA Medical Center-Memphis

The following findings were reported from this facility, which received 50 patients.

Strengths:

- In the command structure, the Liaison Officer (Emergency Manager) prepared labeled briefcases containing apparel to identify the persons serving those major roles and a binder containing needed information for that position. It was unfortunate that these were not identified and used during the first 1.5-2 hours of the drill.
- The Medical Center Director (MCD) made a brief statement, put forth some suggestions related to manpower and then turned the operation of command center to the Incident Commander (Chief of Staff). The quick turnover allowed for the incident command structure to take over the responsibilities of meeting the needs of the exercise without unnecessary oversight by the MCD. It allowed the MCD to quickly leave to assess any other needs around the facility.
- The MCD noted that personnel at off-site facilities could be utilized and that one of the clinics could be utilized to treat overflow victims who may not require as high a level of care as could be provided in the ED.
- This exercise went more smoothly than previous exercises.
- TNHAN, HRTS, 800 MHz, email, "Live Process Emergency Manager" (messaging program) and overhead paging were all demonstrated during the exercise.

Opportunities for Improvement:

- The medical facility has an Emergency Operations Plan (EOP) that has information concerning how to handle these situations, but I found that many of the personnel in the command structure were not familiar with the aspects of the plan or their role in it. The document is 240 pages of information, but apart from the different plans (ANNEX A-J) for the different types of disasters identified in this plan, there was no way to quickly identify necessary information. For this disaster exercise, it seemed that it would have fallen under ANNEX J, Med Surge Level 2, but there did not appear to be a specific determination made about the type or level of the disaster. The EOP has internal hyperlinks to go to each ANNEX, but could greatly benefit from additional internal hyperlinks for the steps within each to link specific supporting information contained in the lengthy document.
- Although many within the command structure were obtaining and sharing information, it appeared to be disorganized and difficult to keep up with all that was coming in. During the Hot Wash at the end of the exercise it was noted that some valuable information had been put forth but was missed and not utilized.
- The number of people in the command center affected the ability of the command structure to function efficiently.
- Initial notification: Although several methods were employed, there are areas of the hospital where personnel were unable to get notifications. The facility could benefit from identifying those areas and improve signal and overhead communication in those areas.
- Communication within the hospital during the disaster: The current handheld radios were not always effective for use in communicating with other areas of the hospital and because of their age, the facility would probably benefit by obtaining newer models with better signal strength.
- Healthcare Resource Tracking System (HRTS): Although this system failed midway through the exercise, the method employed in the command center to display the information produced a display that was not sufficiently large enough to be easily viewed. I believe that it would benefit the Incident Commander to have some form of tablet linked so that they could easily view the incoming information without having to stop to ask for an update.
- The Emergency Operations Plan (EOP) is a lengthy document and not currently user friendly. The EOP could benefit from internal hyperlinks to access specific information quickly so that the document would receive more use.
- The command role specific briefcases appear to be a good idea, but need to be implemented immediately. When given to an individual they will quickly know what is expected of them.
- Express the need to consolidate information by key command personnel so that it can be concisely presented to the incident commander.
- Dry runs of the exercise to familiarize the key command personnel of their responsibilities and possibly and identify backups for those roles. This was discussed during the Hot Wash and a quarterly drill was proposed for just this purpose.
- All staff members need ICS training.
- The overhead announcement could not be heard in all areas of the hospital. *(This was identified in the previous exercise –NG)*

- The emergency power generator was apparently not connected to the command center.
- Need an inventory of wheelchairs, stretchers, etc.
- Manpower was available, but communication with the labor pool was lacking.
- Need more training and documentation to clarify roles. *(This observation was included in the vast majority of Participant Evaluations –NG)*
- Cell phones are used for messaging, but do not work in all areas of the hospital.
- HRTS went down during the exercise, and when operational, only the person inputting data could see it. Investigate a link so that the IC can see what is on the input computer.
- Handheld radios do not work in all areas of the hospital. Investigate whether the signal can be boosted to reach deficient areas. Replace outdated equipment.

Findings from Non-hospital Sites and Entities

Following the implementation of new Centers for Medicare and Medicaid Services (CMS) Emergency Preparedness Rule this year, numerous regional providers were brought into this exercise in order to fulfill the requirement for participation in a community exercise. With 17 different categories of provider types, it is very difficult to create a scenario that would affect all of them at the same time. This exercise employed a severe weather event to provide an opportunity for all participating entities to be affected. A single generic "Non-Hospital Exercise Evaluation Guide" was developed for these participants, with the goal of providing evaluation criteria that would be common to all. Each facility or entity had to create an internal scenario that would apply to their type of facility. The one issue that would be common to each of them was the need to communicate their status (via a form created for this purpose) and make resource requests through the Regional Hospital Coordinator by any available means. In some cases, the only contact with the RHC was the submission of the requested form, which met the requirement.

As the findings from each facility are listed, a brief description of the scenario used at that location will appear. The findings should be considered in light of those particular scenarios, not the one used for the main portion of this exercise. They may or may not have received additional patients.

Allen Morgan Health and Rehabilitation Center

This facility used a severe weather scenario with power outage.

Strengths:

- Staff worked together well and did what was asked of them.
- Residents and staff remained calm.
- Handheld radios worked well throughout the building.

- Nursing team triaged patients well.
- Respiratory Therapy ensured that all residents on oxygen were not in distress.
- Assisted Living and Independent Living staff assisted with the exercise. Great teamwork!
- Nightlights in rooms illuminated, as well as other lighting.
- Dining Services offered additional hydration.
- Laundry brought extra blankets in case residents got cold.
- Verified call light system on backup power and notifications sent to staff.
- Families appreciated notification even if it's "just a drill."
- Contact was made with the RHC.

Opportunities for Improvement:

- Better visual identification of the Incident Command Team. Vests have been ordered and will be added to emergency kits.
- Receptionist, telephone, and overhead paging need to be added to backup generator.
- Need emergency tubs with supplies. Currently researching and expect to purchase in Q1 of 2019.
- Need additional radios. They have been ordered.
- Additional supplies for the crash cart were needed. It is not fully stocked.
- Alternate locations for oxygen storage were identified. Oxygen has been ordered for the new locations.
- Additional; red plug areas identified. Maintenance will add these.
- Need improved signal strength for HAM radio. A new antenna will be installed in early 2019.
- Additional staff education is needed.
- Need better overall communication.
- Identified vendor phone numbers that were not valid. This was corrected.

Amedisys Hospice of Bartlett/Memphis

This entity is a home health and hospice provider that used a severe weather scenario.

Strengths:

- This entity communicated with the RHC by completing and sending the requested status form, but did not submit any other data for inclusion in this report.

Ave Maria Home

This facility used a tornado scenario that required evacuation in three areas of the campus.

Strengths:

- Staff members kept calm when there were "hiccups."
- Staff members knew what was expected of them and acted quickly.
- Radios were used successfully when communication was needed outside post.
- Three-day supplies of food and linen are available in every building.
- The facility has tags in each room that can be placed on patients' wrist. Also have means to move belongings and medical records.
- Cell phone, email, and TNHAN were demonstrated during the exercise.
- The RHC was contacted.

Opportunities for Improvement:

- The beds in some homes are too wide to fit through doorways. These have to be broken down. Staff took longer to move patients because they had to figure out how to make the bed smaller. An in-service will be conducted with maintenance staff by 11/30/18 to train on this.
- There is not a good system in place for transporting medicines when patients must be evacuated. Each patient has a medicine cabinet in their room. Pre-labeled gallon-sized plastic bags will be placed in the cabinets to allow for easy transport. The House Supervisors will ensure that this is done by 11/30/18.
- While staff performed well, there was a lot of laughter. We need to stress the seriousness of exercises and ensure that they are treated appropriately in the future.

Baptist Germantown Surgery Center

This facility used a severe weather scenario.

Strengths:

- TNHAN, cell phone, and email were demonstrated during the exercise.
- OR staff and Pre-op staff responded according to our plan, reporting to the correct area.

Opportunities for Improvement:

- PACU staff did not respond to the exercise. When questioned, they said that they were waiting for someone to tell them what to do. Training on PACU roles in emergencies will be completed by 12/31/18.
- Front desk staff was unsure of their roles. Training will be conducted with these personnel by 12/31/18.
- Need a "cheat sheet" that helps clarify roles in disasters. *(This was from a participant who would like a Job Action Sheet. –NG)*
- Need more disaster training overall.

Baptist Reynolds Hospice House/Baptist Trinity Hospice

This facility is a hospice provider that used a severe weather scenario. Baptist Trinity Hospice participated with this facility.

Strengths:

- The RHC was contacted.
- Emergency Call Tree was located and activated in a timely manner.
- All Priority 1 patients were identified and contacted about possibility of transfer
- EMS and Memphis Fire was contacted and put on standby for transfer of high risk patients.
- HC Standard Patient tracking was used by this facility.
- Baptist Home medical was contacted and readily had 72 hours' worth of supplies for patients
- Surrounding hospitals were notified and 2 patients were transferred accordingly.
- TNHAN, email, cell phones, text, and runners were demonstrated during the exercise. Power failure phones were available.

Opportunities for Improvement:

- Improve response time for the Emergency Call Tree due to there being a gap in time before Administration heard back from the last person on the Emergency Call Tree. Target date for completion is February 1, 2018.
- The emergency report was arranged by patient and not needs. We will arrange our emergency report with high risk (priority 1) patients in the front which allows quicker access to these patients. Target date for completion is February 1, 2018.
- Work with surrounding hospitals to arrange a specific predetermined number of beds that each facility can offer to home hospice patients if GIP and Hospice house should be full. Target date for completion February 1, 2018
- Staff needs more training on phone usage.

- We have limited number of medications available because we are supplied by another hospital.

Christian Care Center of Memphis

This facility used a tornado scenario.

Strengths:

- Cell phones, email, and landlines were demonstrated during the exercise.
- The RHC was contacted. *(This was demonstrated through the submission of the Status Form. Evaluator noted that "St. Francis Hospital" was contacted in the space where RHC contact was to be confirmed. –NG)*

Opportunities for Improvement:

- More ICS training is needed.
- Staff calmed down after the first few minutes, but more practice is needed.
- Need training on specific roles twice per month due to high turnover.

Campbell Clinic Surgery Center Germantown

This facility used a tornado scenario.

Strengths:

- All staff worked very well together during the exercise.
- HC Standard Patient tracking was used by this facility.
- The RHC was contacted.
- Front desk personnel effectively registered patients.
- Identified a location for command center area within the facility.
- Acknowledged the need to recognize that patient acuity could change and require transfer to a more appropriate facility.

Opportunities for Improvement:

- Triage team did not fully understand their roles, working more as individuals than as a team. Patients were taken all the way to treatment areas by the person who performed the triage before moving to the next patient. We will revisit our triage system and provide more training on the roles as stated in the job description. A new policy will be written by 12/1/18 and training provided by 12/10/18.

- Did not test the call-down system because sufficient staff was available, but will see that the call tree is updated.
- One of our patients sustained injuries that could have required hospitalization. Discussed the process for requesting transfer through the RHC.
- There were some issues with admissions notifying the triage team that we were receiving patients. Need to further define the process when a TNHAN alert is received and who should be contacted concerning alerts. Training will be completed by the business office manager by 10/31/18.
- Front desk personnel need to inquire about special needs and availability of family members. Need to make sure that a list of translation services is available when language barriers exist. Have one physician on site who speaks Spanish.

Campbell Clinic Surgery Center Memphis Midtown

This facility used a tornado scenario.

Strengths:

- All staff worked very well together during the exercise.
- The facility had a HAM operator on site.
- The RHC was contacted.
- HC Standard Patient Tracking was used by this facility.
- Front desk personnel effectively registered patients.
- Plenty of additional space available to accommodate needs.
- Identified a location for command center area within the facility.
- Acknowledged the need to recognize that patient acuity could change and require transfer to a more appropriate facility.

Opportunities for Improvement:

- The HAM radio reception was not optimal. We will explore the possibility of an external antenna and licensing for personnel who might wish to do so.
- Triage team did not fully understand their roles, working more as individuals than as a team. Patients were taken all the way to treatment areas by the person who performed the triage before moving to the next patient. We will revisit our triage system and provide more training on the roles as stated in the job description. A new policy will be written by 12/1/18 and training provided by 12/10/18.
- Did not test the call-down system because sufficient staff was available, but will see that the call tree is updated.
- One of our patients sustained injuries that could have required hospitalization. Discussed the process for requesting transfer through the RHC.
- There were some issues with admissions notifying the triage team that we were receiving patients. Need to further define the process when a TNHAN alert is received and who

should be contacted concerning alerts. Training will be completed by the business office manager by 10/31/18.
- Front desk personnel need to inquire about special needs and availability of family members. Need to make sure that translation services are available when language barriers exist.

DaVita Kidney Services is a provider of kidney care services, including dialysis clinics. There are 30 clinics in the Shelby County area. They are listed below by identification code.

DaVita Collierville #1703

This facility used a tornado scenario.

Strengths:

- Cell phone, TNHAN, email, text and internal intercom were demonstrated during the exercise.

Opportunities for Improvement:

- Contact was made with corporate headquarters and the RHC by submission of a Status Form.
- Need to ensure that all teammates understand their roles in an emergency. The in-service training team should have a sign-off sheet acknowledging that they understand.
- There was one machine that did not have all of the components of the emergency take-off kit. Need to be sure that kits are complete.

DaVita Galleria #1705

This facility used a tornado scenario with power outage.

Strengths:

- Contact was made with the Regional Hospital Coordinator.
- TNHAN, cell phone, email, text, and overhead paging were demonstrated during the exercise.

Opportunities for Improvement:

- The facility will need a weather alert radio. The current one does not work.
- Facility will need additional oxygen cylinders.
- Emergency hand cranks have been removed from the backs of the chairs and placed into the emergency take-off bags.

Davita Memphis Southeast #02382

This facility used a tornado scenario.

Strengths:

- Contact was made with the Regional Hospital Coordinator.
- Personnel understood their roles.
- All required actions were completed successfully.
- TNHAN, cell phone, email, and text were demonstrated during the exercise.

Opportunities for Improvement:

- Pump crank levers sticking on many machines.
- May need more training for patients on safety zones.

DaVita Somerville #02385

This facility used a tornado scenario.

Strengths:

- Contact was made with the Regional Hospital Coordinator.
- The emergency kit was fully stocked.

Opportunities for Improvement:

- We cannot transfer patients if we have to evacuate. We have to rely on public/private transportation.

DaVita Memphis Downtown #02432

This facility used a tornado scenario.

Strengths:

- Contact was made with the Regional Hospital Coordinator.
- Patients are knowledgeable about care.

Opportunities for Improvement:

- Need to update emergency bags on machines.
- Supplies need to be updated.
- Personnel are unable to identify distinct roles.

DaVita Ripley #02446

This facility used a tornado scenario.

Strengths:

- Contact was made with the RHC
- Weather radio, cell phones, and text were demonstrated during the exercise.
- "Mini-tags" attached to employee badges serve as Job Action Sheets. Employees know what role they play in an emergency by the instructions on the tag.
- Patients were able to discontinue their own treatment because they receive internal training quarterly.
- Patients who needed mobility assistance were identified by special tags attached to the machine while they are using it.

Opportunities for Improvement:

- The Admin Assistant's role is to obtain the Evacuation Kit and exit the building. During the exercise, it was discovered that they cannot carry both kits because of the weight. We will purchase new evacuation kits with wheels. The facility administrator will take responsibility for this.
- A new teammate had not had evacuation training before the exercise. This and other employees will receive training at the same time we do the quarterly training for patients. The facility administrator oversees the training program.

DaVita Memphis South #2521

This facility used a tornado scenario with power outage.

Strengths:

- Cell phone, email, text, landline, and TNHAN were demonstrated during the exercise.
- The RHC was contacted.

Opportunities for Improvement:

- Would like larger doors for all rooms.

- FA should see to it that we have adequate wheelchairs and dialysis chairs in good working order.
- Should list rooms in the order of their use to keep evacuation more organized. For instance, move to Exam 1. When full, move to Exam 2.
- When using administrative offices for evacuation, make sure that HIPAA laws are not violated.

DaVita Memphis Central #03017

This facility used a tornado scenario with power outage.

Strengths:

- Contact was made with the Regional Hospital Coordinator.
- Cell phones, email, and text were demonstrated during the exercise.
- All objectives were met according to the plan.

Opportunities for Improvement:

- Consider run-through on off-day before actual exercise.

DaVita Memphis East #03018

This facility used a tornado scenario with power outage.

Strengths:

- Contact was made with the Regional Hospital Coordinator.
- All objectives were met according to the plan.

Opportunities for Improvement:

- None

DaVita Home #4308

This facility used a tornado scenario with power outage.

Strengths:

- TNHAN, cell phones, email, text, overhead paging, and landlines were demonstrated during the exercise.
- All team members knew their roles.
- Directions communicated through overhead paging were very clear and information was updated frequently.
- Contact was made with the RHC.

Opportunities for Improvement:

- Investigate installing larger doors to accommodate movement of chairs.
- Need to make sure that wheelchairs and dialysis chairs are in good working order.
- Prioritize use of rooms so that as one fills, another is identified as the next location for patients.
- Need to make sure that patient privacy and HIPAA laws are followed by securing records and locking computers.

DaVita Capelville #04357

This facility used a tornado scenario with power outage.

Strengths:

- Contact was made with the Regional Hospital Coordinator.
- Patients knew what to do during an emergency.
- TNHAN, cell phones, text, email, and the internal intercom were demonstrated during the exercise.

Opportunities for Improvement:

- Additional training is needed for the few patients who may not know what to do during a weather emergency.
- Some machines were missing crank handles.
- Insufficient supplies were on hand. Requests were submitted following the exercise.

DaVita Stateline #4387

This facility used a tornado scenario with power outage.

Strengths:

- Contact was made with the Regional Hospital Coordinator.
- Staff was calm and professional.

- Everyone, including patients, understand take-off procedures and the location of the safe zone.

Opportunities for Improvement:

- We do not a back-up supply of flashlights for staff during an emergency: we will need to purchase at least 4-6 flashlights so that staff will be able to navigate throughout the facility when there is no electrical power.
- We do not have a back-up generator. This was not in the initial plan when the building was developed and not the action that the company wants to take at this time.
- We have a weather radio but we do not have HAM radio to communicate with any command center for assistance. The use of cellphones and text messaging will be the next reliable source.
- DaVita does not keep a supply of food or water for emergency if evacuation was not an option. Alternative solutions will have to be discussed and determined with leadership.

DaVita Midtown #04394

This facility used a tornado scenario with power outage.

Strengths:

- Contact was made with the Regional Hospital Coordinator.
- Emergency food source is kept within the facility and all teammates know where it is.

Opportunities for Improvement:

- All teammates required further instruction on their job duties. We will have daily meetings to review duties.

DaVita Millington #04428

This facility used a tornado scenario that required evacuation in three areas of the campus.

Strengths:

- TNHAN, cell phone, text, and email were demonstrated during the exercise.
- Contact was made with the RHC through submission of a Status Form.
- All actions required by the plan were completed successfully.

Opportunities for Improvement:

- Initial notification text did not reach all participants.
- There were insufficient supplies.

DaVita Forrest City #4430

This facility used a tornado scenario with power outage.

Strengths:

- Contact was made with the Regional Hospital Coordinator.
- EM radio, cell phone, and landlines were demonstrated during the exercise.
- Teammates were able to perform their duties, patients were able to perform emergency take-off procedures, and all were able to verbalize the shelter-in-place plans.

Opportunities for Improvement:

- We do not have full staffing at all times. Assisting patients will be difficult in a situation like this.
- We were very disorganized. We need more training and practice to accomplish this with limited staff.

DaVita Airways #05001

This facility used a tornado scenario.

Strengths:

- Contact was made with the Regional Hospital Coordinator.
- Questionable actions during first shift portion of the exercise were corrected by send shift.
- Patients were aware of how to initiate take-off procedures.
- Patients were labeled green, yellow, and red to prioritize evacuation.

Opportunities for Improvement:

- Need food on hand for emergencies.
- Staff not actively engaged at all times.
- No one obtained the emergency evacuation kit..
- Need to make sure that every patient can hear staff.

DaVita Wolf River #05013

This facility used an earthquake scenario with damage to the building.

Strengths:

- Internal radios, TNHAN, cell phone, and email were demonstrated during the exercise.

Opportunities for Improvement:

- Teammates questioned whether they should immediately begin emergency take-off procedures in an earthquake is ongoing, or should they wait until debris is no longer falling? They were informed to take cover first, but help patients as soon as possible.
- Contact was made with the corporate EOC.
- The RHC was contacted through the use of the Status From.

DaVita Home #5983

Strengths:

This facility used a tornado scenario with power outage.

Strengths:

- TNHAN, cell phones, email, text, overhead paging, and landlines were demonstrated during the exercise.
- All team members knew their roles.
- Directions communicated through overhead paging were very clear and information was updated frequently.
- Contact was made with the RHC.

Opportunities for Improvement:

- Investigate installing larger doors to accommodate movement of chairs.
- Need to make sure that wheelchairs and dialysis chairs are in good working order.
- Prioritize use of rooms so that as one fills, another is identified as the next location for patients.
- Need to make sure that patient privacy and HIPAA laws are followed by securing records and locking computers.

DaVita Renal Care of Marion #06802

This facility used a tornado scenario with power outage.

Strengths:

- Contact was made with the Regional Hospital Coordinator.
- Patients demonstrated the ability to discontinue their own treatment.
- TNHAN, cell phone, text, and email were demonstrated during the exercise.
- All actions required by the plan were completed successfully.

Opportunities for Improvement:

- Three machines were found to have defective levers. The FA added a small tool to the emergency kits in case levers break again.
- New teammates participated, and they had not taken part in emergency take-off procedure drills in the past. They had difficulty utilizing the hand crank procedure independently. FA will ensure that they receive training within their first 30 days and complete a return demonstration at each drill.

DaVita Osceola #06803

This facility used a tornado scenario.

Strengths:

- Patients knew how to disconnect themselves.
- Teammates good at recognizing which patients need help.

Opportunities for Improvement:

- Need to check machines daily for hand cranks, especially if machine pulled.
- Three machines were missing hand cranks.
- One teammate unsure of where to go.
- Need to figure out a location that can hold 12 patients and four teammates during an emergency.

DaVita Memphis Central #06839

This facility used a tornado scenario.

Strengths:

- Teamwork was good.

Opportunities for Improvement:

- Contact was made with the Regional Hospital Coordinator through the submission of a Status Form.
- There needs to be less talking so that everyone can hear.

DaVita Graceland #6840

This facility used a tornado scenario that required evacuation.

Strengths:

- Contact was made with the Regional Hospital Coordinator.
- TNHAN, email, text, intercom, and cell phones were demonstrated during the exercise.
- Patients were actively involved in the exercise because they have been trained.
- Evacuation staff was well organized.

Opportunities for Improvement:

- Two machines were missing emergency take-of kits.
- Need more planning to ensure that occupants in the lobby area are accounted for.
- Internal notification should be announced twice to be sure that everyone hears it.

DaVita Renal Care Midtown Memphis #06841

This facility used a tornado scenario that required evacuation in three areas of the campus.

Strengths:

- The facility has identified each patient's 24 Section Zones for severe weather evacuation.
- The RHC was contacted.
- All objectives were met for power outage, emergency take-off procedures, and evacuation of patients and staff to safe areas.
- TNHAN, cell phone, text, and email were demonstrated during the exercise.

Opportunities for Improvement:

- Blood pump leveler on one machine would not release on one of the 24 ESRO machines. Recommend that bio-med's monthly inspection include verification that the crank arm will release on the blood pump leveler.
- Noted that the crank arm was missing on two machines. Replacements have been ordered. Recommend that cranks be kept in the emergency take-off bags and accounted for during monthly OSHA audits.

DaVita Memphis North #06842

This facility used a tornado scenario.

Strengths:

- Contact was made with the Regional Hospital Coordinator. *(This was evidenced by the submission of a Status Form sent to the RHC. Evaluator noted that the contact was made with Methodist North Hospital, indicating that they did not understand what the Regional Hospital Coordinator was. –NG)*
- TNHAN, landline, cell phone, email, and text were demonstrated during the exercise.
- All required tasks were completed successfully according to plan.
- A personnel/task assignment sheet was completed.

Opportunities for Improvement:

- One machine did not have a hand crank. It was quickly obtained. Cranks will be checked weekly.

DaVita Whitehaven #06844

This facility used a tornado scenario.

Strengths:

- Contact was made with the Regional Hospital Coordinator.
- All required tasks completed according to plan..

Opportunities for Improvement:

- We should train and practice more often than the regulations require, especially in emergency take-off procedures.

DaVita Renal Care Bartlett #06852

This facility used a tornado scenario with power outage.

Strengths:

- Contact was made with the Regional Hospital Coordinator.
- TNHAN, cell phone, text and email were demonstrated during the exercise. Intercom was used to communicate internally. Clinic has a weather radio, and all staff are now aware if its location.
- Patients knew what to do in an emergency.

Opportunities for Improvement:

- No one on the floor knew where radios were kept. This, and the location of spare batteries are now known to all staff.
- The lobby restroom was not checked for occupancy during the evacuation. Roles and responsibilities will be reviewed and a person assigned to complete this task.

DaVita River Oaks #11283

This facility used a tornado scenario.

Strengths:

- Text, email, cell phone, landline, TNHAN, and internal intercom were demonstrated during the exercise.

Opportunities for Improvement:

- Corporate headquarters was contacted, but the RHC was not. *(This was not accurate. A status form was received by the RHC, although the clinic staff may not have known who it was. –NG)*
- We needed more perishable food items. *(This was corrected immediately after the exercise. –NG)*
- It was determined that there is a delay with door closures to prevent the spread of smoked/fire or flying debris in a tornado. We will immediately assign this task to the dietician or social worker.
- Several patients had forgotten where they were supposed to go in an emergency. It is recommended that training be conducted monthly instead of quarterly to educate (or re-

educate) patients on internal and external gathering places. The FA, RN, CCHT or PCT will oversee this.
- Need to prioritize which patients receive attention first.

DaVita Lamar Crossing #11541

This facility used a tornado scenario with power outage.

Strengths:

- Contact was made with the Regional Hospital Coordinator.
- TNHAN, cell phone, text, email, and internal intercom system were demonstrated during the exercise.
- Evacuation zones are identified.

Opportunities for Improvement:

- This is a new clinic. We are not dialyzing patients. We did not experience any difficulties.

East Memphis Surgery Center

This facility used a tornado scenario.

Strengths:

- Email, cell phone, landline, TNHAN, and Everbridge were demonstrated during the exercise.
- The RHC was contacted.
- Physicians participated in the exercise and were knowledgeable about our plan.

Opportunities for Improvement:

- Continue ongoing discussions with Shelby County about possibly providing radios to surgery centers.
- Although staff has been trained on emergency procedures, some newer employees needed reminders. Continue training and exercise activities, particularly for new employees.

Fresenius Kidney Care

Fresenius is a provider of kidney care services, including dialysis clinics. There are 18 clinics in the Shelby County area. They are listed below by identification code.

Fresenius Kidney Care Tipton #1541

This facility used a tornado scenario.

Strengths:

- Analog phones, TNHAN, and email were demonstrated during the exercise.
- Plenty of water and snacks were available for patients.
- Staff was calm and worked well together.
- All radios and flashlights were in working order.
- Staff was knowledgeable about disconnect procedures and relocating patients to safer areas.
- Contact made with Regional Hospital Coordinator in timely manner
- All staff demonstrated knowledge of emergency take off and able to do it in a timely manner.
- All dialysis machines had a hand crank attached to back of it to perform emergency take off.
- All patients were quickly disconnected and moved to designated safe area.
- Staff had good communication with each other and worked well as a team.
- Staff did not panic. Able to reassure patients in a calm manner.
- Staff and patient contact info up to date in emergency cart. No supplies were expired but CM added 5 extra bags of Normal saline and 8 extra machine hand cranks to cart the same day.
- Weather radio available and operational.
- Clinic had several cases of water, a water cooler, canned soup and snacks in the breakroom could be utilized as needed. Clinic also had stock of patient protein supplements available.
- CM able to find emergency number for electric company quickly but emergency numbers were also placed directly at nurses' station to make it easier to find.

Opportunities for Improvement:

- Need to do patient and staff head count once everyone is evacuated to designated safe area.
- Need to make sure a sharps container is taken with emergency cart.
- Make sure to take at least 2 portable O2 tanks, manual BP cuffs and stethoscopes to evacuation area to monitor patients.

- Need longer phone cord for analog phone to make sure it reaches evacuation area. CM ordered cord the same day. It will arrive by end of week.
- For non-ambulatory patients in large treatment chairs, at least one side arm has to be opened completely in order for it to go through doorways. Not all staff was aware of this. All staff in-serviced by CM the same week.
- All outside clinic doors close and lock automatically except one in the back of building and cannot be reopened without a key if power is out. Clinic key placed on med key chain and needs to be with clinic manager or charge nurse at all times during clinic hours. Extra keys ordered this day also.
- Several flashlights available and functioning, but emergency lighting is dim and more were needed. CM ordered 8 additional flashlights and extra batteries for them the same day. They should arrive by the end of week.
- One emergency light in back water room covered by stock placed on high shelf and staff unable to see. Supplies were moved to another area by staff member the same day and CM instructed staff not to place items on top of this shelf.

Fresenius Memphis #1624

This facility used a tornado scenario.

Strengths:

- Patients were included in the exercise. Many expressed appreciation for having been included.
- A list of task assignments was created.
- Staff communicated well during the exercise.

Opportunities for Improvement:

- Staff and patients would like to do more exercises and would like to actually evacuate.
- Patients would like more opportunities to practice take-off procedures when time doesn't allow for rinse back.
- While a person was designated to handle utility cut-off procedures, more people should be trained on this.

Fresenius East Memphis #1775 (442524)

This facility used a tornado scenario.

Strengths:

- The RHC was contacted.

- Command structure was initiated and all knew what to do.
- Staff quickly identified patients who would require assistance in returning their blood.
- Staff worked and communicated well together.
- Staff communication with patients kept them calm.
- Staff communicated missing equipment to the proper personnel.

Opportunities for Improvement:

- Not all necessary nursing equipment was in place. Some hand cranks were missing. Machines need to be checked regularly. Also need to ensure that cranks attach and move freely. A checklist will be made available by 10/31/18.
- Some patients need access to their hemodialysis orders in case they have to receive treatment at another facility.
- Some patients appear to ignore the emergency take-off video when it is shown quarterly. Need to stress the importance of the video and consider verbal review with each patient monthly.
- Hand cranking procedure should be demonstrated by employees at least quarterly beginning with the 12/18 fire drill.
- Need flashlights and screwdrivers in emergency cart.

Fresenius Bartlett Home Therapies #2778

This facility used a tornado scenario with damage to the building.

Strengths:

- Staff was notified via overhead speaker system.
- Contact was made with the Regional Hospital Coordinator.
- Dialysis home training patients required transportation to another location. Staff assisted with this movement and ensured that medical records accompanied patients.
- Weather radio, cell phones, analog telephone, and text were demonstrated during the exercise.
- Staff were able to use their training manuals for manual rinse back for home dialysis patients.
- Medical directors and attending physicians were notified of patient status and that the power loss caused no adverse effects.
- All appointments were able to be rescheduled for the next day with no patient compromise.

Opportunities for Improvement:

- Analog telephone was in place, but there was no outlet through which to establish a connection. Telephone and verified connection to be overseen by clinic manager by 11/12/18 and training provided for staff. *(During last year's exercise, the analog phone could not be located. –NG)*

- Need four additional portable chargers; two for iPhone and two for Android cell phones to be placed in disaster cart. Clinic manager will see that this is completed.

Fresenius Collierville #3390

This facility used a tornado scenario with damage to the building.

Strengths:

- Contact was made with the Regional Hospital Coordinator.
- Staff secured the facility by closing blinds and doors.
- Teamwork was demonstrated by all staff, including non-clinical, reporting to the nurses' station for direction.
- Patients were quickly disconnected from machines and moved to safer areas of the building.
- Staff identified patients who needed assistance and moved their chairs closer to the hallway.
- Staff took the emergency cart, crash cart, and manual blood pressure machine to the safe area.
- Cell phones, text, email, TNHAN, and landline were demonstrated during the exercise.

Opportunities for Improvement:

- Hand cranks were not attached to every machine. The cranks were located and placed on the chairs.
- Staff did not know who to contact for patient transportation if it was needed. A list of services will be created and posted at the nurses' station..

Fresenius Memphis Midtown #4000

This facility used a tornado scenario with loss of electrical power.

Strengths:

- Cell phone, landline phone, email, text, and TNHAN were all demonstrated during the exercise.
- The RHC was contacted.
- Teamwork was very good. Newer staff members were asked if they needed help.

Opportunities for Improvement:

- Need to have a speaker on the clinic floor because the communication was hindered due to the inability to hear. *(This was a finding from last year's exercise, but this year's findings included a root cause, which was that some staff members were not aware that there is a code that must be dialed to access all of the building's intercoms. Also suggested that four additional intercom phones are needed to ensure that the announcement can be heard throughout the building. –NG)*
- Consider monthly disaster plan reviews, location of equipment, and duties for all staff.

Fresenius Whitehaven #4001

This facility used a tornado scenario.

Strengths:

- We were able to locate a backup facility
- Command center was able to arrange for transportation services.
- The disaster book is up to date.
- A list of task assignments was created.

Opportunities for Improvement:

- Need to review who to inform and designate a person to make notifications.
- Some staff and patients panicked during the exercise. (*While no root cause was identified, specific instructions to prepare for evacuation were mentioned. It may be that the staff neglected to announce that this was an exercise. –NG)*
- Do not have enough blankets to cover patients who remained in hallway. *(Shelter was in basement. –NG)*
- There is a lack of water in the facility.
- Need a condensed version of patient current hemodialysis, prescription, and home medications list.
- Facility needs more emergency kits for patients that includes a drink and a small snack..
- Need to review hand crank procedure with all staff.

Fresenius North Memphis #4002

This facility used a power outage scenario.

Strengths:

- Management demonstrated the ability to engage employees, volunteers, and patients to participate in the exercise.
- Specific tasks and instructions were assigned to employees and documented.

- Many patients were familiar with how to operate their hand cranks.
- Staff members were educated on what they were supposed to do.
- Teamwork was very good.
- The RHC was contacted.
- Cell phones, email, and text were demonstrated during the exercise.

Opportunities for Improvement:

- Some supplies were missing from the bin, such as flashlights and normal saline.
- Need to maintain a calm environment and avoid unnecessary conversation so that orders can be clearly heard.
- Two staff members did not wear protective equipment while cranking machines. This was corrected as soon as they realized it.
- Need to practice and master all of the skills needed to effectively respond according to the plan.
- Staff did not know the location of the portable scale.

Fresenius Germantown #4771

This facility appeared to use a tornado scenario with damage to the building.

Strengths:

- Tornado alert monitor, weather alert radio, emergency compact crank radio, landlines, and cell phones were all demonstrated during the exercise.
- Staff and patients were all accounted for.
- Bay nurses actively reinforced emergency procedures and coordinated the movement of patients to safe areas.
- The exercise was used to reinforce training for a new employee.

Opportunities for Improvement:

- Batteries in weather radio were dead, although still in date. Spare batteries were stored with the radio, and the problem was quickly corrected. *(Radio batteries were dead in last year's exercise, but the extra batteries were available this year. Might consider tests at regular intervals to ensure that the radio always works. -NG)*
- A hallway behind the secretary's desk was blocked with boxes.
- There appeared to be some duplication of effort.

Fresenius Bartlett #6198

This facility used a weather scenario with potential flooding to the building.

Strengths:

- Cell phone, landline phone, email, and TNHAN were all demonstrated during the exercise.
- Staff demonstrated the ability to perform emergency take-offs and assist patients to the designated safe area. They were also knowledgeable about the use of the weather radio.
- Contact was made with the RHC and Fresenius headquarters.
- *This facility submitted a detailed list of tasks and specific assignment of each task to a named individual. No participants noted that they were unsure of what to do. This is extremely rare. -NG*

Opportunities for Improvement:

- Staff identified two specific ideas for improvements. One was to consider plans for relocating patients during a flood to a nearby hotel. They also suggested that each patient be given a wallet-sized card that showed their dialysis prescription. This could be completed within the next two months.
- Consider buying large trash bags that could be used to cover certain equipment, and using tape to make sure that the bags are sealed.
- Staff did not know the difference between weather watches and weather warnings.
- Emergency kit contents will be reviewed and any supplies that should be added will be purchased within approximately one month. Storage space for the kits will be identified, possibly with shelving to hold them.
- Need to improve communication with other facilities that might receive our patients if we needed to evacuate.
- *Almost all participants noted the need for a formal evacuation/transportation plan.-NG*

Fresenius Summer #6758

This facility used a weather scenario with loss of electrical power.

Strengths:

- Weather radio, mobile telephones, and Zello texting application were demonstrated during the exercise.
- The RHC was contacted.

- Seven of the fifteen patients present knew how to operate the hand crank on their machine. Patients who did not know or couldn't do this were quickly helped.
- Specific actions and instructions were documented and staff followed the facility plan.

Opportunities for Improvement:

- Some staff members had to be told to take the exercise seriously in the beginning, but as it progressed, attitudes changed.
- Consider keeping snack items on hand in case diabetic patients become hypoglycemic.
- Purchase bottled water and large trash bags in case of extended stays. (Both of these actions will be immediately done.)

Fresenius Millington #6760

This facility used a tornado scenario with damage to the building.

Strengths:

- Staff responded in a safe and effective manner.
- Staff explained situation to patients so that they understood and felt safe.
- Cell phones, landline phones, text, email, and TNHAN were all demonstrated during the exercise.

Opportunities for Improvement:

- Intercom system was not working properly. Initial notification was through phone-based intercom, but two of the three intercoms did not work. Employees who got the notification shared it verbally.
- Simulated power outage required hand cranks to be used. Some machines were missing the cranks. Technical was notified of the need to correct this.
- Staff failed to take crash cart to the safe area. *(This was also a finding from last year's exercise. –NG)*
- Need more training to prepare all staff members for different job roles and who will be responsible for what. *(This was also a finding from last year's exercise. –NG)*
- Consider monthly assessment of patients' understanding of emergency procedures.

Fresenius Mount Moriah #6843

This facility used a tornado scenario. The tornado touched down near the clinic, but the facility sustained no damage.

Strengths:

- Job Action Sheets were used to ensure that everyone understood their duties. This worked well.
- Contact was made with the Regional Hospital Coordinator.
- Cell phones and TNHAN were demonstrated during the exercise.
- The addition of a second oxygen tank to the evacuation cart after last year's exercise provided two tanks in the safe area.
- New procedures adopted after last year's exercise included placing sheets in front of rooms that had been cleared. This also worked well.
- This exercise went much better than previous ones.

Opportunities for Improvement:

- None submitted.

Fresenius East Memphis Home Therapies #6856

This facility used a tornado scenario.

Strengths:

- Radios, cell phones, landlines, text, and TNHAN were all demonstrated during the exercise. Email was not used because of a simulated power failure.
- All staff and patients were accounted for.
- Notification was made to the medical director and management.
- A list of task assignments was created.
- A weather radio was available. *(This was corrected since last exercise. –NG)*

Opportunities for Improvement:

- Employees could not locate the analog phone, and no one knew the location for water, electricity or gas.
- Patients sign in on arrival, but do not sign out. (This may improve accountability procedures.)
- Contact was made with the Regional Hospital Coordinator by submission of a Status Form.
- Need an updated list of ambulatory vs. non-ambulatory patients.
- Staffing was limited because of personnel being out on home visits. *(This was not a weakness. This facility operates both a clinic and at patients' homes, so staff is likely to be limited at any time. –NG)*
- Need better clarification of staff roles.

Fresenius Ridgeway #7553

This facility used a tornado scenario.

Strengths:

- Staff demonstrated excellent teamwork.
- Staff demonstrated knowledge of the emergency take-off procedures.
- Adequate staff and supplies were readily available.
- The Regional Hospital Coordinator was contacted.

Opportunities for Improvement:

- Announcement made over intercom was not heard in patient or staff restrooms or in the water room where there is no telephone.
- Bathroom cord was pulled, but could not be heard over machines and other activities, and the fact that no one was at the nurse's station.
- Non-floor personnel were uncomfortable with not knowing their exact roles unless directed by a nurse. *(This was a finding from the last exercise. –NG)*
- Need for more practice without CM being in charge of exercise and giving direction.
- Hand cranks on some machines were unable to be attached due to inability to pull lever out. *(This was a finding from last year's exercise. –NG)*
- Some areas of the clinic are unable to hear the intercom if not close to a telephone. *(This was a finding from last year's exercise. –NG)*
- The call alarm in the bathroom is not loud enough to be heard in noisy situations. *(This was a finding from last year's exercise. –NG)*

Fresenius Raleigh-Bartlett #10066

This facility used a tornado scenario with a loss of water service.

Strengths:

- Contact was made with the Regional Hospital Coordinator.
- TNHAN, TV, landline, text, email, and cell phones were demonstrated during the exercise.
- Staff was notified quickly and adequate personnel were on site.
- Call-down procedures were tested and effective.
- A list of task assignments was created.

Opportunities for Improvement:

- Need more bottled water on site.

Fresenius Central Memphis #8699

This facility used a tornado scenario with damage to the building.

Strengths:

- Cell phones and landlines were demonstrated during the exercise.
- Performance was improved over last year's exercise. Staff took more initiative and stayed with patients throughout the process.

Opportunities for Improvement:

- Given enough time, move furniture out of safe rooms to accommodate patients.

{END OF FRESENIUS KIDNEY CARE FACILITIES}

GI Diagnostic and Therapeutic Center (1310 Wolf Park Drive, Germantown)

This facility used a tornado scenario with power loss.

Strengths:

- Radio, cell phone, text, email, text, TNHAN, and overhead paging were demonstrated during the exercise.
- The Regional Hospital Coordinator was contacted.
- Front desk staff moved patients to break room away from windows.
- Patients, drivers, and employees were given maps for evacuation through side route.

Opportunities for Improvement:

- Need ICS training. ASC manager had to give a lot of specific explanation of roles. ASC and two or three others should seek online training by 1/1/2019.
- Need to practice how to document patient/visitor/employee transfer to a higher level of care. Should be completed by 1/1/19.

GI Diagnostic and Therapeutic Center, LLC (8000 Wolf River, Germantown)

This facility used a tornado scenario.

Strengths:

- Radio, cell phone, text, email, TNHAN, and landlines were demonstrated during the exercise.

- The Regional Hospital Coordinator was contacted.
- An IC and backup were identified.
- Good teamwork.
- Staff members all knew where to meet during a tornado warning.

Opportunities for Improvement:

- Communication needs to be improved.
- Rules about what to do when patients are asleep need to be clarified. *(This was stated on several participant evaluations. It should be investigated. Sleeping patients should not be subject to endangerment, so it's unclear to what this refers. Might it refer to sedated patients? –NG)*
- *(Several participants stated that most everyone knew what to do. Others said that they needed training and were not sure what to do. This usually indicates a training issue. Requires further investigation. –NG)*

Genesis Rehab Services at Heritage at Irene Woods

This facility used a tornado scenario.

Strengths:

- TNHAN, email, text, and cell phone were demonstrated during the exercise.
- The Regional Hospital Coordinator was contacted.

Opportunities for Improvement:

- *(Only one full-time position exists at this facility, so the plan is for the DOR to communicate with whomever is necessary, and then assist at Irene Woods. All other staff is PRN and none were present on this day. Once additional staff is hired, the plan will change, and the evaluator listed certain equipment that should be purchased. –NG)*

Graceland Rehabilitation and Nursing Center

This facility used a tornado scenario.

Strengths:

- Previously the staff was educated on the drill.
- Staff moved into action quickly.
- Staff set up command post.
- Staff walked around and asked residents if they needed a blanket to keep warm.
- Staff communicated with residents on the weather condition.
- All departments participated in the drill.
- Overall communication was good by using hand held radios.
- Maintenance applied sand/salt bags on the exterior of the building.
- Administrator communicated with Midtown Center for Health and Rehab the emergency and potential transfer of residents.

Opportunities for Improvement:

- Employees became distracted during the drill. The problem was corrected by asking the employee to get back to their post.
- Exit doors were not guarded at all time during the drill. The problem was corrected by having assigned employees to manage the doors.
- Employees disregarded communication. The problem was corrected by discussing with employees the instruments for communication during an emergency and reminding employees the importance of continuing with emergency directions until they hear the phrase, "Emergency All Clear" by maintenance three (3) times.
- Staff was in their office eating. The problem was corrected by having the employees to stop eating and report back to their assigned station/location.
- Residents got irritated about missing the smoke break. The problem will be combated by having nicotine gum for the smokers.
- Ambulatory resident (staff) walked out the building twice through different doors. The problem was corrected by having employees return and man their post. During an emergency, ambulatory residents will be moved to one location in order to combat wanderers.

Heritage at Irene Woods

This facility used a tornado scenario.

Strengths:

- Radio, cell phone and landlines were demonstrated during the exercise.
- The Regional Hospital Coordinator was contacted. *(Evaluator indicated that "the RHC's supervisor was contacted. This needs clarification. This facility may not understand who the RHC is. A Status Form was submitted to the RHC. –NG)*

Opportunities for Improvement:

- Need to determine how bedbound patient will be evacuated. Need more communication with each other.
- Need more specific training with supervisors and nurses. Maintenance director to complete by 11/1/18.
- Dietary staff needs training. They did not participate. They would have been in an affected area.
- The designated sheltering location was not safe for all residents. Some would have potentially been exposed to broken glass.
- Need more urgency and hands-on practice.
- Many areas of concern were identified. Great learning experience.

Highlands of Memphis

This facility used a tornado scenario.

Strengths:

- Contact was made with the RHC.
- Calls to other facilities added to realism of the exercise.
- Cell phones, landline, email, text, and TNHAN were demonstrated during the exercise.
- Incident Command System was set up in accordance with the emergency plan.

Opportunities for Improvement:

- Original announcement via PA did not make it clear that this was an exercise, which caused some panic.
- Suggest buying two-way radios for staff rather than relying solely on overhead announcements. PA may not be heard in all parts of the facility.

Lakeside Behavioral Health and Rehab

Strengths:

- This entity communicated with the RHC by completing and sending the requested status form, but did not submit any other data for inclusion in this report.

Kirby Pines Estates

This facility used a tornado scenario.

Strengths:

- The emergency call tree was activated.
- Contact was made with the RHC.

Opportunities for Improvement:

- None

Memphis Jewish Home and Rehab

This facility used a tornado scenario.

Strengths:

- Notification was made using Tiger Text, Onshift, text, email, and overhead paging was simulated.
- ICS was established, but we need more ICS training.
- IC and manager are very knowledgeable and have the ability to make quick, competent decisions.
- Staff was very timely with their responses.
- Posting of information on social media was a great idea.

Opportunities for Improvement:

- Need additional training on all emergency codes. Some staff did not know what "Code Green" meant. This will be completed by the Staff Educator and department heads by 12/3/18.
- The vent hood in the kitchen is not on emergency power. This will be corrected by the Director of Facility Services by 11/15/18.

- ICS and roles/responsibilities training will be completed by the IC and ED by 12/3/18.

Memphis Surgery Center

This facility used a tornado scenario.

Strengths:

- Overhead PA, internal radios, TNHAN, text, cell phones, landlines, HRTS, and HC Standard patient tracking were demonstrated during the exercise.
- Step-by-step procedures were followed by ICS and all facility staff during the exercise.
- Communication between command center and all areas of the facility.
- IC used a checklist to ensure that all concerns were addressed and resolved.
- Handheld radios for internal use were distributed to all key personnel and provided constant two-way updates.
- This was the first exercise where we received patients. Staff was attentive to the needs of all involved and kept visitors informed of the exercise. All staff treated the scenario as if it were a real event.

Opportunities for Improvement:

- When telephones were unavailable for the event, we could not place a call for a patient who needed transfer. We will secure radio communications by 3/31/18 to communicate with outside agencies and other surgery centers. *(Specific individuals were named to complete this task; however, contacting the RHC will facilitate this action. –NG)*
- TNHAN notification was not made to two individuals who are registered on the system. This will be investigated and corrected by 12/31/18.Supply box is too heavy and cumbersome to relocate to area of refuge. Supplies will be repackaged in a device that is easy to move for any staff. This will be done by 12/31/18.
- Policy does not clearly address all areas of emergency preparedness, and some information needs to be updated. A review of the policy will be conducted and updates completed by 3/31/18.
- PACU was not available for participation because of heavy workload. (*Real patients are always the priority. –NG)*

Meritan, Inc.

This community-based agency used a tornado scenario. Meritan provides a variety of services to vulnerable populations and is not a "facility" as most others who participated in the exercise. Thus, their findings were different from what would have been expected of an operation that treats patients in a clinical setting.

Strengths:

- The RHC was contacted.
- Email, text, and landlines were demonstrated during the exercise.
- Staff pulled together to contact patients.

Opportunities for Improvement:

- Experienced a 30-minute delay because of a phone being silenced.
- Need more training and exercises to determine how to better support the community during disasters.

No Place Like Home (Pediatric Home Health)

This agency provides home health services for pediatric patients. They chose a severe weather emergency, but under CMS rules, are required to serve their clients within their residences, not at a central location.

Objectives Tested:

- Communication Plan via Call down tree
- Documentation during event
- Employee education regarding tornado safety

Strengths:

- Immediately notified of weather event via TN Health Alert Network (TNHAN)
- Established contact with our patients & staff in a timely manner by activating call down tree and via email.
- Registered user for DHS Priority Telecommunications Service Center GETS/WPS for secondary means of communication.

Opportunities for Improvement:

- There are several patient homes that have not identified or are unable to use (due to cluttered hallways and closets) a safe place within the home for tornado alerts. Case supervisors will review the tornado safety plan with patients and their family during next >60 days assessment.
- Many of the patient's family did not answer the phone while attempting to make contact to confirm their status. Administration will continue to attempt to make contact and will also discuss the importance of communication with agency. Case supervisors will reiterate the importance of communication with agency again within the next 60 days during the next assessment/re-certification.

- There was some confusion with staff when activating the call down tree due to three employees being absent and no back up plan was in place. The Administrator and the Director of Nursing will split remaining call groups leftover. This policy has been written and is now in effect as of October 18, 2018.

Quality Home Health Services

This agency provides home health services and used a weather scenario.

Strengths:

- Cell phone, text, and email were used to communicate with staff and patients.
- Electronic and hard-copy patient records were readily available and up to date.
- Staff was well-informed of our emergency response plan and use of the call tree.

Opportunities for Improvement:

- The Emergency Alert System radio was not available. It will be purchased by 1/1/19 and training will be provided on its use.
- The phone tree was not up to date. The list will be updated and accuracy verified within the next two weeks, and then checked monthly.
- The triage level was missing on three patient records. This level must be included in order to prioritize the order in which patients will be contacted.

Parkway Health and Rehab Center

This facility used a tornado scenario.

Strengths:

- The RHC was contacted.
- Email, cell phones, internal radios, and text were demonstrated during the exercise.
- Nurses were observed checking the oxygen concentrators for those patients who require oxygen.
- Activity department call part-time and weekend staff to help on each hall with singing spiritual songs to keep patients calm.
- Wandering residents were monitored and assigned to two aides.
- Family members were notified of the exercise and give assignments.

Opportunities for Improvement:

- Laundry department did not shut off washers and dryers. Maintenance forgot to call the alarm company to notify them of the exercise. Attempted to correct the error, but the call had already been dispatched to the fire department.
- IC failed to conduct a walk-through to familiarize managers with the emergency plan. However, roles and responsibilities were reviewed.
- IC did not assign someone to lock the door to the lobby during the exercise. Customers and families were redirected to the lobby until the exercise was completed.
- Dietary should make sure that enough water is on floor for residents during weather warnings.

Quince Nursing and Rehabilitation Center

This facility used a tornado scenario.

Strengths:

- Cell phone, radios, intercom, and several other types of redundant communications were demonstrated during the exercise.
- The RHC was contacted.
- Staff assignments were carried out via use of radios.
- Staff was knowledgeable of disaster code for weather warning.

Opportunities for Improvement:

- Employee training will become the responsibility of the Emergency Preparedness team on 11/30/18. The Executive Director will ensure that much of this training is scenario based.

Radiosurgical Center of Memphis

This facility used a tornado scenario.

Strengths:

- Cell phone, weather radio, email, landline, text, internal intercom, two types of radios, and TNHAN were demonstrated during the exercise.
- The RHC was contacted.

Opportunities for Improvement:

- There was duplication of effort. Color-coded cards will be developed with specific duties for each staff member. After completion, they will be reviewed by staff for improvement. Manager will oversee this project and expects to complete it within one month.
- Disaster box was too heavy to move. Manager will order a wheeled cart for the box and other supplies within the next month.
- Two different people activated the call tree. This will be a responsibility designated on the new cards.

Regional One Extended Care Hospital

This facility used a tornado scenario.

Strengths:

- TNHAN, landlines, and email were demonstrated during the exercise.
- The RHC was contacted.
- Overall communication went very well.
- IC was professional.
- ICU fellows were quick to assist with triage.
- Triage went smoothly.

Opportunities for Improvement:

- We need to be added to HRTS.
- Need to relocate the IC on the ROH side, knowing where the command center is and when to report.
- Need handheld radios for communication to the second floor. Conduct radio training. Safety Officer and executive team should work on these issues, implementing by 1/19.
- Need more space if more than 10 patients are likely to be received at the same time.
- Need more training for new hires.
- Need more ways to communicate if cell phones are not available.

Regional One Subacute Care

This facility used a tornado scenario.

Strengths:

- Cell phones, email, text, and landlines were demonstrated during the exercise.

Opportunities for Improvement:

- Full communications were not provided to everyone. Need complete employee list and phone numbers for all relevant employees.

Satellite Healthcare, Inc. (Wellbound)

This facility used a tornado scenario.

Strengths:

- Cell phones, email, and landlines were demonstrated during the exercise.
- Internal policies are consistent with ICS.
- Follow-up team contacted patients to make sure that they had adequate supplies and to provide any needed support.
- Need to improve timeliness of response.

Opportunities for Improvement:

- Identified the need for a resource list for patients to take home with them. This will be implemented 10/19/18.
- Grant access to all nurses for patient records.
- Need more training and practice on specific roles. Also need to cross-train so that if someone is absent, those tasks can be carried out by another person.

Select Specialty inside St. Francis Memphis Hospital

This facility used a tornado scenario.

Strengths:

- None.

Opportunities for Improvement:

- The overhead page was not heard.
- We are not able to enter patients to us via paper.
- Need to plan for moving discharge patients to a holding area to make room for incoming patients.
- Need staff education on code types.
- We experienced drug shortages and availability.
- Need additional training on contacting staff, and a communications plan.

SpringGate Rehabilitation Center

This facility used a tornado scenario.

Strengths:

- Cell phones, text, email, TNHAN, and overhead paging were demonstrated during the exercise.
- The RHC was contacted.

Opportunities for Improvement:

- The facility has no internal radios, satellite communications, or weather radios. Suggest that Maintenance investigate buying at least three or four radios by 11/30/18.
- Recommend appointing extra staff to help guide people through the building. Suggest five for each section of the building. This should be completed by the Emergency Plan Coordinator by 11/30/18.

The King's Daughters and Sons Home

This facility used a tornado scenario.

Strengths:

- Cell phones, runners, landlines, text, email, and overhead paging were demonstrated during the exercise.
- The RHC was contacted.
- Evaluation of the facility's status was completed, including food and supplies.
- IC delegated tasks well. One person was assigned to handle communications. Internal notifications were made primarily through overhead paging.
- Participants had a good knowledge of the facility's EOP and it was successfully activated.

Opportunities for Improvement:

- We will be setting up a mass-paging program to enhance our notification process by 11/1/18.
- ICS was set up quickly, but we need more ICS training. This will be scheduled on 11/1/18 and delivered by the administrator.

The Village at Germantown

This facility used a fire scenario.

Strengths:

- Cell phone, email, and HAM radio were demonstrated during the exercise.
- The RHC was contacted.
- All steps designated by the plan were taken. Multiple people resonded with the appropriate equipment.

Opportunities for Improvement:

- Radio calls were made, but not everyone could hear them.

UroCenter #80

This facility used a tornado scenario.

Strengths:

- All staff worked well together.
- The movement of patients and family members to safety was executed flawlessly.
- Cell phone, email, landline, text, internal intercom, and TNHAN were demonstrated during the exercise.
- The RHC was contacted.

Opportunities for Improvement:

- All areas had working flashlights, but our portable radios were missing. These will be replaced with three new ones and placed in the business office, pre-op and PACU.
- Some newer employees were unsure of what they were supposed to do. There will be disaster training provided for new hires in the future. The Safety Officer will conduct two more drills by 12/31/18.
- There was confusion concerning when to cut off medical gases. The safety officer will address this in upcoming internal drills.
- If patients had to be relocated, their charts would go with them, but only the schedule includes names. We are currently working on a tracking method for patients and families.
- If electrical power is lost and cell phone towers are down, we have no communication with the outside world. The administrator will purchase a HAM radio by 12/31/18.

West Tennessee Homes

This is a State-funded residential facility for people with developmental disabilities. Forty-eight person supports are scattered among 12 homes, with four assigned to each home. The facility chose a storm scenario that required relocation of some patients to lesser-affected portions of their properties.

West Tennessee Homes (1003 HWY 70, Arlington)

This facility used a tornado scenario.

Strengths:

- Staff communicated well.
- Contact was made with the RHC *(This was evidenced by the fact that a Status Form was sent, but the evaluator noted that they did not see contact. –NG)*
- A disaster checklist was completed.

Opportunities for Improvement:

- Adequate food and water supplies were on hand, but too heavy to move.
- "Help" signs need to be laminated so that they can be placed in the windows and not have holes.
- Need a place to store extra blankets.
- Need two nurses to care for our residents if they can't be moved to another home.
- There was no battery in the weather radio.
- Staff needs to be trained on oxygen administration and delivery of breathing treatments.

West Tennessee Homes (1005 HWY 70, Arlington)

This facility used a tornado scenario.

Strengths:

- All staff members are adequately trained on emergency procedures.
- The evacuation plan is posted for everyone to see.
- Fire extinguishers are checked and up to date.
- Contact was made with the RHC.

Opportunities for Improvement:

- Need to plan for better communication if power lines are down.

- Need to determine whether the nurse can take care of patients at both houses if lines are down.
- Need to find out more information about our generator and whether it will work if gas lines are damaged.
- Nurse needs to be trained on using portable oxygen in case the generator does not work.
- The weather radio was not charged.
- Need two-way radios to communicate between houses.
- Emergency food supply was too heavy to move easily.
- Beds would not fit through doorways. Two patients had to be moved in chairs.

West Tennessee Homes (10926 Lobov Road, Arlington)

This facility used a tornado scenario.

Strengths:

- Staff communicated well during the exercise.
- A disaster checklist was completed.
- The RHC was contacted.

Opportunities for Improvement:

- All of the homes may have to exercise communicating without the phone system.

West Tennessee Homes (11443 Arlington Woods Cove, Arlington)

This facility used a tornado scenario.

Strengths:

- Staff knows what to do in an emergency.
- Staff received monthly disaster training.
- The RHC was contacted.
- A disaster checklist was completed.
- Cell phones, text, email, and landlines were demonstrated during the exercise.

Opportunities for Improvement:

- Staff forgot to place the “Help” sign in the window.

West Tennessee Homes (11444 HWY 70, Arlington)

This facility used a tornado scenario.

Strengths:

- The RHC was contacted.
- A disaster checklist was completed.

Opportunities for Improvement:

- Staff needs to ensure the evacuation of any positioning equipment, if feasible. Wheelchairs are first priority if nothing else can be moved.
- Staff should be reminded to place "Help" signs in window after assessment can be completed.
- Need more staff and better communications.

West Tennessee Homes (11455 Arlington Woods Cove, Arlington)

This facility used a tornado scenario.

Strengths:

- Home manager assumed the role of IC.
- Staff receives monthly disaster training.
- The RHC was contacted.
- Home and staff cell phones, text, email, and TNHAN were demonstrated during the exercise. Landlines were not working according to the scenario.
- Staff provided care for residents.
- Staff knew where to find emergency contact numbers.
- A disaster checklist was completed.

Opportunities for Improvement:

- Staff forgot to notify the administrator on duty. They were reminded to make all necessary notifications.
- The "OK" and "Help" signs were not placed in the window. This must be done to communicate status to first responders.

West Tennessee Homes (11456 Arlington Cove, Arlington)

This facility used a tornado scenario.

Strengths:

- Staff cell phones were used for communication during the exercise.
- Staff remembered to place the emergency home sign in the window.
- The RHC was contacted.
- The home manager assumed IC role and gave instructions.
- Home and staff cell phones, text, and email were demonstrated during the exercise. Landlines were not working according to the scenario.
- A disaster checklist was completed.

Opportunities for Improvement:

- Weather radio would not pick up signal.

West Tennessee Homes (230 Oak Hill Lane, Arlington)

This facility used a tornado scenario.
Strengths:

- An IC and manager were established. Both are trained monthly.
- The RHC was contacted.
- Home and staff cell phones were demonstrated during the exercise. The landline phones were not working according to the scenario.
- Staff relocated residents and accounted for everyone on site. The "Okay" sign was placed in the window when it was determined that there were no injuries.
- Need to make sure that the "Help" or "Okay" signs are displayed after assessment is completed. This will be addressed in annual training.
- Remind staff to call IC to report status after it can be determined. This will be addressed in annual training.

Opportunities for Improvement:

- None.

West Tennessee Homes (2960 Schaeffer Drive, Eads)

This facility used a tornado scenario.

Strengths:

- The RHC was contacted.
- A disaster checklist was completed.

Opportunities for Improvement:

- Need to continue having exercises and using the phone system.

West Tennessee Homes (5982 Polk Street, Arlington)

This facility used a tornado scenario.

Strengths:

- The RHC was contacted.
- A disaster checklist was completed.

Opportunities for Improvement:

- Home manager needs to learn from maintenance what fuel is used for the generator.

West Tennessee Homes (7405 Osborntown Road, Arlington)

This facility used a tornado scenario.

Strengths:

- Staff communicated very well during the exercise.
- Contact was made with the RHC.
- An internal disaster checklist was completed.

Opportunities for Improvement:

- Need to practice communicating without phones. Need another means of communicating from home to home.
- Only two people and four residents were present during the exercise.

West Tennessee Homes (95 Oak Hollow Cove, Arlington)

This facility used a tornado scenario.

Strengths:

- Home manager assumed role of IC.
- Staff receives monthly disaster training.
- The RHC was contacted.
- Home and staff cell phones were demonstrated during the exercise. Landlines were not working according to the scenario.
- Residents and staff were accounted for after they reached the shelter area.
- A disaster checklist was completed..

Opportunities for Improvement:

- Remind staff to report status to the IC after assessment is completed, and to place "help" sign in window. This will be addressed at annual training.

Findings for Potential Action by the Healthcare Coalition

Numerous issues were identified at participating facilities during this exercise. Many of those pertain only to the manner in which a particular facility needs to modify their procedures or update their internal plans. Those are noted in the individual facility summaries in this AAR.

There were several issues that were common to most or all of the participating facilities. Since these items may represent trends across the entire region, the HCC may wish to consider addressing these in a more strategic approach to improving capabilities for all member healthcare organizations.

1. **Overall Strengths and Improvement Opportunities-** Since the 2017 Full Scale Exercise, the majority of entities showed improvement in several areas. Most common were improved radio communications and better organization of equipment and supplies. Areas of the most prominent needs for improvement include organizational issues (ICS) and the lack of viable internal overhead paging in all areas of facilities. Many facilities that reported PA problems last year have apparently not corrected the issue. This is particularly problematic when these systems are relied upon so heavily for alerting staff and patients, residents, and visitors of pending disasters.

   Other areas where improvements seem to have been made include the ability to quickly register patients. Whenever problems were encountered with registration, the root cause appears to be slow or inoperable computer systems. In some cases, registration staff was also burdened with populating data in HC Standard for patient tracking. (This is addressed elsewhere in this report.)

   It is also noteworthy that a growing number of sites appear to be using Job Action Sheets, which accounts for some of the improvements in organization and assignment of staff to certain positions, but it was clear that these operational aids and checklists are still in need of improvement. Further exercises and discussions with the users should provide insight for what changes need to be made.

2. **Hospital Incident Command-** As with previous exercises, almost every facility's participants identified a need for more ICS training. In some cases, Evaluator responses to ICS questions of the Exercise Evaluation Guides indicated that the Evaluators themselves were unfamiliar with basic ICS principles.

   Also as with previous exercises, what was often identified as a communications problem can be attributed to organizational shortcomings. Many facilities are developing Job Action Sheets to clarify roles, but it does not appear that these include a description of where the position fits within the ICS structure. In many instances, it appears that the IC is actually functioning as an Operations Section Chief. In a larger ICS structure, this level of activity will be more than the IC can handle, and will necessarily cause a breakdown of the system.

   Simple, understandable ICS training should be provided to everyone at every facility, at

least through the Branch levels.

3. **Radio Communications-** Though improvement over the last exercise was apparent, some facilities still reported the same problems with radios as before. These issues included improper programming, dead batteries, and a lack of understanding of the controls. Several reported that too many people were on the radios at the same time, and some reported a need for additional or upgraded radios. Several facilities that identified the need for more or upgraded radios noted that they had made these improvements.

4. **Internal Communication Procedures and Essential Elements of Information (EEI) Flow-** ***(NOTE: This finding is essentially unchanged from the last FSE.)***

   As with the last exercise, many facilities documented problems with getting information to those inside the facility who needed it. Although some seemed to think that this was a radio issue, Participant Evaluations indicate that the problem is more complex.

   Once again, this appears to be due to a lack of proper application of ICS principles. The two most critical of these issues are Unity of Command, and Span of Control. Unity of Command means that every person reports to only one supervisor. Span of Control means that every supervisor has at least four, and no more than seven people who report to them. Following this principle, ideally the IC should never be contacted by anyone other than a Section Chief or members of the Command Staff in the EOC setting. It appeared that in many cases, this chain of command was usurped by others who attempted to contact the IC directly, creating a situation where calls could potentially come in from anyone. In some cases, it appears that the IC expected this, and even noted when it did not occur. This can create chaos for both the Incident Command Center and the area where the reports originate. Even if two functions are not located in close proximity to one another, they can be organized so that information flows the same way every time. For instance, Plant Operations may have personnel anywhere in the building or on campus, but they may report to the Operations Section Chief every time. If the IC has talked to more than seven people at any point, something may be wrong with the ICS structure.

   For a variety of reasons, additional ICS training would clearly benefit all of the hospitals in the region. The size of the facility is not a consideration. ICS principles can be applied to operations of every size, and as stated earlier, would enhance all of the other capabilities within the region.

   Some facilities noted that staffing turnover had caused a gap in training for newer personnel. Where this is the case, some basic training may be in order until more extensive training is warranted for everyone who needs it. Even a very basic class in ICS principles could prove highly effective by providing staff with an understanding of how the system works, even if they do not train extensively in filling a particular role. Job Action Sheets and checklists may also serve to make staff more confident in knowing what is expected of them.

5. **Triage Tag Training-** Although fewer facilities reported issues with triage tags than in the 2017 FSE, many staff still report that they do not understand the triage system itself. This is an apparent training issue, and the resumption of "Triage Tuesdays" may lead to better outcomes and greater confidence by clinical staff.

6. **Non-hospital Facility Participation-** During the 2017 FSE, more than half of the participating agencies were from non-hospital entities. In this exercise, the number skyrocketed to well over 75%. This trend is likely to continue as more of these entities seek to meet their CMS requirements.

   One disturbing trend among most of the larger corporate-owned providers was that the vast majority of evaluations from within the same company appeared to use the exact same wording in responses to criteria listed on the Exercise Evaluation Guide. This held true even when the response was indicative that the question was not properly understood. Perhaps the most plausible explanation for this is that the evaluators participated in a meeting or conference call and were directed to enter certain information in the EEG. It must be stressed that CMS expects exercises to be conducted at individual sites, considering each facility's unique circumstances. Large groups or corporations should not be comparing responses.

   Other issues with non-hospital reporting include a rampant misunderstanding of what the Regional Hospital Coordinator position is. Many facilities checked that they had contact with the RHC, but listed names or corporate headquarters and the contact that they had reached. In other cases, some noted that they had not contacted the RHC, but included the Status Report that had been sent to the RHC. The purpose of the RHC position and the person who serves in this role needs to be clarified for every participating entity. *(See "Annex D" for list of entities who made contact with the RHC.)*

   Also, a significant number of first-time participating dialysis entities reported the same problems that were reported by last year's new participants. The most prominent of these was the lack of crank handles that attach to dialysis machines among those clinics. This demonstrates the value of the Non-hospital Working Group within the HCC. Informational exchanges on matter such as this would help ensure that all of the clinics can learn from one another. Among these entities, several noted that chairs would not fit through doorways without some dismantling, which is another lesson that last year's participants discovered.

   The most encouraging finding from all non-hospital entities is that when they identify a needed improvement, most act almost immediately. In almost every case, if a root cause was identified, staff took action to correct it as soon as possible, often on the same day or by the end of the week. This held true even when situations such as certain electrical outlets not being on generator power were discovered. This trend demonstrates the seriousness with which these entities take findings from their exercises and seek to make real improvements.

7. **HC Standard Patient Tracking-** This system was used to some degree by virtually everyone who would be expected to enter patient information into it, but there appeared to be quite a bit of confusion among hospitals when they discovered that patient data already existed in the system when they logged on. Many seemed to think that this was done by mistake, but it would be entirely consistent with what would happen if EMS agencies were initiating the tracking process from the scene. In such cases, the hospitals would update existing information, not create a new file. This seemed to be mistaken for an exercise artificiality, but it was not.

   A few facilities indicated that they could not enter data into the system or that it "froze" when they opened it. It is possible that hospital network settings could be to blame, but it is probable that despite recent training, the system is not well understood by all those who attempted to use it.

   Some facilities also reported that registration staff were expected to monitor or populate information in all electronic systems at the same time. This was understandably more than should be expected of one or two people. Facilities that identified this as an issue indicated that they would designate personnel to run an appropriate level of activities and would augment staff to create a manageable workload for each position.

8. **Healthcare Resource Tracking System and Tennessee Health Alert Network-** The Tennessee Department of Health relies on two main sources of electronic media to keep healthcare professionals apprised of relevant information during disaster situations. The first is the Tennessee Health Alert Network or "TNHAN." This system sends alert messages to subscriber via email, text, and telephone calls, and requires a response to each alert in order to stop the messaging system.

   The second system is the Healthcare Resource Tracking System, or "HRTS." This system also sends out alerts, but also acts as a real-time information sharing system that connects hospitals, the Regional Hospital Coordinator, and the Regional Emergency Medical Services Consultant to provide situational awareness and make needs known among other activated users.

   TNHAN alert responses were high, and this system generally works as designed. When designated recipients do not receive alerts, it is usually because of an error in the way the recipient's contact information was entered into the system. This is usually easy to correct once the problem has been identified.

   HRTS continues to evolve, and each time changes are made, this new information must be communicated to users. This, along with staff turnover, may require more frequent training than has been conducted in the past. Additionally, non-hospital entities are being provided access to HRTS, which further increases the training burden, as well as the workload on the RHC, who typically takes responsibility for registering HRTS users.

HRTS was apparently offline for about 30 minutes during the exercise. Most users reported this in their evaluations, but a root cause was not known. The reports were too common to assume that these were isolated cases.

9. **Regional Medical Communications Center-** For this exercise, the RMCC trailer from the Jackson-Madison County Regional Health Department was deployed at the AgriCenter. Staff from this agency were very capable of setting up the asset and ensuring that everything was operational. Additional staff from the Mid South RMCC were brought in to handle communications, and did so without any known difficulties.

APPENDIX A: IMPROVEMENT PLAN

This IP has been developed specifically for the Mid-South Emergency Planning Coalition as result of the Full Scale Exercise conducted on October 17, 2018.

☐ MSEPC accepts responsibility for assuring that the improvement plan issues identified will be integrated into an exercise in the next budget period.

Issue/Area for Improvement	Corrective Action	Capability Element[1]	Start Date	Completion Date
Issue 1				
1. Lack of Incident Command System awareness among hospital command staff.	Previous ICS training has either been ineffective or not availed. Consider making ICS training a requirement. Once completed, assess participants' knowledge of ICS principles and determine value of selected training.	Training	Immediate	
Issue 2				
1. Internal radio systems and communications flow (EEI) issues are a common problem.	*(*This is the same issue as noted in previous exercises, although performance was improved over last year.)* Root Cause Analyses must be done at each facility to determine whether the difficulties were with radio problems or ICS organization. (The most common cause appears to be organizational.) Depending on findings, the proper corrective actions may be quite different. If it is discovered that numerous hospitals are experiencing common challenges,	To Be Determined at the Facility Level	Immediate	Ongoing

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

	the HCC will consider whether it would require action on a regional level.			
Issue 3				
1. Flow of internal communications is inefficient.	See "Issue 2" for information concerning ICS structure.	Training	Immediate	Ongoing
Issue 4				
1. Triage tags are not well understood.	"Triage Tuesdays" were temporarily adopted in 2016, and the HCC has expressed an interest in resuming the practice, Hospital personnel are still uncomfortable with the use of the tags. This may be addressed through training, but additional practice should be considered to maintain proficiency.	Training	Immediate	Ongoing
Issue 5				
1. Some non-hospital exercise evaluation appears to have been conducted in collaboration with other facilities.	During exercise planning and evaluator training, stress the importance of individual facilities conducting independent evaluation.	Planning/Training	Immediate	
2. Provide training programs and Workshops for CMS-related emergency preparedness activities.	Continue to have the HCC work with Non-hospital Working Group to identify training needs, and seek to secure needed training programs and activities.	Planning/Training/Organization		
Issue 6				
1. HC Standard Patient Tracking	Provide training for hospitals and other entities that may have a need to use the patient tracking system, and establish a standard format for how information should be entered into the system. Provide more frequent training.	Training		Ongoing

Issue 7				
1. Tennessee Health Alert Network	Continue to stress the positions that should be enrolled in TNHAN and maintain the recruitment process.	Organization/Planning	Immediate	Ongoing
2. Healthcare Resource Tracking System	Continue to work with system designers and administrators to identify needed modifications to the site, and design “hands-on” training programs to ensure that users understand how the site works, where to enter information, and monitor progress through training evaluations and collection of exercise data. Provide updated training or notices when changes are made to the system. Enroll non-hospital users as appropriate.	Training	Immediate	Ongoing
Issue 8				
1. Regional Medical Communications Center (RMCC) accommodations	Continue to use RMCC trailer with local supplemental personnel when available to familiarize communications personnel with the features of using a mobile RMCC.	Planning/Training/Exercise		

APPENDIX B: EXERCISE PARTICIPANTS

Participating Organizations
Federal
US Department of Veterans Affairs/Memphis Veterans Affairs Medical Center
State
Tennessee Department of Health/Emergency Medical Services
Tennessee Emergency Management Agency
Memphis MedCom (Regional Medical Communications Center)
West Tennessee Homes (1003 HWY 70, Arlington)
West Tennessee Homes (1005 HWY 70, Arlington)
West Tennessee Homes (10926 Lobov Road, Arlington)
West Tennessee Homes (11443 Arlington Woods Cove, Arlington)
West Tennessee Homes (11444 HWY 70, Arlington)
West Tennessee Homes (11455 Arlington Woods Cove, Arlington)
West Tennessee Homes (11456 Arlington Cove, Arlington)
West Tennessee Homes (230 Oak Hill Lane, Arlington)
West Tennessee Homes (2960 Schaeffer Drive, Eads)
West Tennessee Homes (5982 Polk Street, Arlington)
West Tennessee Homes (7405 Osborntown Road, Arlington)
West Tennessee Homes (95 Oak Hollow Cove, Arlington)
Local Government
Jackson-Madison County Regional Health Department
Memphis Fire Department Emergency Medical Services
Shelby County Health Department
Shelby County Office of Preparedness
Local Hospitals and Other Healthcare Services
Allen Morgan Health and Rehabilitation Center
Amedisys Hospice of Bartlett/Memphis
Ave Maria Home
Baptist Germantown Surgery Center
Baptist Memorial Hospital for Women and Children
Baptist Memorial Hospital/Collierville
Baptist Memorial Hospital/DeSoto
Baptist Memorial Hospital/Memphis
Baptist Memorial Hospital/Tipton

Baptist Reynolds Hospice House
Baptist Trinity Hospice
Campbell Clinic Surgery Center Germantown
Campbell Clinic Surgery Center Memphis
Christian Care Center of Memphis
DaVita Collierville #1703
DaVita #1705
DaVita Memphis Southeast #02382
DaVita Somerville #02385
DaVita Memphis Downtown #02432
DaVita Ripley #2446
DaVita Memphis South #2521
DaVita Memphis Central #03017
DaVita Memphis East #03018
DaVita Home #4308
DaVita Capelville #04357
DaVita Stateline #4387
DaVita Midtown #04394
DaVita Millington #04428
DaVita Forrest City #4430
DaVita Airways #05001
DaVita Wolf River #05013
DaVita Home #5983
DaVita Renal Care of Marion #06802
DaVita Osceola #06803
DaVita Memphis Central #06839
DaVita Graceland #6840
DaVita Renal Care Midtown Memphis #06841
DaVita Memphis North #06842
DaVita Whitehaven #06844
DaVita Renal Care Bartlett #06852
DaVita River Oaks #11283
DaVita Lamar Crossing #11541
East Memphis Surgery Center
Fresenius Kidney Care Tipton #1541
Fresenius Kidney Care Memphis #1624
Fresenius East Memphis #1775
Fresenius Bartlett Home Therapies #2778
Fresenius Kidney Care Collierville #3390
Fresenius Kidney Care Midtown #4000

Fresenius Whitehaven #4001
Fresenius Kidney Care North Memphis #4002
Fresenius Kidney Care Germantown #4771
Fresenius Kidney Care #6198
Fresenius Kidney Care Summer #6758
Fresenius Millington #6760
Fresenius Kidney Care Mt. Moriah #6843
Fresenius East Memphis Home Therapies #6856
Fresenius Ridgeway #7553
Fresenius Central Memphis #8699
Fresenius Kidney Care Raleigh-Bartlett #100066
Genesis Rehab Services at Heritage at Irene Woods
GI Diagnostic and Therapeutic Center (8000 Wolf River Blvd., Germantown)
GI Diagnostic and Therapeutic Center, LLC (1310 Wolf Park Drive, Germantown)
Graceland Rehabilitation and Nursing Center
HealthSouth Rehabilitation Hospital/Memphis Central
HealthSouth Rehabilitation Hospital/Memphis North
Heritage at Irene Woods
Highlands of Memphis
Kirby Pines Estates
Lakeside Behavioral Health System
LeBonheur Children's Hospital
Memphis Jewish Home and Rehab
Meritan, Inc.
Memphis Mental Health Institute
Memphis Surgery Center
Methodist Germantown Hospital
Methodist North Hospital
Methodist Olive Branch Hospital
Methodist South Hospital
Methodist University Hospital
No Place Like Home, Inc. (Pediatric Home Health)
Parkway Health and Rehab Center
Quality Home Health Services
Quince Nursing and Rehabilitation Center
Radiosurgical Center of Memphis
Regional One Extended Care Hospital
Regional One Health
Regional One Subacute Care
Saint Francis Hospital/Bartlett

Saint Francis Hospital/Memphis
Saint Jude Children's Research Hospital
Satellite Healthcare, Inc.
Select Specialty inside St. Francis Memphis Hospital
SpringGate Rehabilitation Center
The King's Daughters and Sons Home
The Village at Germantown
UroCenter #80

APPENDIX C: ACRONYMS

Acronym	Term
AEM	Area Emergency Manager (VA)
ARC	American Red Cross
C/E	Controller/Evaluator
CEO	Chief Operating Officer
DHS	U.S. Department of Homeland Security
DMAT	Disaster Medical Assistance Team
DoD	Department of Defense
EEI	Essential Elements of Information
EMG	Emergency Management Group (HHS SOC)
EMR	Electronic Medical Record
EMS-RC	Emergency Medical Services Regional Consultant (TDH)
ENDEX	End Exercise
EOC	Emergency Operations Center
EOP	Emergency Operations Plan
ESF	Emergency Services Function (ESF-8 is Health and Medical)
FCC	Federal Coordinating Center
FEMA	Federal Emergency Management Agency
HHS	Health and Human Services
HRTS	Healthcare Resource Tracking System
HSEEP	Homeland Security Exercise and Evaluation Program
ICS	Incident Command System
JPATS	Joint Patient Assessment and Tracking System
MOA	Memorandum of Understanding
PMCG	Patient Movement Coordination Group
PRA	Patient Reception Area
PRT	Patient Reception Team
RHC	Regional Hospital Coordinator
RMCC	Regional Medical Communications Center
SATS	Services Access Teams (HHS)
SCEP	Shelby County Emergency Preparedness
SEOC	State Emergency Operations Center
SimCell	Simulation Cell (acts on behalf of non-participating agencies)
SITMAN	Situation Manual
SME	Subject Matter Expert
START	Simple Triage and Rapid Treatment
STARTEX	Start Exercise
TANG	Tennessee Air National Guard
TDH	Tennessee Department of Health
TEMA	Tennessee Emergency Management Agency

Acronym	Term
TPRMC-A	Theater Patient Medical Regulating Center (DoD)
TTX	Tabletop Exercise
TVHS	Tennessee Valley Healthcare System (VA)
VA	US Department of Veterans Affairs
VAMC	Veterans Affairs Medical Center
VISN	Veterans Integrated Service Network

APPENDIX D: FINDINGS FROM THE REGIONAL HOSPITAL COORDINATOR

The following information was submitted by the Regional Hospital Coordinator to document specific information related to communications and exchanges of Essential Elements of Information. Included are statistical data from HRTS, TNHAN, GER HC Standard Patient Tracking, and facility status updates. This section also includes copies of the Facility Status Form developed just before and tested for the first time during this exercise.

HRTS

- **Percent of HRTS posts requiring a reply (resource or request):** 21 requests made
- **Number of total requests that were made correctly (actually needed a response/resource)** (7)/ 33%
- **Number of total (correct) requests that were appropriately followed up**: 6
- **Percent of facility/regional user check-ins properly recorded in the appropriate place on the comment board**
    - Facility users: (0 of 14) 0%
    - Regional users: (3 of 7) 43%
- **Percent of hospitals updating bed counts within 30 minutes of event activation**: (7 of 21) 33.3%
- **Number Facilities Users**
    - Logging into event 37
    - Posting on message board 14
- **Number of Regional Users**
    - Logging into event 16
    - Posting on message board 7

TNHAN

- **Percent of persons confirming the TNHAN alert**: (Total confirmed over total sent) (184-327) 56% confirmation rate
- **List of facility types confirming alert**
    - Hospital
    - Public health
    - EMS
    - Emergency Management
    - RMCC
    - Home health/hospice
    - Rehab/Skilled nursing
    - Dialysis
    - Outpatient Healthcare Delivery
    - Forensic Center
    - CERT/MRC
    - Behavioral Health

- LTC/Assisted Living

- **Breakdown of delivery type for all confirmed**

  - 3 personal email
  - 28 personal text message
  - 44 business email
  - 1 Everbridge app
  - 21 business text message
  - 21 business mobile phone
  - 3 alternate mobile phone
  - 1 alternate email
  - 4 alternate phone
  - 34 business desk phone
  - 24 personal mobile phone

HCS Patient Tracking

- **Percent total patients entered into patient tracking system:** 636
- **Entries edited on 10/17 vs those pre-entered:** 313
- Breakdown of facilities that updated their entries 6 facilities edited entries (many facilities said they had issues with logging in and the system "not working right" but it could have been user error) Triage Tuesday instituted to correct these issues

EEI

- **Number of local partners that received a request for EEI (status form update):** 125
- **Number of local partners that reported requested EEI to the health/medical lead within the requested timeframe:**
  - Same day 50
  - Within 3 days 13
  - After 4 days 42
  - Never responded 20

Redundant Communications

Facilities that responded to the radio check

- Baptist Memphis
- Baptist Women's
- Baptist Collierville
- Baptist Tipton
- Baptist DeSoto
- Le Bonheur Children's
- Methodist Germantown
- Methodist University

- Methodist North
- Methodist South
- Methodist Olive Branch
- Regional One
- St. Francis Park
- St. Francis Bartlett
- VA Medical Center
- St. Jude

*No radio at VA or HealthSouth North

Facilities that participated in the HAM radio portion of the exercise:

- Public Health
- Baptist Collierville
- Baptist Memphis
- Baptist Women's
- Baptist Tipton
- Methodist Germantown
- Le Bonheur Children's
- Methodist Olive Branch
- Methodist North
- Methodist South
- Methodist University
- St. Francis Bartlett
- St. Francis Park
- St. Jude
- Regional One
- VA Medical Center
- Campbell Clinic Germantown
- Campbell Clinic Midtown
- Trezevant Manor

The following pages include copies of the Facility Status Form, which documents the types of EEI that were exchanged between the RHC and participating hospital and non-hospital participants.

PUBLIC HEALTH & MEDICAL STATUS FORM

Thank you for participating in this exercise. This information contained in this form allows us to provide situational awareness to Emergency Support Function 8 both locally, regionally and the state ESF 8 at the TEMA State Emergency Operations Center. It details information needed during a large scale disaster to expedite assistance to your facility. Any comments provided will be treated in a sensitive manner and all personal information will remain confidential. Please keep comments concise, specific, and constructive.

Please enter your responses in the form field or check box after the appropriate selection.

Agency/Organization: _____

Corporation: _____

Command Center 24-hr Phone Number/Email: _____

_____

Facility Emergency Mgmt 24-hr Contact Name/Phone/Email: _____

_____

Security Manager 24-hr Contact Name/Phone/Email: _____

_____

Facilities Mgmt Contact Name/Phone/Email: _____

_____

HAM Radio Operator Contact Name//Phone/Call Sign: _____

_____

Direct ED Number: _____

Satellite Phone Number: _____

Public Information Officer Contact Name/Phone: _____

_____

Radio Frequencies: _____

Bed Availability	Bed Needs
_____ Floor Bed Pediatric	_____ Floor Bed Pediatric
_____ Floor Bed Adult	_____ Floor Bed Adult
_____ ED Beds	_____ ED Beds
_____ ICU Cardiac	_____ ICU Cardiac
_____ ICU General	_____ ICU General
_____ ICU Neuro	_____ ICU Neuro
_____ ICU Surgery	_____ ICU Surgery
_____ ICU Pediatric	_____ ICU Pediatric
_____ ICU Neonatal	_____ ICU Neonatal
_____ Burn Beds	_____ Burn Beds
_____ Negative Pressure	_____ Negative Pressure
_____ Step Down	_____ Step Down
_____ Psych Adult	_____ Psych Adult
_____ Psych Pediatric	_____ Psych Pediatric
_____ Operating Rooms	_____ Operating Rooms

Hospital Information:

Pharmaceutical Cache: ☐ Yes ☐ No

Morgue Capacity: _____Onsite ____ External
Alternate Care Site Location/Address: _____

_____

Shipping Dock Location/Address: _____

_____

Primary Medical Supplier: _____

Primary Food Supplier: _____

Primary Fuel Supplier: _____

Primary Medical Gases Supplier: _____

Generator Make/Model: _____
Generator Fuel: ☐ Gas ☐ Diesel ☐ Propane

Generator Output in Kilowatts/Phase/Voltage:_____

Generator Fuel Burn Rate: _____

Back-up Water Supply: ☐ Yes ☐ No

External Decontamination Facility: ☐ Yes ☐ No

Internal Decontamination Facility: ☐ Yes ☐ No

Pet Provisions: ☐ Yes ☐ No

Childcare Provisions: ☐ Yes ☐ No

Number of days food supply on hand: _____

Air Ambulance Onsite Provider: _____

Helipad Size & Weight Limit: _____

Hospital Owned Ambulance Service: ☐ Yes ☐ No

Internal Family Reunification Plan: ☐ Yes ☐ No

External Quick Connect for Additional Generator: ☐ Yes ☐ No

Temporary Air Conditioning/Heat Quick Connect: ☐ Yes ☐ No

Hospital Facility Status:

Facility Damage Assessment: _____

_____

Evacuation: ☐ Full ☐ Partial ☐ Shelter in Place

Alternate Care Site Activated: ☐ Yes ☐ No

External Triage Station Deployed: ☐ Yes ☐ No

Utilities Fully Operational: ☐ Yes ☐ No
Electricity: ☐ Yes ☐ No

Water: ☐ Yes ☐ No

Phone: ☐ Yes ☐ No

Internet: ☐ Yes ☐ No

Medical Gases: ☐ Yes ☐ No

Running Back-Up Generator Power: ☐ Yes ☐ No

Onsite Ham Radio Operator: ☐ Yes ☐ No

‘

Hospital Resource Needs:

State Medical Assistance Team (SMAT): ☐ Yes ☐ No

Federal Disaster Medical Assistance Team (DMAT): ☐ Yes ☐ No

Federal Disaster Mortuary Operations Team (DMORT): ☐ Yes ☐ No

Mobile Field Medical Hospital: ☐ Yes ☐ No

Morgue Trailer: ☐ Yes ☐ No

Decontamination Team: ☐ Yes ☐ No

Additional Staffing Request: ☐ Physician ☐ Nurse ☐ EMT ☐ Paramedic

☐ Med Tech ☐ Respiratory Therapist ☐ X Ray Tech ☐ FNP ☐ Physician Assistant

Transportation Assets: ☐ Van ☐ Bus ☐ Ambus

Additional Comments: _____

_____

_____

_____

_____

Thanks for participating and providing us with your input!

NON – HOSPITAL STATUS FORM

Thank you for participating in this exercise. This information contained in this form allows us to provide situational awareness to Emergency Support Function 8 both locally, regionally and the state ESF 8 at the TEMA State Emergency Operations Center. It details information needed during a large scale disaster to expedite assistance to your facility. Any comments provided will be treated in a sensitive manner and all personal information will remain confidential. Please keep comments concise, specific, and constructive.

Please enter your responses in the form field or check box after the appropriate selection.

Agency/Organization: Mid-Cumberland Region Department of Health

Corporation: Tennessee Department of Health

Command Center 24-hr Phone Number/Email: (615) 650-7178 MCR.Notify@tn.gov

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Facility Emergency Mgmt 24-hr Contact Name/Phone/Email: Duane Hayward (615) 406-3474

HAM Radio Operator Contact Name//Phone/Call Sign: N/A (not authorized at this time)

Shares Network: NNM4MJ – MCRO EP

Direct Number: (615) 650-7000

Satellite Phone Number: 8816-4142-4878 – Tabitha Finney

Public Information Officer Contact Name/Phone: Olivia Spooner (615) 650-7022

Bed Availability – N/A	Bed Needs – N/A
_____ Floor Bed Adult	_____ Floor Bed Adult
_____ Step Down	_____ Step Down
_____ Psych Adult	_____ Psych Adult
_____ Psych Pediatric	_____ Psych Pediatric
_____ Other	_____ Other

Provider Information:

Alternate Care Site Location/Address: _____

_____

Shipping Dock Location/Address: _____

_____

Primary Medical Supplier: _____

Primary Food Supplier: _____

Number of days food supply on hand: _____

Primary Fuel Supplier: _____

Primary Medical Gases Supplier: _____

Generator Make/Model: _____

Generator Fuel: ☐ Gasoline ☐ Diesel ☐ Propane

Generator Output in Kilowatts/Phase/Voltage:_____

Generator Fuel Burn Rate: _____

Back-up Water Supply: ☐ Yes ☐ No

Pet Provisions: ☒ Yes ☐ No

Childcare Provisions: ☐ Yes ☒ No

Internal Family Reunification Plan: ☐ Yes ☒ No
External Quick Connect for Additional Generator: ☐ Yes ☐ No

Temporary Air Conditioning/Heat Quick Connect: ☐ Yes ☐ No

Hospital Facility Status:

Facility Damage Assessment: None indicated

_____

Evacuation: ☐ Full ☐ Partial ☐ Shelter in Place

Alternate Care Site Activated: ☐ Yes ☒ No

Utilities Fully Operational: ☒ Yes ☐ No

Electricity: ☐ Yes ☐ No

Water: ☐ Yes ☐ No

Phone: ☐ Yes ☐ No

Internet: ☐ Yes ☐ No

Medical Gases: ☐ Yes ☐ No

Running Back-Up Generator Power: ☐ Yes ☒ No

Onsite Ham Radio Operator: ☐ Yes ☒ No

‘

Hospital Resource Needs:

Additional Staffing Request: ☐ Physician ☐ Nurse ☐ EMT ☐ Paramedic

☐ Med Tech ☐ Respiratory Therapist ☐ X Ray Tech ☐ FNP ☐ Physician Assistant

Transportation Assets: ☐ Van ☐ Bus ☐ Ambus

Additional Comments: _____

_____

_____

_____

_____

Thanks for participating and providing us with your input!

APPENDIX E: AMATEUR RADIO SITE REPORTS

Ham Radio Exercise Coordinator-Joe Lowenthal WA4OVO

I requested the Non-hospital report form, but did not receive it. The Health Department did not send me the bus schedule so the hams would know if their hospital was first or second since one bus went to two hospitals. If there had been a bus schedule, the ham at the first hospital could have send message to the ham at the second hospital that the bus was on the way. The ESF#8 Form was changed on Monday before the Wednesday exercise which caused much confusion. Only St. Francis Bartlett and St. Francis Park Ave had the correct ESF#8 form without a ham giving the form to the hospital. The weakest link is between the hospital incident commander/command center and the radio room; communications to the ham operator.

Agricenter/Health Department-John Reiners KN4BVH/Marling Mogy KM4DPP/Robert Bowman KN4KFL

The bus starter did not consistently convey the bus leaving status to the hams to send the information to the respective hospital. The noise in the Agricenter made it difficult to hear the radio. Headphones probably need to be used.

Net Control-Pat Lane W4OQG/Barri Munday WB4SWP

Need bus departure information in the morning. Hospitals need current ESF#8 form. Hams have to let net control know when they close station.

Baptist Collierville-Barry McDonald W5CJ

The radio was disconnected just like I left it last time. Collierville was very professional as usual and prepared, but they were having trouble accessing the computer system they needed. They adapted and ran things manually. The ESF#8 form was sent to me in a timely manner and updated as needed.

Baptist Memphis-Rick Tillman WA4NVM/Richard Martin K4DXF

Even though we were in the Facilities office area where the command center conference room is, they did not give anything to the hams for transmission. Do not believe they knew about the ESF#8 Form. Baptist Memphis needs another radio for the crossband link to the Kenwood D-700 radio in the elevator penthouse. Cardboard box needed to cover the Kenwood D-700 radio in the penthouse.

Baptist Women's-Harry LaVoice

The emergency drill went smoothly at Baptist Women's. Due to my location to the command center, information was just a few feet away in the room across the hall. The ESF 8 form was given to me filled out on my request. All the information was correct but the form was not the latest revision being used; this caused some confusion when transmitting the data because the form being used at the receive site was the latest form. This caused a mismatch in the data location, which caused confusion, and repeated transmissions to correctly send the data. The Baptist Memphis crossband transceiver frequency had to be changed due to interference problems.

Baptist Tipton-Bob White AI4GI/Lou Duquette KN4ICE/Gabi Duquette KN4IID
We arrived at the hospital and found all of the equipment in the proper room connected and available to work. They did not supply the ESF#8 form so we used the ones that we had pre-printed before coming to the facility. They were very short staffed because most of their senior people were at a conference in Jonesboro. The people that were left were knowledgeable and were able to pick up the slack. The only gap in their planning that we found was that when they were that thin, no one from the hospital was left to Man the command center. Since we had three ham operators that had had some experience, we took over and performed that function. If they had had all the resources on site at the hospital that probably would've not been a problem, but they need to remember to allocate somebody for that function regardless of what staffing levels look like. Everything else went smooth.

Methodist Germantown-Bill Stevens WC9S/Jennifer Arndt N4JSE/Jim Thannum KKCSX
Thank you for the opportunity to take part in the Hospital Surge exercise. The radio at Methodist Germantown was easy to find, our contact people were easily identified by safety vests for the exercise and of course ID badges, and we had good contact with them.
The hospital did have an outdated ESF, but we transferred to a correct form before reporting. There was confusion about the blood supply section. Hospital made inventory of packed cells, fresh frozen plasma, platelets, etc., but form seemed to address only packed cells. Also hospital reported each type of doctor, which we just added up each 'type' to report one number.
There seemed to be a bit of a gray area on if or how Nurse practitioner staff was reported on the form. Noticed the radio was plugged into a regular outlet and not a red emergency outlet (generator powered if power loss situations). I did not notice a red outlet just looking briefly but it might be a good idea if the radio is in a red outlet since its purpose is for emergencies.
We never heard on the radio that our bus was headed to us, but the hospital staff told us promptly when it arrived.

Methodist LeBonheur-John Wright KD4KGI/Ian Lucas KN4OEK
Thanks again for the opportunity to participate; I enjoyed working with John Wright (and everyone) and it was certainly an overall educational experience. My feedback is below:
1) Bus announcements. For the exercise, the only suggestion I could come up with is for the "secondary" operator working with the EC to listen on a simplex frequency with another operator out by the busses to at least observe, to remove the necessity of a runner.
2) The IC phone numbers were never answered at LeBonheur when called. Three attempts we're made. John W went to make sure the phones were still there and they were, but we had to hail IC on the hospital local radio and request they call the radio room phone extension. I do not have a suggested solution for this.
3) Station Agency names were assigned a designation but real names were still used throughout. I think having a meeting closer to but prior the exercise where just a verbal read-through is done would help combat this. This being my first participation in the exercise, I had some nervousness and fumbled on the form and I believe a pre-exercise would help me and other newcomers.
4) We provided the form to IC, and unfortunately used a form from Sept 2018. We only realized this after it was filled out and ready for transmission and so we continued. The suggestion I will take for myself is to verify with another assigned operator (present or otherwise) that I and he or

she is using the latest, appropriate version of the form. My feedback for the exercise as a whole is to find a stopping point prior to the exercise where no further changes are made unless critically necessary.

Methodist Olive Branch-Bill Lloyd KF5TWK
The radio was correctly connected, and in working condition. I did appear to have the wrong copy of the form we used, but it did not seem to effect the test. No one (at the hospital) seems to know what to do with it though, at first.
There was some confusion concerning the announcement about when the buses left for the hospital. No announcement was made about departures. As near as I can figure, the bus to Methodist Olive Branch went to Collierville first,
and then on to us arriving well after noon. I had begun to think no one was coming or sent to the wrong hospital!
My first impression was that the HAMS were more interested in the test than the hospital group. They later on brought me one of their radios to monitor any traffic from the emergency and the form filled out with the status report.
The purpose of the test was to find errors and familiarize people with the purpose of the test. I feel I learned what was expected
and can better do the job next time. I would rate the test as an 8 or 9 out of ten.

Methodist North-Steve Evans KM4VYA/Jose Iberra KJ4TCJ
Hospital did not have current ESF#8 form on hand (I provided a copy)
Met with Methodist North Disaster Preparedness Officer (DPO) at around 0915. Radio was set up and all we had to do is connect the mike and power up. System NOT connected to a RED OUTLET leading me to question operability if power was lost.
Discussed with DPO the role of HAM operators in letting hospitals know when buses were inbound (problematic at best), providing initial resource reports to health department and providing follow-ons when surge hit. We were assured the reporting forms would be routed to us in a timely manner.
When we noticed other stations providing initial reports, we started trying to hunt down ours. At 1120, on our third try, the DPO asked the assembled team in the incident control center if anyone had the form. Safety Officer had the form (originally filled out at 1020). We finally had our initial report at 1120
Station at Meth North is not co-located near incident response. By the time we received the initial report, the exercise was winding down. We received no notice of bus arrivals.
We were a valuable resource with an important role to play, but we were out of sight and thence out of mind even after repeated visits to incident command.

Methodist South-Danny Efnor WA4ADT/Pat Tobin KJ4PT
Arrived at about 9:00; were in place by 9:15. Did not have the 145.625 programmed into the radio. Danny accomplished that and we were ready for operation by 9:30. They did not have the ESF #8 form. I provided them a copy to use. I waited in the command center while the form was filled out.
We did not get word that the bus had left. We had a total of 30 victims. The last one came in after the bulk of the victims were being triaged. It was a gunshot injury and there was confusion

as to whether it was part of the drill or an actual injury within the command center. MPD was notified and ER was locked down until it was determined if this was part of a "terrorist" event. After all the code red (ICU) victims were accommodated or "moved" to a different facility the exercise was brought to a close.
The mike cord on the radio is falling apart on both ends. Needs either some heat shrink or silicone tape wrapped on it. A separate speaker mounted under the shelf with the radio would be very helpful. With the maintenance personnel in there having lunch it was sometimes hard to hear net control over the noise. So we ended up standing up near the radio to hear the calls. I was the runner between the IC and the radio room, which works well with 2 ham operators. Would be much more of a challenge with only one.

Methodist University-James Martin KD4FUU/John Volmer KN4LCV
Ham operators arrived at 0915 and were ready to go by 0930
Ham operators and Joe Lowenthal had checked out the radio on Sunday October 24. There is a problem with the antenna. An email was sent to Doug Ballance by Joe Lowenthal on Sunday before the exercise outlining the issue and a request to have the communications contractor for Methodist University check out the problem. A reply email was sent by Mr. Ballance indicating he would. The ham operators confirmed with Mr Ballance today that a work order has been submitted to have the antenna inspected.
Joe Lowenthal had disconnected the antenna on Sunday Oct 14. It was reconnected today and then disconnected after the exercise was complete. The radio, a D700 Kenwood and power supply were operable.
Ham operators were able to receive transmissions on 146.82 but not transmit. After some experimentation, operators were able to receive and transmit on 145.45. Operators monitored traffic on 146.82 and then transmit communications on 145.45. This was communicated and acknowledged by KN4KFL (Robert) at the health department.
Operators received current ESF#8 at 1010 hours. The info was transmitted to kn4kfl at 1051. Time lag due to resolving communication issue due to antenna issues. Only Section 1 had info with nothing else on form filled out. Operators filled in the appropriate info.
At 1257 Mr Ballance informed the operators the exercise was over. Operators were given a packet of blank HICS forms. Operators filled out form HICS2014 (pg 1 of 4) and returned entire packet to Mr Ballance. James Martin took pictures of entire packet and will convert to pdf and forward to John Volmer for future reference. Ham operators finished closing down and returning area to the way it was before exercise (serving trays, etc) by 1330 hours.
HICS command staff was not informed of when patients would arrive. They had no information on IF they were to be notified in advance or by WHOM. Operators relayed to Mr Ballance that he would be informed if operators were notified and to notify operators if he was informed of arrival. neither informed the other.
Ham operators were somewhat surprised when they were informed the exercise was over. When operators asked Mr. Ballance for additional information, he relayed the scenario, number of patients, and all pertinent details. Operators asked if that information should be captured on the ESF#8 form, and were told not to worry about it.

St. Francis Bartlett-Hugh Wardlaw WB4SLI/Warren Zimmer KC7ND
Warren and I had the latest forms. We had to retrieve the completed form which they had. The staff did not know what to do with it.

We each had an ht(handheld) and used it to watch for the bus. I used my ht to report bus loading and departure via the repeater to Pat.
John, KN4BVH did a good job. I think that another ham could have helped with details around the Agricenter. He may have been stretched thin doing ancillary items not related to his primary mission. We met a volunteer pastor who is licensed. All in all it was good
We had to go and get the ESF8 form from the IC. When a few stations could not be heard on 82 repeater, Net control should have directed them to the alternate 625 repeater so their traffic could be passed. John should have had a liaison at the buses so he knew when each bus departed, it appeared he didn't have that info. The radio was fine once we connected the mike you left at St Francis, Bartlett. All staff were welcoming and friendly.

St. Francis Park Ave-Rick Honey KK4SZO/Michelle Komberger KM4GLG
I got in touch with David Foster (Hospital Contact) upon arrival at approx. 9am, to find out where the hospital's command center would be. He brought Michelle and I a hospital radio so we could be in touch with them. He was aware of the new form, but I had brought several copies with me and gave him one. However, we had to ask for the ESF#8 to be able to transmit it. Because we had one of their radios, we could hear that the ER did not know where the disaster triage carts were located. That probably cost them 10-15 minutes.
The radio antennas were disconnected - as I generally leave them for lightning protection purposes. Both the UHF/VHF and HF antenna coax cables are labeled as such. There was nothing stacked on top of the radio or the power supply; however, boxes and beds had to be moved to gain access. (no big deal)

St. Jude-Jim Morris W5JTM/Samantha Melton KN4ONQ/Alejandro Molinelli KP4VS
Our radios are disconnected in a cabinet at 3 different locations, but all the required equipment was available to connect and it was easy for me to do so. We had the opportunity to try out a newly purchased radio as well as two others during our test and all worked very well. We did have a scheduled St Jude event that occurred that conflicted somewhat, so some of the data needed to complete our form took a little while to get. Overall, it was very educational. I feel that I can now better appreciate the complexity a such disaster would cause in the area.

Regional One-Len Grice W4MKS/Joe Lowenthal WA4OVO
The Hospital Safety Contact was called by Len Grice and notified that we were in the RMCC at the radio by 9:30. By 12:45 we had not gotten a radio alert from Health Department that a bus was enroute nor an ESF#8 from the hospital command center. At that time Len Grice went to the command center and asked if they were going to send the ESF#8 form via ham radio. All looked like deer in the headlights. The hospital finally came to the RMCC and asked if we had an ESF#8 form which we gave her. Then she filled it out in the RMCC and gave it to us to send.

VAMC-Bill Flanigan KK4VPS/Bob Vawter KW4RJ
Most of the information exchanged with the VAMC staff was via text messages on our cell phones.
I know several hospitals had the wrong ESF#8 form so include that. The correct current version ESF#8 was used.

I forget my exact text used but it was something about how would I get the data for the form. The first reply was that they were working on it.
I reported the exact data that was provided me (section 1 and 5). They sent me a photo via my cell phone of the form with the other sections blank. I asked if they had any numbers / update to the other sections but never received a reply.
Everything on the radio was connected & worked great. The radio worked better with a strong consistent transmission when I turned the power supply on! At first the radio was running off of just the external battery. Then I realized the black box the radio was sitting on also needed to be switched on. Then life was great again.
Also, noted
1. When the bus arrived it drove by the outside triage area and dropped their players off at the wrong door on the wrong side of the building.
2. There might be some locations that 1 person could do the reporting. I feel that this site is best to have 2 because of the location of the radio in the pent house and the triage located in the parking lot.
3. Over all everything worked out great.

NON-HOSPITALS
Campbell Clinic Germantown and Midtown-George Moore WV4W
It was a great day Joe and we all learned from experience. That's what exercises are for. Learn now, even by our mistakes, so we don't make the same in a real situation. I included a participant evaluation form with all the individual participant forms from Campbell. We used real numbers on our ESF 8 reporting forms for # of physicians, nurses, beds available, etc. Both centers had real participants as (casualties/patients) etc. and did real drills as well. Campbell's management has to agreed to buy some amateur radios for both facilities and working on getting 800MHz radios that can do I call. G'town is moving to another new facility by July 2019 Campbell went on full code D at both surgery centers with simulated victims at both locations. We had a surprise visit from the FD Marshall at midtown and 'Bill' was impressed with the full blown disaster drill and ham radios in midtown.

Trezevant Manor-Danny Britt KK4CBI
There was a little difficulty communicating by HT within the building at Trezevant. We are going to install an antenna on the roof to facilitate. No problem communicating with net control from parking lot I adapted the hospital form to meet our facility report. There was some delay in getting the original form. Did not receive revised form. Just need more practice from our perspective at Trezevant.

(In addition to these comments, Memphis AREA group submitted a detailed communications log to document all significant radio traffic among the team's members. –NG)